# THE IMPLEMENTATION OF ANKI TO IMPROVE STUDENTS VOCABULARY MASTERY



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# ABSTRAK

**SUTRA:** Pengimplementasian Anki untuk Meningkatkan Penguasaan Kosakata Siswa. **Skripsi, Majene: Fakultas Keguruan dan Ilmu Pendidikan, Universitas Sulawesi Barat**, **2024.**

Penelitian ini bertujuan untuk mencaritahu pengaruh pengimplementasian Anki dalam meningkatkan penguasaan kosakata siswa serta persepsi siswa mengenai penggunaan Anki dalam belajar kosakata. Penelitian ini menggunakan desain quasi-eksperimental dengan melibatkan 40 siswa kelas delapan di SMPN 6 Wonomulyo yang dibagi menjadi dua kelompok: kelompok eksperimen yang menerima perlakuan menggunakan Anki dan kelompok kontrol yang menggunakan metode konvensional dalam menghafalkan kosakata. Data dikumpulkan melalui tes kosakata yang diberikan sebelum dan sesudah perlakuan diberikan, serta kuisioner yang diberikan pada kelas eksperimen setelah perlakuan diberikan. Hasil analisis tes menunjukkan bahwa siswa pada kelas eksperimen menunjukkan peningkatan yang signifikan dibandingkan dengan kelas kontrol, dimana nilai signifikansi $0.00 < 0.05$ yang mengindikasikan bahwa $H_0$ ditolak dan Ha diterima. Adapun nilai rata-rata siswa pada post-test dari kedua kelas yaitu 84.05 pada kelas eksperimental dan 62.25 pada kelas kontrol. Siswa pada kelas eksperimental juga menanggapi bahwa penggunaan Anki dapat membantu mereka dalam meningkatkan penguasaan kosakata mereka, serta penggunaan Anki yang mudah dan menyenangkan.

**Kata Kunci:** Anki, Penguasaan Kosakata

# CHAPTER I
# INTRODUCTION

## A. Background

Vocabulary has a significant role in the English language as it supports the four main skills in learning the language, they are speaking, writing, listening, and reading. Proficiency in vocabulary greatly helps students in effectively communicating, whether verbally or in written form. This statement is supported by Syarifuddin et al, (2014, p. 2) stated that vocabulary is the first foundation for students to achieve goals in learning English language skills, both spoken and written. Jamalipor & Farahani (2015) also stated that vocabulary is acknowledged as a communication tool, used to convey people's feelings, ideas, and opinions.

Vocabulary is also an essential element of language besides pronunciation and grammar. However, Jordens believed that vocabulary is more crucial than grammar, people generally use vocabulary and often overlook grammar, particularly during conversations (Elyas & Alfaki, 2014, p. 41). Susanto (2017, p. 184) also stated that without grammar, little can be conveyed, but without vocabulary, no message can be communicated.

Although vocabulary is an essential element, even more crucial than grammar, research by Morgan & Rinvolucri (2004) indicates that there are still shortcomings in vocabulary learning within the classroom. Teachers tend to focus more on grammar and pronunciation, overlooking the crucial aspect that enhances students' vocabulary mastery. Instead, it appears that students are left to determine on their own when and how students should expand their vocabulary. Vocabulary is often ignored in the context of language learning in Asia, given minimal priority and learned incidentally (Fan, 2003). Furthermore, Bakti (2018) also stated that English lessons in junior high school rarely provide a specific focus on vocabulary, thus students often cannot rely on their teachers' instruction.

The perspectives presented above, previous researchers assumed that these factors influence the limited mastery of English vocabulary among the students. Vocabulary often doesn't take centre stage due to a greater emphasis on grammar and also limited English learning time. This prompts students to take the initiative

in expanding students' vocabulary independently. However, many students are unwilling to learn independently.

Stepanus Litak, an English teacher at SMPN 6 Wonomulyo argues that junior high school students should have adequate vocabulary because in high school, the focus of students learning transitions more towards the use vocabulary. However, the reality at SMPN 6 Wonomulyo, the students still have limited vocabulary. Many students have difficulty understanding the teacher's explanations when presenting the material, and sometimes students also fail to complete the assignments given by the teacher.

Stepanus Litak as an English teacher at SMPN 6 Wonomulyo provide additional methods for learning vocabulary to resolve the problem by instructing students to memorize vocabulary. This method is carried out by having students memorize 10-20 vocabulary in the first meeting, and then students will recite these words to the teacher. In the second meeting, students will memorize different vocabulary, with each subsequent step similar to the previous meetings. However, there is a problem with this method because the vocabulary memorized by students in the first meeting becomes difficult to recall in subsequent meetings. Only two or three words, at most, can be remembered. This happens because students no longer focus on the vocabulary previously memorized for the teacher and instead concentrate more on memorizing new vocabulary that will be recited to the teacher in the next meeting. The use of this method only lasts for a few meetings. Sometimes teacher remembers to instruct students to recite vocabulary and sometimes the teacher does not. The lack of attention from the teacher and students' laziness are reasons this method is ineffective in improving students' mastery of vocabulary. Limited class time also prevents teacher from focusing too much on this matter. Repetition is also crucial in memorizing and mastering vocabulary, as stated by Fajriyah (2013, p. 24) memorization is a primary activity in learning vocabulary at the beginning of the learning process and should be repeated regularly so that vocabulary can always be remembered.

Therefore, in this research, the researcher aims to resolve this problem by implementing  the use of the Anki application, which is a digital flashcard program based on the Spaced Repetition System. Anki is a free open-source

learning card program where users can create and share cards with others. Spaced Repetition is a method used to reinforce memory retention of a subject matter. Anki also offers numerous beneficial features for students to enhance students mastery of vocabulary and retain that vocabulary over a longer period (Jaya, 2020). Additionally, Godwin-Jones (2008) stated that Anki is one of the vocabulary card programs that has elevated its users and is considered more effective due to providing users with various possibilities compared to other available card programs. Anki surpasses extremely simple traditional methods like writing words on a sheet of paper. Anki can accommodate numerous vocabularies, and the features within Anki are highly engaging, thus aiding students in expanding students' vocabulary and retaining these vocabularies over an extended period (Falcon, 2019, pp. 35, 36).

Based on the explanation above, the researcher hopes that the implementation of Anki can assist students in improving their vocabulary mastery and retain the vocabulary they have learned.

## B. Problem Identification

Based on the previously outlined background, several issues can be identified as follows:

1. Vocabulary teaching still lacks attention in the English learning process in the classroom, even though vocabulary is a crucial element in mastering the English language.
2. Low mastery levels of vocabulary lead to difficulties for students in learning English.
3. There is a discrepancy between teachers' expectations that students should have extensive vocabulary mastery at the junior high level and the reality that students at SMPN 6 Wonomulyo still have inadequate vocabulary.
4. Students at SMPN 6 Wonomulyo have difficulty retaining previously memorized vocabulary due to a lack of routine repetition.

## C. Problem Limitation and Formulation

This research focuses on the use of Anki in vocabulary learning to resolve students' constraints in mastering and retaining vocabulary over a longer period.

The research questions are formulated as follows:

1. Does the implementation of Anki have any effect on improving students' vocabulary mastery at SMPN 6 Wonomulyo?

2. What are students' perceptions about the implementation of Anki in vocabulary learning at SMPN 6 Wonomulyo?

## D. Research Objectives

Related to the research questions, this research aims to:

1. To find out the effect of the implementation of Anki on improving students' vocabulary mastery at SMPN 6 Wonomulyo.

2. To find out students' perceptions about the implementation of Anki in vocabulary learning at SMPN 6 Wonomulyo.

## E. Research Benefits

This research is expected to provide benefits to the field of education and readers such as teachers, students, and future researchers.

1. Theoretical Aspect

Theoretically, this research can contribute to a new understanding of the effectiveness of using digital technology to enhance students' vocabulary skills.

2. Practical Aspect

The practical benefit of this research for teachers and students is to provide an understanding of effective learning strategies and the use of digital technology in enhancing students' vocabulary mastery. For future researchers, the results of this research can serve as a foundation for developing more effective and innovative vocabulary learning strategies.

# CHAPTER II

# LITERATURE REVIEW

## A. Previous Related Studies

The following discussion is a discussion about several previous studies related to this research:

The journal article entitled "Incorporating Intelligent Flashcards for Fostering EFL Learners' Vocabulary Knowledge: The Case of Anki Software" written by Mohsen Zare and Hamed Barjasteh (2017). This research aimed to observe the influence of using smart flashcards on vocabulary improvement in learners. Conducted at an English Language Learning Institute with 41 students, it focused on TOEFL vocabulary development. The students used the Anki to learn 20 new words each day for three weeks. Pre-test and post-test results were compared to evaluate the learning process, showing the students excelled in the post-test. Students were able to adjust students' learning time, employ personal learning styles and strategies, and receive immediate feedback related to their learning.

The journal article entitled "Using Anki (A Computer-Based Flashcard Program) in Improving Students' Vocabulary" written by Ervan Jaya (2020). This research aimed to assess the effectiveness of using Anki in enhancing students' vocabulary mastery at SMPN 6 Makassar. The research design employed a pre-experimental method involving 31 eighth-grade students as the sample. The research instrument is a test consisting of 35 questions given to the students in both pre-test and post-test. Data analysis was conducted using Statistical Product and Service Solution (SPSS) version 20. The analysis results indicated that the average score for the post-test was 73.58, while the average score for the pre-test was 51.13. Significant changes were observed after the implementation of Anki. The findings of this research affirm that the use of Anki is effective in improving students' vocabulary mastery at SMPN 6 Makassar.

The journal article entitled "Vocabulary Retention of EFL Learners through The Application of Anki, WhatsApp, and Traditional Method" written by Hooshang Khoshsima and Masha Khosravi (2021). This research aimed to explore the effect of using Anki and WhatsApp in enhancing the understanding of

vocabulary among Iranian students learning English as a foreign language. The research employed a quasi-experimental design, dividing 60 students into three groups: a group receiving vocabulary instruction via WhatsApp (20 students), a group receiving instruction through Anki (20 students), and a control group receiving traditional methods (20 students). A test consisting of 20 multiple-choice questions was used as the evaluation instrument, administered as a pre-test and a post-test. The results of this research indicate that the experimental groups using mobile flashcards (WhatsApp and Anki) showed a higher improvement in scores compared to the control group using paper flashcards.

The journal article entitled "Increasing Students' Vocabulary by Using Anki-Flashcard" written by Andrea Junifer Nender, Meity Muntuuntu, and Paula Rombepajung (2022). This research aimed to evaluate the effectiveness of using Anki-Flashcards in enhancing students' vocabulary. The research used a pre-experimental design with a sample consisting of 20 junior high school students from Berea Tondano. The instrument used was a test consisting of 20 multiple-choice questions administered in both pre-test and post-test. The research results revealed a highly significant difference between the pre-test and post-test outcomes. The average score in the pre-test was 53, whereas in the post-test, it increased to 90. These findings indicate that the use of Anki-Flashcards is effective in enhancing students' vocabulary comprehension.

The similarity of this research with the previous research above is focused on the utilisation of the Anki application to enhance students' vocabulary mastery. The instruments and research design are also similar to the previous research. Both the previous research and this research utilized the same research instruments and design that is test and experimental design. The difference of this research from several previous research above exists in the treatment given by the researcher. In the previous research, researchers typically create a vocabulary list of 100-200 words first. These words are then input into the Anki application for students to learn and review, involving 20-30 words each day for a week, followed by a different set of 20-30 words in the subsequent weeks. However, in this research, the researcher initially presents a text to the students, allowing them to actively identify and translate previously unknown vocabulary. These words are

then added to the Anki application and reviewed every day by the students over a period of four weeks. The total number of vocabulary words reviewed by the students equals the number entered into the Anki application.

## B.  Theoretical Framework

### 1.  Vocabulary

#### a.  Definition of Vocabulary

Mahmudah (2023, p. 10) stated that vocabulary is an essential part of a language, consisting of components such as pronunciation, spelling, meaning and grammar. It forms the foundation for communicating and expressing ideas, emotions, and thoughts in a specific language. Vocabulary, as a set of words known by an individual along with their meanings, plays a crucial role in a language (Ahmad, 2014, p. 38). Aulia (2016) also stated that vocabulary is an essential element in language learning for language learners.

According to Ghazal (2007, p. 84) vocabulary is also considered the foundation of a language that holds significant importance for language learners. Understanding the meaning of a text is not possible without knowledge of the vocabulary in both the native and foreign languages (Shakouri & Mehrgan, 2012). Similarly, in speaking, vocabulary is the smallest element that carries meaning used in communication with others (Permatasari, 2021, p. 7).

Vocabulary defined as a collection of words and their meanings that form an important and foundational part of language and communication. Without understanding vocabulary, it's difficult to comprehend texts and communicate effectively. By mastering vocabulary, people can effectively communicate in the target language.

#### b.  Types of Vocabulary

Two types of vocabulary need to be understood in language learning: receptive vocabulary and productive vocabulary. Receptive vocabulary refers to words that learners can comprehend when the learners see or hear. Meanwhile, productive vocabulary refers to words that learners can use when speaking or writing (Zhou in Jaya, 2020). According to Crystal (2017, p. 12), there are two types of vocabulary: active vocabulary and passive vocabulary. Active vocabulary consists

of words that everyone knows and uses frequently, while passive vocabulary consists of words that everyone knows but seldom uses. Active vocabulary tends to be larger than passive vocabulary and continues to grow as one learns new words and phrases. Passive vocabulary is more stable and changes slowly.

On the other hand, Nation & Hunston (2013) stated that there are four types of vocabulary: high-frequency words, academic words, technical words, and low-frequency words.

1) High-frequency words

High-frequency words are the most commonly used words in everyday communication, such as write, read, speak, listen, go, and so on.

2) Academic words

Academic words are scientific terms commonly found and used in academic texts. These words are not commonly used in everyday communication and are not limited.

3) Technical words

Technical words are specific to particular subjects and rarely appear in other fields. For instance, terms in the field of medicine or radio broadcasting.

4) Low-frequency words

Low-frequency words are rarely used in everyday communication. They usually have limited usage in everyday language contexts and are seldom encountered again after their initial appearance.

However, this categorization of words doesn't universally apply to all language users. Words that are frequently used by one person might not be as common for others. This holds for other categorizations of words as well. This is because an individual's vocabulary development is influenced by their profession, specific expertise, or personal interests. Consequently, each person possesses a varied vocabulary based on their own experiences and backgrounds.

c. Vocabulary Mastery

Mastery of vocabulary plays a crucial role in supporting the four main language skills: listening, speaking, reading, and writing. The mastery of vocabulary involves a process that occurs repeatedly (Cameron, 2001), and it is not something that can be achieved quickly. To attain a strong vocabulary

mastery, learners need to follow a specific series of processes. Initially, students will acquaint themselves with new words and commence the learning process. Subsequently, students will repeatedly encounter these words, expanding their understanding of their meanings and how to use them in a foreign language. Consequently, every time students encounter familiar words, their knowledge of these words indirectly increases.

Mastery of vocabulary is evident in a student's ability to comprehend and express words in the appropriate context. When students possess a strong vocabulary mastery, students can easily communicate in the target language. Willis (2008) also stated that the larger a student's vocabulary, the more content they can comprehend from a text. Furthermore, as students develop their vocabulary mastery, students also become more confident in communicating and expressing ideas.

Based on description above, vocabulary mastery plays a crucial role in the development of learners' language skills. However, this cannot be achieved overnight. There are several processes that learners must follow. Additionally, vocabulary mastery means that students can use the right words in suitable contexts.

## 2. Anki

### a. Definition of Anki

Anki is a study card program that allows users to create study cards and use spaced repetition to review the cards (Hunshamar, 2021, p. 2). Hieu et al., (2021, p. 10) also stated that Anki is a flashcard application usable on both desktop and mobile devices. This application is intended for education, particularly for teaching vocabulary in English and Chinese, enabling users to learn, create, and design flashcards with text, audio, and images. Meanwhile, according to Vermeer (2013, p. 7), Anki is a repetition application that facilitates users to remember correct answers through the presentation of questions in various formats such as fill-in-the-blank, definitions, or question sentences. It uses scheduling to determine the optimal time for revisiting questions and effectively strengthening memory.

Anki is also an application based on the Spaced Repetition System (SRS) designed to help users expand their vocabulary knowledge. Anki utilizes a structured repetition method to ensure that users remember information effectively and consistently. This view aligns with Noor et al, (2021, p. 1024) stating that Spaced Repetition is a technique involving sufficient repetition for memorizing acquired knowledge. Spaced Repetition System method can assist students in retaining learned vocabulary for extended periods, because according to Ebbinghaus (2013) individuals tend to forget information rapidly, but if they revise and reinforce that information repeatedly, it tends to be retained for a longer duration. Based on these viewpoints, the researcher hopes that the use of Anki can contribute to improving students' vocabulary mastery.

b. How Anki Works and Features

1) Get Material

Materials can be obtained by downloading available study cards or creating study cards according to students' needs.
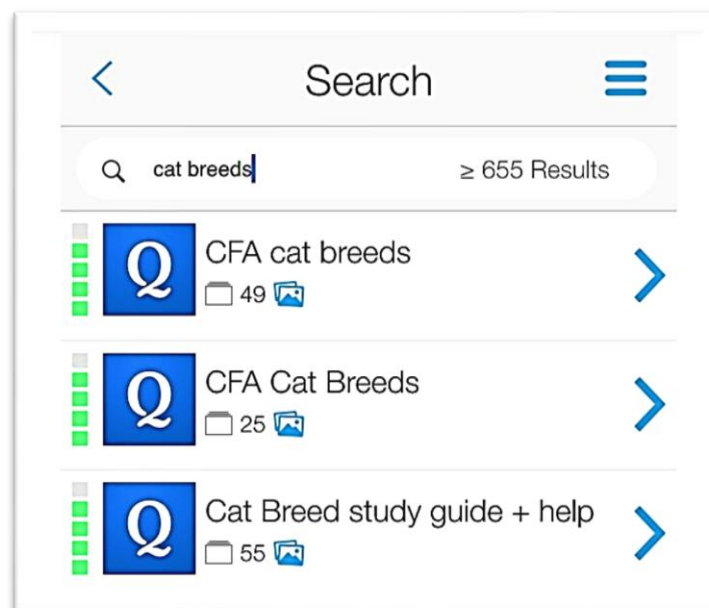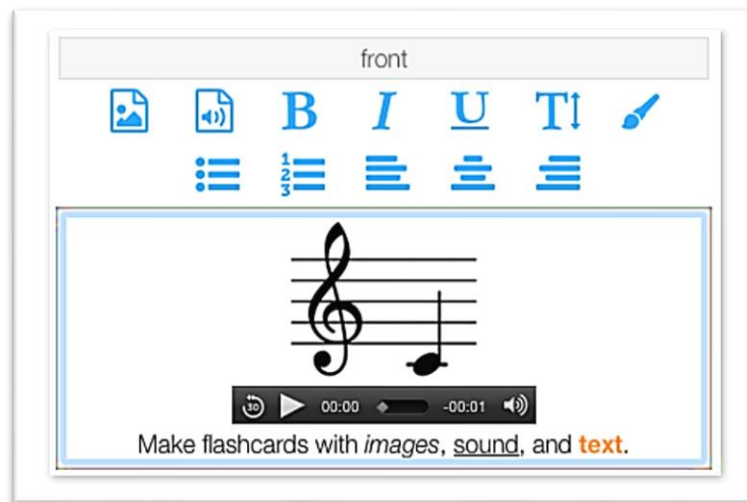


Picture 2.1 (*AnkiApp The Best Flashcard App to Learn Languages and More*, 2022)

2) Creating a New Card

The process of creating cards can be easily done, incorporating images, sounds, or text. Students can determine which field will be displayed on the front or back of the card. For example, the front field is used to display the question to be asked of the student. Meanwhile, the back field contains the answer that the student needs to remember or learn.

Referring to Picture 2.2, the front field contains a musical notation image, so the back field can contain an answer related to musical notation.



Picture 2.2 (*AnkiApp The Best Flashcard App to Learn Languages and More*, 2022)

3) Learning and Reviewing

After creating the cards, students began to learn and review the material. Review actifity is a learning process where students attempt to recall or guess the word on the back of the cards when students see the word on the front of the cards. This activity was carried out by students every day. Reviewing the material allows students to regularly revisit previously learned content. This contributes to enhanced information retention through regular repetition.

Referring to Picture 2.3, after viewing the front of the card, students will be given 4 choices to assess how well students know what's on the back of the card.

The following are the explanations of the four choices:

a) Fail: if students forgot the answer in the back of the card.

b) Hard: if students remembered the answer after looking the answer in the back of the card.

c) Good: if students remembered the answer in the back of the card, but not very well.

d) Easy: if sudents remembered the answer in the back of the card very well.
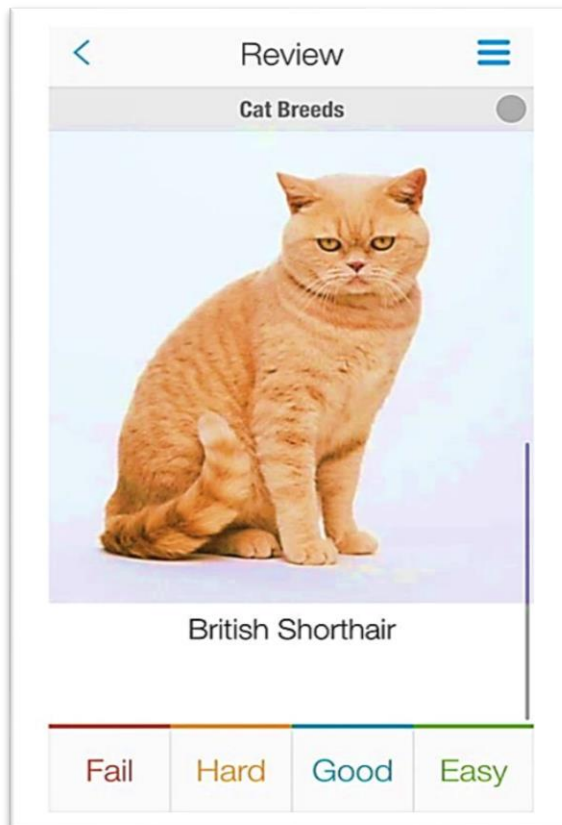


Picture 2.3 (*AnkiApp The Best Flashcard App to Learn Languages and More*, 2022)

4) Recapitulation

After  review session, Anki presents an overview of how fast or slow students learn or remember information. It also provides information about how effective the learning process is and aids in understanding the extent of progress achieved in mastering the information.

Picture 2.4 depicts the students' activity using Anki for learning, explained as follows:

a)  Reviews per Day (Average): Indicates the average number of cards reviewed by students each day within a specific period.

b)  Reviews Today: Indicates the number of cards reviewed on that particular day.

c)  Grade Change Today: Indicates the percentage change or improvement in assessment or knowledge on that day.

d)  The chart labeled Fail, Hard, Good, Easy: Displays the number of cards remembered by students at different difficulty levels.
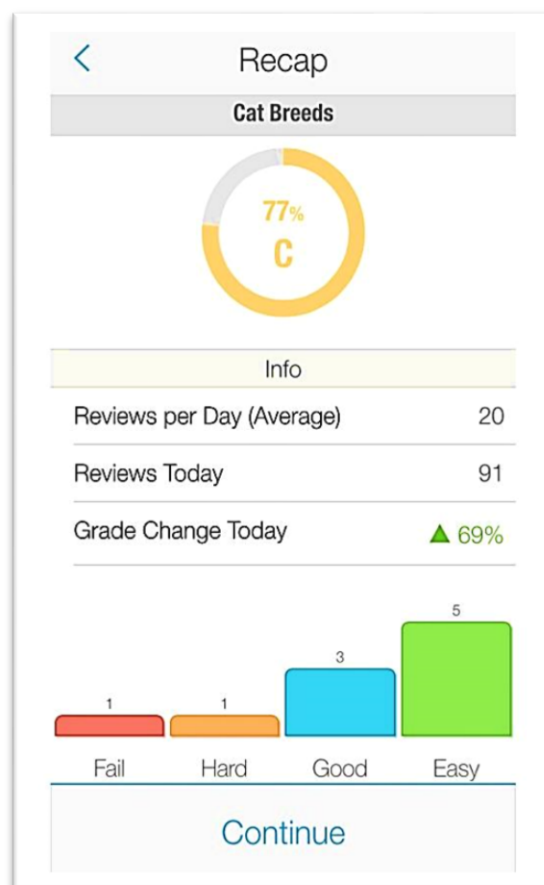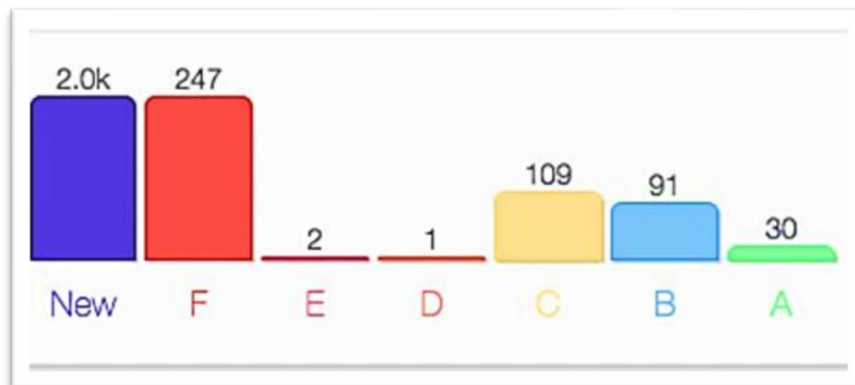


Picture 2.4 (*AnkiApp The Best Flashcard App to Learn Languages and More*, 2022)

5)  See Progress

After several sessions, Anki displays progress by categorizing the studied cards based on the level of knowledge or how well students can remember each card.

The following are the explanation of the graph in Picture 2.5:

a) New: Indicates the number of cards created but not yet viewed or reviewed by students.

b) F: Indicates the number of cards rated "F" or cards that are difficult to remember for students.

c) E: Indicates the number of cards rated "E," signifying a relatively low level of difficulty in remembering information.

d) D: Indicates the number of cards rated "D," showing slightly lower difficulty compared to "F" and "E."

e) C: Indicates the number of cards rated "C" with a moderate level of knowledge.

f) B: Indicates the number of cards rated "B," signifying better knowledge compared to cards with lower ratings.

g) A: Indicates the number of cards rated "A," signifying the best knowledge among all cards.



Picture 2.5 (*AnkiApp The Best Flashcard App to Learn Languages and More*, 2022)

6) Detailed Statistic

Anki provides detailed statistic to give an overview of how often students review in a week and throughout the month. This helps observe patterns and consistency in students' daily review activities and the extent to which students maintain the reviewing routine in Anki, as shown in Picture 2.6.
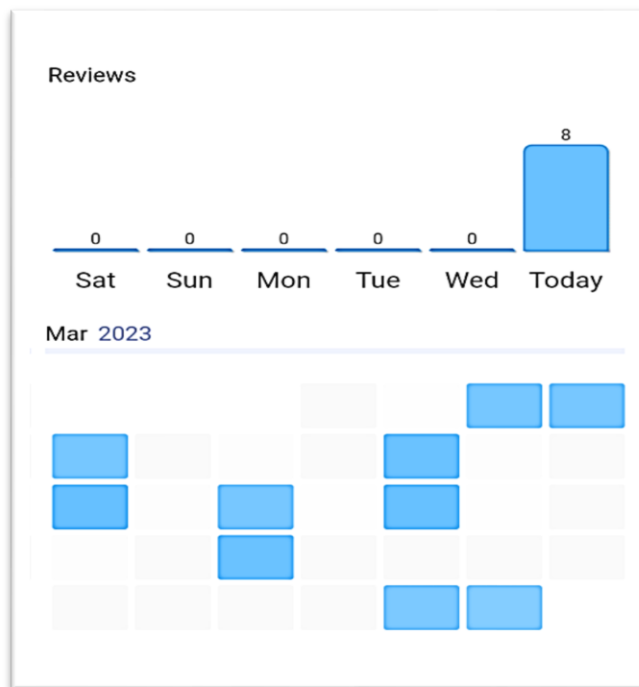
Picture 2.6 (*AnkiApp The Best Flashcard App to Learn Languages and More*, 2022)

c. Benefits of Anki in Improving Students' Vocabulary

According to Vermeer (2013), Anki have benefits in improving students' vocabulary, because with Anki, students can:

1) Easy Vocabulary Enhancement: Anki allows for organized storage and display of words, definitions, or translations, making it easier for students to expand their vocabulary.

2) Easy Access Across Devices: Accessing Anki across various devices enables students to research vocabulary wherever they are.

3) Easy Device Synchronization: Seamless synchronization among devices allows students to stay organized and connected with the material.

4) Utilization of Anki Features: Anki's features, such as keyboard shortcuts and customizable display options, can aid students in learning efficiently.
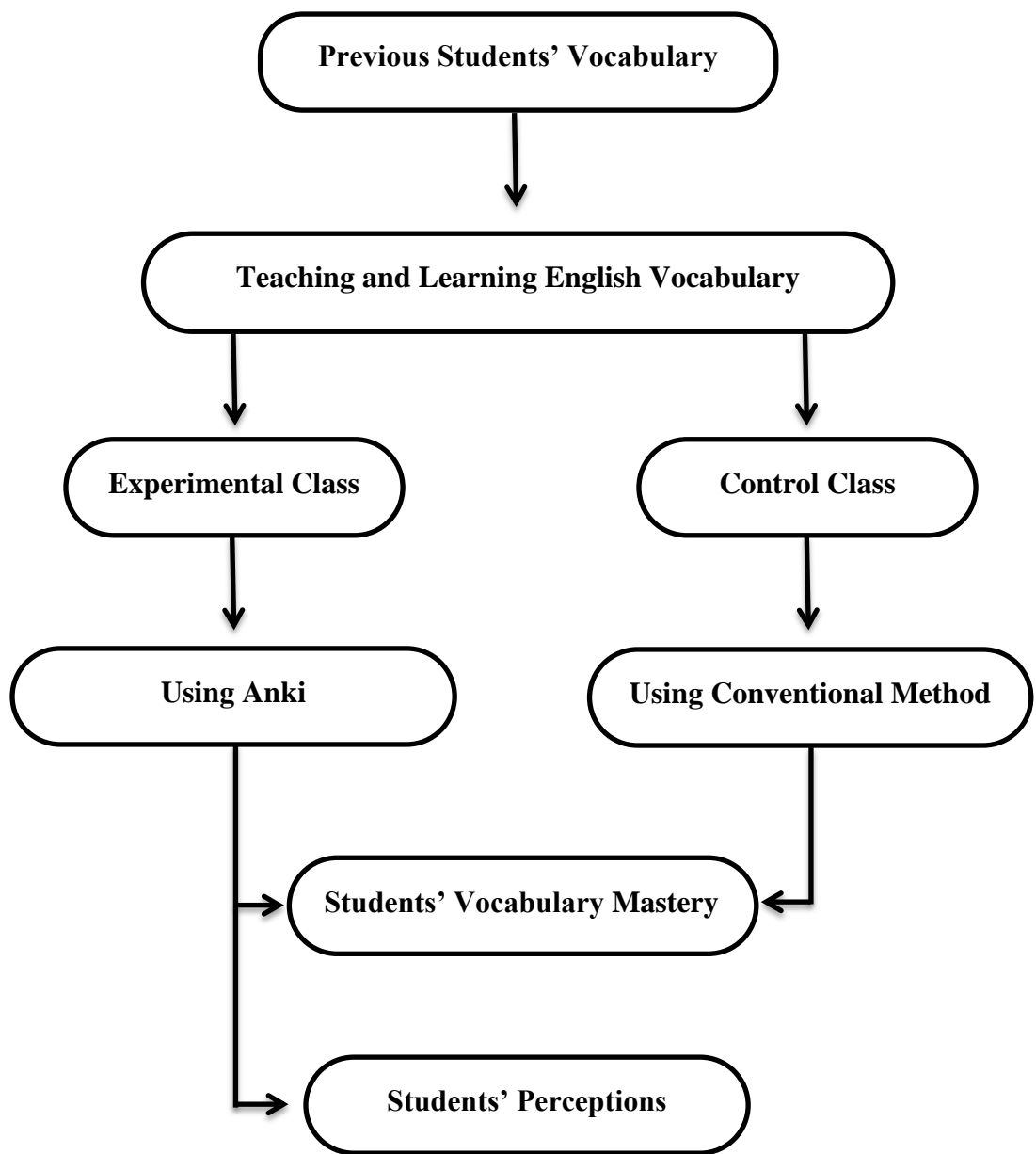
Picture 2.7 The Schema of Conceptual Framework

## C. Hypothesis

The hypothesis of this research was formulated as follows:

Ha: The implementation of Anki has any effect on improving students' vocabulary mastery at SMPN 6 Wonomulyo.

$H_0$: The implementation of Anki has no effect on improving students' vocabulary mastery at SMPN 6 Wonomulyo

# CHAPTER V
# CONCLUSION AND SUGGESTION

## A. Conclusion

Based on the findings and discussions regarding the implementation of Anki in improving the vocabulary mastery of eighth-grade students at SMPN 6 Wonomulyo, it can be concluded as follows:

1. The vocabulary mastery level of students in class VIII B, as the experimental class given treatment using Anki, significantly improved after regularly using Anki to memorize vocabulary. In contrast, the control class, which used conventional memorization methods, did not show a significant improvement as seen in the experimental class. This can be seen from the results of the independent test which show $0.00 < 0.05$, indicating there is a significant difference between the experimental class and the control class in terms of post-test scores, where the mean post-test score for the experimental class was 84.05 (High) and for the control class was 62.25 (Moderate). Therefore it can be concluded that the use of Anki can improve students' vocabulary mastery.

2. Most students in the experimental class also responded that the use of Anki helped them improve their vocabulary mastery. This can be seen in the students' responses to each statement in the usefulness category, where the mean value for each statement falls into the positive and very positive categories, and the standard deviation values are stable except for the fourth and fifth statements, which fall into the moderate category. Students also found that the use of Anki to be easy and enjoyable. This can be seen in the students' responses to each statement in the usability and enjoyment categories, where the mean value for each statement falls into positive and very positive category, and the standard deviation values falls into stable, very stable, and moderate category.

## B. Suggestions

The following suggestions are based on the findings and conclusions of this research. It is hoped that these suggestions provided positive contributions to the field of education and readers such as teachers, students, and future researchers.

1. For teachers

   Teachers can utilize the Anki application as a supplementary tool in vocabulary learning. Anki has proven effective in helping to enhance students' vocabulary mastery.

2. For students

   Consistent and regular use of Anki in learning new vocabulary can significantly expand students' vocabulary mastery.

3. For future researchers

   a. Future researchers could consider extending the duration of the research to evaluate the long-term effects of using Anki in vocabulary learning. A longer research  would allow for a deeper observation of how the frequency and consistency of reviews affect vocabulary mastery.

   b. Future researchers could consider not only focusing on improving students' vocabulary using Anki but also incorporating correct pronunciation into Anki. This would ensure that students not only have adequate vocabulary mastery but also know the correct pronunciation of those words in English.

4. The strength and weakness of this research

   **a.** The srength

   The strength of this research is the use of a quasi-experimental design with experimental and controll classess. This design is superior to a pre-experimental design because it allows for a comparison between students in the experimental class using Anki and students in the control class not using Anki. By comparing the vocabulary mastery of students using the Anki application with those using traditional methods, this research provides stronger evidence regarding the effectiveness of Anki in improving students' vocabulary mastery.

   b. The weakness

   The weakness of this research include the short duration of the research and the fact that the researcher did not utilize one of Anki's features, which is the ability to create cards by adding audio. As a result, students did not learn the correct pronunciation of the vocabulary they entered into Anki.

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