

**THE IMPACT OF QUIZLET AND FLASHCARD
INTEGRATION AS A MULTIMODAL APPROACH ON HIGH
SCHOOL STUDENTS' VOCABULARY MASTERY**

THESIS

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**ENGLISH EDUCATION DEPARTMENT
FACULTY OF TARBIYAH AND TEACHER TRAINING
UNIVERSITAS ISLAM NEGERI MAULANA MALIK
IBRAHIM MALANG**

2026

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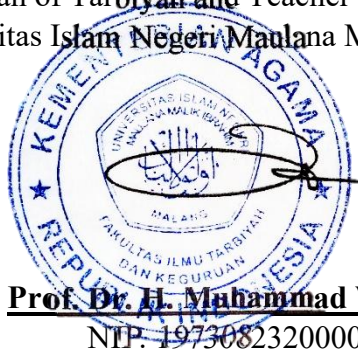
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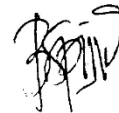
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MOTTO

"Choose kindness in every action, husnuzan in every thought, and gratitude in every circumstance."

DEDICATION

First and foremost, the author expresses sincere gratitude to Allah SWT for His endless blessings, guidance, mercy, and strength throughout this journey. Every step, challenge, and achievement has been possible only through His grace. This thesis is lovingly dedicated to the author's beloved parents, whose unconditional love, prayers, sacrifices, and unwavering support have been the greatest source of strength and inspiration. Their faith and encouragement have shaped the author into who he is today. The author also extends heartfelt appreciation to all family members, friends, lecturers, and teachers who have provided support, motivation, kindness, and valuable lessons along the way. Special gratitude is dedicated to Dr. Suparmi, M.Pd., for her invaluable guidance, patience, and encouragement throughout the completion of this research. Finally, this thesis is dedicated to the author himself for remaining resilient and committed through every challenge. May this work serve as a meaningful contribution to knowledge and bring benefit to others.

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This thesis is not merely an academic requirement, but a reflection of prayers, sacrifices, and the presence of many meaningful people in the researcher’s life.

Therefore, sincere gratitude is expressed to:

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The researcher realizes that this thesis is far from perfect. Therefore, constructive criticism and suggestions are highly appreciated. It is hoped that this research will contribute to English language education and bring meaningful benefit to future learners.

“Indeed, Allah does not burden a soul beyond that it can bear.” (Qur’an 2:286)

Malang, 09 Juni 2026

The Researcher,

Muhammad Rizqi Akbar

LATIN ARABIC AND TRANSLITERATION

Based on the joint decision of the Minister of Religion of the Republic of Indonesia and the Minister of Education and Culture of the Republic of Indonesia Number 158 of 1987 and Number 0543b/U/1987, it has been decided that the Arabic Latin transliteration guidelines used in this thesis are as follows:

A. Words

ا	= a	ز	= z	ق	= q
ب	= b	س	= s	ك	= k
ت	= t	ش	= sy	ل	= l
ث	= ts	ص	= sh	م	= m
ج	= j	ض	= dl	ن	= n
ح	= h	ط	= th	و	= w
خ	= kh	ظ	= zh	ه	= h
د	= d	ع	= ‘	ء	= ’
ذ	= dz	غ	= gh	ي	= y
ر	= r	ف	= f		

B. Long Vocal

Long Vocal (a)	= ā
Long Vocal (i)	= î
Long Vocal (u)	= û

C. Dipthong Vocal

أَوْ	= aw
أَيَّ	= ay
أُو	= ū
إَيَّ	= î

TABLE OF CONTENTS

APPROVAL SHEET	i
LEGITIMATION SHEET	ii
OFFICIAL ADVISOR'S NOTES.....	iii
APPROVAL.....	iv
DECLARATION OF AUTHORSHIP	v
MOTTO	vi
DEDICATION.....	vii
ACKNOWLEDGEMENT.....	viii
LATIN ARABIC AND TRANSLITERATION	xi
TABLE OF CONTENTS.....	xii
LIST OF TABLES	xv
LIST OF APPENDICES.....	xvi
ABSTRACT	xvii
ABSTRAK	xviii
خلاصة.....	xix
CHAPTER I INTRODUCTION.....	1
1.1 Background of the research	1
1.2 Research question.....	10
1.3 Research objectives	10
1.4 Research significance	11
1.5 Scope and Limitation	12
1.6 Definition of Key Terms	13
CHAPTER II LITERATURE REVIEW	15
2.1 The Teaching of Vocabulary	15
2.1.1 Vocabulary	15
2.1.2 Vocabulary Mastery	16
2.1.3 Strategies for Teaching Vocabulary	17
2.2 Vocabulary Learning Theory	19
2.2.1 Cognitive Theory of Multimedia Learning (CTML)	19
2.2.2 Spaced Repetition/Leitner System.....	20
2.3 Multimodality Approach in Learning.....	21

2.3.1 Benefit of Multimodality	22
2.3.2 Application of Multimodality in EFL	23
2.4 Traditional Media: Flashcard in Vocabulary Learning	24
2.4.1 Advantages	25
2.4.2 Limitations	26
2.5 Digital Media: Quizlet in Vocabulary Mastery	27
2.5.1 Advantages	28
2.5.2 Limitations	28
2.6 Previous Research on Flashcard and Quizlet	29
2.6.1 Comparison Between Flashcard and Quizlet	30
2.7 Integrating Traditional and Digital Media	31
2.7.1 Integration Trend	31
2.7.2 Integration Research	32
2.7.3 Limitations of Previous Research	33
2.8 Hypothesis of the Research	34
2.8.1 Null Hypothesis (H_0)	34
2.8.2 Alternative Hypothesis (H_1)	34
CHAPTER III RESEARCH METHOD	35
3.1 Research Design	35
3.2 Research Subject	37
3.3 Research Instrument	38
3.3.1 Instrument Validity	39
3.3.2 Instrument Reliability	39
3.4 Data Collection Techniques	40
3.5 Data Analysis	42
CHAPTER IV FINDINGS AND DISCUSSION	44
4.1 Research Findings	44
4.1.1 The Results of Students' Pre-test and Post-test in the Experimental Group	44
4.1.2 The Results of Students' Pre-test and Post-test in the Control Group	46
4.1.3 Descriptive statistics	47
4.1.4 Normality test	51
4.1.5 Homogeneity test	52
4.1.6 Hypothesis testing	53

4.2 Discussion	55
CHAPTER V CONCLUSION AND SUGGESTIONS.....	60
5.1 Conclusion	60
5.2 Suggestions	62
REFERENCES.....	64
APPENDICES	70

LIST OF TABLES

Table 3. 1 Quasi-Experimental Research Design with Non-Equivalent Control Groups	36
Table 3. 2 Reliability Pre-test Results.....	40
Table 3. 3 Reliability Post-test Results	40
Table 4.1 Score Pre-test and Post-test of Experimental group.....	45
Table 4.2 Score Pre-test and Post-test of Control group	46
Table 4.3 Descriptive statistics Pre-test Experimental and Control Group	48
Table 4.4 Descriptive statistics Post-test Experimental and Control Group.....	49
Table 4.5 Normality test Pre-test Experimental and Control Group.....	51
Table 4.6 Normality test Post-test Experimental and Control Group	51
Table 4.7 Homogeneity test of Pre-test Experimental and Control Group	52
Table 4.8 Homogeneity test of Post-test Experimental and Control Group	53
Table 4.9 The Mann-Whitney U Test	54

LIST OF APPENDICES

Appendix I Instrument of Pre-test.....	71
Appendix II Instrument of Post-test.....	74
Appendix III Vocabulary List.....	77
Appendix IV Validation Sheet.....	78
Appendix V Student Pre-test Answer Sheet	84
Appendix VI Student Post-test Answer Sheet	88
Appendix VII Learning Module of The Experimental Group	92
Appendix VIII Learning Module of The Control Group	102
Appendix IX Flashcards Design	112
Appendix X Quizlet Screen	118
Appendix XI Documentation	119
Appendix XII Research Permit Letter.....	120
Appendix XIII Letter of Research Completion.....	121
Appendix XIV Evidence of Guidance Consultation.....	122
Appendix XV Curriculum Vitae	124

ABSTRACT

Akbar, Muhammad Rizqi. 2026. The Impact of Quizlet and Flashcard Integration as a Multimodal Approach on High School Students' Vocabulary Mastery. Undergraduate Thesis. English Language Education Department, Faculty of Tarbiyah and Teacher Training, Universitas Islam Negeri Maulana Malik Ibrahim Malang.

Advisor: Dr. Suparmi, M.Pd.

Keywords: Quizlet, flashcards, multimodal approach, vocabulary mastery, High school students.

Vocabulary is one of the essential components of English language learning as it serves as the foundation for developing students' language skills. However, many high school students still face difficulties in mastering English vocabulary due to the limited variety of learning media used in the classroom. Therefore, this study aimed to investigate the effect of integrating Quizlet and flashcards as a multimodal approach on students' vocabulary mastery. This study employed a quantitative method with a quasi-experimental design involving an experimental group and a control group. The participants of this study were eleventh-grade students of MAN 2 Malang who were divided into two groups. The data were collected through pre-test and post-test and analyzed using normality tests, homogeneity tests, and the Mann-Whitney U Test. The findings revealed that the experimental group achieved greater improvement than the control group. The mean score of the experimental group increased from 52.25 to 94.75, while the control group improved from 54.28 to 78.61. The result of the Mann-Whitney U Test showed that the Asymp. Sig. (2-tailed) value was less than 0.001, which was lower than the significance level of 0.05, indicating a significant difference between the two groups. It can be concluded that the integration of Quizlet and flashcards as a multimodal approach has a significant positive effect on students' vocabulary mastery and can be used as an effective learning medium in English language teaching.

ABSTRAK

Akbar, Muhammad Rizqi. 2026. *The Impact of Quizlet and Flashcard Integration as a Multimodal Approach on High School Students' Vocabulary Mastery*. Skripsi. Jurusan Pendidikan Bahasa Inggris, Fakultas Ilmu Tarbiyah dan Keguruan, Universitas Islam Negeri Maulana Malik Ibrahim Malang.

Dosen Pembimbing: Dr. Suparmi, M.Pd.

Kata Kunci: Quizlet, flashcard, pendekatan multimodal, penguasaan kosakata, siswa SMA

Penguasaan kosakata merupakan salah satu aspek penting dalam pembelajaran bahasa Inggris karena menjadi dasar bagi pengembangan keterampilan berbahasa siswa. Namun, masih banyak siswa sekolah menengah yang mengalami kesulitan dalam menguasai kosakata bahasa Inggris akibat kurangnya penggunaan media pembelajaran yang menarik dan interaktif. Oleh karena itu, penelitian ini bertujuan untuk mengetahui pengaruh integrasi Quizlet dan flashcard sebagai pendekatan multimodal terhadap penguasaan kosakata siswa sekolah menengah. Penelitian ini menggunakan metode kuantitatif dengan desain quasi-experimental yang melibatkan kelompok eksperimen dan kelompok kontrol. Sampel penelitian terdiri dari siswa MAN 2 Malang yang dibagi ke dalam dua kelompok. Data dikumpulkan melalui pre-test dan post-test serta dianalisis menggunakan statistik deskriptif, uji normalitas, uji homogenitas, dan Mann-Whitney U Test. Hasil penelitian menunjukkan bahwa kelompok eksperimen mengalami peningkatan yang lebih tinggi dibandingkan kelompok kontrol. Rata-rata skor kelompok eksperimen meningkat dari 52,25 pada pre-test menjadi 94,75 pada post-test, sedangkan kelompok kontrol meningkat dari 54,28 menjadi 78,61. Hasil Mann-Whitney U Test menunjukkan bahwa nilai Asymp. Sig. (2-tailed) kurang dari 0,001, yang lebih kecil dari taraf signifikansi 0,05. Hasil tersebut menunjukkan adanya perbedaan yang signifikan antara kelompok eksperimen dan kelompok kontrol. Dengan demikian, dapat disimpulkan bahwa integrasi Quizlet dan flashcard sebagai pendekatan multimodal memberikan pengaruh positif yang signifikan terhadap penguasaan kosakata siswa dan dapat digunakan sebagai media pembelajaran yang efektif dalam pembelajaran bahasa Inggris.

خلاصة

أكبر، محمد رزقي. ٢٠٢٦. أثر دمج تطبيق كويزلت والبطاقات التعليمية كمدخل متعدد الوسائط في إتقان المفردات لدى طلاب المرحلة الثانوية. البحث الجامعي. قسم تعليم اللغة الإنجليزية، كلية علوم التربية والتعليم، جامعة مولانا مالك إبراهيم الإسلامية الحكومية مالانج.

المشرفة: الدكتورة سوبارمي، الماجستير.

الكلمات المفتاحية: كويزلت، البطاقات التعليمية، المدخل متعدد الوسائط، إتقان المفردات، طلاب اللغة الإنجليزية كلغة أجنبية

تُعد المفردات عنصرًا أساسيًا في تعلم اللغة الإنجليزية، إذ تمثل أساسًا مهمًا لتطوير المهارات اللغوية لدى الطلاب. ومع ذلك، لا يزال العديد من طلاب المرحلة الثانوية يواجهون صعوبات في اكتساب المفردات الإنجليزية والاحتفاظ بها نتيجة محدودية استخدام الوسائل التعليمية التفاعلية والجاذبة في عملية التعلم. لذلك هدفت هذه الدراسة إلى معرفة أثر دمج تطبيق كويزلت والبطاقات التعليمية بوصفه مدخلًا متعدد الوسائط في تحسين إتقان المفردات لدى طلاب المرحلة الثانوية. استخدمت الدراسة المنهج الكمي بتصميم شبه تجريبي يضم مجموعة تجريبية ومجموعة ضابطة. وتكونت عينة الدراسة من طلاب المدرسة الثانوية الحكومية الثانية مالانج، حيث تم تقسيمهم إلى مجموعتين. جُمعت البيانات من خلال الاختبار القبلي والاختبار البعدي، وتم تحليلها باستخدام الإحصاء الوصفي واختبار التوزيع الطبيعي واختبار التجانس واختبار مان-ويتني. وأظهرت النتائج أن المجموعة التجريبية حققت تحسنًا أكبر من المجموعة الضابطة؛ إذ ارتفع متوسط درجاتها من 52.25 في الاختبار القبلي إلى 94.75 في الاختبار البعدي، بينما ارتفع متوسط درجات المجموعة الضابطة من 54.28 إلى 78.61. كما أظهرت نتائج اختبار مان-ويتني أن قيمة الدلالة الإحصائية (Asymp. Sig.) أقل من 0.001، وهي أقل من مستوى الدلالة 0.05، مما يدل على وجود فرق ذي دلالة إحصائية (2-tailed) بين المجموعتين. وبناءً على ذلك، يمكن الاستنتاج أن دمج تطبيق كويزلت والبطاقات التعليمية كمدخل متعدد الوسائط له أثر إيجابي دال إحصائيًا في تحسين إتقان المفردات لدى الطلاب، ويمكن تطبيقه بفاعلية في تعليم اللغة الإنجليزية.

CHAPTER I

INTRODUCTION

This chapter is about the introduction of the research, which gives the general overview of this research. It starts with a foundation of the research that demonstrates the significance of vocabulary mastery in learning English language and the difficulties challenged by Indonesian high school students. Furthermore, this chapter describes the research difficulties, research questions, research aims and the significance of the study. It also defines the scope and limitations of the research and the definition of key terms used in this study to ensure clarity and avoid misinterpretation.

1.1 Background of the research

English is a required subject in Indonesia, from elementary school to university. English is also used in education, technology and world communication. However, Indonesia is ranked 79 out of 113 countries in the The Education First (EF) English Proficiency Index 2023 assessment placed it in the “low proficiency” category with a score of 473. This suggests that the English competence of Indonesian students is still relatively poor compared to neighboring nations in Southeast Asia such as Singapore and Malaysia.

Limited vocabulary is one of the variables that underlie students’ low English competence. Mastery of vocabulary is a crucial aspect of learning English since it is the foundation for student’s abilities to talk, read, and write fluently. However, many Indonesian high school students typically experience difficulty in growing their vocabulary. This makes it difficult for them to

understand academic materials and ordinary communication. According to Nation and Hunston (2013), to grasp intermediate level of academic literature, students need to know at least 3,000–5,000 word families. However, research by Nurhayati (2022) revealed that most of the high school students in Indonesia only learn less than 1,500 active vocabulary words which affect their communication skills.

From an Islamic perspective, the importance of language proficiency is also emphasized in the Qur'an. Allah SWT says in QS. Ar-Rum verse 22:

وَمِنْ آيَاتِهِ ۖ خَلَقَ السَّمٰوٰتِ وَالْاَرْضَ وَاخْتَلَفَ الْاَلْسِنَتِكُمْ وَالْوٰنِكُمْ ۚ اِنَّ فِيْ ذٰلِكَ
لَاٰيٰتٍ لِّلْعٰلَمِيْنَ ۝۲

“And among His signs is the creation of the heavens and the earth, and the diversity of your languages and colours. There are indeed signs in this for the knowledgeable.”

This *ayah* emphasizes that language differences are part of Allah's greatness that must be studied and utilized for the benefit of mankind. Therefore, learning foreign languages, including English, is part of the effort to increase knowledge and civilization.

The process of vocabulary learning in Indonesian secondary schools still faces many significant challenges, especially in relation to methods that are not varied and are not interesting for students. Several studies have reported that vocabulary teaching in Indonesian secondary schools is still dominated by memorization and written exercises, which is often result in low motivation and poor long-term retention (Laoli et al., 2025; Sitepu et al., 2023). Although these

methods are easy to implement, they do not sufficiently support students' engagement and meaningful vocabulary use. As a result, students tend to forget newly learned words within a short period if they are not reinforced through varied and interactive learning activities.

Research conducted by Hartini and Ardini (2024) found that high school students' vocabulary mastery remains below the expected standard. The study also revealed a positive correlation between vocabulary knowledge and overall English competency, indicating that vocabulary is not only about memorizing words, but also about the ability to use them effectively across different language skills.

Similarly, a study by Salsabila and Santoso (2024) entitled "Strategies to Optimize Long-term Memory in Learning Vocabulary" highlights that combining multiple strategies such as spaced repetition, visual aids, contextual learning, and mobile-assisted learning is more effective for long-term vocabulary retention than rote memorization alone. Their findings show that learners who rely solely on memorization without contextualization or systematic review tend to experience rapid forgetting.

Another challenge that often comes up is that memorization methods do not accommodate different learning styles. Visual, auditory, kinesthetic learners, and those who prefer digital interaction often find memorization and written exercises boring and irrelevant. Adam and Magfirah (2022) in their study "Vocabulary Strategies for English Learners" emphasize that traditional memorization methods often fail to accommodate diverse learning styles.

Visual, auditory, and kinesthetic learners, as well as students who prefer digital interaction, frequently find rote learning less engaging. As a result, many learners adopt alternative strategies such as writing vocabulary with example sentences, listening to songs, or watching English-language films to support their vocabulary development.

The weaknesses of memorization and written exercises also include long-term retention. Many studies show that although students may be able to remember vocabulary in the short term (during exams), after some time (e.g., several weeks or months), these words are easily forgotten if there is no repetition and use in real contexts. Strategies such as spaced repetition and the use of multimodal media have been proven to be helpful but have not been systematically implemented in secondary schools.

In some schools, limited resources also exacerbate the problem of insufficiently varied teaching methods. For example, teachers may not have access to digital media, visual aids, or interactive teaching tools, forcing them to resort to inexpensive and easy methods such as memorization and written exercises. One instructional medium that has been widely used to support vocabulary learning is flashcards. Flashcards provide visual cues that help learners associate words with meanings support repeated practice. Previous studies have shown that flashcards can improve students' vocabulary mastery compared to conventional methods (Syamsiyah & Ma'rifatulloh, 2023). However, flashcards are sometimes considered less practical and less engaging for Generation Z learners, who are more accustomed to digital learning

environments (Hasan & Habibie, 2024). This limitation suggests that traditional media alone may not fully meet the needs of contemporary learners.

With the development of technology, various digital applications have been created to support vocabulary learning, one of which is Quizlet. In the Qur'an, Surah Ar-Rahman verse 33, Allah says:

يَمَعْشَرَ الْجِنِّ وَالْإِنسِ إِنِ اسْتَطَعْتُمْ أَنْ تَنْفُذُوا مِنْ أَقْطَارِ السَّمُوتِ وَالْأَرْضِ
فَإَنْفُذُوا لَا تَنْفُذُونَ إِلَّا بِسُلْطَنِ ۝٣٣

“O company of jinn and mankind, if you are able to pass beyond the regions of the heavens and the earth, then pass. You will not pass except by authority (from Allah).”

This *ayah* shows that progress can only be achieved with the power given by Allah, namely knowledge. The use of technology in learning such as Quizlet or other digital media is one example of human efforts to utilize knowledge to transcend the limitations of traditional learning. With the evolution of the technology, digital learning applications such as Quizlet are increasingly being used in vocabulary learning. Quizlet provides features such as digital flashcards, audio pronunciations, interactive quizzes, and spaced repetition, which can help students retain vocabulary. Several studies have reported that the use of quizlet has a positive effect on students' vocabulary mastery (Dizon, 2016; Ho & Kawaguchi, 2021; Sanosi, 2018). However, the use of quizlet also has limitations, such as dependence on technology access and lack of physical or kinesthetic activities in the learning process.

In fact, multimodal learning theory by Kress and Leeuwen (2001) states that the simultaneous use of various modes visual, kinesthetic, and digital can enrich the learning experience, with the result that students find it easier to understand and remember information when it is presented through more than one channel of representation. For example, the research Comparing the efficacy of digital flashcards versus paper flashcards to improve receptive and productive L2 vocabulary by Dizon and Tang (2017) evaluated the effectiveness of digital flashcards compared to flashcards alone, showing that digital flashcards are often superior in some conditions, but did not consider the simultaneous combination of both media.

Several previous studies have demonstrated the effectiveness of digital applications and flashcards in improving students' vocabulary mastery. Research by Rahmadany et al. (2024) found that the exclusive use of the quizlet application significantly improved students' vocabulary learning outcomes compared to traditional methods. Similarly, Sarantika et al. (2025) reported an increase in students' average scores from pre-test to post-test through the use of Quizlet feature. However, both studies focused solely on digital media and did not involve the integration of flashcards as part of the instructional treatment. Other studies have also tended to compare the effectiveness of a single medium, such as flashcards (Fitriyani & Nulanda, 2017) or digital flashcards and mobile-assisted applications (Aswita & Moetia, 2025; Karimi & Amiri, 2025; Zarrati et al., 2024), rather than examining the potential benefits of integrating digital and non-digital media within one learning process.

This problem becomes more important when you think about Generation Z students, who are the they all are Gen-Z in high schools today and are highly familiar with digital technology. According to McCrindle (2019), 90% of Generation Z students uses their phones every day, and 72% of them would rather learn through apps than traditional ways. Nevertheless, neuroscience studies show that hands-on and physical learning are still important for strengthening links in long-term memory. So, combining digital media like Quizlet with real media like flashcards might help people who learn best by doing and people who learn best by using their hands. This could lead to better vocabulary retention.

Previous studies shows that using a variety of different types of learning media makes students more interested in learning and improves how they learn and how they see things. 78% of high school students said they were more inspired when learning media had both digital and visual parts (Yunita, 2020). This result suggests that combining Quizlet and flashcards is important for more than just learning vocabulary. It is also important for things like motivation and interest in learning. Quizlet offers advantages in accessibility and interactive quizzes, while physical flashcards provide direct visual and kinesthetic experiences that support memory retention. When combined, these two media have the potential to create a richer and more engaging multimodal learning environment.

In the Indonesian context, the need for research on integrated learning media is particularly urgent. Although many schools have begun to adopt digital applications in English language learning, there is still a lack of instructional

models that systematically combine digital technology with physical learning media. Teachers often choose one type of medium and rarely integrate multiple media to accommodate students' diverse learning styles. Research by Pratiwi (2022) found that students who learned vocabulary using digital applications achieved a 15% higher test score increase compared to those using physical flashcards. However, this study was limited to comparison and did not investigate whether integrating both media could produce more optimal learning outcomes.

This research is also relevant to the Merdeka Curriculum approach, which emphasizes active, creative, and technology-based learning. With a combination of digital and physical media, teachers can create a learning environment that meets the needs of the 21st century, namely digital literacy and cognitive skills. In terms of methodology, this research uses a quantitative approach with a quasi-experimental design. This is important so that the effectiveness of Quizlet and flashcard integration can be measured objectively by comparing vocabulary test scores before and after treatment.

On the other hand, the multimodality approach in language learning emphasizes the importance of using various modes of learning simultaneously, such as visual, kinesthetic, and digital, to enrich students' learning experiences (Kress & Leeuwen, 2001; Mayer, 2020). Although this theory has been widely discussed conceptually, its application in the context of English vocabulary learning at the secondary school level, particularly through the integration of traditional and digital media, is still relatively limited. Furthermore, quantitative research with a quasi-experimental design that specifically tests the

impact of integrating Quizlet and physical flashcards on the vocabulary mastery of high school students in Indonesia is still rare.

In the literature review, a research gap came up in that although there have been many studies on alternative strategies and other media, research that specifically evaluates the integration between digital media such as Quizlet and flashcards is still very limited in Indonesia. There are not many quantitative studies that measure the effectiveness of this combination on long-term vocabulary retention and student perceptions. Therefore, further research is needed to test whether the integration of Quizlet and flashcards is effective or not by providing varied, interesting, and multimodal media. Quantitative research with an experimental design can provide hard evidence of the extent to which vocabulary mastery improves when students use this combination of media compared to traditional methods alone.

If proven effective, this research might contribute theoretically by expanding the understanding of multimodality application in English vocabulary learning. The research results will support the theory of multimodal learning while filling the research gap related to the integration of digital and physical media. From a practical perspective, this research can benefit high school English teachers in choosing learning strategies that are more suited to the characteristics of Gen Z students. Teachers can combine Quizlet as a digital media with flashcards as a physical media to increase the effectiveness and motivation of student learning.

In addition, many previous studies were conducted at the elementary or early secondary education levels and outside the context of EFL in Indonesian high schools, so they do not sufficiently represent learning conditions at the upper secondary level, which has more complex vocabulary needs and different learning challenges. Based on the above description, this research aims to evaluate the effectiveness of integrating Quizlet and flashcards in improving high school students' vocabulary mastery. The results of this research are expected to provide theoretical benefits in the development of science, as well as practical benefits for teachers, students, and other researchers in optimizing English vocabulary learning strategies.

1.2 Research question

Based on the background showing that research evaluating the integration of flashcard as a multimodal approach is still limited for learning vocabulary. Given these circumstances, this research attempts to answer the question:

1. Is there a significant difference in students vocabulary mastery between students taught using multimodal learning through the integration of Quizlet and flashcard and those taught using conventional methods?

1.3 Research objectives

In line with the issues described above, this research aims to provide empirical evidence on the effectiveness of the multimodal approach. Specifically, this research is directed at:

1. To examine the significant difference in student vocabulary mastery between students taught using multimodal learning through the

integration of Quizlet and flashcards and those taught using conventional methods.

1.4 Research significance

Theoretically, this research contributes to the study of English language learning, especially in the area of vocabulary mastery. The integration of Quizlet as a digital media with flashcards as a conventional media represents the application of a multimodal approach in language learning. The findings of this research are expected to strengthen the theory of multimodal learning by providing empirical evidence that presenting vocabulary through various channels (visual, digital, and kinesthetic) can improve students' memory and engagement. Furthermore, this study fills a gap in previous research, which tended to examine Quizlet and flashcards separately, without considering the potential for integrating the two into a single learning strategy.

This research is expected to help students acquire new vocabulary in a more interesting and interactive way. Through the integration of Quizlet and physical flashcards, students can experience multimodal learning, which combines digital technology with physical activities. Thus, they not only memorize vocabulary passively, but also actively engage in the learning process. This is believed to increase their motivation, memory retention, and ability to use vocabulary in real contexts.

For teachers, this research provides alternative vocabulary learning strategies that are more varied and relevant to the needs of Generation Z. The integration of digital and physical media can be a solution for teachers

in delivering learning that is not monotonous, while adapting to the limitations of facilities in schools. By applying the results of this research, teachers can create a more creative, and interactive learning environment.

This research also benefits future researchers by opening up opportunities for further research on the integration of digital and conventional media in language learning. The findings of this research can serve as a theoretical and practical basis for similar research, whether with different subjects, methods, or language skills. Thus, this research not only contributes to current teaching practices but also broadens the scope of future research.

1.5 Scope and Limitation

This research focuses on the impact of application multimodality in English vocabulary learning through the integration of Quizlet as a digital media and physical flashcards as a conventional media. The vocabulary material used in this research is in the chapter on personal money management. The research subjects were high school students in grade 11 at MAN 2 Malang Turen, consisting of Class 11-3 as the experimental group and Class 11-5 as the control group. because based on the results of a preliminary study wich showed that the vocabulary studied in grade 11 was more complex than that in grade 10. In addition, grade 11 students were assessed to be more cognitively ready and to have sufficient vocabulary. This research only highlights the aspect of vocabulary mastery, which includes students' ability to understand, remember, and use new vocabulary.

1.6 Definition of Key Terms

To avoid ambiguity in the understanding of the terms used, the following are definitions of key terms relevant to this research:

1. Multimodality

Multimodality in this research refers to a learning approach that uses more than one mode of communication or representation to convey information. These modes can include text, images, sound, movement, and physical interaction from quizlet and also flashcards. In the context of language learning, multimodality means that students receive material not only through one channel, but through a combination of visual, kinesthetic, and digital channels simultaneously.

2. Vocabulary Mastery

Vocabulary Mastery is a cognitive and linguistic process of learning new words, which includes recognition, understanding of meaning, memorization, and use of words in a communicative context. Vocabulary mastery is not limited to knowing the meaning of words, but also includes the dimensions of form, meaning, and use. In this research, vocabulary mastery is defined as the ability of high school students to understand new English vocabulary, remember it for a certain period of time, and apply it both orally and in writing in learning activities.

3. Quizlet

Quizlet is a web-based and mobile learning application that provides digital flashcards, quizzes, and interactive games to support vocabulary learning. This application allows teachers to create custom vocabulary sets according to student needs, while students can access them anytime and anywhere.

4. Flashcard Integration

Flashcard integration in this research refers to the combination of physical flashcards and Quizlet digital media in the vocabulary learning process. Physical flashcards are paper cards with vocabulary on one side and meanings or illustrative images on the other.

CHAPTER II

LITERATURE REVIEW

This chapter reviews several theoretical and empirical studies relevant to this research. This study focuses on the integration of Quizlet a digital learning application and physical flashcards within a multimodal framework to improve vocabulary mastery among high school students. This chapter discusses relevant theories and previous studies related to vocabulary learning, language learning theory, multimodality, the use of flashcards and Quizlet, as well as research gaps that support the significance of this study.

2.1 The Teaching of Vocabulary

2.1.1 Vocabulary

According to Nation (2022), vocabulary consists of three main components, namely form, meaning, and use. Learners are said to “know” a word when they understand its written and spoken form, its basic meaning and associations, and its use in specific grammatical and pragmatic contexts. Nation emphasizes that vocabulary learning must involve repeated exposure and activities that stimulate retrieval and generative use, so that words can be transferred to long-term memory. Schmitt (2010) supports this view by categorizing vocabulary knowledge into two important dimensions: breadth, which is the number of words known, and depth, which is how deep the knowledge of the meaning and usage of words is. Schmitt's research shows that these two dimensions play a major role in reading ability, academic text comprehension, and productive communication.

Laufer and Goldstein (2004), through experimental research also confirmed that language learners need at least 3,000–5,000 word families to understand general texts, and that vocabulary mastery occurs gradually through a combination of explicit and implicit learning. Meanwhile, Webb (2007) found that learners need 8–10 exposures to the same word in different contexts to improve their understanding of meaning and ability to use words appropriately. These findings reinforce the argument that vocabulary cannot be mastered through a single encounter, but must be acquired through varied and meaningful repetition. From an EFL perspective, Nation (2022), Basri and Sutrisno (2025) note that learners in countries such as Indonesia often face limited exposure to authentic English, so vocabulary teaching must be designed more systematically, including the use of explicit learning media such as word cards, word lists, and digital practices.

2.1.2 Vocabulary Mastery

Vocabulary mastery refers to the extent to which learners can recognize, understand, and use vocabulary accurately in different contexts. Nation (2022) states that mastery involves mastery of three aspects of vocabulary knowledge: form, meaning, and usage, as well as the learner's ability to repeatedly notice, retrieve, and creatively use vocabulary so that these skills are stable in long-term memory. Laufer and Nation (1999) in *Language Learning* developed the Vocabulary Levels Test (VLT) concept, which is widely used to measure vocabulary mastery. Their study confirms that vocabulary mastery can be achieved if learners have adequate exposure

to high-frequency words and opportunities to use these words in both receptive and productive activities.

Webb and Nation (2017) in *Teaching Vocabulary: Research and Pedagogy*, explain that mastery includes the ability to understand literal meaning, contextual meaning, semantic associations, and the ability to connect vocabulary in collocations. They emphasize the importance of learning interventions that provide spaced repetition to strengthen memory storage. A recent empirical study by Ha (2021) shows that vocabulary mastery is closely related to reading and listening skills in EFL learners. Ha found that the greater the mastery of receptive vocabulary, the stronger the improvement in students' text comprehension skills. Research from Indonesia by Hartini (2024) shows the same phenomenon, namely that vocabulary mastery contributes significantly to high school students' writing skills, this study reinforces the evidence that vocabulary mastery plays a direct role in overall language competence.

2.1.3 Strategies for Teaching Vocabulary

Vocabulary teaching requires systematic and meaningful strategies to help learners understand, retain, and use new words effectively. According to Nation (2022), effective vocabulary instruction should provide learners with multiple opportunities to encounter, retrieve, and use vocabulary in different contexts. Teachers should not rely solely on direct word explanation or memorization but should employ various activities that promote active engagement with vocabulary. These activities may include

repetition, contextual learning, word association, and communicative practice, which help learners develop both receptive and productive vocabulary knowledge.

One widely recognized strategy in vocabulary instruction is the use of repetition and retrieval practice. Webb and Nation (2017) argue that learners need repeated exposure to vocabulary through different learning activities to strengthen memory retention. Similarly, spaced repetition has been shown to improve long-term vocabulary retention because learners review words at increasing intervals rather than through massed practice (Nation, 2022). This strategy allows learners to repeatedly retrieve vocabulary from memory, making vocabulary knowledge more stable and accessible during communication.

Another important strategy is the use of multimodal learning resources that combine different modes of representation, such as text, images, audio, and physical interaction. Mayer (2020) explains that learning becomes more effective when information is presented through multiple channels because learners can process information both visually and verbally. In vocabulary learning, the integration of digital tools such as Quizlet and traditional media such as flashcards can support different learning preferences while increasing student engagement. Through multimodal vocabulary instruction, learners are provided with richer learning experiences that facilitate vocabulary acquisition and long-term retention.

2.2 Vocabulary Learning Theory

2.2.1 Cognitive Theory of Multimedia Learning (CTML)

According to Mayer (2020) The Cognitive Theory of Multimedia Learning (CTML) offers helpful recommendations for utilizing widely accessible technologies to produce successful online multimedia courses. Additionally, CTML can advise instructional designers on how to use survey programs to interpolate questions and prompts between these segments to support generative learning activities, how to use slide-sharing programs to create succinct, narrated animation segments, and how to use video-sharing websites to give students control over relatively superficial aspects of instruction (Mayer, 2020; Sitzmann et al., 2008).

The Cognitive Theory of Multimedia Learning (CTML) proposed by Mayer emphasizes that learning will be more effective when information is presented through two main channels, namely verbal and visual, with limited cognitive capacity and involving active processes in constructing knowledge. The use of CTML in developing online multimedia learning materials presents several theoretical and practical issues. These include the need for a clearer understanding of how working memory capacity relates to the length of time information can be retained, the role of retrieval in supporting learning, and the extent to which selection and organization processes influence learning outcomes.

In the context of vocabulary learning, CTML explains that students will find it easier to understand and remember new words when they experience a combination of text, images, colors, physical activities (such

as holding flashcards), and digital elements (such as audio on Quizlet). In other words, the integration of Quizlet and physical flashcards supports the CTML principle because it provides students with a balanced multimodal experience. Recent research supports this. Research by Immanuel and Hameed (2023) shows the result used statistical test a significant difference between the pre-test and post-test scores in the experimental group ($t(39) = -7.981, p < 0.05$), as well as the experimental group's post-test scores being significantly higher than those of the control group. These findings indicate that CTML is effective in helping the process of storing vocabulary into long-term memory and facilitating a deeper understanding of vocabulary through the integration of text, visuals, and native language in multimedia learning.

2.2.2 Spaced Repetition/Leitner System

Spaced repetition is a learning technique that involves repeating material at increasingly longer intervals. The goal is to ensure that the vocabulary learned is stored more firmly in long-term memory, rather than just being memorized temporarily. Nation (2022) explains that this type of repetition is much more effective than repeating words in close succession or “massed practice,” because the brain needs a break to strengthen memory traces. One of the most well-known forms of spaced repetition is the Leitner System, introduced by Leitner (2011). In this system, each vocabulary card is placed in several boxes. If the student answers correctly, the card is moved to a box with a longer review interval, but if the student answers incorrectly, the card is returned to the first box to be repeated more often. This model

automatically causes students to study difficult words more often and review words they have already mastered less frequently.

Modern research also supports the effectiveness of spaced repetition. Nakata (2017) found that retrieval, or actively trying to remember words at certain intervals, helps students remember vocabulary longer. Another study by Karpicke and Roediger (2007) shows that successful retention is determined more by how often words are recalled, not how often they are reread. In the digital age, spaced repetition systems are used in various applications such as Quizlet. Seibert Hanson and Brown (2020) showed that the use of mobile-based applications with spaced repetition systems can significantly improve vocabulary learning outcomes. This shows that a combination of physical flashcards (for manual practice) and digital applications such as Quizlet can help high school students learn vocabulary more effectively and in a more structured manner.

2.3 Multimodality Approach in Learning

Multimodality refers to the use of more than one semiotic mode in the process of conveying and interpreting information. According to Kress and Leeuwen (2001), Communication is not only conveyed through verbal language but also through various other modes such as visual, audio, gestural, and spatial modes that work together to construct meaning. Each mode has different potentials and functions in conveying messages, so that meaning is not produced by one mode alone, but rather from the interaction between these modes. In the context of learning, multimodality emphasize the importance of combining various modes of

representation, such as text, images, sound, and physical activities, to support student understanding. Kress and Leeuwen (2001) state that the selection and organization of these modes are influenced by the purpose of communication and the social context in which communication takes place. Therefore, multimodal-based learning allows students to access and process information through various channels, thereby increasing engagement and learning comprehension.

2.3.1 Benefit of Multimodality

The multimodality approach offers a number of important benefits in learning because each mode text, images, audio, and movement conveys different and complementary information. Parcalabescu et al. (2021) emphasize that multimodality strengthens the learning process because each modality adds units of information that are not available in other modalities. This means that when students learn through more than one mode, they gain a more complete representation of meaning and do not rely on just one type of input. In English language learning, the benefits of multimodality are becoming increasingly apparent. Mayer (2020), through his Cognitive Theory of Multimedia Learning, explains that processing information through two cognitive channels visual and auditory improves comprehension and retention because the memory load is not supported by just one channel.

In relation to this research, the integration of Quizlet and physical flashcards reflects the ideal application of multimodality. Quizlet provides visual (text and images), auditory (word pronunciation), and interactive digital (games/quizzes) modes, while physical flashcards add a kinesthetic

element that allows students to hold, flip, and arrange cards manually. Combining these two media gives students multiple pathways for representing information, making it easier for them to understand, remember, and use new vocabulary. In other words, the benefits of multimodality according to previous studies directly support the assumption that the combination of Quizlet and physical flashcards can improve high school students' vocabulary mastery, as it provides complementary multi-sensory input and supports long-term memory functioning.

2.3.2 Application of Multimodality in EFL

The application of multimodality in teaching English as a foreign language (EFL) is increasingly being used because it provides a richer and more engaging learning experience for students. In the context of EFL classrooms, multimodality is usually implemented through a combination of text, images, audio, video, gestures, and complementary digital media. Various studies show that presenting material through these various modes helps students understand vocabulary more deeply because they not only see the words but also see the visual context, hear the pronunciation, or even perform related physical activities. A study by Ilmi and Dewi (2022), for example, found that high school students in Indonesia had a positive perception of learning that used a combination of visual, audio, and digital modes. Students found it easier to understand and remember the material and were more motivated to participate in learning.

In addition, multimodality has also been proven to increase student engagement in vocabulary learning. Research by Tiara et al. (2024) shows

that EFL students who learn using multimodal materials such as audio, images, and interactive applications experience a significant increase in vocabulary retention and contextual understanding. The combination of various modes is considered to make the learning process feel more natural and enjoyable, so that students are more active and less prone to boredom. Research by Lin et al. (2022) also developed multimodal cue-based vocabulary learning using educational robots and IoT-based 3D books. They found that combining visual, auditory, and movement cues improved students' accuracy and speed in learning new words. This reinforces that multimodality is highly effective when used for vocabulary material because different media can help overcome students' difficulties in understanding the meaning or form of words.

2.4 Traditional Media: Flashcard in Vocabulary Learning

Flashcards are a learning media that evolved from traditional educational practices to help students memorize information through cards containing words or concepts on one side and meanings or explanations on the other. The use of flashcards in vocabulary learning in EFL is based on the principles of active recall and spaced repetition, where students actively try to remember information rather than just reading the material. According to the latest systematic study, flashcards-based learning has a positive impact on improving vocabulary mastery because it provides repeated exposure to the vocabulary learned by students, thereby strengthening long-term word retention (Ilmah et al., 2026).

The development of flashcards as a modern learning tool has been influenced by various innovations in learning psychology. In 1972, Sebastian Leitner, a German science journalist, introduced the Leitner System, a technique for using flashcards based on the principle of spaced repetition that is, repeating cards at increasingly longer intervals to deepen long-term memory (Leitner, 2011). This technique was first published in Leitner's book *So Lernt man Lernen* (How to Learn to Learn) and later became one of the most popular methods for using flashcards in various educational contexts, including language vocabulary learning.

2.4.1 Advantages

Flashcards are a learning tool for vocabulary that is frequently used in language education because they offer a number of advantages that support the learning process flashcards can improve vocabulary retention and recall through the mechanisms of active recall and spaced repetition. Active recall occurs when students actively try to remember the meaning of a word before seeing the answer, while spaced repetition means that vocabulary is repeated at certain intervals to strengthen long-term memory. A study by Huang et al. (2025) *The Moderating Role of Learning Rounds* states that the use of card-based repetition strategies helps students strengthen their memory pathways of the words they have learned, thereby minimizing short-term forgetting.

Flashcards are flexible and easily adaptable in various learning contexts. This media can be used in face to face learning in the classroom or as a self-study tool outside the classroom. In addition, flashcards can be integrated with various other learning strategies, such as vocabulary games,

group work, and audio-visual exercises. The advantage of flashcards lies in their ability to increase student engagement and their flexibility in use. This shows that flashcards, despite being a traditional medium, still have an important role in English vocabulary learning, especially when combined with other media such as digital applications in multimodal learning approach.

2.4.2 Limitations

Although flashcards have long been used in vocabulary learning and have been proven effective in improving retention through repetition, this medium also has several limitations. Research by Zakian (2022) show that paper flashcards do not provide enough context for real-world usage of words, so students often have difficulty understanding how a word is used in a sentence or in a real communication situation. This is important because the ability to recognize a word in isolation does not always guarantee the ability to use it effectively in real communication, especially for EFL learners who need a strong contextual understanding.

In addition, although physical flashcards are simple and easy to use, this medium tends to be monotonous and less interactive for modern students who are accustomed to interactive visual and audio media. Digital learning platforms and mobile applications that combine flashcards with multimedia features (sound, images, interactive quizzes) are often more appealing and motivate students to continue learning for longer periods of time. This is supported by research findings that indicate the use of digital flashcards provides a more varied learning experience and is able to increase

student engagement compared to paper flashcards alone (Dizon & Tang 2017).

2.5 Digital Media: Quizlet in Vocabulary Mastery

Quizlet is a web-based and mobile learning platform that enables students to review and study information through various learning tools and game-based activities. This online learning application was created by Andrew Sutherland, a high school student from California. The idea behind Quizlet emerged from his own experience when his French teacher required him to memorize 111 animal names. Although Quizlet is widely used today, it is not a newly developed platform. It was first designed in 2005 and later made publicly available as a website in January 2007 (Sudrajat & Pratama, 2022). Subsequently, in August 2012, Quizlet was released as a mobile application for iOS, followed a year later by an application for Android in August 2013. It utilizes user-designed learning modules composed of terms and their definitions or descriptions (Aribowo, 2017) .

These modules, which Quizlet refers to as study sets, are given to students in a variety of learning formats, such as flashcards, games, group projects, and tests, which enable rote learning environments that can aid students in mastering a variety of disciplines, particularly languages and vocabulary. Eight learning modes are included in the application interfaces created for the website, five of which are accessible through the mobile application interface (Sanosi, 2018). Since its public launch in 2007, learners in 130 countries have completed more than 3 billion study sessions via Quizlet website and its Android or iOS application. Around 200 million sets have been used by students in those sessions (Sanosi, 2018).

2.5.1 Advantages

One of Quizlet's main advantages is its ability to deliver multimodal vocabulary learning, namely through a combination of text, audio, and visuals. This helps students not only recognize the form of words, but also understand their pronunciation and meaning more comprehensively. Research conducted by Çınar and Arı (2019) shows that the use of Quizlet significantly improves the vocabulary mastery of secondary school students compared to conventional learning methods. In addition, students' attitudes towards learning English also become more positive after using Quizlet. In addition, Quizlet supports independent learning and flexible repetition. Students can repeat vocabulary according to their needs without time restrictions. Interactive exercise features also make the learning process more enjoyable and less monotonous. These findings are in line with the results of Dizon (2016) research, which states that Quizlet can increase student engagement and help them remember vocabulary more effectively through repeated practice.

2.5.2 Limitations

Based on research conducted by Nguyen et al. (2021), there are several limitations of Quizlet. First, the use of Quizlet is highly dependent on access to technology and internet connection. In the context of EFL learning, especially in schools with limited facilities, not all students have personal devices or stable internet connections. This condition means that Quizlet cannot always be used equally by all students, thereby reducing its effectiveness. Second, although Quizlet provides audio and visual features,

this media lacks kinesthetic experiences in learning. Students only interact through the screen, so physical involvement and motor activities that can aid the learning process especially for students with kinesthetic learning styles are still minimal. This is one of the weaknesses of Quizlet when used as the only medium for vocabulary learning. Third, the article also emphasizes that continuous use of Quizlet can lead to boredom if it is not varied with other media or methods. Therefore, researchers recommend that Quizlet not be used in isolation, but rather combined with other learning media to create a more balanced and meaningful learning experience.

2.6 Previous Research on Flashcard and Quizlet

Several studies have shown that flashcards can be an effective medium for vocabulary learning and have a positive influence on students' vocabulary mastery. A study conducted at Galesong Utara Junior High School revealed that the use of flashcards in English language instruction led to a significant improvement in students' vocabulary achievement, as indicated by the difference between their pretest and posttest scores (Nurarisda et al., 2023). Other research on flashcard-based techniques also shows a positive impact on student vocabulary retention, which helps students remember vocabulary after a certain learning period (Le & Luong, 2023). In addition, research by Fitriyani and Nulanda (2017) confirmed that flashcards are effective in significantly improving the vocabulary scores of elementary school students compared to the control group. Overall, these findings show that flashcards are an effective and relevant vocabulary learning tool in the context of English language learning at the school level.

With the development of technology, Quizlet has become one of the most widely used digital media in English vocabulary learning. Several studies show that Quizlet has a positive impact on students' vocabulary mastery and learning motivation. The use of Quizlet in EFL classes can improve vocabulary retention and student engagement due to its interactive features and multimodal presentation of material (Dizon, 2016). Another research by Çinar and Arı (2019) involving high school students showed that the group of students who studied using Quizlet obtained higher vocabulary scores compared to the group that used conventional methods. In addition to improved learning outcomes, students also showed a more positive attitude towards learning English.

2.6.1 Comparison Between Flashcard and Quizlet

Previous research shows that flashcards have a positive impact on English vocabulary learning. For example, a classroom action research study found that the use of electronic flashcards can significantly improve vocabulary retention and student motivation compared to conventional methods. In addition, research in Indonesian elementary schools also supports the finding that the use of flashcards actually helps students improve their vocabulary mastery (Hasanah et al., 2025). On the other hand, Quizlet as a digital platform is also increasingly being researched. Aswita and Moetia (2025) found a significant positive relationship between how often Quizlet is used and students' vocabulary scores, showing that the more students use Quizlet, the better their vocabulary skills are. In addition, a literature review on the use of Quizlet in vocabulary learning shows that its

interactive features can improve students' vocabulary recognition and learning motivation.

Several research studies have also compared digital flashcards with traditional flashcards, one of which was conducted by Dizon and Tang (2017) the results of this comparison show that both are equally effective in helping vocabulary mastery. However, digital flashcards tend to have advantages in terms of student engagement, accessibility, and media variety, while paper flashcards are simpler and more practical, especially in environments with limited technology (Dizon & Tang, 2017). This shows that a combination of digital flashcards such as Quizlet and flashcards has the potential to create more comprehensive vocabulary learning.

2.7 Integrating Traditional and Digital Media

2.7.1 Integration Trend

In recent years, there has been a growing trend in language education literature to combine traditional and digital media in vocabulary learning. One example that follow this trend is research conducted by Fadhila (2025), which integrates traditional media in the form of flashcards with digital media in the form of videos. This integration emphasizes the utilization of the advantages of both types of media for example, the use of physical flashcards for kinesthetic activities and digital applications such as Quizlet for visual and audio input so that the learning process becomes more holistic and multimodal. This is in line with the principles of Mobile-Assisted Language Learning (MALL), which combines mobile technology with

traditional learning practices to increase flexibility, motivation, and student engagement in vocabulary learning. Research such as that conducted by Tanjung and Rafida (2025) shows that the use of digital platforms such as Quizlet can increase student engagement and motivation in vocabulary learning due to its interactive features, while traditional media remain relevant for certain contexts that require focus and continuity of learning.

2.7.2 Integration Research

Research on integration in education shows that combining two different approaches or methods can provide a more comprehensive understanding of learning than using just one approach. Zhou et al. (2024) emphasize that integration is at the core of modern educational research, especially when researchers combine various strategies, media, or learning approaches to obtain more meaningful results. Integration is not only carried out at the data analysis stage, but can also be applied from the research design planning stage, through the learning process, to the interpretation of learning outcomes. Furthermore, research on integration in the context of learning emphasizes that the simultaneous use of various media and strategies can complement each other's strengths and cover the limitations of each method. A systematic study conducted by (Zhou et al., 2024) shows that the integration of learning strategies is often done to improve learning effectiveness, student engagement, and deeper conceptual understanding. This approach is relevant to language learning, particularly vocabulary acquisition, because vocabulary is not only learned through one form of

representation, but through a combination of visual, verbal, and repeated practice.

2.7.3 Limitations of Previous Research

Although there have been a number of studies on physical and digital flashcards, research that integrates both media in a holistic vocabulary learning model is still limited, especially for both Quizlet and flashcards. Most research studies still treat these media separately for example, comparing only the effects of traditional vs digital flashcards, or researching only one of them exclusively. Integrative research that explicitly tests the synergistic benefits of Quizlet and physical flashcards in a single experimental design is still rare, especially in the context of high school EFL students. In addition, many research studies are still descriptive or simple quantitative without strong controls or in-depth analysis of how the two media interact to influence aspects of motivation, engagement, and vocabulary retention. Another limitation is that many studies focus only on elementary or early secondary school populations, resulting in a lack of empirical evidence at the upper secondary level. This gap highlights the need for more systematic and integrated research, particularly that which combines traditional and digital media to maximize student vocabulary learning.

2.8 Hypothesis of the Research

2.8.1 Null Hypothesis (H_0)

There is no significant difference in students' vocabulary mastery between students taught using multimodal learning through the integration of Quizlet and paper flashcards and those taught using conventional methods.

2.8.2 Alternative Hypothesis (H_1)

There is a significant difference in students' vocabulary mastery between students taught using multimodal learning through the integration of Quizlet and paper flashcards and those taught using conventional methods.

CHAPTER III

RESEARCH METHOD

The research design, research subjects, instruments, data collection methods, and data analysis procedures are all described in this chapter. This chapter seeks to provide a clear and organized summary of the procedures used to gather and analyze the study data.

3.1 Research Design

This research uses a quantitative approach, because the data obtained are numbers that are analyzed using statistical techniques to measure the effect of treatment on the variables studied. A quantitative approach was chosen because this research aims to objectively determine the effectiveness of English vocabulary learning through The integration of Quizlet and flashcards. The research design used is quasi-experimental research. This design was chosen because the researcher did not fully randomize the research subjects, considering that the classes had been determined by the school. According to Sugiyono (2013), a quasi-experiment is an extension of a true experimental design that has a control group but cannot fully control external variables that affect the implementation of the experiment. This design is used when researchers find it difficult to obtain a randomly selected control group.

Furthermore, this study utilized a non-equivalent control group design. This design was chosen because the researcher did not fully randomize the research subject, given that the classes had been determined by the school. Non-equivalent control group design allows researchers to compare learning outcomes between the experimental group and the control group even though the two groups were not

selected randomly. In this design, there are two groups, namely the experimental group and the control group. Both groups were given a pre-test to determine the students' initial vocabulary mastery. Next, the experimental group was given treatment in the form of vocabulary learning using an integration of Quizlet and flashcards, while the control group was though using conventional learning methods without the integration of these media. After the treatment was completed, both groups were given a post-test to determine the difference in vocabulary mastery. Table 3.1 shows the research design used in this study, namely Quasi-Experimental Non-Equivalent Control Group Design. Table 3.1 shows the research design used in this study, namely Quasi-Experimental Non-Equivalent Control Group Design.

Table 3. 1 Quasi-Experimental Research Design with Non-Equivalent Control Groups

Group	Pre-test	Treatment	Post-test
Experimental	O ₁	X	O ₂
Control	O ₃	-	O ₄

O₁ & O₃: Pre-test for the experimental and control groups

X: Treatment in the form of Quizlet and flashcard integration

O₂ & O₄: Post-test for the experimental and control groups

—: No treatment given

3.2 Research Subject

The research subjects were 11th-grade students at MAN 2 Malang Turen in the 2025/2026 academic year. 11th-grade students were chosen because this is based on several academic considerations. First, based on the results of a preliminary study, the vocabulary learned by 11th grade students has higher level complexity than previous grades, in term of meaning, use in context, and word form variation. Second, 11th grade students already have foundation in English vocabulary from previous levels, so cognitively they considered more ready to participate in multimodal vocabulary learning that combines digital and non-digital media. This allows for more optimal evaluation of the integrating Quizlet and paper flashcards. In addition, grade 11 students have generally passed the initial adaptation stage in the high school environment, so the learning process tends to be more stable and conducive. With these considerations, the selection of grade 11 is considered appropriate for evaluating the application of multimodal learning in improving high school students' vocabulary mastery.

This research was conducted at MAN 2 Malang Turen, East Java. This school was chosen as the research location because it is a high school that implements English language learning as a required subject and has student characteristics that are in line with the research objectives. The research subjects consisted of two classes, each with approximately 15–18 students. This class was chosen because it had a relatively homogeneous level of vocabulary ability and had never been taught vocabulary using an integration of Quizlet and flashcards before. The research is planned to be conducted in the first week after Eid al-Fitr 2026, with a total of Five meetings.

3.3 Research Instrument

This research involved two main variables, namely independent and dependent variables. The independent variable in this study was English vocabulary learning using a multimodal approach that integrated Quizlet and flashcards. The integration of these two media was considered the main treatment given to students during the learning process. Meanwhile, the dependent variable in this study is the English vocabulary mastery of 11th-grade students at MAN 2 Malang Turen. Vocabulary mastery is measured through students' ability to recognize, understand, and use the English vocabulary taught during the research process.

The research instrument used in this research was an English vocabulary mastery test. This test was compiled based on vocabulary material taught during the treatment process and adjusted to the basic competencies and learning objectives of English at the high school level. The test consists of objective questions, such as multiple-choice 20 questions, fill-in-the-blank 5 questions, and matching words with their meanings 5 questions. The material used for this research instrument was taken from the textbooks they use and adapted to the curriculum used at MAN 2 Malang Turen. The test instrument was used in two stages, namely pre-test and post-test, with equivalent levels of difficulty. The pre-test aimed to determine students' initial vocabulary mastery before the treatment, while the post-test aimed to determine the improvement in students' vocabulary after the treatment was given. To ensure the quality of instruments, the tests were examined for validity and reliability. The validity of the instruments was determined through content validity by seeking input from the supervising lecturer and English subject teachers.

Meanwhile, the reliability of the instruments was tested to ensure the consistency of the measurement results.

3.3.1 Instrument Validity

The validity of the research instruments was established through content validity. The pre-test and post-test instruments were developed based on the vocabulary materials taught to 11th-grade students and were aligned with the learning objectives stated in the curriculum used at MAN 2 Malang. To ensure the appropriateness and relevance of the test items, the instruments were reviewed and evaluated by the research advisor and an English teacher. The evaluation focused on the suitability of the vocabulary items, clarity of instructions, language accuracy, and alignment with the learning objectives. Based on the evaluation results, the instruments were considered valid and appropriate for measuring students' vocabulary mastery.

3.3.2 Instrument Reliability

The reliability of the instruments was analyzed using Cronbach's Alpha coefficient through IBM SPSS Statistics Version 30. The reliability analysis was conducted separately for the pre-test and post-test instruments, each consisting of 30 multiple-choice items. Cronbach's Alpha was employed to measure the internal consistency of the instruments. An instrument is generally considered reliable if it has a Cronbach's Alpha coefficient of 0.70 or higher, indicating an acceptable level of internal consistency (Hair et al., 2019). Therefore, instruments with a Cronbach's Alpha value equal to or greater than 0.70 were regarded as reliable and suitable for data collection..

Table 3. 2 Reliability Pre-test Results

Reliability Statistics	
Cronbach's Alpha	N of Items
.731	30

Table 3. 3 Reliability Post-test Results

Reliability Statistics	
Cronbach's Alpha	N of Items
.738	30

Based on Tables 3.2 and 3.3, the pre-test instrument obtained a Cronbach's Alpha coefficient of 0.731, while the post-test instrument obtained a coefficient of 0.738. Both coefficients exceeded the minimum acceptable reliability value of 0.70. Therefore, both instruments were considered reliable and suitable for measuring students' vocabulary mastery.

3.4 Data Collection Techniques

This research was conducted in five systematically designed sessions to measure the effectiveness of integrating Quizlet and flashcards in improving students' vocabulary mastery. The treatment procedure was carried out on two group, with structured stages so that differences in learning outcomes could be analyzed objectively.

During the first meeting, both the experimental and control groups were given a pre-test. The pre-test was designed to determine the students' initial vocabulary mastery before the treatment was administered. The pre-test results were utilized to ensure that the two groups' beginning abilities were similar before

the treatment was administered. The vocabulary mastery procedure was carried out in the second to fourth meetings based on each group's treatment. The experimental group learned vocabulary using an integration of flashcards and Quizlet in the same meeting. Flashcards were used in the initial and core stages of learning to introduce new vocabulary, practice pronunciation, and help students understand the meaning of words through visual and kinesthetic activities. Next, Quizlet was used as a supporting digital medium for vocabulary practice, spaced repetition, and reinforcement through interactive flashcards and quizzes.

For the experimental group in a second meeting students were introduced to English–Indonesian vocabulary pairs to understand the meanings of new words. Next in third meeting, they learned English–English definitions to develop a deeper understanding of the vocabulary. Finally in fourth meeting, they practiced and applied the target words through Quizlet activities and flashcard exercises. Meanwhile, the control group learned vocabulary using conventional methods, including memorization, written vocabulary lists, and written exercises, without involving digital media integration or multimodal activities.

The learning approach in the experimental group was based on the theory of multimodality (Kress & Leeuwen, 2001), which emphasize the use of various learning modes, as well as the Cognitive Theory of Multimedia Learning (Mayer, 2020), which states that learning will be more effective when information is presented through a combination of text, visual, and interactives. At the fifth meeting, both groups were given a post-test. The post-test aimed to determine the improvement in students' vocabulary mastery after the treatment was given and to

compare the learning outcomes between the experimental group and the control group.

After conducting tests and treatments on two groups, data was collected in the form of students' vocabulary mastery test scores. Pre-test scores were used to determine students' initial abilities and as a basis for comparison, while post-test scores were used to determine the increase in vocabulary mastery after the implementation of learning. Data from both tests became the main source of data in this study to evaluate the effectiveness of integrating Quizlet and flashcards compared to conventional learning methods.

3.5 Data Analysis

The data collected from the pre-test and post-test results were analyzed using descriptive and inferential statistics. Descriptive statistics were used to describe the data in general, including the mean, standard deviation, minimum value, and maximum value of each group. This descriptive analysis aimed to determine the initial and final conditions of students' vocabulary mastery before and after the treatment.

Before conducting inferential statistical analysis, a pre-test was first conducted. A normality test was conducted to determine whether the pre-test and post-test data in both groups were normally distributed (Nuruddin et al., 2025). The data were considered normally distributed if the significance value (Sig.) was greater than 0.05 ($p > 0.05$). This normality test was conducted to ensure that the data met the assumptions required in the use of parametric statistical analysis. In addition, a homogeneity test was conducted to determine whether the variances of

the two groups were equal. The data were regarded as homogeneous if the significance value of Levene's Test was greater than 0.05 ($p > 0.05$).

After the data met the assumptions, inferential statistical analysis was performed to test the research hypothesis. The independent samples t-test was used to determine whether there was a significant difference in vocabulary mastery between the experimental group and the control group after the treatment was given. A significance value ($p < 0.05$) indicates that there is a statistically significant difference between the two groups. This test was chosen because the data came from two different and independent groups. However, if the data did not meet the assumptions of normality and/or homogeneity, the Mann–Whitney U test was used as a non-parametric alternative to the independent samples t-test. The Mann–Whitney U test does not require normally distributed data and is suitable for comparing two independent groups when the assumptions for parametric testing are violated (Pallant, 2020). Similar to the independent samples t-test, a significance value of less than 0.05 ($p < 0.05$) indicates a statistically significant difference between the experimental and control groups. The results of the overall data analysis were used to determine whether the integration of Quizlet and flashcards as multimodal learning had a significant effect on students' vocabulary mastery.

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter presents the findings and discussion of the research on the effect of integrating Quizlet and flashcards as a multimodal approach to improve students' vocabulary mastery. In addition, this chapter also discusses the interpretation of the findings in relation to relevant theories and previous studies.

4.1 Research Findings

This section presents the findings of the study obtained from the vocabulary mastery tests administered to the experimental and control groups. The data were analyzed using IBM SPSS Statistics Version 30 through descriptive and inferential statistical analyses. This research was conducted to determine the impact of integrating Quizlet and flashcards as a multimodal approach on the vocabulary mastery of 11th-grade students. Before the treatment was administered, students in the experimental and control groups were first given a pre-test to assess their initial vocabulary mastery. After the treatment process was completed, both groups were given a post-test to assess the improvement in their vocabulary mastery following the learning process. The data in this research was collected in MAN 2 Malang, Turen starting from April 13th until May 20th. The following are the results of the pre-test and post-test for students in the experimental group dan control group.

4.1.1 The Results of Students' Pre-test and Post-test in the Experimental Group

This section presents the results of the pre-test and post-test conducted in the experimental group. The pre-test was administered before the implementation of Quizlet and Flashcard integration as a multimodal approach

to measure students' initial vocabulary mastery. Meanwhile, the post-test was conducted after the treatment to evaluate students' vocabulary achievement following the intervention. The comparison between the pre-test and post-test scores provides an overview of the students' progress and the effectiveness of the implemented learning approach.

Table 4.1 Score Pre-test and Post-test of Experimental group

No.	Initial name	Pre-test	Post-test
1	AZK	47	90
2	CATN	63	97
3	CANH	23	93
4	FARA	57	87
5	FF	17	100
6	IK	53	93
7	LN	47	87
8	LAW	60	100
9	MHF	30	93
10	MAA	100	100
11	MA	23	97
12	NTP	93	100
13	RZR	20	93
14	RAJ	77	100
15	ZAA	33	93
16	ZIFJ	93	93
Mean		52.25	94.75

Based on Table 4.1, it can be seen that most students in the experimental group showed an improvement in their scores after receiving the treatment involving the integration of Quizlet and flashcards. The experimental group obtained an average pre-test score of 52.25, which increased significantly to 94.75 in the post-test. This means that the students improved by 42.50 points.

4.1.2 The Results of Students' Pre-test and Post-test in the Control

Group

This subsection presents the results of the students' pre-test and post-test scores in the control group. The pre-test was administered to measure the students' initial vocabulary mastery before the learning process, while the post-test was conducted after the completion of the instructional period. Since the control group did not receive the Quizlet and Flashcard integration treatment, the results are presented to examine the students' vocabulary achievement under conventional instruction and to provide a basis for comparison with the experimental group.

Table 4.2 Score Pre-test and Post-test of Contro group

No.	Nama	Pre-test	Post-test
1	AAR	53	83
2	AA	77	83
3	DH	57	87
4	DAR	27	50
5	FR	30	90
6	IAM	43	83
17	INP	77	93
8	LIA	73	85
9	MNS	73	87
10	MASN	50	47
11	MAM	33	87
12	NAMAH	53	87
13	SAMP	60	70
14	SN	47	83
15	SN	20	50
16	SM	80	87
17	SZ	47	90
18	ZM	77	73
Mean		54.27	78.61

Based on Table 4.2, the control group also showed an improvement in learning outcomes after the learning process was conducted. the control group improved from 54.28 in the pre-test to 78.61 in the post-test, with an improvement of 24.33 points. However, the improvement in learning

outcomes in the control group was not as significant as that in the experimental group. After obtaining the students' pre-test and post-test results, the researcher then analyzed the data using descriptive statistics, normality tests, homogeneity tests, and hypothesis testing to determine the effect of integrating Quizlet and flashcards on students' vocabulary mastery. And the researchers used SPSS to analyze the data in this research.

4.1.3 Descriptive statistics

Descriptive statistics were used to provide an overview of the students' pre-test and post-test scores in the experimental and control groups. This analysis includes the mean, standard deviation, minimum score, and maximum score. These data were used to determine the development of students' vocabulary skills before and after the intervention.

Based on the research results, the experimental group showed a significant improvement after receiving the treatment using the integration of Quizlet and flashcards. Before the treatment was administered, the initial vocabulary skills of students in the experimental group were still relatively low varied. However, after receiving instruction using a multimodal approach, the students' post-test results showed a significant improvement. Below are tables of pre-test and post-test data analysis using descriptive statistics in SPSS.

Table 4.3 Descriptive statistics Pre-test Experimental and Control Group

Descriptives					
Group			Statistic	Std. Error	
PreTest	Experimental	Mean	52.2500	6.86992	
		95% Confidence Interval for Mean	Lower Bound	37.6071	
			Upper Bound	66.8929	
		5% Trimmed Mean	51.5556		
		Median	50.0000		
		Variance	755.133		
		Std. Deviation	27.47969		
		Minimum	17.00		
		Maximum	100.00		
		Range	83.00		
		Interquartile Range	48.75		
		Skewness	.424	.564	
		Kurtosis	-.987	1.091	
	Control	Mean	54.2778	4.48950	
		95% Confidence Interval for Mean	Lower Bound	44.8058	
			Upper Bound	63.7498	
		5% Trimmed Mean	54.7531		
		Median	53.0000		
		Variance	362.801		
		Std. Deviation	19.04733		
		Minimum	20.00		
		Maximum	80.00		
		Range	60.00		
		Interquartile Range	33.50		
		Skewness	-.204	.536	
		Kurtosis	-1.070	1.038	

Based on the table 4.3, it can be seen that the mean pre-test score for the experimental group was 52.25. this score indicates that the students' initial vocabulary skills were still relatively low. In addition, the standard deviation of 27.48 on the pre-test indicates that the students' abilities varied widely. This is apparent from the significant gap between the minimum score of 17.00 and the maximum score of 100.00.

For the control group, the table shows that the average pre-test score was 54.28, and the standard deviation for the control group was 19.05. the minimum score in this group was 20.00, while the maximum was 80.00. these scores are not significantly different from those of the experimental

group, so it can be said that the initial abilities of the two groups were relatively balanced before the intervention was administered.

This is followed by a table of descriptive statistics for the post-test, where both groups have received their respective treatments. The experimental group received treatment using a multimodal approach integrating Quizlet and flashcards, while the control group used conventional methods such as memorization.

Table 4.4 Descriptive statistics Post-test Experimental and Control Group

Descriptives					
Group				Statistic	Std. Error
PostTest	Experimental	Mean		94.7500	1.13468
		95% Confidence Interval for Mean	Lower Bound	92.3315	
			Upper Bound	97.1685	
		5% Trimmed Mean		94.8889	
		Median		93.0000	
		Variance		20.600	
		Std. Deviation		4.53872	
		Minimum		87.00	
		Maximum		100.00	
		Range		13.00	
		Interquartile Range		7.00	
		Skewness		-.264	.564
		Kurtosis		-.978	1.091
	Control	Mean		78.6111	3.46706
		95% Confidence Interval for Mean	Lower Bound	71.2963	
			Upper Bound	85.9260	
		5% Trimmed Mean		79.5679	
		Median		84.0000	
		Variance		216.369	
		Std. Deviation		14.70950	
		Minimum		47.00	
		Maximum		93.00	
		Range		46.00	
		Interquartile Range		14.75	
		Skewness		-1.451	.536
		Kurtosis		.774	1.038

From the table above, we can see that after the treatment using the integration of Quizlet and flashcards, the experimental group's mean post-test score increased to 94.75. This increase indicates that the use of

integrated digital and physical media helps students better understand and remember vocabulary. Additionally, the post-test standard deviation decreased to 4.54, indicating that students' performance after treatment became more consistent. Nearly all students achieved high scores on the post-test.

For the control group, following the learning process using conventional methods, the mean post-test score increased to 78.61. This indicates that conventional learning also improves students' vocabulary mastery. However, this improvement remains lower compared to the experimental group that used the integration of Quizlet and flashcards. Additionally, the standard deviation of the control group's post-test scores remained relatively high at 14.71. This indicates that student learning outcomes in the control group still varied significantly. Thus, it can be concluded that the use of the Quizlet and flashcard integration not only improved student learning outcomes but also made student achievement more consistent.

Overall, the descriptive statistics show that the experimental group achieved higher post-test scores than the control group. This indicates that the integration of Quizlet and flashcards has a positive effect on students' vocabulary mastery. It not only improves students' learning outcomes but also makes their achievements more consistent.

4.1.4 Normality test

A normality test was conducted to determine whether the research data were normally distributed. In this study, the Shapiro-Wilk test was used because the sample size in each group was less than 50 students. The significance level used was 0.05. If the p-value was greater than 0.05, the data were considered to be normally distributed. Table below presents the results of the normality test for the experimental and control groups from the pre-test to the post-test.

Table 4.5 Normality test Pre-test Experimental and Control Group

Tests of Normality							
Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk			Sig.
	Statistic	df	Sig.	Statistic	df	Sig.	
PreTest Experimental	.133	16	.200*	.924	16	.194	
Control	.171	18	.178	.932	18	.207	

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Based on Table 4.5, it can be seen that the significance value for the experimental group's pre-test is 0.194 and for the control group's pre-test is 0.207. Both values are greater than 0.05, so it can be concluded that pre-test data for both groups are normally distributed.

Table 4.6 Normality test Post-test Experimental and Control Group

Tests of Normality							
Group	Kolmogorov-Smirnov ^a			Shapiro-Wilk			Sig.
	Statistic	df	Sig.	Statistic	df	Sig.	
PostTest Experimental	.213	16	.052	.868	16	.026	
Control	.340	18	<.001	.746	18	<.001	

a. Lilliefors Significance Correction

However, based on Table 4.6, the post-test results showed a significance value of 0.026 for the experimental group and 0.001 for the control group. These values are less than 0.05, so the post-test data are deemed not to be normally distributed. Therefore, the analysis continued using parametric tests because the sample sizes of both groups were relatively balanced, and the t-test is considered sufficiently reliable for educational research even when normality is violated. Furthermore, the research data can still be used to examine the effect of the treatment on students' vocabulary improvement.

4.1.5 Homogeneity test

A homogeneity test was conducted to determine whether the variances of the data between the experimental and control groups were homogeneous. In this study, the homogeneity test was performed using Levene's Test with a significance level of 0.05. the following are the results of the homogeneity test on the students' pre-test and post-test data.

Table 4.7 Homogeneity test of Pre-test Experimental and Control Group

Test of Homogeneity of Variance					
		Levene Statistic	df1	df2	Sig. ^a
PreTest	Based on Mean	2.339	1	32	.136
	Based on Median	2.354	1	32	.135
	Based on Median and with adjusted df	2.354	1	28.515	.136
	Based on trimmed mean	2.310	1	32	.138

a. Confidence Interval: 0%

Based on the results of the pre-test homogeneity test in Levene's Test table, a significance value of 0.136 was obtained for the "Based on Mean" section. Since this value is greater than 0.05, it can be concluded that

the variance of the pre-test data between the experimental and control groups is homogeneous. Thus, the initial ability of the two groups can be considered relatively equal before the treatment was administered.

Table 4.8 Homogeneity test of Post-test Experimental and Control Group

Test of Homogeneity of Variance					
		Levene Statistic	df1	df2	Sig. ^a
PostTest	Based on Mean	11.278	1	32	.002
	Based on Median	3.434	1	32	.073
	Based on Median and with adjusted df	3.434	1	18.935	.080
	Based on trimmed mean	8.820	1	32	.006

a. Confidence Interval: 0%

Based on the results of the post-test homogeneity test in Levene's Test table, a significance value of 0.002 was obtained for the "Based on Mean" section. This value is less than 0.05, so it can be concluded that the variance of the post-test data between the experimental group and the control group is not homogeneous. This indicates that there is a difference in the variance of learning outcomes between the two groups after the learning process was conducted. In other words, the post-test results for the experimental and control groups exhibit different levels of data dispersion after being subjected to different treatments.

4.1.6 Hypothesis testing

Because the post-test data were not normally distributed and were not homogeneous, the researcher used the Mann-Whitney U Test as a non-parametric test to test the research hypothesis. This test was chosen because the conditions for using parametric tests, such as the Independent Sample T-Test, were not met. Therefore, the Mann-Whitney U Test was considered

the most appropriate test to determine the difference in post-test scores between the experimental group and the control group. The Mann-Whitney

Table 4.9 The Mann-Whitney U Test

Test Statistics^a	
	PostTest
Mann-Whitney U	16.000
Wilcoxon W	187.000
Z	-4.467
Asymp. Sig. (2-tailed)	<.001
Exact Sig. [2*(1-tailed Sig.)]	<.001 ^b

a. Grouping Variable: Group

b. Not corrected for ties.

U Test was conducted to determine whether there was a significant difference in students' vocabulary mastery between students taught using the integration of Quizlet and flashcards as a multimodal approach and students taught using conventional learning methods.

Based on Table 4.9, the results of the Mann-Whitney U Test show that the Mann-Whitney U value is 16.000 with a Z-value of -4.467. In addition, the Asymp. Sig. (2-tailed) value is < 0.001. This significance value is less than 0.05, so H_0 is rejected and H_1 is accepted. These results indicate that there is a significant difference between the post-test scores of the experimental group and the control group after the intervention. In other words, the integration of Quizlet and flashcards as a multimodal approach has a significant effect on students' vocabulary mastery.

Based on the descriptive statistics, the experimental group achieved a higher average post-test score compared to the control group. The experimental group achieved an average score of 94.75, while the control group achieved an average score of 78.61. These results indicate that

students who learned using the integration of Quizlet and flashcards demonstrated better vocabulary mastery compared to those who learned using conventional methods. The improvement in learning outcomes in the experimental group may be due to the use of the integration of Quizlet and flashcards, which creates a more interactive and engaging learning process. Quizlet helps students learn vocabulary through digital features such as repetition exercises, quizzes, games, and pronunciation practice. Meanwhile, flashcards help students understand vocabulary through visual and kinesthetic activities. This combination of digital and physical media helps students understand, remember, and master vocabulary more effectively during the learning process. Thus, it can be concluded that the integration of Quizlet and flashcards as a multimodal approach is effective in improving vocabulary mastery among eleventh-grade students.

4.2 Discussion

The results of the research show that the integration of Quizlet and flashcards has a significant effect on improving students' vocabulary mastery. This can be seen from the higher mean post-test score of the experimental group compared to the control group. Before the treatment was given, the initial abilities of students in both groups were relatively similar. This is apparent from the mean pre-test scores of 52.25 for the experimental group and 54.28 for the control group. Thus, it can be said that both groups had balanced initial abilities before the treatment was administered. However, after the learning process was completed, the experimental group showed a significantly higher improvement than the control group. The experimental group's mean post-test score was 94.75, while the control

group's was only 78.61. This difference in results indicates that the integration of Quizlet and flashcards is more effective at improving students' vocabulary mastery than conventional teaching methods.

The results of this study support the Cognitive Theory of Multimedia Learning (CTML) proposed by Mayer (2020). This theory explains that students learn more effectively when information is presented through various learning channels, such as visual, verbal, and interactive ones. In this study, Quizlet provided digital-based learning through text, images, audio pronunciation, and interactive quizzes. Meanwhile, flashcards provide visual and kinesthetic experiences through the activities of holding, flipping, and grouping vocabulary cards. The combination of these two media helps students receive information through more than one learning modality. This makes it easier for students to understand the meaning of vocabulary, remember new words for a longer period, and increases student engagement during the learning process.

The improvement in students' vocabulary mastery can also be explained through the principles of retrieval practice and spaced repetition. During the learning process, students repeatedly reviewed and recalled vocabulary items through both Quizlet activities and physical flashcards. According to Nation (2022) emphasizes that spaced repetition strengthens memory traces by providing learners with repeated exposure to vocabulary at different intervals. Therefore, the significant improvement in the experimental group suggests that the integration of Quizlet and flashcards helped students transfer newly learned vocabulary into long-term memory more effectively than conventional instruction.

Furthermore, the results of this study align with the multimodality theory proposed by Kress and Leeuwen (2001). This theory explains that learning becomes more meaningful when students receive information through various modes of representation, such as text, images, sound, and physical activities. In this study, students did not merely read vocabulary from a book but also viewed images, listened to pronunciation, engaged in repetition practice, and used flashcards directly. Learning that involves these various modalities makes the classroom atmosphere more active and interactive. During the treatment, students appeared more enthusiastic about participating in the learning process compared to conventional learning. Students were also more confident in answering vocabulary questions because they had a more engaging and less monotonous learning experience.

Another important finding relates to student engagement, motivation, and learning behavior during the treatment sessions. Throughout the implementation of Quizlet and flashcards, students appeared more enthusiastic, active, and willing to participate in classroom activities. They showed greater interest in answering questions, completing vocabulary tasks, and interacting with learning materials. This finding is consistent with Dizon (2016), who reported that Quizlet increases student engagement through interactive learning features. Increased engagement and motivation are important because they encourage students to spend more time interacting with vocabulary items, which ultimately contributes to better learning outcomes.

Furthermore, the integration of digital and physical media encouraged students to process vocabulary more actively rather than relying solely on

memorization. Students were required to identify meanings, match words with visual representations, and apply vocabulary in different learning activities. Such processes involve deeper cognitive engagement and promote critical thinking skills. In line with Mayer's (2020) Cognitive Theory of Multimedia Learning, meaningful learning occurs when learners actively select, organize, and integrate information from multiple sources. Therefore, the integration of Quizlet and flashcards not only improved vocabulary mastery but also encouraged students to become more active and reflective learners.

The results of this study also support previous research conducted by Dizon (2016) and Ho and Kawaguchi (2021), which stated that Quizlet can improve students' vocabulary acquisition through interactive features and repeated practice. Additionally, research by Fitriyani and Nulanda (2017) also found that flashcards are effective in improving vocabulary mastery because they help students remember vocabulary through visual repetition. However, this study differs from previous research because it integrates digital and physical media simultaneously within a single learning process. Thus, this study not only compares the effectiveness of the media but also demonstrates that the combination of both media can create more optimal vocabulary learning.

The results also indicate that the post-test scores of the experimental group were more homogeneous compared to the control group. This is evident from the lower standard deviation of the experimental group's post-test scores. This suggests that the integration of Quizlet and flashcards not only improves the average learning outcomes but also helps the majority of students achieve more consistent results. Meanwhile, the control group, which used conventional methods, did experience

an improvement in learning outcomes, but this improvement was not as significant as that of the experimental group. This likely occurred because conventional learning tends to be more monotonous and less actively engages students in the learning process. Students focus only on textbooks and written exercises, making the learning process less engaging. This statement is also supported by previous research indicating that vocabulary instruction in secondary schools is still dominated by memorization and written exercises, which often result in low motivation and poor long-term retention (Laoli et al., 2025; Sitepu et al., 2023).

Based on the research results and discussion, it can be concluded that the integration of Quizlet and flashcards as a multimodal approach is proven effective in improving high school students' vocabulary mastery. The simultaneous use of digital and physical media creates a learning experience that promotes retrieval practice, supports long-term vocabulary retention, increases student engagement and motivation, encourages positive learning behavior, and facilitates deeper cognitive processing through multimodal learning activities.

CHAPTER V

CONCLUSION AND SUGGESTIONS

This chapter presents the conclusions and suggestions based on the findings and discussion of the research. The conclusions summarize the main results of the study regarding the effectiveness of integrating Quizlet and flashcards as a multimodal approach to improve students' vocabulary mastery. Meanwhile, the suggestions are addressed to English teachers, students, and future researchers as recommendations for improving English vocabulary learning and for conducting further related studies in the future.

5.1 Conclusion

Based on the research findings and discussion presented in the previous chapter, it can be concluded that the integration of Quizlet and flashcards as a multimodal approach has a significant effect on the vocabulary mastery of eleventh-grade students. Before the treatment was applied, the experimental group and the control group were first given a pre-test to determine the students' initial vocabulary mastery. The pre-test results showed that the initial skills of students in both groups were relatively similar. This was supported by the results of the descriptive statistics on the pre-test data, the mean and standard deviation indicated that there was no significant difference between the experimental group and control group before the treatment was applied. Thus, both groups can be said to have comparable initial skills and are suitable for use in this research. After the treatment was applied, both groups showed an improvement in vocabulary learning outcomes. However, the improvement in the experimental group was higher than that in the control group. The experimental group was taught using an integration of Quizlet and flashcards

as a multimodal approach, while the control group was taught using conventional learning methods.

Based on the descriptive statistics, the mean score of the experimental group increased from 52.25 on the pre-test to 94.75 on the post-test. On the other hand, the control group's score increased from 54.28 on the pre-test to 78.61 on the post-test. These results indicate that the use of Quizlet and flashcards helps students improve their vocabulary mastery more effectively than conventional learning methods. Furthermore, the results of the normality and homogeneity tests showed that the post-test data were not normally distributed and were not homogeneous. Therefore, the researcher used the Mann-Whitney U Test as a non-parametric test to test the research hypothesis. Based on the results of the Mann-Whitney U Test, an Asymp. Sig. (2-tailed) value of < 0.001 was obtained, which is smaller than the significance level of 0.05. This indicates that H_0 is rejected and H_1 is accepted. These results indicate that there is a significant difference between the post-test scores of the experimental group and the control group after the treatment was applied. In other words, the integration of Quizlet and flashcards as a multimodal approach has a significant effect on students' vocabulary mastery.

The improvement in learning outcomes in the experimental group may be attributed to the integration of Quizlet and flashcards, which creates a more interactive, engaging, and enjoyable learning process. Quizlet helps students learn vocabulary through digital features such as review exercises, quizzes, games, and pronunciation practice. On the other hand, flashcards help students understand vocabulary through visual and kinesthetic activities, this combination of digital and physical media makes students more active, motivated, and better able to

understand and remember vocabulary during the learning process. Thus, it can be concluded that the integration of Quizlet and flashcards as a multimodal approach has proven effective in improving students' vocabulary mastery. The use of interactive and varied learning media creates a more meaningful learning environment and helps students understand vocabulary better.

5.2 Suggestions

Based on the results of this research, the researcher offers several recommendations that are expected to be useful for teachers, students, and future researchers. English teachers are suggested to use interactive and varied learning media, such as Quizlet and flashcards, in vocabulary instruction. The results of the research indicate that the integration of digital and physical media can help students improve their vocabulary mastery more effectively than conventional teaching methods. Additionally, the use of engaging learning media can create a more active, enjoyable, and student-centered learning environment, thereby increasing student motivation throughout the learning process. The use of Quizlet can help teachers provide more engaging vocabulary practice through its quiz, game, pronunciation practice, and repetition features. In the meantime, flashcards can help students understand and remember vocabulary through visual and kinesthetic activities. Therefore, the integration of Quizlet and flashcards can serve as an effective alternative learning medium to improve students' vocabulary mastery.

In addition, students are expected to utilize Quizlet and flashcards not only during classroom instruction but also for independent study outside of class. Through repeated and interactive practice, students can grasp vocabulary more easily and retain it for a longer period of time. The use of digital and visual learning

materials is also expected to boost students' motivation to learn and make them more active and confident in their English language studies.

Future researchers are also encouraged to conduct similar studies with larger sample sizes and across different educational levels to obtain more comprehensive and in-depth findings. Additionally, future research could explore the use of Quizlet and flashcards to improve other English language skills, such as speaking, reading, listening, or writing. Future researchers may also combine Quizlet and flashcards with other digital learning media to create more innovative and effective learning methods. It hoped that further research will provide broader insights into the use of multimodal approaches in English language learning, particularly in improving students' vocabulary mastery.

REFERENCES

- Adam, S., & Magfirah, S. (2022). Vocabulary strategies for English learners. *ELS Journal on Interdisciplinary Studies in Humanities*, 5(3), 563–572. <https://doi.org/10.34050/elsjish.v5i3.23164>
- Aribowo, E. K. (2017). *Quizlet: penggunaan aplikasi smartphone untuk siswa dalam mendukung mobile learning*. INA-Rxiv. <https://doi.org/10.31227/osf.io/jkys5>
- Aswita, M., & Moetia, M. (2025). The relationship between the use of digital flashcards on quizlet and English vocabulary mastery in elementary school students. *International Journal of Language Teaching and Education*, 9(1), 85–94. <https://doi.org/10.22437/ijolte.v9i1.45018>
- Basri, M., & Sutrisno, D. B. (2025). The integration of word wall media to improve efl students' vocabulary mastery at Junior High School, Pulau Morotai. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 13(2). <https://doi.org/10.24256/ideas.v13i2.7907>
- Çinar, İ., & Arı, A. (2019). The effects of quizlet on secondary school students' vocabulary learning and attitudes towards English. *Asian Journal of Instruction (E-AJI)*, 7(2), 60–73. <https://doi.org/10.20897/apjes/16998>
- Dizon, G. (2016). Quizlet in the efl classroom: Enhancing academic vocabulary acquisition of japanese university students. *Teaching English with Technology*, 16(2), 40–56. <https://bibliotekanauki.pl/articles/955471.pdf>
- Dizon, G., & Tang, D. (2017). Comparing the efficacy of digital flashcards versus paper flashcards to improve receptive and productive L2 vocabulary. *The EuroCALL Review*, 25(1), 3. <https://doi.org/10.4995/eurocall.2017.6964>
- Fadhila, E. (2025). Enhancing young learners' vocabulary through flashcards and multimedia-based instruction. *TOFEDU: The Future of Education Journal*, 4(8), 4697–4704. <https://doi.org/10.61445/tofedu.v4i8.1196>
- Fitriyani, E., & Nulanda, P. Z. (2017). Efektivitas media flash cards dalam meningkatkan kosakata bahasa inggris. *Psymphatic: Jurnal Ilmiah Psikologi*, 4(2), 167–182. <https://doi.org/10.15575/psy.v4i2.1744>
- Ha, H. T. (2021). Exploring the relationships between various dimensions of receptive vocabulary knowledge and L2 listening and reading

- comprehension. *Language Testing in Asia*, 11(1), 20. <https://doi.org/10.1186/s40468-021-00131-8>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage.
- Hartini, L. W., & Suri Ardini, A. (2024). Relationship between Indonesian EFL learners' vocabulary knowledge and English competencies. *Journal of English and Education (JEE)*, 55–66. <https://doi.org/10.20885/jee.v10i1.33651>
- Hasan, J. R., & Habibie, A. (2024). The Effectiveness of Using Wall Word Media in Teaching Vocabulary for EFL Young Learners. *Journal of English Teaching and Linguistic Issues (JETLI)*, 2(3), 122–132. <https://doi.org/10.58194/jetli.v2i3.1125>
- Hasanah, U., Oktaviana, F., & Fitriani, D. (2025). The use of electronic flashcards: Enhancing vocabulary mastery through classroom action research. *Jurnal Ilmiah Bina Bahasa*, 17(2), 175–186. <https://doi.org/10.33557/hnebqh29>
- Ho, T. T. H., & Kawaguchi, S. (2021). The Effectiveness of Quizlet in Improving EFL Learners' Receptive Vocabulary Acquisition. *Asiatic: IIUM Journal of English Language and Literature*, 15(1), 115–159. <https://doi.org/10.31436/asiatic.v15i1.2314>
- Huang, S., Cao, H.-W., Wang, J., & Liu, S. (2025). The Moderating Role of Learning Rounds: Effects on Retrieval Practice and Context Dependence in Digital Flashcard Foreign Language Vocabulary Learning. *Behavioral Sciences*, 15(11), 1540. <https://doi.org/10.3390/bs15111540>
- Ilmah, S., Salsabila, Z., Purnama, A., & Martiarini, E. (2026). The effectiveness of flashcard-based instruction in enhancing english vocabulary mastery among efl learners: A Systematic Literature Review. *Jurnal Kajian Ilmu Pendidikan (JKIP)*, 7(1), 455-462. <http://journal.al-matani.com/index.php/jkip/article/view/1975>
- Ilmi, K. A., & Dewi, D. N. (2022). The integration of multimodality in EFL classes: students' perception. *Jo-ELT (Journal of English Language Teaching) Fakultas Pendidikan Bahasa & Seni Prodi Pendidikan Bahasa Inggris IKIP*, 9(2), 150. <https://doi.org/10.33394/jo-elt.v9i2.6343>

- Immanuel, J., & Hameed, M. S. (2023). Cognitive Theory of Multimedia Learning Powered Code-Switching Interface for Vocabulary Acquisition of ESL Students. *Journal of Language Teaching and Research*, 14(6), 1439–1448. <https://doi.org/10.17507/jltr.1406.01>
- Karimi, S. N., & Amiri, R. K. (2025). The effects of using digital flashcards *versus* paper flashcards on vocabulary learning and retention of Iranian intermediate EFL learners. *Cogent Education*, 12(1), 2548353. <https://doi.org/10.1080/2331186X.2025.2548353>
- Kress, G. R., & Leeuwen, T. van. (2001). *Multimodal discourse: The modes and media of contemporary communication* (Reprinted). Bloomsbury Academic.
- Laoli, A., Giawa, N. H., Zebua, D. P. J., & Namo, E. F. J. (2025). Strategies and challenges of English education students in vocabulary mastery. *Eltin Journal: Journal of English Language Teaching in Indonesia*, 13(1), 157–170. <https://doi.org/10.22460/eltin.v13i1.p157-170>
- Laufer, B., & Goldstein, Z. (2004). Testing Vocabulary Knowledge: Size, Strength, and Computer Adaptiveness. *Language Learning*, 54(3), 399–436. <https://doi.org/10.1111/j.0023-8333.2004.00260.x>
- Laufer, B., & Nation, P. (1999). A vocabulary-size test of controlled productive ability. *Language Testing*, 16(1), 33–51. <https://doi.org/10.1177/026553229901600103>
- Le, H. H., & Luong, T. D. (2023). Using flashcard-based techniques to improve students' vocabulary retention. *Vietnam Journal of Education*, 313–325. <https://doi.org/10.52296/vje.2023.336>
- Leitner, S. (2011). *So lernt man lernen: Der Weg zum Erfolg* (Orig.-Ausg., 18. Aufl). Herder.
- Lin, V., Yeh, H.-C., Huang, H.-H., & Chen, N.-S. (2022). Enhancing EFL vocabulary learning with multimodal cues supported by an educational robot and an IoT-Based 3D book. *System*, 104, 102691. <https://doi.org/10.1016/j.system.2021.102691>
- Mayer, R. E. (2020). *Multimedia Learning* (3rd Edition). Cambridge University Press.

- Nation, I. S. P. (2022). *Learning Vocabulary in Another Language* (3rd ed.). Cambridge University Press. <https://doi.org/10.1017/9781009093873>
- Nation, I. S. P., & Hunston, S. (2013). *Learning Vocabulary in Another Language* (2nd ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9781139858656>
- Nguyen, T. T., Nguyen, D. T., Nguyen, D. L. Q. K., Mai, H. H., & Le, T. T. X. (2021). Quizlet as a Tool for Enhancing Autonomous Learning of English Vocabulary. *AsiaCALL Online Journal*, 13(1), 150–165. <https://doi.org/10.54855/acoj221319>
- Nurarisda, Yulianti Natsir, R., & Burhanuddin, W. (2023). The Effectiveness of Flash Card Media in Improving Students' English Vocabulary at SMP Negeri 2 Galesong Utara. *Journal of Language Testing and Assessment*, 3(1), 58–62. <https://doi.org/10.56983/jlta.v3i1.333>
- Nurhayati, D. A. W. (2022). The Relevance of Adopting Proofreading Tools to Maintain Academic Writing Integrity and Coherence Text. *Indonesian Journal of EFL and Linguistics*, 7(2), 373. <https://doi.org/10.21462/ijefl.v7i2.547>
- Nuruddin, A., Sutaman, S., Ahmad Mubaligh, Syukran Syukran, Muhammad Iqbal Fathoni, & Achmad Ja'far Sodik. (2025). The Effectiveness of Communicative Arabic Language Teaching Materials in Light of the Message of Moderate Values. *Jurnal Al Bayan: Jurnal Jurusan Pendidikan Bahasa Arab*, 17(2), 294–311. <https://doi.org/10.24042/gjjj6p97>
- Pallant, J. (2020). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using IBM SPSS* (7th ed.). Routledge. <https://doi.org/10.4324/9781003117452>
- Parcalabescu, L., Trost, N., & Frank, A. (2021). *What is Multimodality?* (arXiv:2103.06304). arXiv. <https://doi.org/10.48550/arXiv.2103.06304>
- Pratiwi, H. (2022). A comparative study on digital flashcards and traditional flashcards in vocabulary learning. *English Education Journal*, 12(3).
- Rahmadany, Aulia, S., & et, al. (2024). Quizlet application on student vocabulary learning outcomes: an experimental study. *Masikola: Journal of Pedagogy, Andragogy, and Heutagogy in Language Learning*, 1(1), 36–51.

- Salsabila, S., & Santoso, D. (2024). Strategies to Optimise Long-term Memory in Learning Vocabulary. *TRANSFORM: Journal of English Language Teaching and Learning*, 13(3), 150–158. <https://doi.org/10.24114/tj.v13i3.67207>
- Sanosi, A. B. (2018). The Effect of Quizlet on Vocabulary Acquisition. *Asian Journal of Education and E-Learning*, 6(4). <https://doi.org/10.24203/ajeel.v6i4.5446>
- Sarantika, P., Susilawati, E., & Ikhsanudin. (2025). Using Quizlet Application with Flashcards Feature to Teach Efl Vocabulary. *JEELL (Journal of English Education, Linguistics and Literature)*, 12(1), 81–87. <https://doi.org/10.32682/jeell.v11i02/32>
- Schmitt, N. (2010). *Researching Vocabulary*. Palgrave Macmillan UK. <https://doi.org/10.1057/9780230293977>
- Sitepu, S. S. W., Safitri, E., Sukmawati, N. N., Nasution, S. S., & Kusumoriny, L. A. (2023). Improving the Students' Motivation in Learning Vocabulary Using Song Lyrics. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 11(1), 324–332. <https://doi.org/10.24256/ideas.v11i1.3588>
- Sitzmann, T., Brown, K. G., Casper, W. J., Ely, K., & Zimmerman, R. D. (2008). A review and meta-analysis of the nomological network of trainee reactions. *Journal of Applied Psychology*, 93(2), 280–295. <https://doi.org/10.1037/0021-9010.93.2.280>
- Sudrajat, I., & Pratama, R. F. (2022). Young learners' vocabulary and Quizlet application. *JELA (Journal of English Language Teaching, Literature and Applied Linguistics)*, 4(2), 69–88. <https://doi.org/10.37742/jela.v4i2.89>
- Sugiyono. (2013). *Metode penelitian kuantitatif, kualitatif dan R & D* (Cet. 19). Alfabeta.
- Syamsiyah, N., & Ma'rifatulloh, S. (2023). The Effectiveness of Using Flashcard to Improve Students' Vocabulary Mastery. *Journal of Science and Education Research*, 2(2), 25–30. <https://doi.org/10.62759/jsr.v2i2.37>
- Tanjung, N. F., & Rafida, T. (2025). Quizlet interactive learning: Junior high school students' perspective to enrich English vocabulary. *Curricula: Journal of*

- Curriculum Development*, 4(1), 733-748. <https://ejournal-education.upi.edu/curricula/article/download/484/579>
- Tiara, A. G., Saefullah, H., & Nugraha, S. I. (2024). Investigating EFL learners' engagement in multimodal vocabulary learning: A case study. *Jurnal Pendidikan Tambusai*, 8(2), 29984–29988. <https://jptam.org/index.php/jptam/article/view/17749>
- McCrindle, M., & Fell, A. (2019). Understanding generation Z: Recruiting, training and leading the next generation. *McCrindle Research*. https://www.researchgate.net/publication/335159678_Understanding_Generation_Z_Recruiting_Training_and_Leading_the_Next_Generation
- Webb, S. (2007). The Effects of Repetition on Vocabulary Knowledge. *Applied Linguistics*, 28(1), 46–65. <https://doi.org/10.1093/applin/aml048>
- Webb, S., & Nation, I. S. P. (2017). *How vocabulary is learned*. Oxford University Press.
- Yunita, R. (2020). Students' motivation in learning vocabulary through visual media. *Journal of English Education*, 8(1), 101–112.
- Zakian, M., Xodabande, I., Valizadeh, M., & Yousefvand, M. (2022). Out-of-the-classroom learning of English vocabulary by EFL learners: Investigating the effectiveness of mobile assisted learning with digital flashcards. *Asian-Pacific Journal of Second and Foreign Language Education*, 7(1), 16. <https://doi.org/10.1186/s40862-022-00143-8>
- Zarrati, Z., Zohrabi, M., Abedini, H., & Xodabande, I. (2024). Learning academic vocabulary with digital flashcards: Comparing the outcomes from computers and smartphones. *Social Sciences & Humanities Open*, 9, 100900. <https://doi.org/10.1016/j.ssaho.2024.100900>
- Zhou, Y., Zhou, Y., & Machtmes, K. (2024). Mixed methods integration strategies used in education: A systematic review. <https://doi.org/10.1177/20597991231217937>

APPENDICES

Appendix I Instrument of Pre-test

Name :

Number :

A. Multiple Choice (20 Questions)

1. The word “income” means ...
 - a. money spent
 - b. money earned
 - c. money saved
 - d. money lost
 - e. money borrowed
2. The word “save” means ...
 - a. spend money
 - b. keep money for future use
 - c. borrow money
 - d. waste money
 - e. give money
3. The opposite of “spend” is ...
 - a. buy
 - b. pay
 - c. save
 - d. use
 - e. sell
4. The word “budget” means ...
 - a. a plan for money
 - b. a type of bank
 - c. a kind of job
 - d. a payment method
 - e. a financial problem
5. The word “expense” means ...
 - a. money received
 - b. money spent
 - c. money saved
 - d. money borrowed
 - e. money invested
6. The word “salary” means ...
 - a. money paid for work
 - b. money spent daily
 - c. money saved
 - d. money borrowed
 - e. money invested
7. The word “cheap” means ...
 - a. expensive
 - b. low cost
 - c. high quality
 - d. difficult
 - e. limited
8. She makes a monthly ____ to control her spending.
 - a. income
 - b. budget
 - c. loan
 - d. bill
 - e. saving
9. He wants to ____ money to buy a new phone.
 - a. spend
 - b. save
 - c. waste
 - d. borrow
 - e. invest
10. The bank gave him a ____ to start his business.
 - a. salary
 - b. expense
 - c. loan
 - d. price
 - e. income
11. Paying electricity is an example of a monthly ____.
 - a. income
 - b. saving
 - c. expense
 - d. profit
 - e. budget
12. She received her ____ at the end of the month.
 - a. budget
 - b. salary
 - c. loan
 - d. bill
 - e. income
13. If you ____ too much money, you will have no savings.
 - a. save
 - b. spend
 - c. earn
 - d. keep
 - e. invest
14. A ____ helps you manage your money wisely.
 - a. budget
 - b. loan
 - c. bill

- d. debt
 - e. income
15. The word “debt” means ...
- a. money you earn
 - b. money you owe
 - c. money you save
 - d. money you spend
 - e. money you invest
16. The word “afford” means ...
- a. to buy something expensive
 - b. to have enough money to buy something
 - c. to borrow money
 - d. to save money
 - e. to spend money
17. He reduced his expenses to increase his ____.
- a. debt
 - b. savings
 - c. bills
 - d. loans
 - e. income
18. The word “purchase” is similar in meaning to ...
- a. sell
 - b. buy
 - c. borrow
 - d. save
 - e. pay
19. She keeps track of her spending to avoid ____.
- a. savings
 - b. income
 - c. debt
 - d. salary
 - e. budget
20. The word “financial” relates to ...
- a. health
 - b. money
 - c. education
 - d. travel
 - e. business

B. Fill in the Blank (5 Questions)

21. I try to _____ money every month for the future.
22. My father receives a monthly _____ from his job.
23. Paying rent is a regular _____.

24. She made a _____ to control her spending.

25. He is in _____ because he borrowed too much money.

Expense	Salary	Budget	Save	Debt
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C. Matching Words with Meanings (5 Questions)

Match the words in Column A with their meanings in Column B!

No.	Column A	Column B
26.	Income	a. Money you owe
27.	Expense	b. Money you keep for future use
28.	Debt	c. Money you receive
29.	Budget	d. A plan for managing money
30.	Savings	e. Money you spend

ANSWER KEY

A. Multiple Choice (1–20)

1. **b. money earned**
 2. **b. keep money for future use**
 3. **c. save**
 4. **a. a plan for money**
 5. **b. money spent**
 6. **a. money paid for work**
 7. **b. low cost**
 8. **b. budget**
 9. **b. save**
 10. **c. loan**
 11. **c. expense**
 12. **b. salary**
 13. **b. spend**
 14. **a. budget**
 15. **b. money you owe**
 16. **b. to have enough money to buy something**
 17. **b. savings**
 18. **b. buy**
 19. **c. debt**
 20. **b. money**
-

B. Fill in the Blank (21–25)

21. **save**
 22. **salary**
 23. **expense**
 24. **budget**
 25. **debt**
-

C. Matching (26–30)

26. **c. Money you receive (Income)**
27. **e. Money you spend (Expense)**
28. **a. Money you owe (Debt)**
29. **d. A plan for managing money (Budget)**
30. **b. Money you keep for future use (Savings)**

Appendix II Instrument of Post-tes

Name :

Number :

A. Multiple Choice (20 Questions)

1. The word "income" is best described as ...
 - a. money you spend
 - b. money you receive regularly
 - c. money you borrow
 - d. money you lose
 - e. money you invest
2. Which word means *pengeluaran*?
 - a. income
 - b. expense
 - c. savings
 - d. loan
 - e. profit
3. To save money means to ...
 - a. use all your money
 - b. keep money for later
 - c. borrow money
 - d. waste money
 - e. spend quickly
4. If you spend money, you ...
 - a. keep it
 - b. borrow it
 - c. use it to buy things
 - d. save it
 - e. invest it
5. A budget helps you to ...
 - a. spend all money
 - b. manage your money
 - c. borrow money
 - d. lose money
 - e. earn money
6. She writes her monthly ____ to control her expenses.
 - a. income
 - b. budget
 - c. loan
 - d. bill
 - e. saving
7. "Menghabiskan uang" in English is ...
 - a. save money
 - b. spend money
 - c. earn money
 - d. borrow money
 - e. keep money
8. A salary is usually given ...
 - a. daily
 - b. weekly
 - c. monthly
 - d. yearly
 - e. hourly
9. If you have a lot of savings, it means ...
 - a. you spend a lot
 - b. you keep money for the future
 - c. you borrow money
 - d. you lose money
 - e. you invest money
10. A loan is money that you ...
 - a. earn
 - b. spend
 - c. borrow
 - d. save
 - e. invest
11. When you have debt, you must ...
 - a. receive money
 - b. pay money back
 - c. save money
 - d. earn money
 - e. spend money
12. A bill is something you must ...
 - a. receive
 - b. pay
 - c. save
 - d. borrow
 - e. keep
13. He has no savings because he always ____ his money.
 - a. saves
 - b. spends
 - c. borrows
 - d. earns
 - e. invests
14. She uses her salary to pay her ____.
 - a. income
 - b. debt
 - c. budget
 - d. savings
 - e. loan
15. If you can afford something, it means ...
 - a. you don't want it

ANSWER KEY – POST TEST

A. Multiple Choice (1–20)

1. **b. money you receive regularly**
2. **b. expense**
3. **b. keep money for later**
4. **c. use it to buy things**
5. **b. manage your money**
6. **b. budget**
7. **b. spend money**
8. **c. monthly**
9. **b. you keep money for the future**
10. **c. borrow**
11. **b. pay money back**
12. **b. pay**
13. **b. spends**
14. **b. debt**
15. **b. you have enough money**
16. **b. buy it**
17. **b. money matters**
18. **b. withdraw**
19. **c. get profit in the future**
20. **b. financial**

B. Fill in the Blank (21–25)

21. **withdraw**
22. **balance**
23. **remove**
24. **expenses**
25. **save**

C. Matching (26–30)

26. **c. a plan for managing money**
(Budget)
27. **d. money you keep for the future**
(Savings)
28. **e. money paid for work** (Salary)
29. **b. to take money from a**
bank/ATM (Withdraw)
30. **a. to buy something** (Purchase)

Appendix III Vocabulary List

15 Vocabulary: Personal Money Management (EN-ID)

1. **Income** → money you receive
☞ *penghasilan*
2. **Expense** → money you spend
☞ *pengeluaran*
3. **Save** → to keep money for future use
☞ *menabung / menyimpan uang*
4. **Spend** → to use money
☞ *menghabiskan uang / membelanjakan*
5. **Budget** → a plan for managing money
☞ *anggaran / rencana keuangan*

6. **Salary** → money paid for work
☞ *gaji*
7. **Savings** → money you keep for the future
☞ *tabungan*
8. **Loan** → money you borrow
☞ *pinjaman*
9. **Debt** → money you owe
☞ *utang*
10. **Bill** → a statement of money you must pay
☞ *tagihan*

11. **Afford** → to have enough money to buy something
☞ *mampu membeli*
12. **Purchase** → to buy something
☞ *membeli*
13. **Financial** → related to money
☞ *keuangan / finansial*
14. **Withdraw** → to take money from a bank/ATM
☞ *menarik uang (dari bank/ATM)*
15. **Investment** → using money to gain profit in the future
☞ *investasi*

Appendix IV Validation Sheet

LEMBAR VALIDASI INSTRUMEN VOCABULARY MASTERY TEST

A. IDENTITAS INSTRUMEN

- **Judul Penelitian:** The Impact of Quizlet and Flashcard Integration as a Multimodal Approach on High School Students' Vocabulary Mastery
- **Jenis Instrumen:** Vocabulary mastery Test (Pre-test & Post-test)
- **Jumlah Soal:** 30 butir
- **Bentuk Soal:**
 - Multiple Choice (20)
 - Fill in the Blank (5)
 - Matching (5)
- **Kelas/Semester:** XI / Genap

B. IDENTITAS VALIDATOR

Validator (Guru Bahasa Inggris)

- Nama: Teguh Imanto
- Instansi: MAN 2 Malang
- Jabatan: Guru Bahasa Inggris

C. PETUNJUK PENGISIAN

Berikan penilaian terhadap instrumen dengan memberi tanda (✓) pada kolom skor sesuai kriteria berikut:

Skor	Kriteria
4	Sangat Baik
3	Baik
2	Cukup
1	Kurang

D. ASPEK YANG DINILAI

I. Kesesuaian Materi

No	Pernyataan	1	2	3	4
1	Soal sesuai dengan tujuan pembelajaran	☐	☐	☐	☒
2	Materi sesuai dengan tingkat kelas XI	☐	☐	☐	☒
3	Kosakata relevan dengan topik personal money management	☐	☐	☐	☒
4	Soal mencakup seluruh indikator pembelajaran	☐	☐	☐	☒

2. Konstruksi Soal

No	Pernyataan	1	2	3	4
5	Petunjuk soal jelas dan mudah dipahami	☐	☐	☐	☒
6	Bentuk soal sesuai dengan tujuan pengukuran	☐	☐	☐	☒
7	Pilihan jawaban tidak ambigu	☐	☐	☐	☒
8	Soal tidak menimbulkan penafsiran ganda	☐	☐	☐	☒
9	Tingkat kesulitan soal bervariasi (mudah-sulit)	☐	☐	☐	☒

3. Bahasa

No	Pernyataan	1	2	3	4
10	Bahasa yang digunakan jelas dan komunikatif	☐	☐	☐	☒
11	Struktur kalimat sesuai kaidah bahasa Inggris	☐	☐	☐	☒
12	Tidak terdapat kesalahan tata bahasa yang signifikan	☐	☐	☒	☒

4. Kesesuaian dengan Indikator & Bloom

No	Pernyataan	1	2	3	4
13	Soal sesuai dengan indikator yang telah disusun	☐	☐	☐	☒

14	Soal mencakup level kognitif (C1-C4)	☐	☐	☒	☐
15	Soal mampu mengukur vocabulary mastery siswa	☐	☐	☒	☐

E. REKAP PENILAIAN

- Total Skor: $\frac{57}{60}$
 - Nilai Validasi: $\frac{57}{60} \times 100 = 95$
- $$\text{Nilai} = \frac{\text{Total Skor}}{60} \times 100$$

F. KRITERIA KELAYAKAN

Rentang Nilai	Kategori
86-100	Sangat Layak
71-85	Layak
56-70	Cukup Layak
≤ 55	Tidak Layak

G. SARAN DAN MASUKAN VALIDATOR

.....

.....

.....

H. KESIMPULAN

- ☒ Instrumen layak digunakan tanpa revisi
- ☐ Instrumen layak digunakan dengan revisi
- ☐ Instrumen tidak layak digunakan

I. TANDA TANGAN VALIDATOR

Validator


 (TEGUH MANIA)

LEMBAR VALIDASI INSTRUMEN VOCABULARY MASTERY TEST

A. IDENTITAS INSTRUMEN

- **Judul Penelitian:** The Impact of Quizlet and Flashcard Integration as a Multimodal Approach on High School Students' Vocabulary Mastery
- **Jenis Instrumen:** Vocabulary mastery Test (Pre-test & Post-test)
- **Jumlah Soal:** 30 butir
- **Bentuk Soal:**
 - Multiple Choice (20)
 - Fill in the Blank (5)
 - Matching (5)
- **Kelas/Semester:** XI / Genap

B. IDENTITAS VALIDATOR

Validator (Dosen Pembimbing)

- **Nama:** Dr. Suparmi, M.Pd
- **NIP/NIDN:** 197709112023212004
- **Jabatan:** _____

C. PETUNJUK PENGISIAN

Berikan penilaian terhadap instrumen dengan memberi tanda (✓) pada kolom skor sesuai kriteria berikut:

Skor	Kriteria
4	Sangat Baik
3	Baik
2	Cukup
1	Kurang

D. ASPEK YANG DINILAI

1. Kesesuaian Materi

No	Pernyataan	1	2	3	4
1	Soal sesuai dengan tujuan pembelajaran	☐	☐	☐	☒
2	Materi sesuai dengan tingkat kelas XI	☐	☐	☐	☒
3	Kosakata relevan dengan topik personal money management	☐	☐	☐	☒
4	Soal mencakup seluruh indikator pembelajaran	☐	☐	☒	☐

2. Konstruksi Soal

No	Pernyataan	1	2	3	4
5	Petunjuk soal jelas dan mudah dipahami	☐	☐	☐	☒
6	Bentuk soal sesuai dengan tujuan pengukuran	☐	☐	☐	☒
7	Pilihan jawaban tidak ambigu	☐	☐	☐	☒
8	Soal tidak menimbulkan penafsiran ganda	☐	☐	☐	☒
9	Tingkat kesulitan soal bervariasi (mudah-sulit)	☐	☐	☐	☒

3. Bahasa

No	Pernyataan	1	2	3	4
10	Bahasa yang digunakan jelas dan komunikatif	☐	☐	☐	☒
11	Struktur kalimat sesuai kaidah bahasa Inggris	☐	☐	☐	☒
12	Tidak terdapat kesalahan tata bahasa yang signifikan	☐	☐	☒	☐

4. Kesesuaian dengan Indikator & Bloom

No	Pernyataan	1	2	3	4
13	Soal sesuai dengan indikator yang telah disusun	☐	☐	☒	☐

14	Soal mencakup level kognitif (C1-C4)	☐	☐	☒	☐
15	Soal mampu mengukur vocabulary mastery siswa	☐	☐	☐	☒

E. REKAP PENILAIAN

• Total Skor: 56 / 60

• Nilai Validasi:

$$\frac{56}{60} \times 100 = 93$$

$$\text{Nilai} = \frac{\text{Total Skor}}{60} \times 100$$

F. KRITERIA KELAYAKAN

Rentang Nilai	Kategori
86-100	Sangat Layak
71-85	Layak
56-70	Cukup Layak
≤55	Tidak Layak

G. SARAN DAN MASUKAN VALIDATOR

Instrument bisa digunakan
untuk mengambil data.

H. KESIMPULAN

- ☒ Instrumen layak digunakan tanpa revisi
☐ Instrumen layak digunakan dengan revisi
☐ Instrumen tidak layak digunakan

I. TANDA TANGAN VALIDATOR

Validator


 (Dr. Suparmi, M.Pd)

Appendix V Student Pre-test Answer Sheet

A. Experimental group

B-23

MAN 2 Malang, Turen – Kabupaten Malang

77

Name : Rizka alifia Jumali

Number : XI - 3 / 14

A. Multiple Choice (20 Questions)

1. The word "income" means ...
 - a. money spent
 - b. money earned
 - c. money saved
 - d. money lost
 - ☒ e. money borrowed
2. The word "save" means ...
 - a. spend money
 - ☒ b. keep money for future use
 - c. borrow money
 - d. waste money
 - e. give money
3. The opposite of "spend" is ...
 - a. buy
 - b. pay
 - ☒ c. save
 - d. use
 - e. sell
4. The word "budget" means ...
 - ☒ a. a plan for money
 - b. a type of bank
 - c. a kind of job
 - d. a payment method
 - e. a financial problem
5. The word "expense" means ...
 - a. money received
 - ☒ b. money spent
 - c. money saved
 - d. money borrowed
 - e. money invested
6. The word "salary" means ...
 - ☒ a. money paid for work
 - b. money spent daily
 - c. money saved
 - d. money borrowed
 - e. money invested
7. The word "cheap" means ...
 - a. expensive
 - ☒ b. low cost
 - c. high quality
 - d. difficult
 - e. limited
8. She makes a monthly ____ to control her spending.
 - a. income
 - ☒ b. budget
 - c. loan
 - d. bill
 - e. saving
9. He wants to ____ money to buy a new phone.
 - ☒ a. spend
 - b. save
 - c. waste
 - d. borrow
 - e. invest
10. The bank gave him a ____ to start his business.
 - a. salary
 - b. expense
 - c. loan
 - d. price
 - ☒ e. income
11. Paying electricity is an example of a monthly _____.
 - a. income
 - b. saving
 - ☒ c. expense
 - d. profit
 - e. budget
12. She received her ____ at the end of the month.
 - a. budget
 - ☒ b. salary
 - c. loan
 - d. bill
 - e. income
13. If you ____ too much money, you will have no savings.
 - a. save
 - ☒ b. spend
 - c. earn
 - d. keep
 - e. invest
14. A ____ helps you manage your money wisely.
 - ☒ a. budget
 - b. loan
 - c. bill

- d. debt
e. income
15. The word "debt" means ...
a. money you earn
~~b. money you owe~~
c. money you save
d. money you spend
e. money you invest
16. The word "afford" means ...
a. to buy something expensive
~~b. to have enough money to buy something~~
c. to borrow money
d. to save money
e. to spend money
- ~~17. He reduced his expenses to increase his ____.~~
~~a. debt~~
b. savings
c. bills
d. loans
e. income
18. The word "purchase" is similar in meaning to ...
a. sell
~~b. buy~~
c. borrow
d. save
e. pay
- ~~19. She keeps track of her spending to avoid ____.~~
a. savings
b. income
c. debt
d. salary
~~e. budget~~
- ~~20. The word "financial" relates to ...~~
a. health
b. money
c. education
d. travel
~~e. business~~

B. Fill in the Blank (5 Questions)

- ~~21. I try to ^(saving) money every month for the future.~~
22. My father receives a monthly ~~salary~~ from his job.
23. Paying rent is a regular ~~expense~~.
24. She made a budget to control her spending.
25. He is in debt because he borrowed too much money.

Expense	Salary	Budget	Save	Debt
---------	--------	--------	------	------

C. Matching Words with Meanings (5 Questions)

Match the words in Column A with their meanings in Column B!

No.	Column A	Column B
26.	Income (c)	a. Money you owe
27.	Expense (e)	b. Money you keep for future use
28.	Debt (a)	c. Money you receive
29.	Budget (d)	d. A plan for managing money
30.	Savings (b)	e. Money you spend

B. Control Group

MAN 2 Malang, Turen – Kabupaten Malang

Name : Aurelia ayu

Number : x1 - 5 (02)

A. Multiple Choice (20 Questions)

1. The word "income" means ...
a. money spent
☒ b. money earned
c. money saved
d. money lost
e. money borrowed
2. The word "save" means ...
a. spend money
☒ b. keep money for future use
c. borrow money
d. waste money
e. give money
3. The opposite of "spend" is ...
☒ a. buy
b. pay
c. save
d. use
e. sell
4. The word "budget" means ...
a. a plan for money
b. a type of bank
c. a kind of job
d. a payment method
e. a financial problem
5. The word "expense" means ...
a. money received
☒ b. money spent
c. money saved
d. money borrowed
e. money invested
6. The word "salary" means ...
☒ a. money paid for work
b. money spent daily
c. money saved
d. money borrowed
e. money invested
7. The word "cheap" means ...
a. expensive
☒ b. low cost
c. high quality
d. difficult
e. limited
8. She makes a monthly ___ to control her spending.
a. income
☒ b. budget
c. loan
d. bill
☒ e. saving
9. He wants to ___ money to buy a new phone.
a. spend
☒ b. save
c. waste
d. borrow
e. invest
10. The bank gave him a ___ to start his business.
a. salary
b. expense
☒ c. loan
d. price
e. income
11. Paying electricity is an example of a monthly _____.
a. income
b. saving
c. expense
☒ d. profit
e. budget
12. She received her ___ at the end of the month.
a. budget
b. salary
c. loan
d. bill
☒ e. income
13. If you ___ too much money, you will have no savings.
☒ a. save
b. spend
c. earn
d. keep
e. invest
14. A ___ helps you manage your money wisely.
a. budget
b. loan
c. bill

16
53

- d. debt
~~e. income~~
15. The word "debt" means ...
 a. money you earn
~~b. money you owe~~
 c. money you save
 d. money you spend
 e. money you invest
16. The word "afford" means ...
 a. to buy something expensive
~~b. to have enough money to buy something~~
 c. to borrow money
 d. to save money
 e. to spend money
17. He reduced his expenses to increase his _____.
 a. debt
 b. savings
~~c. bills~~
 d. loans
 e. income
18. The word "purchase" is similar in meaning to ...
 a. sell
 b. buy
 c. borrow
 d. save
~~e. pay~~
19. She keeps track of her spending to avoid _____.
~~a. savings~~
 b. income
 c. debt
 d. salary
 e. budget
20. The word "financial" relates to ...
 a. health
~~b. money~~
 c. education
 d. travel
 e. business

B. Fill in the Blank (5 Questions)

21. I try to save money every month for the future.
~~22. My father receives a monthly~~
~~income~~ from his job.
 23. Paying rent is a regular budget.
~~24. She made a~~ Expense to control her spending.
 25. He is in Debt because he borrowed too much money.

Expense	Salary	Budget	Save	Debt
---------	--------	--------	------	------

C. Matching Words with Meanings (5 Questions)

Match the words in Column A with their meanings in Column B!

No.	Column A	Column B
26.	Income (c)	a. Money you owe
27.	Expense (e)	b. Money you keep for future use
28.	Debt (a)	c. Money you receive
29.	Budget (d)	d. A plan for managing money
30.	Savings (b)	e. Money you spend

Appendix VI Student Post-test Answer Sheet

A. Experimental group

28

Vocabulary mastery test (post-test)

XI Grade

93

Name : (MFG'01) Khasanah

Number : 6 (XI-3)

A. Multiple Choice (20 Questions)

1. The word "income" is best described as ...
 - a. money you spend
 - ☒ b. money you receive regularly
 - c. money you borrow
 - d. money you lose
 - e. money you invest
2. Which word means *pengeluaran*?
 - a. income
 - ☒ b. expense
 - c. savings
 - d. loan
 - e. profit
3. To save money means to ...
 - a. use all your money
 - ☒ b. keep money for later
 - c. borrow money
 - d. waste money
 - e. spend quickly
4. If you spend money, you ...
 - a. keep it
 - b. borrow it
 - ☒ c. use it to buy things
 - d. save it
 - e. invest it
5. A budget helps you to ...
 - a. spend all money
 - ☒ b. manage your money
 - c. borrow money
 - d. lose money
 - e. earn money
6. She writes her monthly ___ to control her expenses.
 - a. income
 - ☒ b. budget
 - c. loan
 - ☒ d. bill
 - e. saving
7. "Menghabiskan uang" in English is ...
 - a. save money
 - ☒ b. spend money
 - c. earn money
 - d. borrow money
 - e. keep money
8. A salary is usually given ...
 - a. daily
 - b. weekly
 - ☒ c. monthly
 - d. yearly
 - e. hourly
9. If you have a lot of savings, it means ...
 - a. you spend a lot
 - ☒ b. you keep money for the future
 - c. you borrow money
 - d. you lose money
 - e. you invest money
10. A loan is money that you ...
 - a. earn
 - b. spend
 - ☒ c. borrow
 - d. save
 - e. invest
11. When you have debt, you must ...
 - a. receive money
 - b. pay money back
 - ☒ c. save money
 - d. earn money
 - e. spend money
12. A bill is something you must ...
 - a. receive
 - ☒ b. pay
 - c. save
 - d. borrow
 - e. keep
13. He has no savings because he always ___ his money.
 - a. saves
 - ☒ b. spends
 - c. borrows

Vocabulary mastery test (post-test)

XI Grade

- d. earns
e. invests
14. She uses her salary to pay her ____.
- a. income
☒ b. debt
c. budget
d. savings
e. loan
15. If you can afford something, it means ...
- a. you don't want it
☒ b. you have enough money
c. you borrow money
d. you save money
e. you spend money
16. To purchase something means to ...
- a. sell it
☒ b. buy it
c. borrow it
d. keep it
e. use it
17. The word "financial" is related to ...
- a. education
☒ b. money matters
c. travel
d. food
e. business
18. You can ____ money from an ATM.
- a. save
☒ b. withdraw
c. purchase
d. invest
e. borrow
19. An investment is made to ...
- a. spend money quickly
b. lose money
☒ c. get profit in the future
d. borrow money
e. save money
20. Good ____ planning helps you manage your money better.
- a. health
☒ b. financial
c. travel

- d. school
e. business

B. Fill in the Blank (Procedure Text)

How to Use an ATM Safely

Complete the text!

First, go to the ATM machine and insert your card. Then, enter your PIN correctly. After that, choose the option to ... (21). Next, select how much money you want to take. The machine will give you the cash. After that, take your money and check your ... (22). Then, don't forget to ... (23) your card. Finally, keep your money in a safe place and avoid unnecessary ... (24). You can also ... (25) some of your money for future use.

21. Withdraw 22. Balance 23. Remove
24. Expenses 25. Save

Expenses	Save	Withdraw	Balance	Remove
----------	------	----------	---------	--------

C. Matching Words with Meanings (5 Questions)

No.	Column A	Column B
26.	Budget . C	a. to buy something
27.	Savings . D	b. to take money from a bank/ATM
28.	Salary . E	c. a plan for managing money
29.	Withdraw . B	d. money you keep for the future
30.	Purchase . A	e. money paid for work

B. Control group

21

Vocabulary mastery test (post-test)

70

XI Grade

Name : Septia Adinda

Number : XI-5

A. Multiple Choice (20 Questions)

1. The word "income" is best described as ...
 - a. money you spend
 - ☒ b. money you receive regularly
 - c. money you borrow
 - d. money you lose
 - e. money you invest
- ☒ 2. Which word means *pengeluaran*?
 - a. income
 - ☒ b. expense
 - c. savings
 - ☒ d. loan
 - e. profit
- ☒ 3. To save money means to ...
 - a. use all your money
 - ☒ b. keep money for later
 - ☒ c. borrow money
 - d. waste money
 - e. spend quickly
- ☒ 4. If you spend money, you ...
 - a. keep it
 - ☒ b. borrow it
 - ☒ c. use it to buy things
 - d. save it
 - e. invest it
- ☒ 5. A budget helps you to ...
 - ☒ a. spend all money
 - ☒ b. manage your money
 - c. borrow money
 - d. lose money
 - e. earn money
- ☒ 6. She writes her monthly ___ to control her expenses.
 - a. income
 - ☒ b. budget
 - c. loan
 - d. bill
 - ☒ e. saving
7. "Menghabiskan uang" in English is ...
 - a. save money
 - ☒ b. spend money
 - c. earn money
 - d. borrow money
 - e. keep money
8. A salary is usually given ...
 - a. daily
 - b. weekly
 - ☒ c. monthly
 - d. yearly
 - e. hourly
- ☒ 9. If you have a lot of savings, it means ...
 - a. you spend a lot
 - ☒ b. you keep money for the future
 - c. you borrow money
 - ☒ d. you lose money
 - e. you invest money
10. A loan is money that you ...
 - a. earn
 - b. spend
 - ☒ c. borrow
 - d. save
 - e. invest
11. When you have debt, you must ...
 - a. receive money
 - ☒ b. pay money back
 - c. save money
 - d. earn money
 - e. spend money
12. A bill is something you must ...
 - a. receive
 - ☒ b. pay
 - c. save
 - d. borrow
 - e. keep
13. He has no savings because he always ___ his money.
 - a. saves
 - ☒ b. spends
 - c. borrows

Vocabulary mastery test (post-test)

XI Grade

- d. earns
e. invests
14. She uses her salary to pay her ____.
- a. income
☒ b. debt
c. budget
d. savings
e. loan
15. If you can afford something, it means ...
- a. you don't want it
☒ b. you have enough money
c. you borrow money
d. you save money
e. you spend money
16. To purchase something means to ...
- a. sell it
☒ b. buy it
c. borrow it
☒ d. keep it
e. use it
17. The word "financial" is related to ...
- a. education
☒ b. money matters
c. travel
d. food
e. business
18. You can ____ money from an ATM.
- ☒ a. save
☒ b. withdraw
c. purchase
d. invest
e. borrow
19. An investment is made to ...
- a. spend money quickly
b. lose money
☒ c. get profit in the future
d. borrow money
e. save money
20. Good ____ planning helps you manage your money better.
- a. health
☒ b. financial
c. travel

- d. school
e. business

B. Fill in the Blank (Procedure Text)

How to Use an ATM Safely

Complete the text!

First, go to the ATM machine and insert your card. Then, enter your PIN correctly. After that, choose the option to ... (21). Next, select how much money you want to take. The machine will give you the cash. After that, take your money and check your ... (22). Then, don't forget to ... (23) your card. Finally, keep your money in a safe place and avoid unnecessary ... (24). You can also ... (25) some of your money for future use.

21. withdraw 22. balance 23. Remove
24. expenses 25. save

Expenses	Save	Withdraw	Balance	Remove
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C. Matching Words with Meanings (5 Questions)

No.	Column A	Column B
26.	Budget A	a. to buy something
27.	Savings D	b. to take money from a bank/ATM
28.	Salary e	c. a plan for managing money
29.	Withdraw D	d. money you keep for the future
30.	Purchase A	e. money paid for work

Appendix VII Learning Module of The Experimental Group

MODUL AJAR

PERSONAL MONEY MANAGEMENT VOCABULARY

For the experimental group

A. IDENTITAS MODUL

- Satuan Pendidikan: SMA/MA
- Mata Pelajaran: Bahasa Inggris
- Kelas/Fase: XI / Fase F
- Topik: Personal Money Management Vocabulary
- Alokasi Waktu: 5 Pertemuan (5 × 90 menit)
- Model Pembelajaran: Cooperative Learning & Digital Learning
- Pendekatan: Student-Centered Learning
- Media: Flashcards & Quizlet

B. CAPAIAN PEMBELAJARAN

Peserta didik mampu memahami, mengidentifikasi, dan menggunakan kosakata bahasa Inggris dalam konteks kehidupan sehari-hari, khususnya terkait pengelolaan keuangan pribadi secara lisan dan tulisan.

C. TUJUAN PEMBELAJARAN

Setelah mengikuti pembelajaran, peserta didik mampu:

1. Mengidentifikasi 15 kosakata tentang personal money management dengan benar
2. Menjelaskan arti kosakata dalam Bahasa Indonesia dan Bahasa Inggris
3. Menggunakan kosakata dalam kalimat sederhana dengan tepat
4. Berpartisipasi aktif dalam kegiatan kelompok dan digital learning
5. Meningkatkan penguasaan vocabulary melalui flashcards dan Quizlet

D. INDIKATOR PENCAPAIAN

- Menyebutkan minimal 12 dari 15 kosakata dengan benar
- Mencocokkan kosakata dengan arti yang tepat
- Menulis minimal 5 kalimat menggunakan kosakata
- Berpartisipasi aktif dalam diskusi dan game vocabulary

E. MATERI PEMBELAJARAN

1. Kosakata (15 kata):

Income, Expense, Save, Spend, Budget, Salary, Savings, Loan, Debt, Bill, Afford, Purchase, Financial, Withdraw, Investment

2. Contoh Kalimat:

- I save money every month.
- She cannot afford that bag.
- My salary is enough for my expenses.

3. Definisi Singkat:

- Income → money you receive
- Expense → money you spend
- Budget → a plan for your money

F. PENDEKATAN, MODEL, & METODE

- Pendekatan: Student-Centered Learning

Pendekatan ini menempatkan siswa sebagai pusat pembelajaran, di mana mereka aktif dalam memahami, mengolah, dan menggunakan kosakata. Guru berperan sebagai fasilitator yang membimbing siswa melalui berbagai aktivitas seperti diskusi, latihan, dan praktik penggunaan bahasa.

- Model: Cooperative Learning and Digital Learning
 - **Cooperative Learning** melibatkan kerja sama antar siswa dalam kelompok kecil. Siswa saling berdiskusi, berbagi pemahaman, dan membantu satu sama lain dalam memahami kosakata, sehingga pembelajaran menjadi lebih aktif dan kolaboratif..
 - **Digital Learning** memanfaatkan teknologi, seperti Quizlet, untuk mendukung pembelajaran yang lebih interaktif, fleksibel, dan mandiri.
- Metode Pembelajaran

a. Discussion (Diskusi)

Digunakan untuk membantu siswa memahami kosakata melalui tukar pendapat dan kerja kelompok.

b. Drill (Latihan Berulang)

Dilakukan melalui pengulangan membaca, menyebutkan, dan menulis kosakata untuk memperkuat ingatan siswa.

c. Game-Based Learning (Flashcards)

Menggunakan kartu kosakata untuk aktivitas permainan sederhana seperti mencocokkan dan menebak kata agar pembelajaran lebih menarik.

d. Digital Learning (Quizlet)

Menggunakan aplikasi Quizlet untuk latihan mandiri melalui berbagai fitur seperti flashcards, latihan, dan tes secara interaktif.

G. MEDIA & SUMBER BELAJAR

- Flashcards (EN–ID & EN–EN)
- Aplikasi Quizlet
- Lembar Kerja Siswa (LKS)
- Buku Bahasa Inggris kelas XI
- Internet (opsional)

H. KEGIATAN PEMBELAJARAN

No.	Pertemuan	Kegiatan pembelajaran	Waktu
1.	Pertama (Pre-test)	Pendahuluan Guru membuka pembelajaran dengan salam dan mengecek kehadiran peserta didik. Selanjutnya, guru melakukan apersepsi dengan mengajukan pertanyaan pemantik seperti: <i>"Apa saja yang biasanya kalian lakukan dengan uang yang kalian miliki?"</i> Beberapa siswa diminta menjawab secara lisan untuk membangun keterkaitan dengan topik pembelajaran. Guru kemudian mengaitkan jawaban siswa dengan konsep <i>personal money management</i>. Guru menyampaikan tujuan pembelajaran, yaitu untuk mengetahui kemampuan awal siswa terkait kosakata pengelolaan keuangan dalam Bahasa Inggris melalui pre-test.	10 menit

		Kegiatan Inti Guru membagikan lembar pre-test kepada seluruh peserta didik. Siswa diminta mengerjakan secara individu tanpa bantuan teman atau alat bantu lain. Selama siswa mengerjakan, guru berkeliling untuk mengawasi dan mengamati proses pengerjaan serta mencatat kesulitan umum yang dialami siswa, seperti ketidaktahuan arti kata atau kebingungan dalam konteks penggunaan. Guru juga memastikan suasana kelas kondusif dan semua siswa fokus mengerjakan.	70 menit
		Penutup Setelah waktu selesai, guru meminta siswa mengumpulkan hasil pre-test. Guru kemudian mengajak siswa melakukan refleksi singkat dengan pertanyaan seperti: • “Apakah ada kata yang sulit?” • “Apakah kalian pernah mendengar kata-kata tersebut sebelumnya?” Guru menutup pembelajaran dengan memberikan motivasi bahwa kemampuan mereka akan meningkat melalui pembelajaran selanjutnya.	10 menit
2.	Kedua (Vocab (En-Id) + Flashcards & Quizlet)	Pendahuluan Guru membuka kelas dengan ice breaking berupa permainan ringan (misalnya: tebak cepat kata tentang uang). Selanjutnya, guru memperkenalkan topik <i>Personal Money Management Vocabulary</i> dan menjelaskan bahwa pembelajaran akan menggunakan dua media utama, yaitu flashcards dan Quizlet untuk membantu pemahaman kosakata.	10 menit

		Kegiatan Inti <i>Eksplorasi (20 menit)</i> Guru membagi siswa menjadi 3 kelompok. Setiap kelompok mendapatkan 5 kosakata berbeda. Guru membagikan flashcards (EN-ID) kepada masing-masing kelompok. Siswa diminta: • Mengamati kata dalam Bahasa Inggris • Menebak arti dalam Bahasa Indonesia • Mendiskusikan makna bersama kelompok Guru berperan sebagai fasilitator yang membantu jika ada kesulitan.	70 menit
		<i>Elaborasi (30 menit)</i> Setelah memahami melalui flashcards, siswa diarahkan menggunakan Quizlet. Aktivitas yang dilakukan: • Mode <i>Flashcards</i>: siswa melihat ulang kosakata secara digital • Mode <i>Learn</i>: siswa menjawab latihan arti kata • Mode <i>Match</i>: siswa mencocokkan kata dengan arti Integrasi media: → Flashcards digunakan untuk eksplorasi awal (visual & diskusi) → Quizlet digunakan untuk latihan mandiri & penguatan Guru memastikan setiap siswa aktif menggunakan Quizlet (melalui HP/laptop).	
		<i>Konfirmasi (20 menit)</i> Setiap kelompok mempresentasikan hasil diskusi mereka di depan kelas. Kelompok lain memberikan tanggapan atau pertanyaan. Guru memberikan klarifikasi dan meluruskan kesalahan pemahaman.	
		Penutup Guru memberikan umpan balik terhadap aktivitas siswa. Guru menekankan kembali arti kosakata yang sering salah. Sebagai penutup, guru memberikan motivasi dan menyarankan siswa untuk mengulang belajar melalui Quizlet di rumah.	10 menit

3.	Ketiga Meaning In English (Flashcards & Quizlet)	Pendahuluan Guru membuka pembelajaran dan melakukan review singkat kosakata sebelumnya melalui tanya jawab cepat. Guru kemudian menjelaskan bahwa fokus pembelajaran hari ini adalah memahami arti kosakata dalam Bahasa Inggris (EN–EN) .	10 menit
		Kegiatan Inti <i>Eksplorasi (20 menit)</i> Guru membagikan flashcards versi EN–EN (kata + definisi Bahasa Inggris). Siswa diminta: • Membaca definisi • Menebak kata yang sesuai • Mendiskusikan dalam pasangan	70 menit
		<i>Elaborasi (30 menit)</i> Siswa menggunakan Quizlet untuk memperdalam pemahaman dengan aktivitas: • Mode <i>Write</i>: menuliskan jawaban dari definisi • Mode <i>Test</i>: mengerjakan soal otomatis dari Quizlet Integrasi media: → Flashcards membantu memahami definisi secara manual → Quizlet membantu latihan dan evaluasi otomatis <i>Konfirmasi (20 menit)</i> Siswa melakukan <i>pair discussion</i> untuk membahas jawaban. Guru mengadakan mini quiz lisan: • Guru menyebutkan definisi • Siswa menyebutkan kata	
		Penutup Guru dan siswa menyimpulkan pembelajaran. Guru memberikan refleksi: • “Mana yang lebih sulit, arti Indonesia atau Inggris?”	10 menit

4.	Keempat Using Vocab In Context	Pendahuluan Guru memberikan pertanyaan pemantik: <i>"Bagaimana kalian menggunakan uang dalam kehidupan sehari-hari?"</i> Guru mengaitkan dengan penggunaan kosakata dalam kalimat.	10 menit
		Kegiatan Inti <i>Eksplorasi (20 menit)</i> Siswa diminta membuat 5 kalimat sederhana menggunakan kosakata yang telah dipelajari. Guru memberikan contoh terlebih dahulu.	70 menit
		<i>Elaborasi (30 menit)</i> Siswa melakukan aktivitas terpadu: Dialog Berpasangan - Siswa membuat percakapan sederhana tentang keuangan - Menggunakan minimal 5 kosakata Game Vocabulary - Guessing word (menggunakan flashcards) - Fill in the blank Quizlet Practice - Mode <i>Learn</i> dan <i>Test</i> untuk latihan tambahan Integrasi media: → Flashcards untuk game & interaksi langsung → Quizlet untuk latihan mandiri berbasis digital	
5.	Kelima (Post-test)	<i>Konfirmasi (20 menit)</i> Siswa melakukan role play di depan kelas. Guru memberikan koreksi terkait: - Penggunaan vocabulary - Pronunciation - Struktur kalimat	
		Penutup Guru memberikan feedback menyeluruh. Guru menekankan penggunaan kosakata dalam konteks nyata.	10 menit
		Kegiatan Inti Siswa mengerjakan post-test secara individu.	70 menit

		Setelah selesai, guru dapat membahas beberapa soal secara singkat. Guru juga membandingkan hasil dengan pre-test untuk melihat peningkatan.	
		Penutup Guru bersama siswa menyimpulkan hasil pembelajaran. Guru memberikan motivasi: <i>"Belajar vocabulary itu proses, bukan hasil instan."</i> Pembelajaran ditutup dengan salam.	10 menit

I. ASESMEN

1. Diagnostik

- Pre-test vocabulary

2. Formatif

- Aktivitas Quizlet dan Flashcards
- Diskusi kelompok
- Latihan kelas

3. Sumatif

- Post-test vocabulary

J. RUBRIK PENILAIAN

A. PENILAIAN TES (PRE-TEST & POST-TEST)

Skoring

- Pilihan ganda: 1 poin
- Fill in the blank: 1 poin
- Matching: 1 poin
- **Total skor maksimal: 30 → dikonversi ke 100**

Rumus Nilai

$$\text{Nilai} = \text{Skor diperoleh} : 30 \times 100$$

Kategori Nilai

Rentang Nilai	Kategori
86–100	Sangat Baik
71–85	Baik
56–70	Cukup
≤55	Kurang

B. RUBRIK PENILAIAN FORMATIF (AKTIVITAS)

1. Pemahaman Vocabulary

Skor	Kriteria
4	Memahami semua kosakata dengan sangat baik (EN-ID & EN-EN)
3	Memahami sebagian besar kosakata
2	Memahami beberapa kosakata
1	Tidak memahami kosakata

2. Penggunaan Vocabulary dalam Konteks

Skor	Kriteria
4	Menggunakan kosakata dengan tepat dan lancar
3	Menggunakan kosakata cukup tepat
2	Menggunakan kosakata dengan beberapa kesalahan
1	Tidak mampu menggunakan kosakata

3. Partisipasi & Kerja Kelompok

Skor	Kriteria
4	Sangat aktif, berkontribusi penuh
3	Aktif dalam diskusi
2	Kurang aktif
1	Tidak berpartisipasi

4. Penggunaan Media (Flashcards & Quizlet)

Skor	Kriteria
4	Menggunakan media dengan sangat efektif
3	Menggunakan media dengan cukup baik
2	Kurang memanfaatkan media
1	Tidak menggunakan media dengan baik

C. REKAP NILAI FORMATIF

Aspek	Bobot
Pemahaman Vocabulary	30%
Penggunaan Vocabulary	30%
Partisipasi	20%
Penggunaan Media	20%

- Rumus Nilai Formatif

$$\text{Nilai} = (\text{Pemahaman} \times 30\%) + (\text{Penggunaan} \times 30\%) + (\text{Partisipasi} \times 20\%) + (\text{Media} \times 20\%)$$

K. REFLEKSI

Guru:

- Apakah metode flashcards & Quizlet efektif?
- Apakah siswa aktif dan memahami materi?
- Apa kendala selama pembelajaran?

Siswa:

- Kosakata apa yang paling sulit?
- Apakah Quizlet membantu belajar?
- Bagaimana pengalaman belajar hari ini?

Appendix VIII Learning Module of The Control Group

MODUL AJAR

PERSONAL MONEY MANAGEMENT VOCABULARY

For the control group

A. IDENTITAS MODUL

- Satuan Pendidikan: SMA/MA
- Mata Pelajaran: Bahasa Inggris
- Kelas/Fase: XI / Fase F
- Topik: Personal Money Management Vocabulary
- Alokasi Waktu: 5 Pertemuan (5×90 menit)
- Model Pembelajaran: Cooperative Learning
- Pendekatan: Student-Centered Learning
- Metode: Reading, Writing, Memorizing, Drill
- Media: Buku teks, papan tulis, LKS

B. CAPAIAN PEMBELAJARAN

Peserta didik mampu memahami dan menggunakan kosakata bahasa Inggris dalam konteks kehidupan sehari-hari, khususnya terkait pengelolaan keuangan pribadi melalui aktivitas membaca, menulis, dan latihan berulang.

C. TUJUAN PEMBELAJARAN

Setelah mengikuti pembelajaran, peserta didik mampu:

1. Mengidentifikasi 15 kosakata tentang personal money management
2. Menjelaskan arti kosakata dalam Bahasa Indonesia dan Bahasa Inggris
3. Menghafal kosakata dengan benar
4. Menggunakan kosakata dalam kalimat sederhana
5. Meningkatkan penguasaan vocabulary melalui latihan membaca dan menulis

D. INDIKATOR PENCAPAIAN

- Menyebutkan minimal 12 dari 15 kosakata
- Menuliskan arti kosakata dengan benar
- Menghafal dan mengingat kosakata
- Menyusun minimal 5 kalimat sederhana

E. MATERI PEMBELAJARAN

Kosakata (15 kata):

Income, Expense, Save, Spend, Budget, Salary, Savings, Loan, Debt, Bill, Afford, Purchase, Financial, Withdraw, Investment

Contoh:

- Income = penghasilan
- Expense = pengeluaran

F. PENDEKATAN, MODEL, & METODE

1. Pendekatan

Pembelajaran menggunakan **Student-Centered Learning**, di mana peserta didik menjadi pusat kegiatan pembelajaran. Guru berperan sebagai fasilitator yang membimbing siswa dalam memahami dan menguasai kosakata melalui aktivitas membaca, menulis, dan menghafal secara mandiri maupun berkelompok.

2. Model Pembelajaran

Model yang digunakan adalah **Cooperative Learning**, yang menekankan kerja sama antar siswa dalam kelompok kecil untuk saling membantu memahami materi, berdiskusi, serta meningkatkan keterampilan sosial dan akademik.

3. Metode Pembelajaran

Metode yang digunakan dalam pembelajaran ini meliputi:

- **Reading (Membaca)**
Siswa membaca kosakata dan definisinya secara berulang untuk meningkatkan pemahaman dan pelafalan.
- **Writing (Menulis)**
Siswa menyalin, menulis ulang, dan membuat kalimat menggunakan kosakata yang dipelajari.

- **Memorizing (Menghafal)**
Siswa menghafal kosakata melalui pengulangan (drill) baik secara individu maupun klasikal.
- **Drill Method (Latihan Berulang)**
Guru memberikan latihan secara terus-menerus untuk memperkuat daya ingat dan pemahaman siswa.
- **Question and Answer (Tanya Jawab)**
Digunakan untuk mengecek pemahaman siswa secara langsung dan melibatkan mereka secara aktif dalam pembelajaran.

G. MEDIA & SUMBER BELAJAR

- Buku Bahasa Inggris kelas XI
- Lembar Kerja Siswa (LKS)
- Papan tulis & spidol
- Kamus (opsional)

H. KEGIATAN PEMBELAJARAN

No.	Pertemuan	Kegiatan pembelajaran	Waktu
1.	Pertama (Pre-test)	Pendahuluan Guru membuka pembelajaran dengan salam dan mengecek kehadiran siswa. Guru memberikan pertanyaan pemantik: <i>"Apa saja yang kalian lakukan dengan uang?"</i> Guru mengaitkan dengan topik pembelajaran dan menjelaskan tujuan pembelajaran hari ini, yaitu mengetahui kemampuan awal siswa.	10 menit
		Kegiatan Inti Guru membagikan lembar pre-test vocabulary. Siswa mengerjakan secara individu tanpa bantuan. Guru mengawasi dan mencatat kesulitan siswa. Guru juga memperhatikan tingkat pemahaman siswa terhadap kosakata.	70 menit

		Penutup Guru mengumpulkan hasil pekerjaan siswa. Guru melakukan refleksi singkat dan memberikan motivasi bahwa pembelajaran berikutnya akan membantu mereka memahami kosakata dengan lebih baik.	10 menit
2.	Kedua (Pengenalan vocabulary)	Pendahuluan Guru membuka pembelajaran dengan salam dan mengecek kehadiran siswa. Guru melakukan apersepsi dengan menanyakan pengalaman siswa dalam menggunakan uang dalam kehidupan sehari-hari, seperti menabung atau berbelanja. Guru kemudian memperkenalkan topik kosakata <i>personal money management</i> dan menjelaskan pentingnya memahami kosakata tersebut dalam kehidupan sehari-hari.	10 menit
		Kegiatan Inti Eksplorasi (25 menit) Guru menuliskan 15 kosakata di papan tulis beserta arti dalam Bahasa Indonesia. Guru membacakan kosakata tersebut dengan pelafalan yang benar, kemudian siswa diminta menirukan secara bersama-sama. Selanjutnya, siswa diminta menyalin kosakata ke dalam buku catatan mereka. Kegiatan dilanjutkan dengan membaca kosakata secara berulang (drill) untuk membantu siswa mengenal dan mengingat kata-kata tersebut.	70 menit
		Elaborasi (25 menit) Siswa mulai menghafal kosakata secara bertahap melalui berbagai latihan. Guru melakukan beberapa variasi kegiatan, seperti: • Menutup sebagian arti kata dan meminta siswa menebak • Menyebutkan arti, kemudian siswa menyebutkan kosakatanya	

		Meminta siswa menulis kembali kosakata tanpa melihat catatan Kegiatan ini bertujuan untuk memperkuat daya ingat siswa terhadap kosakata yang dipelajari.	
		Konfirmasi (20 menit) Guru membagikan lembar kerja siswa (LKS) yang berisi latihan seperti mencocokkan kata dengan arti dan menuliskan arti kosakata. Setelah selesai, guru membahas jawaban bersama siswa dan memberikan penjelasan terhadap kesalahan yang masih muncul.	
		Penutup Guru memberikan umpan balik terhadap hasil belajar siswa dan menekankan pentingnya menghafal serta mengulang kosakata secara mandiri di rumah.	10 menit
3.	Ketiga (Vocabulary meaning in English)	Pendahuluan Guru membuka pembelajaran dan melakukan review singkat dengan tanya jawab mengenai kosakata yang telah dipelajari sebelumnya untuk mengingat kembali pemahaman siswa.	10 menit
		Kegiatan Inti Eksplorasi (25 menit) Guru menuliskan definisi kosakata dalam Bahasa Inggris di papan tulis dan membacakan dengan pelafalan yang jelas. Siswa diminta membaca, mencatat, dan memahami definisi tersebut secara mandiri.	70 menit
		Elaborasi (25 menit) Siswa melakukan beberapa kegiatan, seperti: Mencocokkan kosakata dengan definisi yang tepat	

		• Diskusi berpasangan untuk saling bertukar pemahaman • Membaca definisi secara lantang untuk melatih pelafalan Kegiatan ini bertujuan untuk membantu siswa memahami makna kata dalam Bahasa Inggris.	
		Konfirmasi (20 menit) Guru memberikan latihan berupa menuliskan kosakata berdasarkan definisi yang diberikan. Selain itu, guru juga melakukan mini quiz lisan dengan menyebutkan definisi dan meminta siswa menyebutkan kosakatanya.	
		Penutup Guru memberikan refleksi terhadap pembelajaran hari ini dan memperkuat pemahaman siswa dengan menekankan kembali kosakata yang masih sering salah.	10 menit
4.	Keempat (Using vocabulary in context)	Pendahuluan Guru membuka pembelajaran dengan memberikan pertanyaan pemantik seperti: <i>"Bagaimana kalian menggunakan uang dalam kehidupan sehari-hari?"</i> Guru mengaitkan jawaban siswa dengan penggunaan kosakata dalam kalimat.	10 menit
		Kegiatan Inti Eksplorasi (25 menit) Guru memberikan contoh beberapa kalimat sederhana menggunakan kosakata yang telah dipelajari. Siswa kemudian diminta menulis minimal 5 kalimat menggunakan kosakata tersebut secara mandiri.	70 menit
		Elaborasi (25 menit) Siswa melakukan kegiatan lanjutan, yaitu:	

		• Membuat dialog sederhana secara berpasangan • Menuliskan dialog di buku • Membaca dialog di depan kelas • Mengerjakan latihan <i>fill in the blank</i> Kegiatan ini bertujuan agar siswa mampu menggunakan kosakata dalam konteks nyata.	
		Konfirmasi (20 menit) Guru memberikan koreksi terhadap hasil pekerjaan siswa, baik dari segi grammar, penggunaan kosakata, maupun pelafalan. Guru juga memberikan contoh perbaikan agar siswa memahami kesalahan mereka.	
		Penutup Guru memberikan umpan balik secara keseluruhan dan memotivasi siswa untuk terus berlatih menggunakan kosakata dalam kehidupan sehari-hari.	10 menit
5.	Kelima (Post-test)	Pendahuluan Guru membuka pembelajaran dan melakukan review singkat terhadap seluruh kosakata yang telah dipelajari untuk mengingat kembali pemahaman siswa.	10 menit
		Kegiatan Inti Guru membagikan lembar post-test kepada siswa dan memberikan instruksi pengerjaan. Siswa diminta mengerjakan secara individu. Selama kegiatan berlangsung, guru mengawasi jalannya tes dan memastikan suasana kelas tetap kondusif.	70 menit
		Penutup Guru mengumpulkan hasil pekerjaan siswa dan memberikan gambaran umum mengenai hasil pembelajaran. Guru menutup pembelajaran dengan memberikan motivasi agar siswa terus	10 menit

		meningkatkan kemampuan vocabulary mereka.	
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I. ASESMEN

1. Diagnostik

- Pre-test vocabulary

2. Formatif

- Aktivitas Quizlet dan Flashcards
- Diskusi kelompok
- Latihan kelas

3. Sumatif

- Post-test vocabulary

J. RUBRIK PENILAIAN

A. PENILAIAN TES (PRE-TEST & POST-TEST)

Skoring

- Pilihan ganda: 1 poin
- Fill in the blank: 1 poin
- Matching: 1 poin
- **Total skor maksimal: 30 → dikonversi ke 100**

Rumus Nilai

$$\text{Nilai} = \text{Skor diperoleh} : 30 \times 100$$

Kategori Nilai

Rentang Nilai	Kategori
86–100	Sangat Baik
71–85	Baik
56–70	Cukup
≤55	Kurang

B. RUBRIK PENILAIAN FORMATIF (AKTIVITAS)

1. Pemahaman Vocabulary

Skor	Kriteria
4	Memahami semua kosakata dengan sangat baik (EN–ID & EN–EN)

3	Memahami sebagian besar kosakata
2	Memahami beberapa kosakata
1	Tidak memahami kosakata

2. Penggunaan Vocabulary dalam Konteks

Skor	Kriteria
4	Menggunakan kosakata dengan tepat dan lancar
3	Menggunakan kosakata cukup tepat
2	Menggunakan kosakata dengan beberapa kesalahan
1	Tidak mampu menggunakan kosakata

3. Partisipasi & Kerja Kelompok

Skor	Kriteria
4	Sangat aktif, berkontribusi penuh
3	Aktif dalam diskusi
2	Kurang aktif
1	Tidak berpartisipasi

4. Penggunaan Media (Flashcards & Quizlet)

Skor	Kriteria
4	Menggunakan media dengan sangat efektif
3	Menggunakan media dengan cukup baik
2	Kurang memanfaatkan media
1	Tidak menggunakan media dengan baik

C. REKAP NILAI FORMATIF

Aspek	Bobot
Pemahaman Vocabulary	30%
Penggunaan Vocabulary	30%
Partisipasi	20%
Penggunaan Media	20%

Rumus Nilai Formatif

$$\text{Nilai} = (\text{Pemahaman} \times 30\%) + (\text{Penggunaan} \times 30\%) \\ + (\text{Partisipasi} \times 20\%) + (\text{Media} \times 20\%)$$

K. REFLEKSI

Guru:

- Apakah metode flashcards & Quizlet efektif?
- Apakah siswa aktif dan memahami materi?
- Apa kendala selama pembelajaran?

Siswa:

- Kosakata apa yang paling sulit?
- Apakah Quizlet membantu belajar?
- Bagaimana pengalaman belajar hari ini?

Appendix IX Flashcards Design



Income



Save



Expense



Spend



Budget



Savings



Salary



Loan



Debt



Bill



Afford



Purchase



Financial



Investment



Withdraw

penghasilan

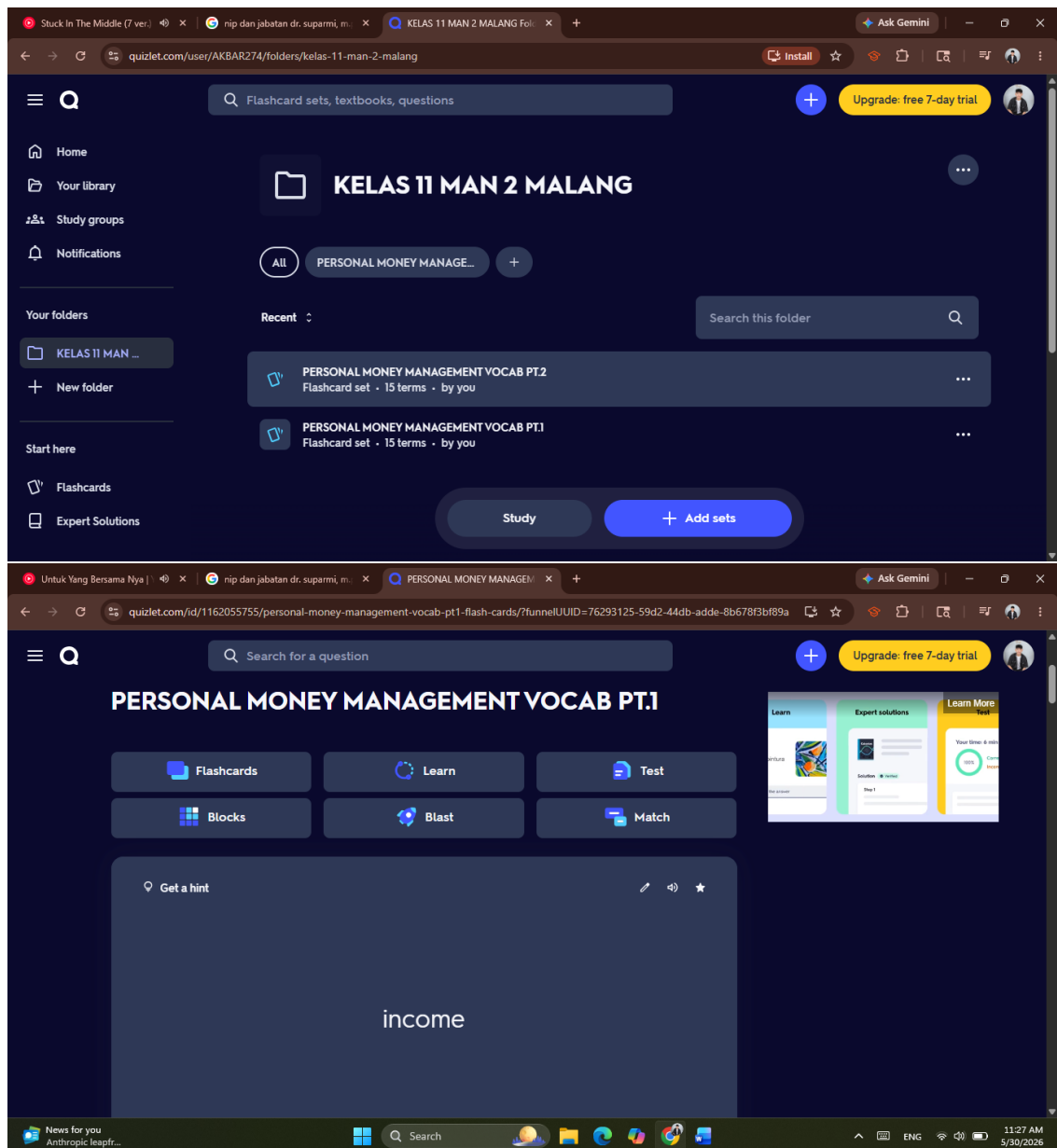
pengeluaran	menabung / menyimpan uang
menghabiskan uang / membelanjakan	anggaran / rencana keuangan
gaji	tabungan
pinjaman	utang

tagihan	mampu membeli
membeli	keuangan / finansial
menarik uang (dari bank/ATM)	investasi
money you receive	money you spend

to keep money for future use	to use money
a plan for managing money	money paid for work
money you keep for the future	money you borrow
money you owe	a statement of money you must pay

to have enough money to buy something	to buy something
related to money	to take money from a bank/ATM
using money to gain profit in the future	

Appendix X Quizlet Screen



Appendix XI Documentation



Appendix XII Research Permit Letter



KEMENTERIAN AGAMA REPUBLIK INDONESIA
UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM MALANG
FAKULTAS ILMU TARBIYAH DAN KEGURUAN
Jalan Gajayana 50, Telepon (0341) 552398 Faximile (0341) 552398 Malang
<http://fitk.uin-malang.ac.id> email : fitk@uin-malang.ac.id

Nomor : 822/Un.03.1/TL.01.04/02/2026
Lampiran : -
Hal : **Permohonan Izin Penelitian**

26 Februari 2026

Kepada Yth.
Kepala MAN 2 Malang, Turen
di
Tempat

Assalamu'alaikum Wr. Wb.

Dengan hormat, dalam rangka menyelesaikan tugas akhir berupa penyusunan skripsi mahasiswa Fakultas Ilmu Tarbiyah dan Keguruan (FITK) Universitas Islam Negeri Maulana Malik Ibrahim Malang, kami mohon dengan hormat agar mahasiswa berikut:

Nama	: Muhammad Rizqi Akbar
NIM	: 220107110049
Jurusan	: Tadris Bahasa Inggris (TBI)
Semester - Tahun Akademik	: Genap - 2025/2026
Judul Skripsi	: The Impact Of Quizlet and Flashcard Integration as a Multimodal Approach on High School Students' Vocabulary Mastery
Lama Penelitian	: Maret 2026 sampai dengan Mei 2026 (3 bulan)

diberi izin untuk melakukan penelitian di lembaga/instansi yang menjadi wewenang Bapak/Ibu.

Demikian, atas perkenan dan kerjasama Bapak/Ibu yang baik di sampaikan terimakasih.

Wassalamu'alaikum Wr. Wb.



Tembusan :

1. Yth. Ketua Program Studi TBI
2. Arsip

Appendix XIII Letter of Research Completion



KEMENTERIAN AGAMA REPUBLIK INDONESIA
KANTOR KEMENTERIAN AGAMA KABUPATEN MALANG
MADRASAH ALIYAH NEGERI 2 MALANG

Jl. Mayor Damar No. 35 Pagedangan Kec, Turen ☎ (0341) 823094 Kodepos 65175
Email: man_turen@ymail.com website: manduamalang.sch.id

SURAT KETERANGAN

Nomor : B-627/Ma.13.35.2/PP.00.6/06/2026

Yang bertanda tangan di bawah ini :

Nama : Ahmad Musthofa, M.Pd.
NIP : 197005292006041006
Jabatan : Plh. Kepala Madrasah Aliyah Negeri 2 Malang

Menerangkan dengan sebenarnya bahwa mahasiswa dengan identitas sebagai berikut :

Nama : Muhammad Rizqi Akbar
NIM : 220107110049
Program Studi : Tadris Bahasa Inggris (TBI)
Universitas : Universitas Islam Negeri Maulana Malik Ibrahim Malang

Telah menyelesaikan penelitian skripsi dengan judul : **The Impact Of Quizlet and Flashcard Integration as a Multimodal Approach on High School Students' Vocabulary Mastery.**
Demikian surat keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

Malang, 4 Juni 2026
Plh. Kepala

Ahmad Musthofa, M.Pd.
NIP. 197005292006041006

Appendix XIV Evidence of Guidance Consultation



KEMENTERIAN AGAMA
UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM MALANG
Jalan Gajayana Nomor 50, Telepon (0341) 551354, Fax. (0341) 572533
Website: <http://www.uin-malang.ac.id> Email: info@uin-malang.ac.id

JURNAL BIMBINGAN SKRIPSI/TESIS/DISERTASI

IDENTITAS MAHASISWA

NIM : 220107110049
Nama : MUHAMMAD RIZQI AKBAR
Fakultas : ILMU TARBIYAH DAN KEGURUAN
Jurusan : TADRIS BAHASA INGGRIS
Dosen Pembimbing 1 : Dr. SUPARMI, M.Pd
Dosen Pembimbing 2 :
Judul Skripsi/Tesis/Disertasi : EVALUATING MULTIMODALITY TO ENHANCE HIGH SCHOOL STUDENTS' VOCABULARY MASTERY: QUIZLET AND FLASHCARD INTEGRATION

IDENTITAS BIMBINGAN

No	Tanggal Bimbingan	Nama Pembimbing	Deskripsi Proses Bimbingan	Tahun Akademik	Status
1	06 Juni 2025	Dr. SUPARMI, M.Pd	Konsultasi judul pertama	Ganjil 2025/2026	Sudah Dikoreksi
2	13 Juni 2025	Dr. SUPARMI, M.Pd	Konsultasi Judul kedua	Ganjil 2025/2026	Sudah Dikoreksi
3	08 September 2025	Dr. SUPARMI, M.Pd	Konsultasi BAB 1	Ganjil 2025/2026	Sudah Dikoreksi
4	14 Oktober 2025	Dr. SUPARMI, M.Pd	Revisi BAB 1, lanjut menulis BAB 2 & 3	Ganjil 2025/2026	Sudah Dikoreksi
5	05 November 2025	Dr. SUPARMI, M.Pd	Konsultasi isi dari BAB 2 & 3	Ganjil 2025/2026	Sudah Dikoreksi
6	19 Januari 2026	Dr. SUPARMI, M.Pd	Menyerahkan BAB 2 & 3	Genap 2025/2026	Sudah Dikoreksi
7	03 Februari 2026	Dr. SUPARMI, M.Pd	Revisi BAB 2 & 3	Genap 2025/2026	Sudah Dikoreksi
8	06 Februari 2026	Dr. SUPARMI, M.Pd	Final koreski BAB 1-3	Genap 2025/2026	Sudah Dikoreksi
9	02 Maret 2026	Dr. SUPARMI, M.Pd	Revisi after SEMPRO	Genap 2025/2026	Sudah Dikoreksi
10	30 Maret 2026	Dr. SUPARMI, M.Pd	Konsultasi sebelum ambil data di lapangan	Genap 2025/2026	Sudah Dikoreksi
11	02 April 2026	Dr. SUPARMI, M.Pd	Validasi instrument penelitian	Genap 2025/2026	Sudah Dikoreksi
12	18 Mei 2026	Dr. SUPARMI, M.Pd	Menyerahkan draft BAB 4	Genap 2025/2026	Sudah Dikoreksi
13	21 Mei 2026	Dr. SUPARMI, M.Pd	Revisi BAB 4 dan melanjutkan menulis BAB 5	Genap 2025/2026	Sudah Dikoreksi
14	25 Mei 2026	Dr. SUPARMI, M.Pd	Revisi BAB 5	Genap 2025/2026	Sudah Dikoreksi
15	05 Juni 2026	Dr. SUPARMI, M.Pd	Konsultasi Final draft skripsi	Genap 2025/2026	Sudah Dikoreksi
16	08 Juni 2026	Dr. SUPARMI, M.Pd	Revisi final draft skripsi untuk ujian	Genap 2025/2026	Sudah Dikoreksi

Telah disetujui
Untuk mengajukan ujian Skripsi/Tesis/Desertasi

Dosen Pembimbing 2

Malang, _____

Dosen Pembimbing 1



Dr. SUPARMI, M.Pd

Kajur / Kaprodi,



Appendix XV Curriculum Vitae

CURRICULUM VITAE

Name : Muhammad Rizqi Akbar

Student ID : 220107110049

Place, Date of Birth : Pasuruan, 27 November 2003

Gender : Male

Religion : Islam

College : Universitas Islam Negeri Maulana Malik Ibrahim Malang

Faculty : Faculty of Education and Teacher Training

Department : English Education

Adress : Dsn. Trimu, Desa Jatisari RT/RW 02/05, Kec. Purwodadi,
Kab. Pasuruan, Jawa Timur, Indonesia, 67163

Phone Number : 081221807664

E-mail Address : 220107110049@student.uin-malang.ac.id



Education Background

1. 2008-2010 TK Muslimat NU Al Masyithoh 1
2. 2010-2016 MIT Ar-Roihan,
3. 2016-2019 MTsN 3 Malang
4. 2019-2022 MAN 1 Malang
5. 2022-2026 UIN Maulana Malik Ibrahim Malang