

**STUDENTS' VOCABULARY MASTERY AND PERCEPTIONS TOWARD
THE USE OF KNOWORD AS A LEARNING TOOL**

THESIS

By:

Grifian Azharinas

210107110013



ENGLISH EDUCATION DEPARTMENT

FACULTY OF TARBIYAH AND TEACHER TRAINING

MAULANA MALIK IBRAHIM STATE ISLAMIC UNIVERSITY MALANG

2025

Thesis

**STUDENTS' VOCABULARY MASTERY AND PERCEPTIONS TOWARD
THE USE OF KNOWORD AS A LEARNING TOOL**

*Submitted to the Faculty of Tarbiyah and Teacher Training in Partical Fulfillment
of The Requirement of the Degree of English Language Teaching (S.Pd.) in
English Education Department*

By

Grifian Azharinas

NIM. 210107110013

Advisor

Rendhi Fatrisna Yuniar, M.Pd.

NIP. 199406182020121003



ENGLISH EDUCATION DEPARTMENT

FACULTY OF TARBIYAH AND TEACHER TRAINING

ISLAMIC STATE UNIVERSITY OF MAULANA MALIK IBRAHIM

MALANG

2025

APPROVAL SHEET

**ANALYZING EFL STUDENTS' VOCABULARY MASTERY AND
PERCEPTIONS THROUGH KNOWORD APPLICATION**

THESIS

By:

Grifian Azharinas

NIM: 210107110013

Has been approved by the advisor for further
approval by the board of examiners

Advisor,



Rendhi Fatrisna Yuniar, M.Pd.

NIP: 199406182020121003

Acknowledged by
Head of English Education Department,



Maslihatul Bisriyah, M.TESOL

NIP: 198909282019032016

Rendhi Fatrisna Yuniar, M.Pd.
Lecturer of Faculty of Education and Teacher Training
Maulana Malik Ibrahim State University, Malang

THE OFFICIAL ADVISOR'S NOTE

Malang, November 14th 2025

Matter: Thesis of Grifian Azharinas
Appendix: 9 (nine) Copies

The Honorable,
The Dean of Faculty of Education and Teacher Training
Maulana Malik Ibrahim State Islamic University of Malang
In Malang

Assalamu'alaikum Wr. Wb.

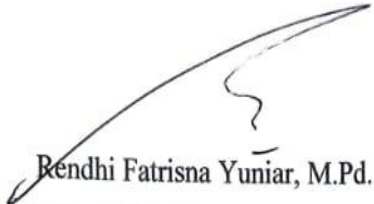
After conducting several times of guidance in terms of content, language, writing techniques and after reading the student's thesis as follow:

Name : Grifian Azharinas
Student ID Number : 210107110013
Department : English Education
Thesis : Analyzing EFL Students' Vocabulary Mastery and Perceptions Through Knoword Application

Therefore, we believe that the thesis of Grifian Azharinas has been approved by the advisor for further approval by the board of examiners.

Wassalamu'alaikum Wr. Wb.

Advisor,

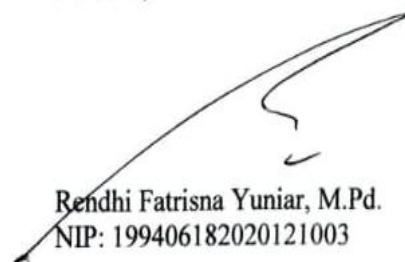


Rendhi Fatrisna Yuniar, M.Pd.
NIP: 199406182020121003

APPROVAL

This is to certify that the thesis of Grifian Azharinas has been approved by the advisor for further approval by the board of examiners.

Malang, November 14th 2025
Advisor,



Rendhi Fatrisna Yuniar, M.Pd.
NIP: 199406182020121003

DECLARATION OF AUTHORSHIP

Bismillahirrahmanirrahim,

Here with me:

Name : Grifian Azharinas
NIM : 210107110013
Department : English Education
Faculty : Education and Teacher Training
Address : Dsn. Selorejo, Ds. Kaligondo, Kec. Genteng, Kab.
Banyuwangi

Declare that:

1. This thesis has never been submitted to any other tertiary education institution for any other academic degree.
2. This thesis is the sole work of the author and has not been written in collaboration with any other person, nor does it include, without due acknowledgement, the work of any other person.
3. Should it later be found that this thesis is a product of plagiarism, i am willing to accept any legal consequences that may be imposed on me.

Malang, November 15th 2025

The Researcher,



Grifian Azharinas

NIM: 210107110013

LEGITIMATION SHEET
Analyzing EFL Students' Vocabulary Mastery and Perceptions Through
Knoword Application

THESIS

By:

Grifian Azharinas (210107110013)

Has been defended in front of the board of examiners on the date of 23 December
2025

Accepted as the requirement for the degree of English Language Teaching (S.Pd)
in the English Education Department, Faculty of Education and Teacher
Training.

The Board of Examiners

Signatures,

Prof. Dr. Hj. Like Raskova Octaberlina, M.Ed. Main Examiner

NIP. 197410252008012015

Septia Dwi Jayanti, M.Pd.

Co-Examiner

NIP. 198909122023212051

Rendhi Fatrisna Yuniar, M.Pd.

Secretary / Advisor

NIP. 199406182020121003

Approved by

Dean of Education and Teacher Training Faculty Maulana Malik Ibrahim State
Islamic University Malang



Dr. Muhammad Walid, MA

NIP. 197308232000031002

MOTTO

“Time flows constantly, it doesn’t care about the people who are struggling.”

(Lelouch vi Britannia)

DEDICATION

I dedicate this thesis to my parents whose their supports have been encouraged me until the end, your love and support are highly became my precious guidance and motivation. I also dedicated this thesis to Sir Rendhi Fatrisna Yuniar, M.Pd. who always believed and guided me throughout this “thesis arc”. also wanted to dedicate this thesis to my friends, who always shared their time to get along together even though they are also in unpredictable situation. Lastly, to myself for not giving up, for not stepped back, for finishing this job.

ACKNOWLEDGEMENT

Bismillahirrahmanirrahim,

Praise and gratitude are sincerely offered to Allah SWT, whose blessings and guidance have enabled the researcher to complete this final project entitled "Students' Vocabulary Mastery and Perceptions Toward the Use of Knoword as a Learning Tool". May peace and blessings always be upon Prophet Muhammad SAW, the best example of sincerity, wisdom, and compassion for all humankind.

This final assignment could not have been completed without the support, encouragement, and prayers of many individuals. With heartfelt appreciation, the researcher recognizes the invaluable help offered in various forms throughout the entire research process. With deep humility, the researcher would like to convey her sincere gratitude to everyone who contributed, whether directly or indirectly, during this academic journey.

1. My entire family, to my father Mohamad Iksan, my mother Nanik Triana whose sacrifices and supports always be an oasis to me.
2. Prof. Dr. Hj. Ilfi Nur Diana, M.Si. as the Rector of UIN Maulana Malik Ibrahim Malang.
3. Prof. Dr. H. Muhammad Walid, MA as the Dean of Tarbiyah and Teacher Training Faculty.
4. Maslihatul Bisriyah, M.TESOL as the Head of English Education Department.
5. Rendhi Fatrisna Yuniar, M.Pd. as my advisor for his guidance, patience and never ending support.
6. Prof. Dr. Hj. Like Raskova Octaberlina, M.Ed. as my academic supervisor who always give endless guidance and support on my academic journey.
7. All lecturers on English Education Department for the precious knowledge and advice.
8. Moh. Nasir, S.Pd., M.Pd.I as the headmaster of MAN 1 Jember who has permitted the researcher to conduct the research.

9. Muh. Ali Imron, S.Pd. as an English teacher in MAN 1 Jember, who has given time and opportunity to conduct the research.
10. All students in grade XI BIC I and XI MANPK I who have given time to help researcher collecting data as a research process.
11. I sincerely want to thank my friends on Sangkil and Setunggal gang, especially Bunayya, Zulan, Firdan, and Dzikri for great help, support, and time elapsed together along our college journey (*you guys are MVP*)
12. Thank you for Kokusei Community UIN Malang for become my irreplaceable part of my hobby and journey.
13. Thank you for someone out there, for always supporting me and pray for me wholeheartedly, you always motivated me a lot.
14. And for all individuals whose name I cannot mention one by one. Your supports are highly appreciated.

I realize that this thesis still has its shortcomings, and I genuinely welcome any suggestions or constructive feedback to help me improve it. I also hope that this work can offer something useful and insightful for readers. Above all, completing this thesis has been a meaningful learning experience for me, and I am grateful for the opportunity to grow through the process.

Malang, November 15th 2025

The Researcher,

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Grifian Azharinas

LATIN ARABIC TRANSLITERATION GUIDE

Based on the collective decision of the Minister of Religious Affairs 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	= <u>h</u>	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)	= a ^ˆ
Long Vocal (i)	= i ^ˆ
Long Vocal (u)	= u ^ˆ

C. Diphthong Vocal

أو	= aw
أي	= ay
أُو	= u ^ˆ
إي	= i ^ˆ

TABLE OF CONTENTS

APPROVAL SHEET	i
THE OFFICIAL ADVISOR’S NOTE	ii
APPROVAL	iii
DECLARATION OF AUTHORSHIP.....	iv
LEGITIMATION SHEET.....	v
MOTTO	vi
DEDICATION	vii
ACKNOWLEDGEMENT	viii
LATIN ARABIC TRANSLITERATION GUIDE	x
TABLE OF CONTENTS	xi
ABSTRACTS	xvi
CHAPTER I INTRODUCTION	1
1.1 Background of the Study	1
1.2 Research Question	8
1.3 Objective of the Study	9
1.4 Significance of the Study	9
1.5 Scope and Limitation	10
1.6 Definition of key terms	11
CHAPTER II LITERATURE REVIEW	13
2.1 EFL	13
2.2 Vocabulary Mastery	21
2.3 Perception	30
2.4 Knoword	34
2.5 Previous Studies	40
CHAPTER III RESEARCH METHODS	44
3.1 Research Design	44
3.2 Research Setting and Timeline	45
3.3 Research Variables	46

3.4 Research Population and Sample	47
3.5 Data Sources	48
3.6 Research Instruments.....	49
3.7 Validity and Reliability.....	50
3.8 Data Collection Technique.....	51
3.9. Data Analysis.....	59
CHAPTER IV RESULT OF THE RESEARCH.....	64
4.1 Findings.....	64
4.2 Discussion.....	93
CHAPTER V CONCLUSION.....	98
5.1 Conclusion.....	98
5.2 Suggestion.....	98
BIBLIOGRAPHY.....	100
APPENDICES	109

LIST OF TABLES

Table 1 Research Timeline.....	45
Table 2 Lesson plan.....	53
Table 3 Pretest Result.....	64
Table 4 Pretest Result Frequency.....	66
Table 5 Descriptive Statistics of Pretest Result.....	66
Table 6 Posttest Result.....	68
Table 7 Posttest Result Frequency.....	69
Table 8 Descriptive Statistics of Posttest Result.....	69
Table 9 Students' Score Before and After the Treatment.....	71
Table 10 Normality Test Result.....	75
Table 11 T-test Result.....	76
Table 12 Interview Result.....	76
Table 13 Convergent Parallel Table.....	92

LIST OF PICTURES

Picture 1 Knoword Main Page.....	36
Picture 2 Creating Pack.....	36
Picture 3 Joining a Class.....	37
Picture 4 Inserting Student's Name Interface.....	37
Picture 5 Pre Experimental (One Group Pretest-Posttest Design).....	45
Picture 6 Validity Test Result.....	73
Picture 7 Reliability Test Result.....	74
Picture 8 Thematic Analysis Model.....	87
Picture 9 This Study's Thematic Analysis Model.....	90

LIST OF APPENDICES

Appendix I Survey Permit.....	110
Appendix II Research Letter.....	111
Appendix III Validation Letter.....	112
Appendix IV Instrument Validation Letter.....	113
Appendix V Learning Module	116
Appendix VI Pre-test.....	121
Appendix VII Post Test.....	124
Appendix VIII Students Answer Sheet.....	127
Appendix IX Documentation.....	133
Appendix X Curriculum Vitae.....	134

ABSTRACT

Azharinas, G. 2025. Students' Vocabulary Mastery and Perceptions Toward the Use of Knoword as a Learning Tool. Thesis, English Education Department, Faculty of Tarbiyah and Teacher Training. Islamic State University of Maulana Malik Ibrahim Malang.

Advisor: Rendhi Fatrisna Yuniar, M.Pd.

Keywords: Knoword, EFL, Vocabulary Mastery, Perception, Gamified Learning

This study examines how effective the Knoword application is in helping students improve their vocabulary mastery, as well as how they feel about using it in an EFL classroom. Using a mixed-methods approach, the research was carried out with Grade XI students who participated in pretests, posttests, and semi-structured interviews. The quantitative results showed a clear improvement in students' vocabulary scores, with the average pretest score rising from 84 to 88.14. A paired-sample t-test also confirmed that the difference was statistically significant ($p = 0.021$). The qualitative findings revealed that students generally viewed Knoword positively. They described the app as fun, motivating, and easy to navigate. Many students liked the instant feedback and the competitive elements of the game, although a few mentioned minor concerns, such as feeling rushed by the time limit or experiencing occasional technical problems. When both sets of data were combined, the results aligned strongly. The findings suggest that Knoword is not only effective in supporting vocabulary learning but is also well received by students as a digital learning tool.

ABSTRAK

Azharinas, G. 2025. Penguasaan Kosakata Siswa dan Persepsi Mereka Terhadap Penggunaan Knoword sebagai Alat Pembelajaran. Skripsi. Jurusan Tadris Bahasa Inggris. Fakultas Ilmu Tarbiyah dan Keguruan. Universitas Islam Negeri Maulana Malik Ibrahim Malang.

Pembimbing : Rendhi Fatrisna Yuniar, M.Pd

Kata Kunci: Knoword, EFL, Penguasaan Kosakata, Persepsi, Pembelajaran Tergamifikasi

Studi ini mengkaji seberapa efektif aplikasi Knoword dalam membantu siswa meningkatkan penguasaan kosakata mereka, serta bagaimana perasaan mereka tentang penggunaannya di kelas Bahasa Inggris sebagai Bahasa Asing (EFL). Dengan menggunakan pendekatan metode campuran, penelitian ini dilakukan terhadap siswa Kelas XI yang berpartisipasi dalam pretest, posttest, dan wawancara semi-terstruktur. Hasil kuantitatif menunjukkan peningkatan yang nyata dalam skor kosakata siswa, dengan skor pretes rata-rata meningkat dari 84 menjadi 88,14. Uji-t sampel berpasangan juga mengonfirmasi bahwa perbedaan tersebut signifikan secara statistik ($p = 0,021$). Temuan kualitatif mengungkapkan bahwa siswa umumnya memandang Knoword secara positif. Mereka menggambarkan aplikasi ini menyenangkan, memotivasi, dan mudah dinavigasi. Banyak siswa menyukai umpan balik instan dan elemen kompetitif dalam permainan, meskipun beberapa menyebutkan kekhawatiran kecil, seperti merasa terburu-buru karena batas waktu atau sesekali mengalami masalah teknis. Ketika kedua set data digabungkan, hasilnya sangat selaras. Temuan ini menunjukkan bahwa Knoword tidak hanya efektif dalam mendukung pembelajaran kosakata tetapi juga diterima dengan baik oleh siswa sebagai alat pembelajaran digital.

خلاصة

أزهري ناس، ج. 2025. تحليل إتقان المفردات وإدراك طلاب اللغة الإنجليزية كلغة أجنبية من خلال تطبيق Knowword. أطروحة. قسم تعليم اللغة الإنجليزية، كلية التربية الإسلامية وتدريب المعلمين، جامعة مولانا مالك إبراهيم الإسلامية الحكومية في مالانج.

المشرف: رندي فاتريسنا يونيار، ماجستير في التربية.

الكلمات المفتاحية: Knowword، اللغة الإنجليزية كلغة أجنبية، إتقان المفردات، الإدراك، التعلم باللعب

تبحث هذه الدراسة في فعالية تطبيق Knowword في مساعدة الطلاب على تحسين إتقانهم للمفردات، بالإضافة إلى انطباعاتهم حول استخدامه في فصول اللغة الإنجليزية كلغة أجنبية. باستخدام نهج متعدد الأساليب، أُجري هذا البحث على طلاب الصف الحادي عشر الذين شاركوا في اختبار قبلي واختبار بعدي ومقابلات شبه منظمة. أظهرت النتائج الكمية تحسناً ملحوظاً في درجات الطلاب في المفردات، حيث ارتفع متوسط درجات الاختبار قبلي من 84 إلى 88.14. كما أكد اختبار t للعينات المقترنة أن الفرق كان ذا دلالة إحصائية ($p = 0.021$) وكشفت النتائج النوعية أن الطلاب ينظرون عمومًا إلى Knowword بإيجابية. ووصفوا التطبيق بأنه ممتع ومحفز وسهل الاستخدام. وقد أبدى العديد من الطلاب إعجابهم بالملاحظات الفورية والعناصر التنافسية في اللعبة، على الرغم من أن بعضهم أشار إلى مخاوف بسيطة، مثل الشعور بالاندفاع بسبب ضيق الوقت أو مواجهة مشاكل تقنية عرضية. وعند دمج مجموعتي البيانات، كانت النتائج متسقة للغاية. وتشير هذه النتائج إلى أن Knowword ليس فعالاً فقط في دعم تعلم المفردات، بل يحظى أيضًا بإعجاب الطلاب كأداة تعليمية رقمية.

CHAPTER I

INTRODUCTION

In this section, the researcher outlines several critical elements of the introduction, including the study's background, research questions, objectives, scope and limitations, significance, and definitions of key terms.

1.1 Background of the Study

English has become a crucial language for global study and communication, serving as an international medium in various fields like education, business, and diplomacy. It is widely used in academic settings, professional environments, and daily interactions. Its widespread use enables individuals from diverse backgrounds to exchange ideas, collaborate effectively, and foster connections. To develop strong English proficiency, learners must focus on mastering essential skills such as listening, speaking, reading, and writing. Among those skills, reading makes a significant role in ensuring learners study and comprehend English.

Hakim and Wahyuni (2024) mentioned that reading is also a linguistic ability that allows students to gain and enhance their proficiency in English. To master reading skills in English well, this skill cannot be separated from the vocabulary mastery that students must fulfill. Vocabulary mastery is a precondition of both receptive and productive communication skills, including oral and written forms (Odinokaya et al, 2021). Moreover, Amin (2019) argued that reading is an ultimate skill to collaborate at school and all over life. So no doubt that reading is very mandatory to be mastered.

If someone has to master reading skill as one of the first step to comprehend a language, they need to master vocabularies in such language in order to understand the meanings. Vocabulary mastery constitutes a fundamental pillar of language proficiency, particularly in English as a Foreign Language (EFL) contexts where learners must develop robust lexical knowledge to achieve communicative competence (Webb and Nation, 2017). Despite this critical importance, vocabulary mastery remains one of the most significant challenges for EFL learners, who frequently struggle with retention, recall, and appropriate contextual usage of new lexical items (Schmitt, 2008). Traditional vocabulary instruction methods, including rote memorization, translation exercises, and decontextualized word lists, have proven inadequate for promoting long-term retention and active usage, as they fail to provide meaningful, contextualized exposure to vocabulary (Nation, 2022). This persistent challenge has prompted educators and researchers to explore innovative technological solutions that can create more engaging and effective learning experiences.

From an Islamic viewpoint, vocabulary holds an important value. As Allah SWT emphasizes in His words:

الرَّحْمَنُ. عَلَّمَ الْقُرْآنَ. خَلَقَ الْإِنْسَانَ. عَلَّمَهُ الْبَيَانَ

"The Most Merciful. Taught the Qur'an. Created man. Taught him eloquence (speech)." (QS: Ar-Rahman: 1-4).

This verse highlights how Allah directly bestows the power to express oneself through language, indicating the significance of improving one's linguistic skills, especially vocabulary proficiency.

Learning vocabulary is still one of the most difficult aspects of learning English as a foreign language (EFL). The inconsistencies of English and limited exposure to the language in real-world situations make it more difficult for learners to master skills like pronunciation, spelling, meaning recognition, and contextual usage. Decontextualized lists and rote memorization are still common methods of teaching vocabulary in many EFL contexts, which frequently lead to low motivation and poor retention (Telaumbanua et al., 2024). Psychological elements like fear and insecurity also play a role in these challenges. These persistent problems point to the increasing demand for creative strategies that engage students emotionally and cognitively while also promoting vocabulary growth.

The quick advancement of educational technology in response has created fresh chances to close these disparities. Mobile applications, AI-based platforms, and vocabulary games are examples of digital tools that today provide individualized, interactive learning environments with gamified elements and instant feedback. Panmei and Waluyo (2022) assert that these kinds of tools increase student autonomy and motivation, which improves the effectiveness and enjoyment of vocabulary acquisition. Vocabulary instruction needs to change to meet the demands and expectations of today's students in a time when digital literacy is crucial. To make sure that students are prepared to process and use language in meaningful ways in a variety of contexts with a wealth of information, including technology into vocabulary instruction is not just pertinent but also essential.

In the current digital age, technology has grown to be an increasingly important component of language learning, particularly when it comes to vocabulary development. Digital technologies that provide individualized and interactive learning experiences are progressively replacing or supplementing traditional methods like rote memorization and paper-based vocabulary lists. Today's language learners have access to a wide range of platforms, games, and applications that improve vocabulary acquisition's effectiveness and engagement (Dağdeler, 2023). By offering instant feedback and a variety of situations for vocabulary exposure, educational technology has enabled students to engage with language content more actively and independently in English as a Foreign Language (EFL) classrooms (Stockwell, 2010). So with the gamified learning process, students will be more engaged as well.

Among the digital tools available, gamified applications have gained popularity for their ability to motivate students and enhance learning retention. Gamification has been shown to positively influence learners' engagement and attitudes toward vocabulary learning (Derakhshan and Khatir, 2015). Vocabulary games can transform repetitive memorization into enjoyable challenges, which helps students retain words better by activating both cognitive and emotional engagement. According to Nation (2022), frequent exposure and usage in context are key to vocabulary mastery, and gamified applications are well-positioned to deliver such experiences in a flexible, interactive format.

One such application is Knoword, an online word game that integrates vocabulary challenges with time constraints and competitive scoring. Unlike more popular programs like Quizlet or Duolingo, which mostly use translation-based

exercises or repetitive flashcard drills, Knoword uses clue-based recall to interest students and requires active language output. Students are given brief definitions and given a time restriction to correctly type the term that corresponds, which promotes rapid thinking, contextual awareness, and mental adaptability. Unlike Duolingo's sentence-based approach or Quizlet's passive matching and memorizing, Knoword's simple design concentrates solely on vocabulary in a pressure-driven, game-based structure that mimics real-time language processing. There is no need for downloads or complex setup because of its clear, distraction-free interface, which is available on any internet-connected device. These advantages are what make researcher interested in using Knoword.

Knoword presents users with a given definition and requires them to input the correct word, encouraging fast recall and contextual understanding. Unlike passive flashcard apps, Knoword demands active language production, making it a powerful tool for reinforcing word meaning and usage. Gamified tools like this are believed to enhance learner autonomy and enjoyment, which are essential components for sustained vocabulary development (Shortt et al., 2023). The app also supports classroom use, allowing teachers to create custom word packs and track student performance. Its design aligns with core principles of communicative language teaching and constructivist learning theory, as learners construct knowledge through meaningful tasks.

Some previous studies has highlighted the role of game-based vocabulary learning tools to enrich and boost students' vocabulary acquisition. For instance, Rofiah and Waluyo (2024) conducted an eight-week study in Thailand utilizing Kahoot!, Quizizz, and Quizlet. The study revealed significant improvements in

students' vocabulary mastery, motivation, and classroom engagement. The study highlighted that gamification positively influenced learning performance and reduced anxiety among learners. Their study mainly employed a quantitative approach, assessing learning outcomes and motivation through pre- and post-tests as well as surveys. However, it did not delve into students' personal perceptions of their vocabulary learning experiences using such tools. Additionally, it overlooked the use of web-based vocabulary games that emphasize productive recall, like Knoword. This highlights a gap in the existing research. Therefore, this study aims to fill the gap in the student perspective aspect using a qualitative approach.

In another study, Octaberlina (2023) investigated the use of the simulation game Harvest Moon to enhance vocabulary learning among high school EFL learners. The study revealed that engaging in immersive and contextualized gameplay resulted in better vocabulary acquisition compared to conventional teaching methods. Nevertheless, the research was limited to incidental learning through entertainment-focused games and did not address structured or curriculum-integrated tools created specifically for vocabulary instruction. In contrast, Knoword is an educational platform intentionally designed for learning, enabling teachers to assign specific word lists and track student progress. Additionally, current study employs both quantitative and qualitative methods to explore not only learning outcomes but also students' perceptions and engagement. This mixed-methods approach provides a more comprehensive insight into the effectiveness of gamified vocabulary tools in formal EFL classrooms.

Similarly, Nasution and Daulay (2024) carried out a qualitative investigation into students' views on using the English With Tiffani application for vocabulary acquisition. Their research emphasized that the app's gamified and interactive features significantly boosted learner motivation and engagement. Nonetheless, the study was confined to university-level participants and examined a general language learning application rather than one solely dedicated to vocabulary development. In contrast, the present study focuses on secondary-level EFL learners using Knoword, a platform specifically designed for vocabulary mastery. By employing a mixed-methods approach, this research aims to provide a more focused and in-depth understanding of how gamified vocabulary tools impact both learning outcomes and student perceptions within formal educational contexts.

Additionally, a recent study on Knoword conducted by Ilham (2024) investigated the impact of the Knoword game on students' vocabulary mastery using a quantitative experimental method. The findings revealed that students who engaged with Knoword outperformed those who did not on vocabulary assessments. Nevertheless, the study was limited to evaluating quantifiable outcomes and did not examine students' perceptions of using the application or its effect on their motivation and engagement. In contrast, the current research employs a mixed-methods approach by integrating test scores with students' reflective insights, aiming to offer a more well-rounded view of Knoword's effectiveness in vocabulary learning from both achievement and experiential perspectives.

Besides assessing learning outcomes, it is equally essential to understand how students perceive the learning tools they use, especially in digital and gamified settings. Student perceptions have a significant impact on their motivation, level of engagement, and willingness to take part in learning activities. Learners' attitudes and beliefs about the learning process greatly influence how they behave and respond in educational contexts. When it comes to vocabulary learning with the Knoword application, examining students' perceptions offers a more complete picture of the tool's effectiveness. It not only shows whether the app supports vocabulary improvement but also reveals whether students consider it to be enjoyable, meaningful, and easy to use. However, many of the previous research on gamified vocabulary learning, such as studies by Ilham (2024) and Rofiah and Waluyo (2024), have mainly focused on academic outcomes, with limited attention given to students' perspectives. This study seeks to address that gap by considering both the measurable learning results and the learners' experiences with the application. The findings may offer insights for teachers seeking effective digital tools and inform future innovations in language learning applications.

1.2 Research Question

Building on this background, the study addresses the following research problems:

1. Is learning using Knoword effective in improving students' vocabulary mastery?

2. How do students perceive the effectiveness of Knoword in improving their vocabulary mastery?

1.3 Objective of the Study

The objectives of the study based on the research questions above are:

1. To investigate the effect of using the Knoword application on students' vocabulary mastery.
2. To explore EFL students' perceptions regarding the use of the Knoword application.

1.4 Significance of the Study

This study will be anticipated to make significant theoretical and practical contributions for students, teachers, and future researchers.

1. For teachers

The results of this study can give EFL teachers useful information about how to incorporate modern technologies into their vocabulary teaching. Teachers can assess the Knoword app's pedagogical potential and appropriateness as an additional learning aid by knowing how students view it. In order to build more student-centered, technologically enhanced learning environments, teachers can also utilize the insights to construct vocabulary-related activities that suit the preferences of their students.

2. For students

This study can provide information about how digital technologies, in particular the Knoword app, can improve vocabulary acquisition in a fun and interactive way. The study will help students comprehend the motivational elements, difficulties, and general learning experience when

utilizing game-based platforms by investigating students' opinions. In addition to improving students' intrinsic motivation and digital literacy, it is intended that this would help them comprehend how well self-paced, gamified learning resources may improve vocabulary retention.

3. For future researches

This study can be used as a guide for upcoming investigations into gamified vocabulary acquisition. Whether comparing various digital tools, looking at learning outcomes, or investigating long-term effects on vocabulary retention in EFL contexts, it offers fundamental insights into learner perspectives that can be further explored through additional research.

1.5 Scope and Limitations of the study

This study examines both the effectiveness and students' perceptions of using the Knoword application to enhance vocabulary mastery among Grade XI EFL learners. Employing a mixed-methods design, it integrates quantitative data from vocabulary tests with qualitative information gathered through interviews. The research is carried out with Class XI BIC I at MAN 1 Jember during the 2025/2026 academic year. Knoword is utilized as a supplementary tool for vocabulary learning within English lessons, where students participate in teacher-led sessions using the application. The investigation centers on evaluating students' vocabulary progress as well as understanding their engagement, motivation, and overall experiences with the app.

The study is confined to a single class at one senior high school, which may limit the applicability of the results to other EFL contexts or educational levels. The sample size is relatively small, and the duration of the intervention aligns with the academic research timeline. Although all participants have access to internet-enabled devices and receive equal exposure to the digital tool, variations in digital literacy, learning preferences, and prior vocabulary knowledge might influence their outcomes and perceptions. Additionally, the qualitative data relies on self-reports, which could be affected by individual biases or the classroom environment.

1.6 Definition of Key Terms

To prevent misunderstandings, some keywords below are explained to make it easier to understand this study:

1. EFL (English as a Foreign Language): Iwai (2011) stated that EFL refers to those who learn English in non-English speaking countries. (E.g. Indonesian people who learn English in their country are EFL learners).
2. Vocabulary Mastery: Vocabulary mastery is a learner's ability to understand, recall, and use words accurately and appropriately in various linguistic contexts (Nation, 2022).
3. Perception: Perception, in this context, denotes learners' subjective views, attitudes, and beliefs about the effectiveness of Knoword for vocabulary mastery (Cohen et al., 2007).
4. Knoword Application: Knoword is an online gamified vocabulary learning application that challenges users to guess words based on given definitions,

promoting vocabulary recall and engagement through interactive, time-based gameplay.

CHAPTER II

LITERATURE REVIEW

In this chapter, the researcher discusses several theories relevant to the topic, drawing upon findings from previous studies. The discussion covers EFL, vocabulary mastery, effectiveness, perception, and Knoword Application.

2.1. English as a Foreign Language (EFL)

1) Definition

English as a Foreign Language (EFL) refers to the study and instruction of English in regions where it is not the native or official language. In these contexts, learners generally have minimal interaction with English outside of academic settings, and the language is primarily learned for educational, professional, or global communication purposes. This differs from English as a Second Language (ESL), where English is more commonly used in daily life. In the Indonesian context, English is considered a foreign language. Students often face difficulties in developing English skills due to limited opportunities for exposure and practice. Additional challenges, such as overcrowded classrooms and diverse levels of student motivation, further hinder the effectiveness of English teaching and learning (Sulistiyo, 2009).

In today's interconnected world, the significance of English has expanded beyond its traditional roles, prompting a reassessment of how English as a Foreign Language (EFL) is taught. As English continues to function as an International Language (EIL), it is essential for EFL educators to adjust their teaching strategies to accommodate the linguistic and cultural diversity of their students. According

to McKay (2018), EFL instruction should no longer be confined to native-speaker standards but should embrace the various ways English is used around the globe. This evolution in teaching requires educators to develop students' intercultural communicative competence, allowing them to understand and interact effectively within diverse international settings. Additionally, embedding cultural elements into the EFL curriculum is seen as vital for achieving long-term language learning goals, as it fosters both language skills and cultural sensitivity (Wu and Shafait, 2024). This culturally responsive approach supports the principles of Education for Sustainable Development by preparing students to participate meaningfully in a multicultural global society. This study centers on senior high school students learning English as a Foreign Language (EFL), aiming to explore how a digital vocabulary tool such as Knoword can enhance their language learning experience. Knoword, which promotes active vocabulary recall through a game-based format, is especially suitable for EFL learners. Its interactive and engaging approach offers valuable support, particularly for students who may have limited exposure to English in their everyday environments.

2) Characteristics of EFL Learners

English as a Foreign Language (EFL) learners display unique traits influenced by their linguistic surroundings, cultural backgrounds, and educational experiences. A key characteristic of these learners is their minimal exposure to English outside of the classroom. In many non-English-speaking countries, students have limited opportunities to use or hear English in daily life, which hampers authentic communication and natural language acquisition. This makes classroom-based learning the central, and often only, source of language input,

highlighting the critical importance of effective teaching and curriculum design (Al-Seghayer, 2021).

Because of this restricted exposure, EFL learners often become highly reliant on formal education for language learning. Their development in English is primarily driven by structured instruction, including textbooks and explicit teaching of grammar and vocabulary. Unlike ESL learners, who are surrounded by English in their everyday environments, EFL students lack the benefit of incidental language acquisition or spontaneous communication. This leads to a slower and more intentional vocabulary learning process that requires frequent repetition and reinforcement (Atmowardoyo et al., 2023).

EFL learners also demonstrate a wide range of learning strategies and preferences, shaped by cultural norms, past schooling, and personal inclinations. Many utilize cognitive strategies such as repeating information, taking notes, and summarizing content, along with metacognitive techniques like setting learning goals and tracking progress. The effectiveness of these strategies can vary significantly among individuals (Alhaisoni, 2012). Emotional factors also significantly impact EFL learning. Motivation, confidence, and anxiety influence how actively students participate and how persistently they work through challenges. Dörnyei (2005) emphasizes that motivated learners are more likely to take initiative, communicate more confidently, and continue striving even when faced with obstacles.

Vocabulary acquisition stands out as a major hurdle for EFL learners. Since vocabulary underpins listening, speaking, reading, and writing skills,

struggling in this area can affect overall language proficiency. Learners whose native languages differ significantly from English in sound, structure, or word formation often find it especially challenging to grasp and retain new vocabulary. Therefore, effective vocabulary instruction should go beyond simple memorization, integrating direct teaching, meaningful practice, and technology-based tools to improve understanding and long-term retention. Recognizing these learner characteristics, this study introduces Knoword as a complementary tool that delivers vocabulary-rich content through an interactive platform. Designed to meet the needs of students who may find traditional memorization methods challenging, Knoword provides a more engaging approach that aligns with students' familiarity with digital technologies and their preferred learning styles.

3) EFL Teaching Challenges

Teaching English as a Foreign Language (EFL) involves navigating a variety of obstacles that can hinder effective language learning. These challenges stem from a combination of linguistic, psychological, technological, and institutional factors, all of which can affect both educators and students. One major issue is students' limited language proficiency, often reflected in restricted vocabulary, grammatical errors, and difficulties with pronunciation. These problems can limit their ability to communicate effectively and engage in classroom discussions. Vocabulary gaps and pronunciation challenges commonly faced by EFL learners negatively impact their speaking skills and overall confidence in using English.

Psychological aspects also significantly influence EFL learning outcomes. Learners often struggle with anxiety, lack of motivation, and low self-esteem,

particularly when speaking. Research by Abrar et al. (2022) showed that such emotional factors strongly affect students' willingness to participate in English conversations, ultimately slowing their language progress. Therefore, fostering a positive and supportive classroom atmosphere is crucial to help students overcome these emotional barriers.

The use of technology in EFL education offers both advantages and difficulties. While digital tools can enrich language learning, problems such as limited access to devices, unreliable internet, and a lack of digital skills among both teachers and learners can reduce their effectiveness. Abrar et al. (2022) noted that technical issues and unfamiliarity with technology frequently disrupt online EFL classes, leading to lower engagement and instructional quality. Institutional limitations also pose significant challenges. These include large class sizes, restricted teaching time, and a lack of adequate teaching materials. Suryanto (2022) reported that in under-resourced schools, such as those in Yogyakarta, Indonesia, educators often struggle with overcrowded classrooms and insufficient resources, which hinder their ability to teach English effectively.

Additionally, educational policy and curriculum-related constraints can impact EFL instruction. In many contexts, rigid curricula that focus more on memorization than communication restrict the implementation of interactive teaching methods. Timsina (2021) pointed out that in Nepal, the inflexibility of the curriculum and the lack of supportive policies present serious hurdles for English teachers. In conclusion, the challenges in EFL teaching are diverse and interconnected, involving language-related difficulties, emotional factors, technological barriers, institutional shortcomings, and policy constraints.

Addressing these issues requires a holistic approach that includes professional development for teachers, flexible curriculum design, improved technological infrastructure, and the cultivation of a nurturing learning environment. Therefore, this study explores the use of the Knoword application as a gamified, technology-supported tool that can enhance traditional vocabulary instruction and improve its overall effectiveness.

4) The Role of Motivation and Engagement in EFL Vocabulary Learning

Motivation is a key element that significantly affects the success of vocabulary learning among English as a Foreign Language (EFL) students. It encourages learners to put in effort, remain persistent when facing challenges, and actively seek opportunities to practice and grow their vocabulary. Studies show that both intrinsic motivation, which comes from personal interest or enjoyment, and extrinsic motivation, which is influenced by external rewards or recognition, have a meaningful impact on vocabulary learning. Learners with strong motivation are more likely to use effective learning strategies and retain new words more successfully (Lee, 2020).

Engagement also plays an essential role in vocabulary development and includes behavioral, cognitive, and emotional aspects. Behavioral engagement refers to a student's active participation in learning activities. Cognitive engagement involves the effort and thought learners put into understanding and mastering the content. Emotional engagement relates to the feelings and attitudes learners have toward the learning process. Research has found that students who

are emotionally involved are more likely to participate actively, think deeply about the material, and remember vocabulary more effectively (Tsao, 2024).

The use of technology and interactive learning approaches has been shown to improve both motivation and engagement in vocabulary learning for EFL students. For example, mind-mapping activities can spark students' interest and increase their participation in vocabulary exercises (Kurniawan, 2024). In addition, learning activities that support student independence and provide opportunities for meaningful interaction can lead to greater engagement. In blended learning environments, when students are able to communicate with both instructors and peers and perceive the activities as relevant and valuable, their emotional and cognitive engagement increases (Huang et al., 2022). This research incorporates Knoword as a game-based learning platform to stimulate intrinsic motivation and encourage active involvement in vocabulary practice. By exploring both the tool's impact and students' perspectives, the study demonstrates how digital game environments can positively influence learner engagement and contribute to more successful vocabulary acquisition in EFL contexts.

In conclusion, motivation and engagement are closely connected and have a strong influence on vocabulary learning among EFL students. Educators should consider using interactive, student-focused, and technology-enhanced teaching methods to increase motivation and engagement, which in turn can lead to more effective vocabulary acquisition.

5) The Need for Innovative and Technology-Based Tools in EFL Classrooms

In the current digital era, incorporating innovative and technology-driven tools into English as a Foreign Language (EFL) instruction has become a necessity rather than a choice. Traditional approaches, such as memorization and textbook-based teaching, often do not capture the interest of today's learners, particularly those who have grown up with digital media and are familiar with interactive, multimedia content. Technology provides opportunities for more engaging, personalized, and learner-centered teaching, which can enhance both student motivation and learning effectiveness. For example, mobile learning applications and educational games encourage independent learning while offering immediate feedback, a key component in vocabulary acquisition (Teymouri, 2024).

In addition, technological tools allow educators to present material that accommodates different learning preferences through the use of multimedia elements like videos, digital flashcards, interactive activities, and online collaboration. These resources not only support better vocabulary retention but also help students use language in meaningful, real-world contexts (Rizkiyah and Wulandari, 2023). Research by Abidah et al. (2023) highlights how digital game-based learning effectively expanded students' vocabulary knowledge while also boosting their motivation and engagement. Despite the many advantages technology brings to language learning, its effectiveness depends on factors such as teachers' digital competence, how well it is integrated into the curriculum, and students' access to devices and reliable internet. As a result, successful use of technology in EFL classrooms requires careful planning to ensure it complements traditional teaching practices while meeting the needs of today's learners. This

study addresses that need by introducing Knoword, a web-based vocabulary game, into the EFL classroom. The research aims to examine how such tools can support vocabulary development while also accommodating the learning preferences and expectations of today's digitally savvy learners.

2.2 Vocabulary Mastery

1) Definition

Vocabulary mastery refers to a learner's complete understanding and ability to use words effectively within a language. Zuhairi and Mistar (2023) explain that vocabulary mastery involves not only knowing a large number of words but also having a deep understanding of their meanings, forms, and correct use in various situations. This skill is especially important in English as a Foreign Language (EFL) contexts because it strongly affects learners' abilities in reading, writing, listening, and speaking. According to Listyani and Pradina (2021), vocabulary mastery includes receptive knowledge, which is the ability to understand and recognize words when listening or reading, as well as productive knowledge, which is the ability to use those words accurately when speaking or writing. Meung and Htut (2021) also emphasize that having a strong vocabulary foundation is necessary for clear communication and understanding in a second language, and it supports the development of other language abilities. Understanding the concept of vocabulary mastery is essential to this study, as it forms the foundation for evaluating how the Knoword application helps students recall, comprehend, and use words correctly. So, having a clear conceptual framework is necessary.

2) Types of Vocabulary

In the field of language learning, vocabulary knowledge is commonly divided into two main categories: receptive and productive vocabulary. Recognizing this distinction is important for understanding how learners engage with and apply new words in different situations.

Receptive vocabulary includes the words that learners can identify and understand when they hear or read them. This type of vocabulary involves recognizing the meaning and form of words without necessarily being able to use them in speaking or writing. According to Nizonkiza (2016), learners generally possess a larger receptive vocabulary compared to their productive vocabulary, as they are often able to understand more words than they can actively produce.

On the other hand, productive vocabulary consists of the words that learners can recall and use correctly in spoken or written communication. Mastering productive vocabulary involves a more in-depth understanding, such as knowing how to pronounce, spell, and use words grammatically and contextually. Laufer and Goldstein (2004) point out that productive vocabulary demonstrates a higher level of language competence, as it requires accurate and appropriate usage of words in context.

The connection between receptive and productive vocabulary is often seen as a gradual progression, where words that are initially understood passively may become part of a learner's active use through repeated exposure and practice. Webb (2005) supports this idea by noting that tasks requiring active vocabulary use can improve both receptive and productive knowledge, indicating that engaging learners in such activities promotes better vocabulary development. Grasping the difference between receptive and productive vocabulary is vital for

effective language teaching and assessment. It helps educators evaluate the depth of learners' vocabulary knowledge and design instruction that targets both recognition and usage of new words. Knoword emphasizes productive vocabulary by prompting learners to generate words based on given definitions. This approach aligns with the study's aim of evaluating students' ability to actively recall and use vocabulary.

3) Aspects of Vocabulary Knowledge

Vocabulary knowledge is complex and involves multiple components that together form a complete understanding of words. According to Nation (2022), there are three key dimensions: form, meaning, and use. The form of a word includes its pronunciation, spelling, and morphological structure. Meaning refers to the definition of the word, its connotations, and how it relates to other words. Farvardin and Koosha (2011) stress that fully grasping these dimensions is essential for successful vocabulary learning among EFL students. In addition, Alqallaf and Ahmed (2022) point out the importance of vocabulary depth, which includes knowledge of word relationships, collocations, and subtle meanings, in improving skills such as reading comprehension and writing. These insights highlight the need for vocabulary teaching methods that address all aspects of word knowledge to support well-rounded language development. Therefore, this study explores whether interacting with definitions and context clues in Knoword enhances student mastery of these elements.

4) Importance of Vocabulary Mastery in EFL Learning

Mastering vocabulary is a crucial aspect of learning English as a Foreign Language (EFL), forming the foundation for developing skills in listening,

speaking, reading, and writing. A strong vocabulary helps learners understand written and spoken texts, express their thoughts clearly, and participate in meaningful communication. Studies have shown that vocabulary knowledge is closely linked to reading comprehension and overall language ability. For example, research by Hartini and Ardini (2024) revealed a positive connection between Indonesian EFL learners' vocabulary knowledge and their English proficiency, indicating that students with a wider vocabulary tend to perform better in a variety of language-related tasks. Likewise, Jelamu et al. (2022) found that vocabulary mastery is strongly related to reading comprehension, highlighting the essential role vocabulary plays in interpreting written materials.

In addition, vocabulary learning involves more than just knowing many words; it also includes a deep understanding of word meanings and the ability to use words correctly in various situations. As a result, effective vocabulary instruction should address both the number of words learned and how well they are understood and applied. Tekir (2021) found that teaching strategies such as using context to determine meaning can significantly enhance vocabulary mastery among EFL learners, regardless of their starting language level. This finding emphasizes the importance of equipping students with strategies to learn and apply new vocabulary effectively. Strengthening both the range and depth of vocabulary knowledge enables EFL learners to improve their language skills and succeed in academic settings. Given that vocabulary mastery is vital for EFL learners to communicate effectively, this research explores how the Knoword application can support that development.

Although vocabulary mastery has been recognized as a key aspect of EFL learning, its importance should also be evaluated regarding effectiveness. Stating that vocabulary is important is not enough, educators and researchers need to examine how various teaching methods and learning resources impact students' real progress. Assessing the efficacy of approaches like digital applications offers empirical proof of whether learners' vocabulary knowledge improves in significant ways, such as retention, accuracy, and contextual application. In this regard, the impact of vocabulary teaching becomes a crucial aspect in grasping how students learn and utilize new terms, especially when technology-driven resources such as Knoword are incorporated into the learning environment. By analyzing both learning outcomes and student perceptions, the study aims to contribute to a broader understanding of how digital tools can strengthen vocabulary acquisition in EFL settings.

5) Strategies for Vocabulary Learning

Vocabulary learning strategies refer to conscious actions and techniques that learners use to discover the meanings of new words and to consolidate them for long-term use. One of the most influential classifications of vocabulary learning strategies was proposed by Schmitt (1997), who categorized these strategies into five main types: determination strategies, social strategies, memory strategies, cognitive strategies, and metacognitive strategies. This framework highlights that vocabulary learning involves both initial word discovery and continuous reinforcement through various forms of practice.

Determination strategies are strategies that learners use to discover the meaning of new words independently without relying on others. These strategies

include guessing meaning from clues based on context, analyzing word parts such as prefixes and suffixes, using bilingual or monolingual dictionaries, and identifying grammatical categories. Determination strategies are particularly important at the early stage of vocabulary acquisition, as they encourage learner autonomy and active engagement with lexical items. By attempting to infer meanings and confirm them through available clues, learners develop deeper lexical awareness and become less dependent on direct instruction (Schmitt, 1997).

Social strategies involve learning vocabulary through interaction with others, such as asking teachers or peers for explanations, discussing word meanings, or practicing vocabulary collaboratively. These strategies emphasize the role of communication and social support in vocabulary development. Through interaction, learners can clarify misunderstandings and negotiate meaning, which contributes to stronger vocabulary retention. Social strategies are especially effective in classroom settings where collaborative learning is encouraged (Nation, 2022).

Memory strategies focus on linking new words with existing knowledge in meaningful ways to aid retention. These include using imagery, creating associations, grouping words by meaning or form, and employing mnemonic techniques. Memory strategies help learners store vocabulary in long-term memory by making lexical items more memorable and interconnected. Research suggests that deeper semantic processing through association enhances vocabulary retention (Schmitt, 1997).

Cognitive strategies involve mechanical or repetitive practices such as writing words repeatedly, verbal repetition, taking notes, or using word lists and

flashcards. These strategies emphasize practice and rehearsal, helping learners strengthen form-meaning connections. Although cognitive strategies are sometimes viewed as surface-level techniques, they remain useful when combined with more meaningful strategies, particularly for reinforcing newly learned vocabulary (Nation, 2022).

Metacognitive strategies refer to learners' ability to plan, monitor, and evaluate their vocabulary learning. These strategies include deciding which words to learn, setting learning goals, tracking progress, and reviewing vocabulary systematically. Metacognitive strategies help learners become more strategic and self-directed, allowing them to regulate their vocabulary learning over time. Learners who employ metacognitive strategies tend to be more successful because they are aware of their learning processes and outcomes (Schmitt, 1997).

This study primarily aligns with determination strategies, as students were required to independently identify and recall vocabulary meanings while using the Knoword application. In Knoword, learners respond to word definitions or clues without direct assistance from teachers or peers, encouraging them to infer meaning, activate prior knowledge, and make rapid lexical decisions. The game-based format promotes autonomous word discovery and reinforces determination strategies through repeated exposure and immediate feedback. Therefore, the use of Knoword in this study supports learners' ability to independently determine vocabulary meaning, which is a core aspect of effective vocabulary acquisition in EFL contexts.

Vocabulary mastery is not only about memorizing word lists but also about actively constructing meaning through contextual practice. This view is

consistent with Constructivist Learning Theory, which emphasizes that learners build knowledge actively by connecting new information to prior experience (Vygotsky, 1978). Constructivist Learning Theory underscores the idea that learners build knowledge actively rather than simply absorbing it. Drawing on the perspectives of Vygotsky (1978), learning is most effective when students participate in tasks, collaborate with others, and relate new material to their prior knowledge. A central concept in this theory is the Zone of Proximal Development (ZPD), which refers to the difference between what a learner can achieve independently and what can be accomplished with guidance from teachers or peers. As Vygotsky (1978) stated, “*What a child can do with assistance today, she will be able to do by herself tomorrow*” (p. 87). This idea underscores the importance of scaffolding, where learners receive temporary support until they are able to perform tasks independently. Applied to this study, constructivism explains that vocabulary mastery develops more efficiently in interactive settings that promote exploration and problem-solving. The Knoword application reflects this approach because it engages students in inferring meanings, recalling vocabulary, and applying it meaningfully through game-based challenges. Instead of relying on rote memorization of vocabulary lists, learners expand their understanding by working with clues, negotiating meaning, and receiving immediate feedback.

6) Assessment for Vocabulary Learning

Evaluating vocabulary mastery is a crucial part of assessing the language proficiency of EFL learners. One commonly used assessment method is the cloze test, which asks students to complete a text by inserting missing words. This type

of test measures their ability to understand the surrounding context and choose appropriate vocabulary. It not only assesses learners' receptive vocabulary but also encourages them to interact with language in a meaningful way, supporting better comprehension and long-term retention. Cloze tests are especially useful for gauging how well students can combine vocabulary knowledge with grammatical and contextual understanding, making them a reliable tool in language evaluation (Taylor, 1953).

Beyond traditional assessment tools, formative assessments have become increasingly important in vocabulary learning. According to Estaji and Mirzaii (2018), techniques like vocabulary quizzes and concept mapping have proven effective in supporting vocabulary growth among EFL learners. Their research shows that regular use of formative assessments offers timely feedback, helping students recognize their weaknesses and adapt their learning approaches. To measure vocabulary mastery, this study uses pre-tests and post-tests, directly linking the research to broader methods of vocabulary assessment. These formal assessments provide a way to objectively determine the effectiveness of Knoword as a vocabulary learning tool.

7) Common Problems in Vocabulary Learning

Vocabulary acquisition is a crucial component of learning a new language, yet many EFL students face considerable difficulties in mastering new words. One of the main challenges is remembering and retaining vocabulary. According to Arochman et al. (2023), students often find it hard to recall words because translating their thoughts into English takes time and they lack regular practice. Although many students understand the meanings of words, they struggle to use

them correctly in appropriate contexts. Another significant issue involves the mismatch between English spelling and pronunciation. Research by Salwa and Ys (2024) indicates that learners frequently have trouble with pronunciation due to irregularities in English spelling, including silent letters and unpredictable patterns. These linguistic features can create confusion and make vocabulary learning more difficult. To overcome these challenges, it is important to implement teaching strategies that emphasize learning words in context and developing students' awareness of sound patterns to improve their vocabulary skills. By incorporating an engaging digital platform like Knoword, the study aims to explore whether such challenges can be reduced in an EFL classroom setting.

2.3 Perception

1) Definition

Perception refers to the process by which individuals recognize and make sense of sensory input from their environment. It involves the selection, organization, and interpretation of sensory data to create a coherent understanding of the world around them. Because it is shaped by a person's past experiences, knowledge, emotions, and cultural background, perception is naturally subjective and can vary widely between individuals. It is also viewed as a mechanism that helps structure and interpret sensory information in ways that support effective learning and behavior. This understanding emphasizes the importance of sensory integration, especially for individuals with disabilities, in enabling them to interpret and respond appropriately to their surroundings. Perception, therefore, plays a crucial role in influencing both cognitive and physical reactions. (Bhagat et al., 2016). In this study, understanding the concept of perception is important,

as it forms the basis for analyzing how EFL students interpret their experiences with the Knoword application.

The Theory of Planned Behavior suggests that people's actions are shaped by three main types of beliefs. The first is behavioral beliefs, which are about the possible outcomes of a certain action. The second is normative beliefs, which relate to what individuals think others expect them to do. The third is control beliefs, which are about whether someone feels they have the ability or resources to carry out the action successfully. When combined, these beliefs influence people's attitudes, their sense of social pressure, and their perception of how much control they have. Together, these three factors shape a person's intention, which then guides their actual behavior (Ajzen, 1991). In this study, the theory provides a useful framework for understanding how students' views of the Knoword application might affect their motivation to learn vocabulary. For example, if students feel positively about using Knoword, sense encouragement from peers and teachers, and believe that the app is easy for them to use, they are more likely to form a strong intention to keep learning vocabulary through it.

2) Perception in Language Learning

Perception plays an essential role in the process of language learning, as it greatly affects learners' motivation, level of engagement, and overall success. In the context of learning English as a Foreign Language (EFL), how students view learning tools and methods can influence their willingness to participate and their ability to acquire new vocabulary. When students hold positive perceptions, they are generally more motivated and actively involved in the learning process. On

the other hand, negative perceptions may limit their progress and reduce learning effectiveness.

Recent research emphasizes the value of understanding students' perceptions within language learning settings. For example, a study by Putra and Priyatmojo (2021) revealed that students responded positively to the use of gamification in English classes, noting that it made lessons more interesting and helped minimize boredom. In addition, digital tools and online resources have been found to shape students' perceptions in a positive way. Zulaiha and Triana (2023) found that learners responded well to using Open Educational Resources (OER) to enhance their writing skills, attributing their improvement to their interest, past experiences, and the quality of the materials. Similarly, Isladara and Marlina (2024) discovered that students viewed the use of songs and poems from LearnEnglish Kids as beneficial for independent vocabulary learning, supporting the development of their reading, writing, speaking, and listening abilities. These studies highlight the important role that students' perceptions play in the successful use of educational tools and methods in language learning. In this study, students' perceptions will be examined to gain insight into their attitudes toward using Knoword in vocabulary instruction, and to understand whether these views help or hinder their learning progress.

3) Factors Influencing Students' Perceptions

Students' views on vocabulary learning, especially when using gamified tools like Knoword, are influenced by a combination of internal and external factors. On the internal side, aspects such as motivation, self-confidence, and individual learning preferences are especially important. Externally, factors like

teacher support, technological accessibility, and the design of learning applications impact students' perceptions. Fu et al. (2021) observed that non-English major college students favored gamified vocabulary apps that offered instant feedback, rewards, and competitive elements, which enhanced their motivation and learning habits. However, they also noted potential drawbacks, such as distraction and pressure from competition. Furthermore, Sirait and Kharisma (2024) emphasized that the relevance of application content to the curriculum and teacher support significantly affected students' acceptance and positive perception of gamified learning tools like Quizizz.

Cultural and social environments also shape how learners perceive their language learning experiences. According to Kassymova et al. (2021), social elements such as the influence of peers and the interactions within the classroom play a significant role in students' experiences with learning a foreign language. Moreover, the initial excitement caused by new technology, known as the novelty effect, may decrease over time, which can impact learners' continued engagement with educational applications.

These elements are considered in the research to analyze how Grade XI students develop their views on Knoword, especially in terms of its interactive features, difficulty level, and perceived educational benefits.

4) The Role of Perception in Technology-Enhanced Vocabulary Learning

In technology-based vocabulary learning, students' perceptions are crucial in shaping the success of digital learning tools. A positive outlook on mobile-assisted language learning (MALL) applications is often associated with higher

levels of motivation and engagement. For example, Nasution and Daulay (2024) found that students considered the "English With Tiffani" app effective for building vocabulary, mainly due to its game-like features and easy-to-use design, which made learning more enjoyable.

Nevertheless, not all student feedback is entirely favorable. According to Risnawati et al. (2023), although learners appreciated the "English Vocabulary" app for its simplicity and entertaining elements, they also expressed the need for broader content, such as grammar instruction and conversation practice. This suggests that a limited range of content can reduce user satisfaction.

These findings highlight the necessity of tailoring digital learning tools to meet students' needs and expectations. When learners view these applications as helpful and aligned with their educational objectives, they are more likely to engage actively and improve their vocabulary. On the other hand, if the tools are seen as lacking in content or difficult to navigate, they may negatively impact the learning experience. Thus, perception is a central focus in this study to assess how practical and impactful Knoword as a vocabulary learning resource in the EFL classroom.

2.4 Knoword

1) Definition and Overview

Knoword is an interactive online platform created to support vocabulary development through a game-like learning experience. Introduced by Trevor Blades in 2020, the platform takes a distinctive approach by displaying word definitions and asking users to type in the correct words. This format encourages

active recall and strengthens the connection between words and their meanings, which is essential for building vocabulary effectively.

The platform includes several gamification features, such as countdown timers, point-based scoring, and leaderboards, which help boost learner motivation and create a more engaging experience. These elements are consistent with educational research suggesting that incorporating game-like components into learning can enhance motivation and engagement, ultimately leading to better educational outcomes (Deterding et al., 2011).

2) Educational Use of Knoword

Knoword is a modern digital tool designed to support vocabulary learning through engaging, game-based activities. It works by providing users with clues or definitions and asking them to enter the correct word, thereby encouraging active recall and a deeper understanding of word usage in context. This method reflects the core ideas of constructivist learning, which emphasizes building new knowledge upon prior understanding.

A study by Ilham (2024) investigated the impact of Knoword on students' vocabulary development. Using a quantitative approach that included pre-tests and post-tests with experimental and control groups, the research demonstrated a notable improvement in vocabulary scores among students who used Knoword. These results suggest that Knoword can be an effective tool for language learning.

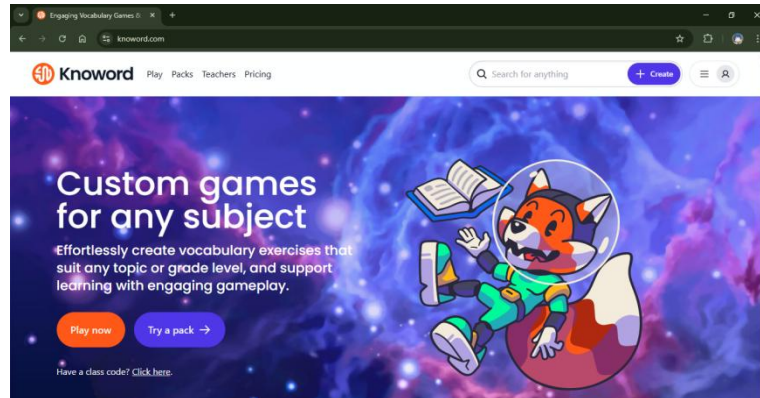
Additionally, Knoword has introduced AI-powered vocabulary sets that allow teachers to quickly generate customized learning content based on curriculum goals and student ability levels. This feature increases the platform's

flexibility, making it suitable for a wide range of educational settings and supporting personalized learning experiences.

3) How To Use Knoword

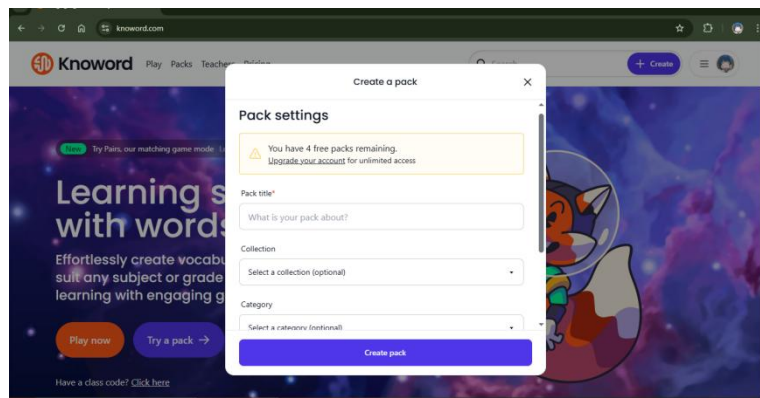
a) Opening the Site

Go to www.knoword.com, and here is the look of the main page.



Picture 1. Knoword Main Page

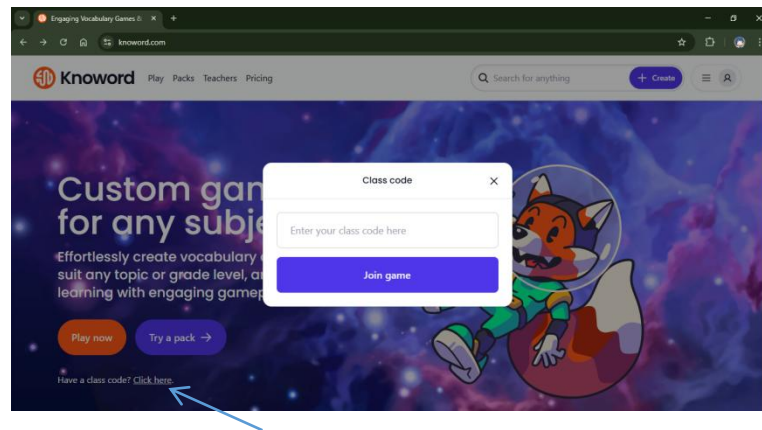
- b) Teachers can make their own pack of vocabularies by clicking “Create” on the right corner of the page, or they also can use existing packs created by other users by selecting “Try a pack”.



Picture 2 Creating Pack

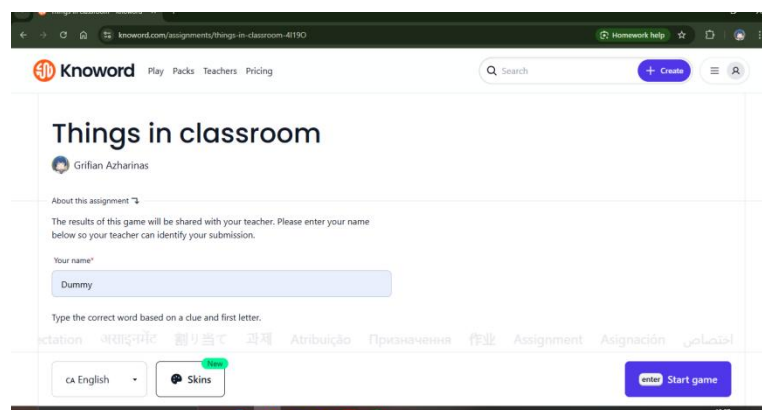
At the “create a pack” menu, teachers can customize their own pack by inserting the pack name, adding into categories, and the pack language.

- c) For students, they don’t need to log in and make an account, just click the “click here” section on the page and type the class code provided by the teacher.



Picture 3. Joining a Class with Code.

- d) After inserting the code provided, students just need to write their name and they can immediately start the game.



Picture 4. Inserting Student’s Name Interface

4) How Knoword Enhances Vocabulary Mastery

Knoword enhances vocabulary mastery by engaging learners in active word retrieval through clue-based guessing activities. Instead of memorizing isolated word lists, students are required to recall and apply their existing knowledge to infer word meanings based on contextual hints. This retrieval-based practice strengthens memory consolidation and supports long-term vocabulary retention, as learners repeatedly access and refine their lexical knowledge during gameplay.

Another important mechanism through which Knoword improves vocabulary mastery is immediate feedback. When students provide incorrect answers, the application instantly signals errors and allows learners to recognize and correct their mistakes. Immediate corrective feedback has been widely recognized as a key factor in vocabulary acquisition, as it helps learners adjust their understanding of word form and meaning in real time. This process reduces fossilization of errors and promotes more accurate vocabulary usage.

Additionally, Knoword incorporates game elements such as time limits, competition, and scoring systems, which increase learners' motivation and engagement. These features encourage students to remain focused and persist in completing vocabulary tasks, even when encountering difficult items. Increased motivation leads to higher levels of exposure and practice, both of which are essential for vocabulary development. By transforming vocabulary learning into an interactive and enjoyable experience, Knoword supports sustained engagement with lexical content.

Knoword also supports vocabulary learning through repeated exposure to target words across different game rounds. Repetition in varied contexts allows learners to deepen their understanding of vocabulary and reinforces connections between word forms and meanings. This repeated engagement aligns with established theories of vocabulary learning that emphasize frequency and recycling as essential conditions for mastery.

5) Advantages and Limitations of Knoword in Vocabulary Learning

Knoword application presents several benefits for vocabulary learning, especially through its game-based format that boosts student motivation and engagement. By including features like timed quizzes, point systems, and leaderboards, Knoword turns standard vocabulary tasks into more dynamic and interactive activities. This gamified method supports the findings of Zainal (2023), who observed that game-based learning environments make vocabulary study more stimulating and motivating for learners. In addition, Knoword promotes active recall by requiring users to come up with words based on their definitions, which supports deeper thinking and improves long-term retention of vocabulary.

Despite its advantages as a game-based vocabulary learning tool, Knoword also presents certain limitations related to its feature accessibility, particularly for users who rely on the free version of the application. One notable limitation is the restricted number of assignments or practice sessions that can be created or accessed by free users. This constraint may reduce the frequency and variety of vocabulary exposure, which is an important factor in effective vocabulary acquisition. As vocabulary learning benefits from

repeated and varied practice, limited access to assignments can potentially hinder optimal learning outcomes, especially in classroom settings that require sustained engagement over multiple sessions.

Another limitation concerns the restricted availability of custom word pack features for free users. While Knoword provides pre-existing vocabulary sets, the inability to freely create or extensively customize word packs may limit teachers' and students' flexibility in aligning the content with specific learning objectives, curriculum demands, or students' proficiency levels. Customizable vocabulary sets are particularly valuable in EFL contexts, where learners often require targeted vocabulary instruction based on thematic units or academic needs. The lack of full access to these features may reduce the adaptability of Knoword as a comprehensive instructional tool.

Furthermore, these feature limitations may affect teachers' instructional planning and classroom implementation. Teachers using the free version may need to rely heavily on available default content or seek alternative strategies to supplement vocabulary instruction. As a result, Knoword may function more effectively as a supplementary rather than a primary vocabulary learning platform in its free form. While these limitations do not diminish the overall educational value of Knoword, they highlight the importance of considering platform accessibility and feature availability when integrating digital tools into formal language learning environments.

2.5 Previous Studies

Numerous studies have explored the use of gamified tools for vocabulary learning in English language instruction across various educational levels. First study by Rofiah and Waluyo (2024) examined the impact of digital platforms like Kahoot, Quizizz, and Quizlet on grammar and vocabulary learning in an EFL classroom in Thailand. Conducted over eight weeks with undergraduate students and using a quantitative approach, the study found that these tools significantly improved vocabulary mastery, learner motivation, and class participation. However, the research mainly assessed effectiveness through test scores and surveys, offering little insight into students' emotional engagement or deeper perceptions. Additionally, the tools relied mostly on multiple-choice and recognition activities, which limited learners' opportunities for productive language use.

Second study by Octaberlina (2023) looked into how the simulation game Harvest Moon, originally created for entertainment, could aid vocabulary learning among high school EFL students. Through classroom-based experimentation, the research revealed that the immersive nature of the game provided rich contextual exposure to English vocabulary, enhancing both retention and learner interest. Despite its innovative approach of using non-academic digital games, the study lacked alignment with the curriculum, offered limited control over vocabulary content, and focused largely on incidental learning.

Third, Nasution and Daulay (2024) conducted a qualitative study to explore university students' perceptions of using the gamified app English With Tiffani. Based on student interviews, the findings showed that learners valued the app's interactive features, reporting increased confidence and engagement in vocabulary

learning. The study emphasized emotional and motivational factors, but it did not assess measurable vocabulary improvement. Additionally, the app primarily supported word recognition and passive learning rather than productive use. The study's focus on tertiary education also limits its relevance to younger learners or other educational contexts.

The final study, by Ilham (2024), investigated the use of the web-based game Knoword among junior high school students. Using an experimental design with both control and experimental groups, the research demonstrated that students using Knoword scored significantly higher on vocabulary tests. This suggested that Knoword, which prompts users to actively generate vocabulary based on clues, is an effective tool for promoting active vocabulary learning. Nevertheless, the study relied exclusively on quantitative data and did not explore learners' experiences, perceptions, or motivational aspects. It also did not incorporate a mixed-method approach or consider factors related to classroom engagement.

Overall, these four studies underscore the benefits of gamified tools for enhancing vocabulary learning and student motivation in EFL settings. However, they vary widely in focus and methodology. Rofiah and Waluyo (2024) and Ilham (2024) concentrated on quantitative measures of effectiveness, while Nasution and Daulay (2024) explored student perceptions through qualitative methods. Octaberlina (2023) examined incidental learning using a game not specifically designed for education. None of the studies combined effectiveness and student perception within a mixed-method framework, nor did they examine Knoword in the context of senior high school EFL learners. The present study seeks to address

this gap by exploring both the effectiveness and student perceptions of Knoword through a mixed-method design in a senior high school setting, providing a more comprehensive understanding of the tool's impact on vocabulary learning and student engagement.

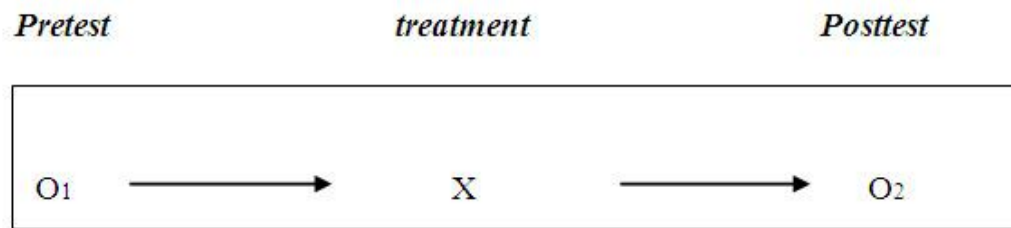
CHAPTER III

RESEARCH METHODS

This chapter describes the research methods and procedures that will be applied in this study, covering the research design, research setting and participants, research instruments, data collection methods, and data analysis.

3.1. Research Design

This research adopts a mixed-method approach, combining both quantitative and qualitative methods to thoroughly examine the effectiveness of the Knoword application in improving vocabulary mastery among EFL learners, as well as to understand their perceptions of using the tool. The quantitative part of this research applied a pre-experimental design with a one-group pretest–post test model. This design was chosen because the study involved a single intact class without a comparison group. In this design, students were given a pre-test before the treatment to measure their initial vocabulary mastery. After two treatment sessions using the Knoword application, a post-test was administered to examine whether there was an improvement in students' vocabulary mastery. The difference between pre-test and post-test scores was then analyzed statistically to determine the effectiveness of the treatment. The decision to use a mixed-method design is based on its strength in offering a more comprehensive view of the research topic by integrating statistical data with in-depth contextual understanding (Creswell and Clark, 2018).



Picture 5. Pre Experimental (One Group Pretest-Posttest Design)

The researcher involved only one class in this study, serving as an experimental group, received a special treatment using Knoword for vocabulary learning. The research was conducted using pre experimental design, specifically the One Group Pretest-Posttest design type. Treatments were carried out four times including pretest and posttest with diverse plans and Knoword application. Based on this plan, the researcher aimed to find out whether the use of Knoword had an impact on student's vocabulary mastery. To strengthen the output findings of the treatments, the researcher conducted interviews to gain reflections and qualitative data from students.

3.2. Research Setting and Timeline

This research took place at MAN 1 Jember, a senior high school situated in Jember, East Java, Indonesia, during the 2025/2026 academic year. The location was chosen because its environment was technology-supported to facilitate digital devices, as well as internet connections. Here is the timeline of the research:

No.	Activity	Date
1	Observations	2 nd October 2025
2	Pre-Test	3 rd October 2025

3	Treatments	10 th October - 24 th October 2025
4	Post-Test	25 th October 2025
5	Interview	25 th October 2025

Table 1. Research Timeline

The table above outlines the research schedule. Observations were conducted on October 2nd, 2025 to gather basic information about class environment and student's learning behavior. It was followed by pre-test on October 3rd, 2025 to measure student's basic vocabulary mastery before the treatment. And the treatment phase was conducted over three meetings from October 10th - October 24th 2025. Lastly, the post-test and interview session were conducted on October 25th, 2025 to assess students' vocabulary mastery after the treatments.

3.3 Research Variables

Independent variables influence a person's behavior either from within or through external factors. These are the variables selected, controlled, or measured by the researcher to determine their relationship with the phenomenon under study. The outcomes or responses, on the other hand, are referred to as dependent variables. These represent observable aspects of an individual's behavior that can be influenced or triggered. Dependent variables are the elements that researchers measure and observe in order to evaluate the effect of the independent variable. This study implicated two variables, namely independent and dependent variables. The independent was Knoword application (X), while the dependent variable was students' vocabulary mastery (Y).

3.4 Research Population and Sample

This part outlines the population included in the study, which served as a basis for selecting appropriate sample.

3.4.1. Population

The population refers to the entire set of elements, including both objects and subjects, that are the focus of a study. In this study, the population consisted of eleventh grade students of MAN 1 Jember. The participants in this study were chosen through purposive sampling where researcher picked subjects based on certain criteria that were relevant on research objectives with an one group pretest-post test model type. Purposive sampling, often referred to as judgment sampling, is a method in which participants are intentionally selected based on specific qualities they possess. This approach is non-random and does not require predetermined theories or a fixed number of participants. Which means, the researcher identifies the type of information needed and then seeks individuals who are both capable of and willing to share insights based on their knowledge or experience.

3.4.2. Sample

Sample is a selected items that were collected from larger population. The study employed an intact class as the research sample. All students from Class XI BIC I at MAN 1 Jember in the academic year 2025/2026 were invited to take part, and those who gave consent participated in the quantitative stage, which consisted of a pre-test and post-test.. By using the entire class (total sampling), the research

maintained the authenticity of the classroom setting while also optimizing statistical power within the study's limitations. For the qualitative stage, a purposive sample of six students was chosen for semi-structured interviews. The selected participants represented a range of achievement levels, two high achievers, two average achievers, and two low achievers, as well as varying levels of technological familiarity. This selection enabled the researcher to capture diverse perspectives on the use of the Knoword application.

The inclusion criteria required students to be actively enrolled in Class XI BIC I, and attended during the treatment sessions. Students who were absent throughout the treatment were not included. This approach to sampling reflects established practices in classroom-based mixed-methods research, ensuring quantitative representativeness while also allowing for rich qualitative insights (Creswell and Clark, 2018).

3.5. Data Sources

The study used both numerical and descriptical data. Which means the data were quantitative and qualitative. The researcher used two sources, namely secondary and primary data. Secondary data refers to information collected through literature reviews and documentation from other sources. It is used to support research by relying on findings from previous studies, which eliminates the need to collect the same data again. In this study, secondary data included books, journals, published articles, and the interview result. The use of secondary data was adjusted according to the needs of the research and served to complement the primary data.

Primary data, on the other hand, is information gathered directly by the researcher from original sources. This type of data has not been published before and is current, making it highly relevant for the study. Primary data sources, often referred to as original sources, provide firsthand information collected directly by the researcher or individuals involved. In this study, examples of primary data included the results of pre-tests and post-tests administered to students in the experimental group.

3.6. Research Instruments

To align with the mixed-method design of this research, both quantitative and qualitative tools were utilized to collect in-depth data regarding the effectiveness of the Knoword application in improving vocabulary mastery among EFL learners, along with their perceptions of using the application.

3.6.1. Vocabulary Mastery Test

To evaluate vocabulary acquisition in a quantitative manner, the study used both pre-tests and post-tests that included multiple choice questions. These assessments were designed to measure students' understanding of vocabulary form, meaning, and contextual usage. The test items were adapted from standardized vocabulary materials aligned with the Grade XI curriculum and customized to include the word lists introduced through the Knoword application. The pre-test served to identify students' initial vocabulary knowledge, while the post-test assessed the progress made following the treatment. Employing vocabulary tests to determine knowledge improvement is a well-established approach

in language learning research and aligns with outcome-based assessment practices (Chung et al., 2025).

3.6.2. Interview Questions

To gain deeper insights and complement the quantitative results, semi-structured interviews were carried out with selected participants through purposive sampling. Students were asked open-ended questions that encouraged them to share their experiences with using Knoword, describe their learning processes, and discuss any challenges they faced. This approach provided more detailed and meaningful data that could not be fully obtained through quantitative methods alone. The responses were transcribed and analyzed thematically to uncover common patterns and viewpoints, following established practices in qualitative educational research (Zohrabi, 2013).

3.7 Validity and Reliability

Ensuring the validity and reliability of these instruments was crucial to maintaining the credibility and consistency of the research findings. Therefore, validity and reliability test will be held.

3.7.1. Validity

Validity refers to how accurately an instrument measures what it is designed to assess. If the instruments meet the requirements, the instrument will be considered valid. There are two kinds of validity check in this study, they are content validity and construct validity. To establish the content validity of the pre-test and post-test, the test items were created based on vocabulary topics that matched the students' curriculum and corresponded

with the types of vocabulary featured in the Knoword application, as well as the interview questions that were created to support the findings and answer the research question. And for construct validity. These items were then evaluated by lecturers from the English education department to ensure they were appropriate for the intended learning goals and language proficiency levels. This review process helped confirm that the tests were valid tools for measuring students' vocabulary knowledge.

3.7.2. Reliability

Reliability concerns the consistency of the instrument in measuring a construct over time. For the pre- and post-tests, a pilot test was conducted with a similar group of students, and the results were analyzed using Cronbach's Alpha to assess internal consistency. A coefficient of 0.70 or higher was considered acceptable for reliability.

3.8. Data Collection Technique

This section explains how the data are collected in this study.

3.8.1. Pre-Test

First, a pre-test conducted to assess student's prior knowledge. The pre-test was given to the experimental group. The pre-test was in multiple choice form consisted of 25 questions. The teacher distributes the questions using online form and gave brief explanation on how students should complete the test. After completion, the researcher analyzed the results to evaluate students' prior knowledge before the treatment.

3.8.2. Treatment

The treatment in this study applied a Game-Based Learning (GBL) approach, which combines learning goals with the engaging features of games. This strategy was considered suitable because the main instructional tool, Knoword, is a gamified platform that enhances vocabulary knowledge through interactive word challenges. According to Hung et al. (2018), digital game-based learning increases learners' motivation, improves engagement, and supports better vocabulary retention compared to traditional approaches. Therefore, the treatment was designed not only to help students develop their vocabulary but also to provide an enjoyable and meaningful learning experience.

The researcher will discuss the features and use of Knoword application in the second and third meeting. Additionally, the researcher will provide instructions and some demonstrations on how to use Knoword for vocabulary learning. Then, the researcher will introduce every features of Knoword, starting from the main interface to the in-game mechanism.

The treatment was implemented over three meetings each lasting around 90 minutes. In the first meeting, The lesson started with a series of opening activities. The teacher invited a student to lead the prayer, greeted the class, asked how they were doing, and checked the attendance. After that, the teacher encouraged the students to be motivated in learning English and then introduced the basic competencies, learning objectives, and the assessment methods that would be used for the day. In the main activity, the teacher started with brief explanation about current material at the time. Then, the researcher introduced Knoword, and explained to

students how to use it to learn vocabularies. At the end of the lesson, the teacher and students reflected on the day's lesson by discussing what they had learned. The teacher then expressed appreciation and gratitude for students' participation, and concluded the day with prayer.

In the second meeting, the teacher repeated same opening routine as previous meeting. The main activity focused on reviewing previous meeting's material and guided practice of Knoword. Students continued to explore Knoword while teacher served as facilitator and provided support. The students then asked to make a pair with their friends to do assignments given by the teacher using Knoword, encouraging teamwork and critical thinking. The meeting ended with reflections, appreciations, and a closing prayer.

The third meeting followed a same opening routine as before. At the main session, the teacher reviewed previous meeting's material and explained that the final goal of the day is completing individual assignment using Knoword. Students were asked to not looking at notes or asking their friends or teacher to help. In the closing session, the teacher led a reflection where students shared their experience using Knoword and what difficulties they encountered. The teacher ended the lesson with gratitude and closing prayer.

The details of the treatments can be viewed at the table below:

A.	General Information	
1.	Teacher's Name	Grifian Azharinas
	Institution Name	MAN 1 Jember

	Academic Year	2025 - 2026
	School Level	Senior High School
	Phase/Class	F/XI
	Semester	I
	Time Allocation	6 x 45 minutes
2.	Competence	
	Competence Target	Students are able to identify and understand English vocabulary related to the lesson topics, apply the learned words appropriately in simple contexts, and demonstrate improvement in their vocabulary mastery through the Knoword game-based activities.
3.	Pancasila Student Profile	
	Pancasila Student Profile related	1. Creative 2. Critical Thinking 3. Mutual Cooperative
4.	Infrastructures	
	Facility	Laptop, Projector
	Place	Classroom
5.	Participant Target	Regular Students
6.	Amount of Participant	28 Students
7.	MODA/Method/Learning Model	Offline, Game-Based Learning, Discussion
B.	Core Components	
1.	Learning Objectives	1. Students are able to identify and understand the meaning of English vocabulary accurately. 2. Students are able to apply newly learned vocabulary through game-based tasks. 3. Students are able to use Knoword

		independently and collaboratively to enhance vocabulary learning
2.	Assesments	<ol style="list-style-type: none"> 1. Formative Assesment 2. Sumative Assesment
3.	Meaningful Understanding	Mastering vocabulary is an important step if we want to learn a language. Traditional ways like memorizing word lists is very boring. Instead, we rely on technology advancement and use game-based app like Knoword.
4.	Igniter	<ol style="list-style-type: none"> 1. Is memorizing vocabulary hard to do? 2. How do you usually learn vocabulary? 3. What do you think is the most effective way to learn vocabulary?
C. Learning Activities		
1.	Learning Activity	
	Meeting 1	
	Pre-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher greets students ● Teacher invites one student to lead a prayer ● Teacher checks students' condition ● Teacher checks attendance ● Teacher motivates students to be eager learning English ● Teacher explains the competence, objectives of the day
		<ul style="list-style-type: none"> ● Teacher explains materials currently learned ● The teacher introduces <i>Knoword</i> and how to use it to learn vocabulary ● The teacher introduces

	Main Activity (70 minutes)	<p>vocabularies related to the material and demonstrates them using <i>Knoword</i>.</p> <ul style="list-style-type: none"> ● The teacher demonstrates gameplay of <i>Knoword</i> by using existing word packs available. ● The teacher gives students chance to explore <i>Knoword</i> (they can try wordpacks available in the app)
	Post-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher and students reflect on today's learning ● Teacher expresses gratitude for students' participation ● Teacher ends the meeting with a prayer ● Teacher greets the students
	Meeting 2	
	Pre-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher greets students ● Teacher invites one student to lead a prayer ● Teacher checks students' condition ● Teacher checks attendance ● Teacher motivates students to be eager learning English ● Teacher explains the competence, objectives of the day
	Main Activity	<ul style="list-style-type: none"> ● Teacher asks students to review about previous meeting's material ● Teacher asks each student to make a pair ● Teacher prepares the class for paired session using <i>Knoword</i> ● Teacher gives a word pack for students to do in <i>Knoword</i>

	(70 minutes)	<ul style="list-style-type: none"> ● Teacher monitors and helps students if there is any difficulties and technical issues ● Teacher shows the overall score rankings and gives appreciation
	Post-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher and students reflect on today's learning ● Teacher expresses gratitude for students' participation ● Teacher ends the meeting with a prayer ● Teacher greets the students
	Meeting 3	
	Pre-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher greets students ● Teacher invites one student to lead a prayer ● Teacher checks students' condition ● Teacher checks attendance ● Teacher motivates students to be eager learning English ● Teacher explains the competence, objectives of the day
	Main Activity (70 minutes)	<ul style="list-style-type: none"> ● Teacher asks students to review about previous meeting's material ● Teacher asks students to prepare their <i>Knoword</i> ● Teacher prepares class for individual <i>Knoword</i> session ● Teacher monitors the class during the work and helps students whenever technical issues occurred. ● Teacher shows the overall score rankings and gives appreciation

	Post-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher and students reflect on today's learning ● Teacher expresses gratitude for students' participation ● Teacher ends the meeting with a prayer ● Teacher greets the students
2.	Assesments	
	Formative Assesment	1. Knowledge of Forms: Oral Question 2. Form Skills: Students learn to memorize and use vocabulary in <i>Knoword</i> 3. Attitude Profile of Pancasila Students Form: Mutual Cooperation
	Sumative Assesment	<i>Knoword</i> word pack quizzes

Table 2. Lesson Plan

3.8.3. Post Test

The post-test is conducted to measure students' abilities after being given several treatments using Knoword application. Students were given questions in form of multiple choices consisted of 25 items same as the pre-test. This test aims to see if there are significant changes on the experimental group that learned using Knoword. The result of this test showed whether the use of Knoword in learning process is effective in students' vocabulary mastery or not.

3.8.4. Interviews

To gather qualitative data, the researcher will carry out semi-structured interviews with a group of selected students following the post-

test. This approach allows for an in-depth exploration of students' experiences, perceptions, and emotional reactions to using Knoword during classroom activities. Semi-structured interviews are well-suited for gaining insight into individual viewpoints, as they offer the flexibility to ask follow-up questions and seek further clarification when needed. Each interview lasted approximately 5-10 minutes for each student who had been selected in the class. The interviews will be conducted either at leisure or free time during the school hours, and would take place in quiet, neutral space to ensure students are comfortable to share their thoughts by answering interview questions.

3.9. Data Analysis

The data analysis process makes use of the pre-test and post-test scores obtained from the experimental group. The researcher examines and compares the results collected before and after the treatment. Afterward, the data is processed through statistical analysis, particularly by applying a hypothesis testing formula. The goal of this test is to determine whether a significant difference exists between the pre-test and post-test scores of the experimental group.

3.9.1. Quantitative Data Analysis

To evaluate the impact of the Knoword application on students' vocabulary mastery, the following procedures will be carried out:

3.9.1.1. Normality Test

The normality test is a fundamental step in determining whether a dataset follows a normal distribution, which is a core assumption in many parametric statistical procedures. The normality test will be

carried out using the *Shapiro-Wilk* normality test because the number of samples is less than 50. The researcher conducted the Shapiro-Wilk normality test using *IBM SPSS Statistics 27 for Windows* with a significance level of 0.05. Based on the outcomes of the test, the following conclusions were made:

- a. H₀: The data is normally distributed.
- b. H_a: The data is not normally distributed.

The researcher determined that the null hypothesis (H₀) is accepted and the alternative hypothesis (H_a) is rejected when the significance value is equal to or greater than 0.05. In the context of the normality test, accepting H₀ indicates that the data is normally distributed, while accepting H_a suggests that the data is not normally distributed.

3.5.1.4. T-test

The t-test is a statistical technique designed to compare the means of two groups to identify whether there is a statistically significant difference between them. There are various forms of t-tests, such as the independent samples t-test and the paired samples t-test, each tailored to different types of research designs. To determine whether there is a significant difference in students' vocabulary mastery before and after using the Knoword application, a Paired Sample T-Test will be conducted. This test is appropriate because the same group of students was tested twice: before and after the treatment. A p-value (Sig. 2-tailed) < 0.05 indicates a significant improvement in

vocabulary mastery. From the results of the Paired T-test, the following conclusions will be drawn:

H0 : Sig. Value (2-tailed) > 0.05 means there is no positive and significant influence from the use of the Knoword Application on the vocabulary mastery of eleventh grade students of MAN 1 Jember in the 2025/2026 academic year.

Ha : Sig. Value (2-tailed) < 0.05 There is a positive and significant influence from the use of the Knoword Application on the vocabulary mastery of eleventh grade students of MAN 1 Jember in the 2025/2026 academic year.

3.9.2. Qualitative Data Analysis

The qualitative part of this research explored students' perceptions of using the Knoword application. To capture a range of perspectives, interview participants were selected through purposive sampling. Out of all the students who took part in the quantitative phase, six were chosen to represent varying levels of achievement and participation. The selection was informed by their pre-test and post-test performance, as well as their level of involvement during the treatment sessions. This group included two high-achieving students, two with average performance, and two with lower achievement. Such a strategy allowed the study to reflect diverse experiences, from students who gained significant benefits to those who encountered difficulties while using the application.

The interview data were examined using thematic analysis guided by Braun and Clarke's (2006) framework. The process began with

transcribing the interview recordings word for word to preserve the accuracy of the students' responses. The researcher then familiarized themselves with the data by reading through the transcripts several times and noting initial impressions of students' views on Knoword. Following this, open coding was carried out to identify meaningful segments of text, such as keywords related to motivation, enjoyment, or challenges. These keywords were then organized into broader categories like "feels and enjoyment" "excess and drawbacks," and "improvement". Afterward, the categories were refined into overarching themes that captured the central findings, such as "Perceived Use," "Excess and Drawbacks" and "Suggestion". The themes were later presented in a narrative format and supported with direct quotes from students to highlight their authentic voices. This step ensured that the findings were both systematic and firmly rooted in the actual experiences of the participants. By combining purposive interviewee selection with a structured thematic analysis, the study was able to deliver a comprehensive and contextualized understanding of how students perceived the use of Knoword in learning vocabulary.

3.9.3. Data Integration

The integration of data in this study follows a convergent parallel design, where quantitative and qualitative data are gathered and analyzed separately but are brought together during the interpretation stage. This research design enables a thorough examination by comparing numerical data, such as test scores, with qualitative insights gathered from

participants through interviews. Creswell and Plano Clark (2018) highlighted that the convergent parallel design is especially beneficial when the aim is to confirm or enrich one type of data with another, thereby strengthening the validity and depth of the study's conclusions. In relation to this research, the design supports an exploration of both the effectiveness of the Knoword application in enhancing vocabulary mastery and the students' views regarding their experience using the tool. The integration process begins with the concurrent collection of both quantitative data, gathered through pre-test and post-test scores, and qualitative data, obtained from student interviews and open-ended responses. After analyzing both types of data separately, the next step involves placing the findings side by side to explore areas of agreement, contrast, or additional insights that complement each other. In the third phase, the researcher investigates how the themes from the qualitative data either reinforce, challenge, or add depth to the statistical outcomes. For instance, if the quantitative results indicate improvement in vocabulary, the qualitative responses are reviewed to see whether students also felt that the learning experience was effective or motivating. In the final step, the researcher brings the findings together into a unified explanation, drawing on both data sources to provide a more thorough answer to the research questions.

CHAPTER IV

RESULT OF THE RESEARCH

This chapter consists of research findings and their discussions. The data presented below including analysis of pre-test result, normality test, t-test, analysis of post test result, and comprehensive discussions.

4.1. Findings

In this section, the researcher presents the research findings, including the data analysis obtained before and after implementation of pretest and posttest in the experimental group.

4.1.1. Data Analysis of Pre-Test

On October 3rd 2025, the researcher held a pretest as a first step to assess students' prior vocabulary mastery before implementing the treatment. The test consisted of twenty five multiple choice questions. Students were asked to answer the questions correctly, allowing researcher to assess their prior vocabulary mastery.

The pretest was given to class XI BIC I, consisting of 28 students. In this study, they served as experimental group and later followed the lesson plan using Knoword as learning tool. This prior data will be used later as a compare to the progress obtained after the treatment. The following is the result of pretest:

No	Initials Name	Pre-test Score
1	AAC	88
2	AFBA	84

3	BAH	92
4	DAH	88
5	DOLA	80
6	FKN	84
7	FNR	84
8	FHA	72
9	FBO	92
10	FAK	88
11	GVP	88
12	IZP	84
13	IHA	84
14	KM	92
15	KKM	80
16	MFZAF	84
17	MLF	76
18	MRSG	96
19	MRKP	96
20	MRMI	76
21	MA	88
22	MATA	76
23	MDA	64
24	MRED	92
25	MRMAS	84
26	NM	72
27	RAI	80
28	RDN	88
Total		2352
Average Score		84

Table 3. Pretest Result

The table above shows the pre-test results, which indicates various levels of students' prior ability in vocabulary mastery. Class XI BIC I of MAN 1 Jember, which was chosen as experimental class for this study, based on the result, showed some recorded scores. The lowest score was 64, and the highest was 96. Moreover, the average score was 84, with the cumulative score of all students was 2352. These results indicate that before the treatment, students' vocabulary mastery was in average level

with few students achieved scores below the required ones. To further visualize the result of pretest, the data are visualized in the following table:

Pretest					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	64.00	1	3.6	3.6	3.6
	72.00	2	7.1	7.1	10.7
	76.00	3	10.7	10.7	21.4
	80.00	3	10.7	10.7	32.1
	84.00	7	25.0	25.0	57.1
	88.00	6	21.4	21.4	78.6
	92.00	4	14.3	14.3	92.9
	96.00	2	7.1	7.1	100.0
	Total	28	100.0	100.0	

Table 4. Pretest Result Frequency

The table illustrated the data distribution of pretest results among the students. The data showed lowest frequency of students was in the score (64) with one student. Meanwhile, the highest frequency was in score (84) with seven students. From this data, it can be concluded that most of the students scored in good range, with very few students scored in low range and high range. This indicates that most of students' prior abilities had fulfilled the standard with some students had weak abilities. And here are the descriptive statistics of pretest results:

Experimental Group Pretest Result	
Maximum Score	64
Maximum Score	96
Range	32
Mean	84

Median	84
Mode	84
Std. Deviation	7.620
Variance	58.074
Sum	2352

Table 5. Descriptive Statistics of Pretest Result

The results of the pretest analysis showed that the test was conducted on 28 students. Students scores ranged from 64 to 96, with the score range was 32. the average score of this pretest was 84, which means most students had prior skills of vocabulary mastery around that number. The standard deviation of 7.620 indicated that there are differences in scores between students, with some gained higher or lower scores than the average.

Then, after conducting and analyzing the pretest results, the researcher conducted treatment using Knoword. After the treatment period, the researcher held a post-test to measure the differences before and after the treatment. The result of posttest would help to determine the effectiveness of Knoword on students' vocabulary mastery.

4.1.2. Data Analysis of Post Test

The post test was conducted on October 24th 2025, as the last assessment of the treatment period. The test was conducted after three sessions of treatment in order to assess students' vocabulary mastery before and after using Knoword application. The test consisted of twenty five

multiple choice questions, similar to the pretest. The purpose of using same format is to maintain fair comparison from the pretest. Moreover, it allowed researcher to accurately measure students' vocabulary mastery. By analyzing the posttest result, researcher would be able to determine whether Knoword application worked effectively on students' vocabulary mastery. Here are the post test results:

No	Initials Name	Posttest Score
1	AAC	88
2	AFBA	72
3	BAH	80
4	DAH	100
5	DOLA	84
6	FKN	92
7	FNR	88
8	FHA	96
9	FBO	92
10	FAK	88
11	GVP	76
12	IZP	92
13	IHA	88
14	KM	96
15	KKM	88
16	MFZAF	88
17	MLF	72
18	MRSG	84
19	MRKP	100
20	MRMI	88
21	MA	96
22	MATA	84
23	MDA	84
24	MRED	92
25	MRMAS	96
26	NM	84
27	RAI	88
28	RDN	92
Total		2468
Average Score		88.14

Table 6. Posttest Result

According to the post test results presented above, which completed by students from class XI BIC I, the lowest score achieved was 72, while the highest one was 100. The cumulative score from all students was 2468, resulting a 88.14 average score.

The distribution of students' post test score based on the data are presented below:

Posttest					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	72.00	2	7.1	7.1	7.1
	76.00	1	3.6	3.6	10.7
	80.00	1	3.6	3.6	14.3
	84.00	5	17.9	17.9	32.1
	88.00	8	28.6	28.6	60.7
	92.00	5	17.9	17.9	78.6
	96.00	4	14.3	14.3	92.9
	100.00	2	7.1	7.1	100.0
	Total	28	100.0	100.0	

Table 7. Posttest Result Frequency

The table above illustrated the distribution of students' posttest score, showing both score and number of students within. The data showed that two students scored at lowest score (72), two students scored at highest score (100), and most of the students scored at (88) score with eight students. A descriptive statistics of the data results are presented below:

Experimental Group Posttest Result	
Minimum Score	72
Maximum Score	100
Range	28

Mean	88.14
Median	88
Mode	88
Std. Deviation	7.260
Variance	52.720
Sum	2468

Table 8. Descriptive Statistics of Posttest Result

Based on the descriptive statistical analysis above, the score range was 28, with 72 as the lowest score and 100 as the highest one. The average score achieved was 88.14, showing growth differences from pretest average value which was 84. This indicates positive effect on student's vocabulary mastery after the treatment. Standard deviation here was 7.260, indicating the score spread was relatively homogeneous. Thus, there was no extreme differences among the students' scores. The variance value of 52.720 indicates that the data distribution has a moderate level of variability. This means that the participants' scores did not vary widely from the mean, which aligns with the standard deviation value of 7.260 showing a relatively consistent performance among students.

4.1.3. Students' Vocabulary Mastery Before and After Using

Knoword Application

In this study, students took a pretest before the treatment with Knoword and a posttest after using it. This part will discuss about the differences of students' score before and after using Knoword

application to examine whether there was a difference in students' vocabulary mastery. To show comparison of students' scores before and after using the application, here is the table:

No.	Initials Name	Difference		Description
		Pretest	Posttest	
1	AAC	88	88	Same
2	AFBA	84	72	Decreased
3	BAH	92	80	Decreased
4	DAH	88	100	Increased
5	DOLA	80	84	Increased
6	FKN	84	92	Increased
7	FNR	84	88	Increased
8	FHA	72	96	Increased
9	FBO	92	92	Same
10	FAK	88	88	Same
11	GVP	88	76	Decreased
12	IZP	84	92	Increased
13	IHA	84	88	Increased
14	KM	92	96	Increased
15	KKM	80	88	Increased
16	MFZAF	84	88	Increased
17	MLF	76	72	Decreased
18	MRSB	96	84	Decreased
19	MRKP	96	100	Increased
20	MRMI	76	88	Increased
21	MA	88	96	Increased
22	MATA	76	84	Increased
23	MDA	64	84	Increased

24	MRED	92	92	Same
25	MRMAS	84	96	Increased
26	NM	72	84	Increased
27	RAI	80	88	Increased
28	RDN	88	92	Increased
Total		2352	2468	Increased
Average		84	88.14	

Table 8. Students' Score Before and After the Treatment

The table above showed a comparison between students' pretest and posttest scores, indicating enhancement on students' vocabulary mastery. The data reveals that students made progress following learning activities. At first, the average pretest score was 84. Then, after administering treatments and posttest, the average score rose to 88.14. These results demonstrated an improvement of students' vocabulary mastery.

4.1.4. Result of Validity Test

Before the research instruments were used to gather actual data, a validity test needed to be conducted first. In this study, the validity test took place on October 2nd, 2025, with students from class XI PK I. The goal was to determine whether each question in the instrument was capable of producing accurate, meaningful, and reliable results. The findings from this test became the foundation for deciding whether the instrument was suitable to be used in the next stages of the research. To analyze the validity, the researcher used Microsoft Excel and applied the Corel formula

to calculate the r-value for each item. These calculations helped determine which items were valid and which ones needed revision or removal. The following section explains the results and interpretation of the validity test conducted with class XI PK I:

	26	1	1	1	1	1	1	1	0	1	0	0	1	1	1	1	1	0	1	1	1	1	1	21					
	27	0	0	0	1	1	0	1	0	0	0	0	1	0	1	1	1	1	0	1	1	1	1	0	13				
	28	0	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	22				
	29	1	1	1	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	21				
	30	1	1	1	1	1	1	1	1	0	1	0	1	1	0	1	1	1	1	1	0	1	1	1	21				
	31	1	1	0	1	1	1	1	0	0	1	0	1	1	0	1	1	1	0	1	0	0	0	1	15				
	32	1	1	0	1	1	1	1	0	0	0	1	1	0	0	0	1	1	1	1	1	1	0	0	15				
	33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24				
	B	23	31	29	32	31	30	31	30	7	29	9	23	30	21	31	16	31	28	31	24	30	28	28	31	28	Mt	20.06060606	
	S	10	2	4	1	2	3	2	3	26	4	24	10	3	12	2	17	2	5	2	9	3	5	5	2	5	St	3.578926113	
P (Proporsi benar)	q	0.697	0.94	0.88	0.97	0.94	0.91	0.94	0.91	0.21	0.88	0.27	0.7	0.91	0.64	0.94	0.48	0.94	0.85	0.94	0.73	0.91	0.85	0.85	0.94	0.85			
q (Proporsi salah)	MP	0.303	0.06	0.12	0.03	0.06	0.09	0.06	0.09	0.79	0.12	0.73	0.3	0.09	0.36	0.06	0.52	0.06	0.15	0.06	0.27	0.09	0.15	0.15	0.06	0.15			
r hitung	20.91	20.5	20.6	20.3	20.4	20.5	20.4	20.6	22.9	20.6	22.1	21.2	20.7	21.4	20.5	21.4	20.4	20.7	20.5	20.9	20.5	20.7	20.6	20.4	20.9				
r tabel	0.361	0.43	0.42	0.4	0.39	0.42	0.39	0.51	0.41	0.42	0.35	0.47	0.54	0.49	0.43	0.36	0.39	0.41	0.43	0.39	0.39	0.43	0.36	0.36	0.55				
Keterangan	r tabel	0.344	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34			
		valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid			

Picture 6. Validity Test Result

Based on the validity test results, all of the questions proved to be valid, as each item showed a calculated r value that was higher than the r table. This indicates that every item successfully measures students' vocabulary mastery as intended. Since none of the questions were categorized as invalid, the entire set can be used in the study without needing any revisions or removals. With the validity confirmed, these questions will be carried forward to the next phase, where they will be used to assess students' vocabulary mastery both before and after the treatment.

4.1.5. Result of Reliability Test

In this study, a reliability test was carried out to examine whether the questions used were able to measure students' writing skills

consistently over time. To conduct this analysis, the researcher employed *SPSS 27*, and the test produced the following results:

Reliability Statistics	
Cronbach's Alpha	N of Items
.718	26

Picture 7. Reliability Test Result

Based on the reliability test using Cronbach's Alpha, the instrument produced a coefficient of 0.718, which is higher than the minimum standard of 0.70. This indicates that the test has a solid level of internal consistency in assessing students' vocabulary mastery. A reliability score of 0.718 suggests that the instrument gives stable and dependable results when administered under similar conditions. With this coefficient, the data can be categorized as reliable.

4.1.6. Result of Normality Test

A normality test was conducted on the students' pre-test and post-test writing scores to check whether the data followed a normal distribution. This step was important to ensure that the statistical analyses used in the study were appropriate. The test was run using *IBM SPSS 27 for Windows*, and because the sample contained fewer than 50 participants, the Shapiro-Wilk test was selected. In this method, the data is considered normally distributed when the significance value is greater than 0.05. The following section presents the results of the normality test, showing whether the data

in this study met the assumption of normal distribution. The outcomes of the test are displayed below:

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.179	28	.023	.948	28	.177
Posttest	.171	28	.036	.936	28	.089

Table 10. Normality Test Result

Based on the table, the Shapiro–Wilk significance values for the experimental group are 0.177 for the pre-test and 0.089 for the post-test. Because both values are higher than α (0.05), the researcher can conclude that the null hypothesis (H_0) is accepted and the alternative hypothesis (H_a) is rejected. In other words, the results show that the data are normally distributed.

4.1.7. T-Test Result

To find out whether students' vocabulary mastery improved after using the Knoword application, a paired-sample t-test was carried out. This type of test was appropriate because the research used a one-group pretest–posttest design, where the same students were assessed before and after the treatment. Through this analysis, the study aimed to determine how effective the Knoword application was in helping students develop their vocabulary skills. By comparing the pretest and posttest results, the researcher was able to see whether the increase in scores represented a real, statistically meaningful improvement. The findings from the t-test provide

clear evidence of the impact of the application, and these results are explained in the next section.

Paired Samples Test									
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	PRETEST - POSTTEST	-4.14286	8.94309	1.69008	-7.61062	-.67509	-2.451	27	.021

Table 11. T-Test Result

The Paired T-test results in the table show a significance value of 0.021. Because this value is lower than the 0.05 threshold, the alternative hypothesis (Ha) is accepted while the null hypothesis (H0) is rejected. In other words, the data clearly indicate that using the Knoword application is effective on students' vocabulary mastery at MAN 1 Jember.

4.1.8. Interview Results and Analysis

After conducting the treatments, interview session was held to gather deeper perspective on how students' perceive the use of Knoword on their vocabulary mastery. And here are the interview result:

No.	Question	Interviewee	Answer
1	How do you feel after learning vocabulary using the Knoword app?	Student 1	<i>"It's fun and exciting because I can compete with my friends. I can joke around and interact while working or when my friends get lower scores."</i>
		Student 2	<i>"It's really fun."</i>
		Student 3	<i>"It feels fun because it's very simple and easy to use, that's"</i>

			<i>why I like it."</i>
		Student 4	<i>"This is a new experience using Knoword, because I've previously used similar apps like Quizizz and others."</i>
		Student 5	<i>"It's fun. The vocabulary I've learned feels like it's being tested, not through an exam, but through a game like this."</i>
		Student 6	<i>"This app really makes it easier for me to learn vocabulary."</i>
2	What do you like most about using Knoword in class, and does it make you more motivated to learn?	Student 1	<i>"In class, it's like a competition, so I feel like when I get a good grade, it's something to highlight."</i>
		Student 2	<i>"Of course, because it's a game-like concept. And that makes me more challenged."</i>
		Student 3	<i>"We study together, and what makes me more motivated is that we use technology (laptops), so it's really enjoyable."</i>
		Student 4	<i>"What I like about Knoword is the system. We write vocabulary words down, and if we make a mistake, we get a chance to correct them."</i>
		Student 5	<i>"It's like playing a game. With my friends. It's like a competition, a vocabulary battle, and at the end, we also</i>

			<i>know my grades. It's really fun."</i>
		Student 6	<i>"What I like is that when we misspell a word, there's feedback in red, so it's really enjoyable."</i>
3	What challenges or difficulties did you experience when using Knoword?	Student 1	<i>"I think in terms of time limits, yes. Especially for unfamiliar vocabulary. And perhaps it would be good for us (the students) to have access to the leaderboard."</i>
		Student 2	<i>"Because this app is game-based, sometimes we're racing against time, and sometimes there are bugs in the middle of working."</i>
		Student 3	<i>"So far, there haven't been any, but the one I remember most is a small bug, an error in the question, something like that."</i>
		Student 4	<i>"Maybe when it was first introduced, yes. You have to adapt because the system is different from other apps."</i>
		Student 5	<i>"Sometimes there are questions that don't match the clues. (app bug)."</i>
		Student 6	<i>"Maybe it's my personal preference for memorizing words."</i>
			<i>"With a competition like this, if</i>

4	Do you think Knoword helps you understand or remember new vocabulary better? Why?	Student 1	<i>our grades are low, after learning using Knoword, we might search for new vocabulary again."</i>
		Student 2	<i>"Of course, because the questions in Knoword allow us to guess and estimate the meaning of certain words."</i>
		Student 3	<i>"Of course, because the learning system is collaborative, and there's also immediate correction if there are any mistakes, which makes it easier to remember."</i>
		Student 4	<i>"Maybe so, because when we write vocabulary and make a mistake, we can still correct it."</i>
		Student 5	<i>"Maybe, because I've forgotten some vocabulary words before. With Knoword, it helps me remember them with the clues."</i>
		Student 6	<i>"Of course, it's very helpful, because there's immediate feedback if there are any mistakes, which makes me think harder."</i>
		Student 1	<i>"The usual method isn't fun. With Knoword, it's fun, you can compete with your friends, rather than memorizing alone in your room. This is better."</i>

5	Compared to the usual way of learning vocabulary (such as memorizing word lists), how is this method different from learning using Knoword?	Student 2	<i>"If you use Knoword, you can remember and understand the meaning better, unlike memorizing with a regular word list, where you'll memorize it quickly but also forget it quickly."</i>
		Student 3	<i>"If you use Knoword, you have to make sure every letter is correct. If there's something wrong or missing, you look for it until you find it."</i>
		Student 4	<i>"Learning with Knoword is much more interactive and engaging. Because students are now more integrated with technology, and that makes them more active in class."</i>
		Student 5	<i>"If Knoword is like a game, you can have fun and it's exciting. And when there are errors, there's clear feedback from the app."</i>
		Student 6	<i>"The usual method might be a bit difficult, as there's no feedback to indicate if something is wrong."</i>
6	Do you find Knoword easy to use during lessons? Why?	Student 1	<i>"It's easy, because we have easy internet access and laptops at school. So we can refresh ourselves and occasionally look at our laptops"</i>

			<i>instead of leaving them idle."</i>
		Student 2	<i>"Of course, because Knoword is easier to understand (use).</i>
		Student 3	<i>"Yes, because we access it using our laptops, it's very affordable and easy, because we don't need to log in; we just need to enter a code."</i>
		Student 4	<i>"I think it's easier because we don't need to log in."</i>
		Student 5	<i>"I think it's easy, and many of my friends like it too. It's like they finally have something to do that won't bore them, instead of having to stare at the whiteboard all the time."</i>
		Student 6	<i>"Very easy, because we don't need to create a new account and log in."</i>
7	Do you want to continue using Knoword or similar apps to learn English vocabulary in the future?	Student 1	<i>"Maybe. Also, since we like to bring our laptops, if we have time, we can study using similar apps."</i>
		Student 2	<i>"Sure, I like this kind of learning concept. Because it would be boring if we used the manual, classic method, which would also make it difficult to understand the vocabulary (manually)."</i>
		Student 3	<i>"I will continue using Knoword. I don't know about other apps,</i>

			<i>but this one is definitely better."</i>
		Student 4	<i>"Yes, because we live in the age of technology, and that makes learning more interesting."</i>
		Student 5	<i>"Okay, as long as it's fun and engaging, I think it's worth continuing to use."</i>
		Student 6	<i>"Maybe, because this is the first time I've used Knoword, and maybe if there's a better one, I'll try it too."</i>
8	What are your suggestions for improving the use of Knoword in the classroom?	Student 1	<i>"Perhaps the school could provide faster internet, or provide assistance for our friends who don't have laptops."</i>
		Student 2	<i>"My suggestion is to use the Knoword app more often."</i>
		Student 3	<i>"Perhaps, if possible, we could have a group correction after completing the assignments."</i>
		Student 4	<i>"Perhaps teachers should be more familiar with using Knoword so that if someone doesn't understand how to use it, they can be helped."</i>
		Student 5	<i>"Perhaps we could fix errors in questions that don't match the clues, and improve the ranking system so that everyone can see it, not just the teacher."</i>
		Student 6	<i>"That's enough from me."</i>

9	Does studying with Knoword make you interact or discuss more with your friends?	Student 1	<i>"Yes. In the second meeting, there were some in groups, right? So we often had discussions there."</i>
		Student 2	<i>"Of course, because we also interact online on Knoword, the atmosphere is competitive, and there are a lot of discussions in class."</i>
		Student 3	<i>"Yes, because I think I still have a lot to learn, so I interact a lot with my friends."</i>
		Student 4	<i>"Sometimes, because I think there are more discussions on Knoword."</i>
		Student 5	<i>"Because I'm more focused on the competitive side, so only occasionally."</i>
		Student 6	<i>"Rarely, because I think Knoword is enough (for working on it alone)."</i>
10	Is there anything else you would like to share about your experience using Knoword?	Student 1	<i>"I think this app is great. Maybe in the future, it can be used in other classes or even the entire school."</i>
		Student 2	<i>"I'd like to use methods/apps like Knoword and similar apps more often to make learning more effective, competitive, and up-to-date."</i>
		Student 3	<i>"Knoword has a pleasing, simple interface, and not too</i>

			<i>many logos, so it's comfortable."</i>
		Student 4	<i>"This is a new experience for me, because Knoword is a learning app that's different from the others, emphasizing discussion and collaboration."</i>
		Student 5	<i>"I don't think so."</i>
		Student 6	<i>"Probably not, because Knoword has already made quite an impression on me."</i>

Table 12. Interview Result

Based on the interview result, students' immediate reactions to using Knoword were overwhelmingly positive: they described the app as enjoyable, exciting, and easy to use. For example, one student said, "It's fun and exciting because I can compete with my friends," and another remarked simply, "It's really fun." These comments indicate that the game-like format successfully created a playful learning atmosphere that students found emotionally engaging.

Closely related to enjoyment is increased motivation. Several students reported that the competitive element made them feel challenged and eager to perform well—"In class, it's like a competition, so I feel like when I get a good grade, it's something to highlight," one student explained—while others emphasized that the use of technology (laptops) made the lesson more enjoyable and motivating. These statements suggest that Knoword's gamified features (competition, visible scoring, and use of

devices) served as motivational affordances that encouraged active participation.

Students also perceived concrete learning benefits, particularly in remembering and understanding vocabulary. Several noted that guessing from clues and receiving instant corrections helped them to recall words more effectively: “When we misspell a word, there’s feedback in red,” and “the questions in Knoword allow us to guess and estimate the meaning of certain words.” These reflections point to the pedagogical value of immediate feedback and retrieval practice embedded in the app, which students associated with better retention and deeper processing of vocabulary.

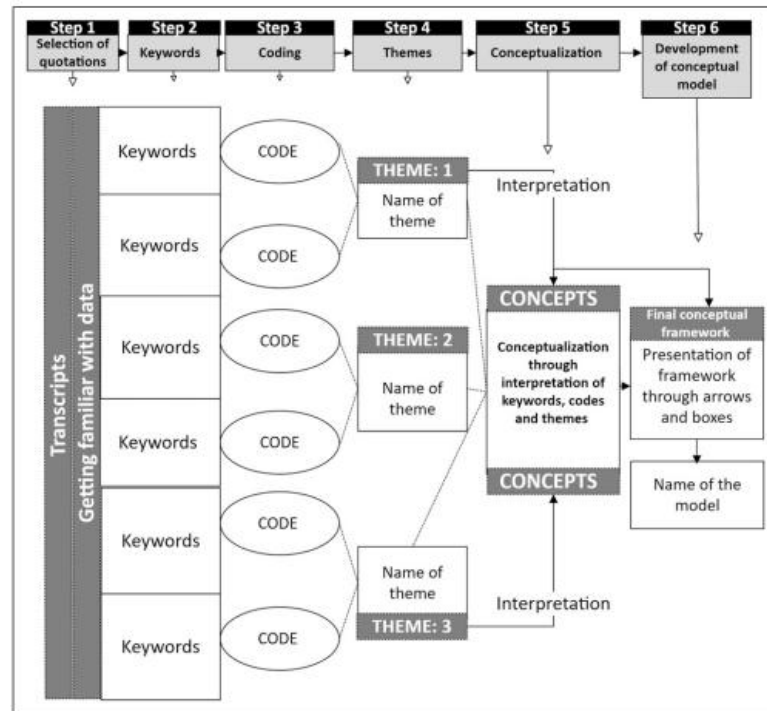
At the same time, students identified practical limitations that affected their experience. Time pressure during rounds and occasional technical problems were the most frequently mentioned issues: “Because this app is game-based, sometimes we’re racing against time, and sometimes there are bugs in the middle of working,” and “sometimes there are questions that don’t match the clues.” A minority also noted an initial adaptation cost because the system was different from other apps they had used. These challenges help explain why a few students showed smaller gains and highlight areas for teacher scaffolding and technical preparation.

Regarding usability and classroom fit, students emphasized Knoword’s simplicity and low barrier to entry—comments such as “we don’t need to log in; we just need to enter a code” and “it’s very simple and

easy to use” suggest that the app integrates smoothly into routine lessons where device access is available. However, they also recommended practical improvements (better internet, teacher familiarity with the app, and more transparent ranking) to optimize implementation across the whole class.

Finally, the interviews show a generally positive disposition toward continuing use: most students said they would be willing to use Knoword again or other similar apps in the future, often conditionally (“as long as it’s fun and engaging”). Many also reported greater interaction during sessions—some students described active group discussions and collaboration—although a few noted that the competitive focus sometimes reduced collaborative talk. Collectively, these responses suggest that Knoword can foster both individual engagement and social interaction when deployed thoughtfully.

The interview responses then analyzed using thematic analysis following the six-phase framework proposed by Braun and Clarke (2006). This approach was chosen because it allows for identifying, analyzing, and interpreting patterns of meaning (themes) within qualitative data. Thematic analysis is a flexible and widely used method that suits the purpose of exploring students’ perceptions toward the use of the Knoword application in learning English vocabulary.



Picture 8. Thematic Analysis Model

The analysis process involved the following six steps:

1) Selection of Quotations

In this step, The process began with transcribing the data and taking time to become deeply familiar with its content. The researcher carefully immersed themselves in the material, exploring it thoroughly to identify early patterns and meaningful ideas. Afterward, the researcher selected quotes that vividly illustrate the participants' perspectives and effectively capture the range of viewpoints and recurring themes that align with the research objectives.

2) Identifying Keywords

In this step, the researcher closely examined the interview transcripts to gain a deeper understanding of the participants'

responses. Through this careful review, repeated ideas, expressions, or concepts began to emerge. These recurring elements were then identified as keywords. Each keyword reflects an important aspect of the participants' experiences and viewpoints, and all of them are rooted directly in what the participants shared during the interviews.

3) Coding

In the third step, coding, brief labels or phrases are applied to specific parts of the data to represent the main idea, meaning, or theme within each segment. This process helps break down complex text into more organized and understandable pieces, making it easier to see patterns that relate to the research questions. Keywords are especially important during this stage because they guide the analysis and help transform raw data into clear, meaningful insights that can be examined more effectively.

4) Theme Development

Theme development is the stage where the researcher brings related codes together into meaningful clusters to uncover patterns and connections within the data. This process helps reveal deeper insights that address the research question. At this point, the researcher moves beyond simply examining individual codes and categories and begins interpreting the data at a more conceptual level by forming themes. These themes are not just repeated ideas; rather, they capture broader

patterns of meaning that reflect how the data connects with the research focus.

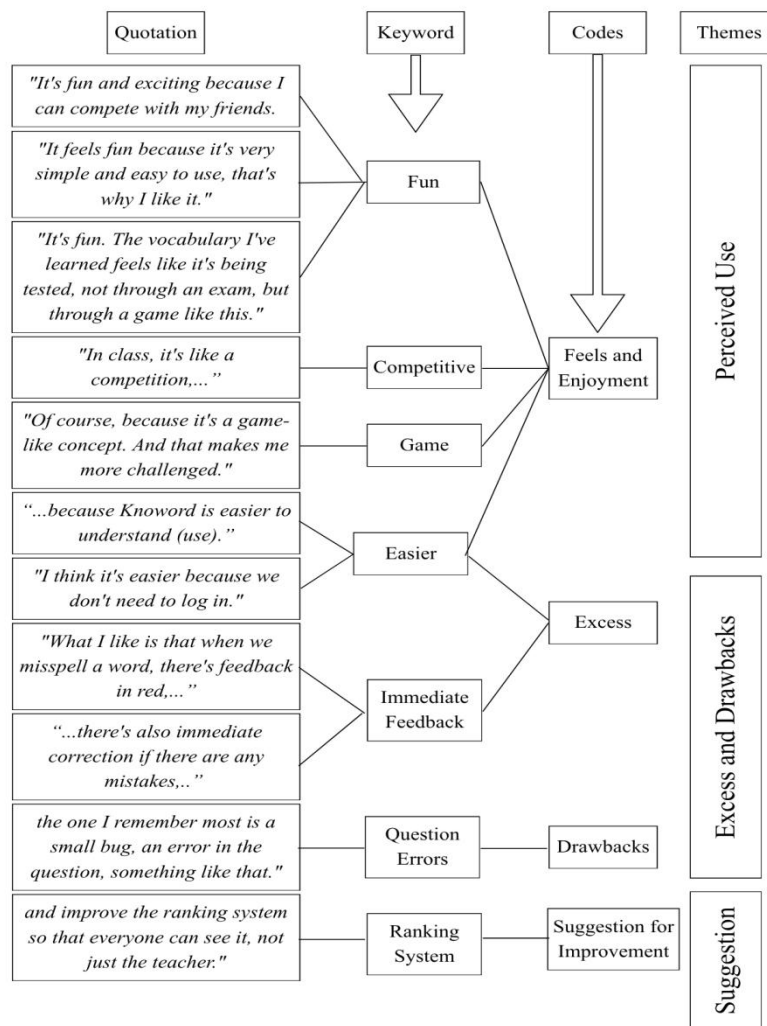
5) Conceptualization Through Interpretation of Keywords, Codes, and Themes

At this point, researcher works to identify recurring patterns in participants' responses and shape these patterns into clear, meaningful concepts that fit the goals of the study. To see how these ideas connect, the researcher used visual aids such as diagrams or conceptual models. These tools make it easier to map out relationships between concepts and build a more coherent understanding of the findings.

6) Development of Conceptual Model

This final step focuses on shaping the data into a clear and meaningful representation. At this point, the model is used to address the research questions and highlight the study's overall contribution. It marks the completion of the analytical journey, bringing together all the findings and insights that emerged from the data in a cohesive and understandable way.

The thematic analysis model of this study are presented on the picture below:



Picture 9. This Study's Thematic Analysis Model

Based on the thematic analysis model above, students expressed largely positive perceptions of using Knoword, particularly noting its enjoyable and engaging nature. They described the activity as “...*fun and exciting, because I can compete with my friends.*” and emphasized that it felt enjoyable due to its simple and accessible interface, stating that “*it’s very simple and easy to use.*”. The competitive, game-like atmosphere also contributed to their motivation, as reflected in the comment, “*In class, it’s*

like a competition...” In terms of practicality, students appreciated Knoword’s ease of use and supportive features, especially its immediate corrective feedback *“when we misspell a word, there’s feedback in red”* which helped them monitor and improve their vocabulary. Nevertheless, a few drawbacks were mentioned, primarily minor technical issues such as occasional question errors, with one student noting *“a small bug, an error in the question.”* Students also offered suggestions for improvement, most notably regarding the ranking visibility, recommending that the system be enhanced *“so that everyone can see it, not just the teacher.”* Overall, the thematic analysis shows that students found Knoword enjoyable, effective, and user-friendly while also identifying areas for refinement.

4.1.9. Data Integration

In this section, the quantitative and qualitative results were combined using convergent parallel design to offer a fuller picture of how effective the Knoword application is in improving students’ vocabulary skills. The quantitative data focused on measuring progress through pretest and posttest scores, while the qualitative data captured students’ thoughts, experiences, and any difficulties they faced while using Knoword. Bringing these two sets of findings together allows the researcher to see where the results align, where they differ, and how they complement each other. This integration leads to a richer and more well-rounded understanding of how Knoword supports vocabulary learning. The table below presents a joint analysis that blends the statistical outcomes with the thematic findings to answer the research questions in a more complete way.

Quantitative Findings	Qualitative Themes & Supporting Comments
The mean pretest score was 84, and the mean posttest score increased to 88.14.	Students perceived Knoword as enjoyable and motivating. <i>“It’s fun and exciting because I can compete with my friends.”</i>
The paired-sample T-test showed a significant difference (sig = 0.021).	Students reported that immediate feedback helped them understand mistakes. <i>“When we misspell a word, there’s feedback in red.”</i>
Few students showed low or negative gain despite the class improvement.	Some students mentioned challenges such as time pressure and minor bugs. <i>“The one I remember most is a small bug, an error in the question.”</i>
Overall, the class demonstrated a positive learning trend in vocabulary mastery.	Most students expressed positive perceptions of Knoword’s ease of use and helpful features. <i>“It’s very simple and easy to use.”</i>

Table 13. Convergent Parallel Table

The combined interpretation of the quantitative and qualitative results offers a fuller picture of how effective the Knoword application is in helping students learn vocabulary. From the quantitative side, there was clear improvement in students’ vocabulary mastery, shown by the rise in mean scores from 84 on the pretest to 88.14 on the posttest, supported by a significant t-test value ($p = 0.021$). These numerical gains match well with the qualitative insights, where students repeatedly described Knoword as enjoyable, motivating, and engaging. Their remarks, including “It’s fun and

exciting because I can compete with my friends,” indicate that the positive emotional experience provided by the app likely helped them stay focused and more willing to participate, which contributed to their better scores. Students also mentioned the usefulness of receiving immediate feedback—“When we misspell a word, there’s feedback in red”—which sheds light on how learning improvements happened, as instant corrections help students process vocabulary more deeply and remember it longer.

At the same time, the qualitative findings also clarify why some students showed smaller or even negative gains. A few reported that they struggled due to time pressure or occasional technical glitches in the app, giving context to individual differences that the quantitative data cannot capture on its own. Altogether, the integrated results reveal a strong alignment between both types of data. They show that Knoword not only supports measurable improvement in vocabulary skills but is also positively experienced by students, making it a valuable digital tool for EFL learning.

4.2. Discussion

The results of this study show that the Knoword application plays an important role in improving students’ vocabulary mastery. This improvement can be seen clearly in the increased average scores of students in the experimental group after they used the Knoword app. In other words, the activities and challenges provided by Knoword helped students learn and remember new words more effectively, leading to better overall performance. This study offers a fresh

contribution that sets it apart from earlier research by Rofiah and Waluyo (2024), Octaberlina (2023), Nasution and Daulay (2024), and Ilham (2024). Instead of focusing solely on Knoword as a tool for introducing vocabulary, this study highlights its broader function as a platform that also encourages students to actively produce vocabulary.

The results support this expanded role. Students in the experimental group showed a noticeable improvement after using the Knoword application during the treatment phase. Their average score rose from 84 to 88.14. This increase indicates that Knoword, through its structured and engaging activities, helps students not only learn new vocabulary but also use it more accurately and coherently. Overall, the findings demonstrate that Knoword is effective in strengthening vocabulary mastery among senior high school students.

From a theoretical perspective, Vygotsky's Constructivist Learning Theory emphasizes that learning occurs most effectively when learners actively construct knowledge through interaction, feedback, and meaningful tasks within their Zone of Proximal Development (ZPD). According to Vygotsky, scaffolding and immediate feedback play a crucial role in helping learners progress from what they can do independently to higher levels of understanding. In technology-enhanced environments, digital tools can function as mediational means that support learners in constructing knowledge through guided interaction and repeated practice.

The findings of this study align with these theoretical assumptions. Quantitatively, students demonstrated an improvement in vocabulary mastery, as

indicated by the increase in mean scores and the statistically significant result of the t-test. Qualitatively, students reported that Knoword helped them remember vocabulary more effectively through clues, guessing processes, and immediate corrective feedback. These features allowed students to actively engage with vocabulary items rather than passively memorize them. The competitive and interactive nature of Knoword also encouraged repeated attempts, which is consistent with constructivist views on learning through practice and experience.

Students' perceptions toward learning tools can be theoretically explained through Ajzen's Theory of Planned Behavior (TPB), which posits that individuals' attitudes, perceived behavioral control, and subjective norms influence their intentions and behaviors. In an educational context, students are more likely to engage with a learning tool when they have positive attitudes toward it, feel capable of using it, and perceive it as beneficial for learning.

The qualitative findings of this study strongly reflect these components. Based on interview data, students expressed positive attitudes toward Knoword, describing it as fun, motivating, and engaging. Many students perceived Knoword as easy to use, indicating a high level of perceived behavioral control, particularly because the application required minimal technical effort and provided clear instructions. Furthermore, the classroom setting and competitive atmosphere contributed to positive subjective norms, as students felt encouraged to participate alongside their peers. Students also believed that Knoword helped them understand and remember vocabulary better, reinforcing their perception of its effectiveness.

Although most students showed improvement, the gains were not uniform for everyone. Some students made only slight progress, and a few even experienced declines. The qualitative data shed light on this variation. Several students mentioned feeling stressed by the time limits, while others encountered occasional bugs or technical disturbances. These issues may have reduced their ability to process vocabulary efficiently during the game. This pattern is similar to findings by Rofiah and Waluyo (2024), who noted that while gamified tools generally boost motivation, external challenges such as time pressure or technical difficulties can hinder performance. By considering both the quantitative and qualitative data, the study reveals that digital vocabulary tools do not have the same level of effectiveness for all learners. Individual differences and contextual factors still play a substantial role.

Taken together, the positive quantitative results and encouraging qualitative perceptions indicate that Knoword is both effective and well-received as a vocabulary learning tool. Students' feelings of enjoyment, the helpfulness of the immediate feedback, and the ease of using the application support the upward trend seen in the test scores. At the same time, the difficulties mentioned during interviews provide valuable explanations for the smaller numerical variations that test scores alone cannot fully capture. This reinforces the advantage of using a convergent parallel design, where each type of data enriches the interpretation of the other and offers a more complete understanding of the learning process.

The findings of this research hold several practical implications. For teachers, Knoword can serve as an additional tool to promote active vocabulary learning because it enhances motivation, engagement, and immediate feedback in

ways that align with the principles of Game-Based Learning. It can be used during classroom activities to not only strengthen vocabulary knowledge but also foster collaboration and friendly competition. For students, the platform supports independent learning and allows them to practice vocabulary in a dynamic and enjoyable environment that differs from traditional memorization methods. Future researchers may explore the use of gamified vocabulary tools across different learning contexts, with longer treatment periods, or by comparing several applications.

Despite the promising results, the study also has limitations. It involved only one class, used a short treatment duration, and focused on a single digital platform. These factors limit the generalizability of the findings but also open new opportunities for further research. Overall, this study adds to the growing body of work on gamified vocabulary learning by providing evidence that Knoword can enhance vocabulary mastery and is positively perceived by learners. It also illustrates the value of combining quantitative and qualitative approaches to understand more deeply how digital tools influence vocabulary learning in EFL settings.

CHAPTER V

CONCLUSION

This final section summarizes the key findings of the study as discussed in the previous chapter. It also offers several recommendations for teachers and future researchers to help enhance the use of Knoword in vocabulary learning activities.

5.1. Conclusion

The findings of this study show that using the Knoword application brings a clear and meaningful improvement to students' vocabulary mastery. In simple terms, the app helped enhance the writing abilities of eleventh-grade students at MAN 1 Jember. The average score in the experimental class increased from 84 on the pre-test to 88.14 on the post-test. The paired sample t-test also confirmed a significant difference with a p-value of 0.021. This result indicates that Knoword contributed positively to students' vocabulary development.

Students' comments further supported these results. Many described Knoword as enjoyable, motivating, and easy to use. They appreciated features like instant feedback and the competitive elements of the game, which kept them engaged and eager to participate. Although a few students mentioned challenges such as feeling pressured by the time limit or experiencing small technical problems, most of them still regarded Knoword as an effective and helpful tool for improving their vocabulary.

5.2. Suggestion

Based on the findings and conclusions of this study, several recommendations can be made:

5.2.1. For Students

Students are encouraged to make regular use of Knoword or other game-based learning tools to build and strengthen their vocabulary. Consistent practice and taking advantage of the instant feedback these tools provide can help reinforce their learning and support independent study.

5.2.2. For Teachers

Teachers are recommended to incorporate Knoword as an additional resource to make vocabulary lessons more engaging. Providing clear guidance, managing class time effectively, and keeping track of students' progress can help ensure that the tool is used to its fullest potential.

5.2.3. For Future Research

Future researchers are encouraged to conduct studies with larger participant groups or longer implementation periods. Comparing Knoword with other digital platforms or exploring different learner-related factors may also offer a deeper understanding of how game-based tools support vocabulary learning.

BIBLIOGRAPHY

- Abidah, L., Asih, R. A., & Widodo, E. (2023). Digital Game-Based Learning as a Strategy to Expand Vocational Students' Vocabulary: A Mixed Methods Approach. *Journal of Education Technology*, 7(3), 419-428.
- Abrar, M., Fajaryani, N., Masbirorotni, M., Gustin, R. A., and Ningsih, A. W. (2022). EFL learners' challenges to speak English in online speaking classes. *Jurnal Kependidikan Penelitian Inovasi Pembelajaran*, 8(2).
<https://doi.org/10.21831/jk.v8i2.52311>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Alhaisoni, E. (2012). Language Learning Strategy Use of Saudi EFL Students in an Intensive English Learning Context. *Asian Social Science*, 8(13), 115–127.
<https://doi.org/10.5539/ass.v8n13p115>
- Alqallaf, A. W., & Ahmed, M. O. (2022). Vocabulary size and depth of knowledge: A study of Bahraini EFL learners. *International Journal of English Linguistics*, 12(1), 58-75.
- Al-Seghayer, K. (2021). Characteristics of Saudi EFL Learners' Learning Styles. *English Language Teaching*, 14(7), 82–94. <https://doi.org/10.5539/elt.v14n7p82>
- Amin, M. R. (2019). Developing reading skills through effective reading approaches. *International Journal of Social Science and Humanities*, 4(1), 35-40.
- Arochman, T., Madani, S. A., Welasiyah, S., and Setiandari, R. K. (2023). Exploring Students' Difficulties in Memorizing English Vocabularies in A Higher Education. *Journal of English Language and Education*, 8(2), 175-183.

- Atmowardoyo, H., Sakkir, G., and Sakkir, R. I. (2023). The Characteristics of Good Language Learners in Indonesia EFL Context. *ARRUS Journal of Social Sciences and Humanities*, 3(4), 565–568. <https://doi.org/10.35877/soshum2030>
- Bhagat, K. K., Wu, L. Y., and Chang, C. Y. (2016). Development and validation of the perception of students towards online learning (POSTOL). *Journal of Educational Technology and Society*, 19(1), 350-359.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Chung, E., Fung, D., and Wan, A. (2025). A mixed methods study of strategy use in academic vocabulary learning among first-year undergraduates in Hong Kong. *Journal of English for Academic Purposes*, 101482.
- Cohen, L., Manion, L., and Morrison, K. (2007). *Research Methods in Education* (6th ed.). Routledge.
- Creswell, J. W., and Clark, V. L. P. (2018). *Designing and Conducting Mixed Methods Research* (3rd ed.). Sage Publications.
- Dağdeler, K. O. (2023). A systematic review of mobile-assisted vocabulary learning research. *Smart Learning Environments*, 10(1), 19.
- Derakhshan, A., and Khatir, E. D. (2015). The effects of using games on English vocabulary learning. *Journal of Language and Translation*, 5(1), 39–48.
- Deterding, S., Dixon, D., Khaled, R., and Nacke, L. (2011). From game design elements to gamefulness: Defining "gamification". In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments* (pp. 9–15). ACM.

- Dörnyei, Z. (2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*. Lawrence Erlbaum Associates.
- Estaji, M., and Mirzaii, M. (2018). Enhancing EFL learners' vocabulary learning through formative assessment: Is the effort worth expending? *Language Learning in Higher Education*, 8(2), 239–264. <https://doi.org/10.1515/cercles-2018-0015>
- Farvardin, M. T., and Koosha, M. (2011). The role of vocabulary knowledge in Iranian EFL students' reading comprehension performance: breadth or depth? Theory and Practice in Language Studies, 1(11), 1575–1580. <https://doi.org/10.4304/tpls.1.11.1575-1580>
- Fu, Y., Zhang, L., Zhao, S., and Chen, Y. (2021). Perceptions of Non-English Major College Students on Learning English Vocabulary with Gamified Apps. *International Journal of Emerging Technologies in Learning (iJET)*, 16(18), 268–276. <https://doi.org/10.3991/ijet.v16i18.24125>
- Hakim, A., Wahyuni, S. (2024). A Critical Review: Technology as Learning Media in Teaching Reading. *J-SHMIC: Journal of English for Academic*, 11(1), 77-83.
- Hartini, L. W., Ardini, A. S. (2024). The Relationship Between Indonesian EFL Learners' Vocabulary Knowledge and English Competencies. *Journal of English and Education*, 10(1), 55-66. <https://doi.org/10.20885/jee.v10i1.33651>
- Huang, M., Kuang, F. and Ling, Y. (2022). EFL learners' engagement in different activities of blended learning environment. *Asian. J. Second. Foreign. Lang. Educ.* 7, 9. <https://doi.org/10.1186/s40862-022-00136-7>
- Hung, H. T., Yang, J. C., and Hwang, G. J. (2018). A scoping review of research on digital game-based language learning. *Educational Technology Research and Development*, 66(5), 1101–1130.

- Ilham, M. (2024). *The effectiveness of Knoword game to the students' mastery in vocabulary* (Undergraduate thesis, Universitas Muhammadiyah Sumatera Utara).
- Isladara, N. P., and Marlina, L. (2024). Students' Perception on Using Songs and Poems from learnenglish kids as Autonomous Learning Activity to Increase Vocabulary. *Journal of English Language Teaching*, 13(2), 659-668.
- Iwai, Y. (2011). The effects of metacognitive reading strategies: Pedagogical implications for EFL/ESL teachers. *Reading*, 11(2), 150-159.
- Jelamu, S., Mantra, I. B. N., & Pramawati, A. A. I. Y. (2022). THE CORRELATION BETWEEN STUDENTS' VOCABULARY MASTERY AND READING COMPREHENSION. *Academic Journal on English Studies (AJONES)*, 2(2), 151-158.
- Kassymova, G., Kuralai, T. S. M., Kumis, Z., and Svetlana, L. (2021). Linguistic, social and cultural factors influencing foreign language learning in the context of higher education. *Psychology and Education*, ISSN, 0033-3077.
- Kurniawan, A. H. (2024). Investigating Efl Students' Engagement And Responses In Learning English Vocabulary Through Mind-Mapping Strategy. *Jurnal Ilmiah Wahana Pendidikan*, 10(5), 73-79.
- Laufer, B., Goldstein, Z. (2004). Testing vocabulary knowledge: Size, strength, and computer adaptiveness. *Language Learning*, 54(3), 399-436.
- Lee, S. (2020). Examining the Roles of Aptitude, Motivation, Strategy Use, Language Processing Experience, and Gender in the Development of the Breadth and Depth of EFL Learners' Vocabulary Knowledge. *SAGE Open*, 10(4), 1-15.
<https://doi.org/10.1177/2158244020977883>

- Listyani, L., Pradina, O. (2021). Vocabulary Mastery Strategies Used by Indonesian Extensive Reading Learners. *PROMINENT: Journal of English Studies*, 4(1), 1-18.
- McKay, S. L. (2018). English as an International Language: What It Is and What It Means for Pedagogy. *RELC Journal*, 49(1), 9–23.
<https://doi.org/10.1177/0033688217738817>
- Meung, H., & Htut, M. (2021). Vocabulary Mastery in University Students: a Study on EFL Context. *Journal of Asian Multicultural Research for Educational Study*, 2(3), 25-28.
- Mogavi, R. H., Guo, B., Zhang, Y., Haq, E.-U., Hui, P., and Ma, X. (2022). When gamification spoils your learning: A qualitative case study of gamification misuse in a language-learning app. <https://arxiv.org/abs/2203.16175>
- Nasution, H. A., and Daulay, E. (2024). Evaluating vocabulary learning with the english with tiffani app: a qualitative study of student perceptions and pedagogical outcomes. *The Journal of Educational Development*, 12(1), 32-41.
- Nation, I. S. P. (2022). Learning vocabulary in another language. Cambridge University Press.
- Nizonkiza, D. (2016). First-year university students' receptive and productive use of academic vocabulary. *Stellenbosch Papers in Linguistics*, 45, 169–187.
<https://www.ajol.info/index.php/spl/article/view/143453>
- Nurfadilah, A. S., Nur, M., & Affandi, A. (2025). Enhancing EFL vocabulary acquisition through gamification: Addressing challenges and boosting retention. *KARIWARI SMART: Journal of Education Based on Local Wisdom*, 5 (1), 17–28.

- Octaberlina, L. R. (2023). EFL Learning Gamification: Exploring High School Learners' Vocabulary Acquisition Through Experimentation. *SALIENCE: English Language, Literature, and Education*, 3(1).
- Odinokaya, M. A., Krylova, E. A., Rubtsova, A. V., and Almazova, N. I. (2021). Using the discord application to facilitate EFL vocabulary acquisition. *Education Sciences*, 11(9), 470.
- Panmei, B., Waluyo, B. (2022). The Pedagogical Use of Gamification in English Vocabulary Training and Learning in Higher Education. *Education Sciences*, 13(1), 24. <https://doi.org/10.3390/educsci13010024>
- Putra, P. P., Priyatmojo, A. S. (2021). Students' perception toward gamification applied in English language classroom. *ELT Forum: Journal of English Language Teaching*, 10(1), 21-29.
- Risnawati, N., Hidayat, M. T., Dewi, S., and Sharma, P. (2023). EFL Students' Perception on the Use of a Mobile Learning Application “English Vocabulary” in Vocabulary Learning. *English Education and Applied Linguistics Journal*, 6(3). <https://doi.org/10.31980/eeal.v6i3.79>
- Rizkiyah, F., and Wulandari, F. D. (2023). Technology-based method to boost vocabulary acquisition of health practitioner students in EFL learning: Effectiveness and perception. *Darussalam English Journal (DEJ)*, 3(2), 287–306. <https://doi.org/10.30739/dej.v3i2.2805>
- Rofiah, N. L., and Waluyo, B. (2024). Effects of Gamified Grammar and Vocabulary Learning in an English Course on EFL Students in Thailand. *Teaching English With Technology*, 24(2), 22–46.

- Salwa, S., Ys, S. B. (2024). Students' Difficulties in Learning Vocabulary. *Research in English and Education Journal*, 9(3), 127-136.
<https://jim.usk.ac.id/READ/article/view/32921>
- Schmitt, N. (1997). Vocabulary learning strategies. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 199–227). Cambridge University Press.
- Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. *Language Teaching Research*, 12(3), 3.-363.
- Shortt, M., Tilak, S., Kuznetcova, I., Martens, B., and Akinkuolie, B. (2023). Gamification in mobile-assisted language learning: A systematic review of Duolingo literature from public release of 2012 to early 2020. *Computer Assisted Language Learning*, 36(3), 517-554.
- Sirait, N. A., and Kharisma, A. J. (2024). The Student's Perception on Gamification of Vocabulary Development by Utilizing Quizizz Application. *Teaching and Learning Journal of Mandalika*, 5(1), 203-214.
<https://doi.org/10.36312/teacher.v5i1.2805>
- Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of platform.
- Sulistiyo, U. (2009). English language teaching and EFL teacher competence in Indonesia. *Proceedings of the 57th TEFLIN International Conference*, 121–129.
- Suryanto, J. (2022). Navigating the challenges of TEFL in resource-limited elementary school: insights from Yogyakarta. *Leksika: Jurnal Bahasa, Sastra dan Pengajarannya*, 16(2).

- Taylor, W. L. (1953). Cloze procedure: A new tool for measuring readability. *Journalism Quarterly*, 30(4), 415–433.
- Telaumbanua, Y. A., Mendrofa, D. R. C., Hura, M. R. N., Waruwu, A., and Tafona'o, P. D. (2024). Second-Semester Students' Challenges towards Vocabulary Mastery in English Language Learning. *English Teaching and Linguistics Journal (ETLiJ)*, 5(2), 120-129.
- Tekir, S. (2021). Improving EFL Learners' Vocabulary Mastery: An Action Research Approach.
- Teymouri, R. (2024). Recent developments in mobile-assisted vocabulary learning: A mini review of published studies focusing on digital flashcards. *Frontiers in Education*, 9, 1496578. <https://doi.org/10.3389/feduc.2024.1496578>
- Tsao, J. J. (2024). Unveiling the Links Between EFL Learners' Perceived L2 Writing Classroom Goal Structures, Engagement With Teacher Written Corrective Feedback, and Self-Reported Writing Proficiency Through Structural Equation Modeling. *SAGE Open*, 14(1), 1-15. <https://doi.org/10.1177/21582440241299161>
- Usman, M., Yoestara, M., Rizal, M., Nurjannah, C., and Mohamed, N. A. (2024). A Study on Enhancing EFL Students' Vocabulary Proficiency via TikTok. *Studies in English Language and Education*, 11(3), 1652–1668.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (Vol. 86). Harvard university press.
- Webb, S. (2005). Receptive and productive vocabulary learning: The effects of reading and writing on word knowledge. *Studies in Second Language Acquisition*, 27, 33–52.

- Webb, S., and Nation, P. (2017). *How vocabulary is learned*. Oxford University Press.
- Wu, S., and Shafait, Z. (2024). Assessing EFL (English as Foreign Language) Education for Sustainable Development: Exploring the Cultural Teaching Literature. *European Journal of Investigation in Health, Psychology and Education*, 14(8), 2282–2299. <https://doi.org/10.3390/ejihpe14080152>
- Zainal, N. (2023). University students' perspectives on gamification in vocabulary learning: A literature review. *Malaysian Journal of Social Sciences and Humanities*, 8(5). <https://doi.org/10.47405/mjssh.v8i5.2314>
- Zohrabi, M. (2013). Mixed method research: Instruments, validity, reliability and reporting findings. *Theory and practice in language studies*, 3(2), 254-262.
- Zuhairi, A., and Mistar, J. (2023). Vocabulary learning strategies and vocabulary mastery by Indonesian EFL learners. *World Journal of English Language*, 13(8), 453–461. <https://doi.org/10.5430/wjel.v13n8p453>
- Zulaiha, D., & Triana, Y. (2023). Students' perception toward the use of open educational resources to improve writing skills. *Studies in English Language and Education*, 10(1), 174-196.

APPENDICES

Appendix I Survey Permit



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 : 3078/Un.03.1/TL.00.1/10/2025
Sifat : Penting
Lampiran : -
Hal : Izin Survey

01 Oktober 2025

Kepada

Yth. Kepala MAN 1 Jember
di
Jember

Assalamu'alaikum Wr. Wb.


Dengan hormat, dalam rangka penyusunan proposal Skripsi pada Jurusan Tadris Bahasa Inggris (TBI) Fakultas Ilmu Tarbiyah dan Keguruan (FITK) Universitas Islam Negeri Maulana Malik Ibrahim Malang, kami mohon dengan hormat agar mahasiswa berikut:

Nama : Grifian Azharinas
NIM : 210107110013
Tahun Akademik : Ganjil - 2025/2026
Judul Proposal : **Analyzing EFL Students' Vocabulary Mastery and Perceptions Through Knoword Application**

Diberi izin untuk melakukan survey/studi pendahuluan di lembaga/instansi yang menjadi wewenang Bapak/Ibu

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

Wassalamu'alaikum Wr. Wb.


Muhammad Walid, MA
NIP. 19730823 200003 1 002

Tembusan :

1. Ketua Program Studi TBI
2. Arsip

Appendix II Research Letter



KEMENTERIAN AGAMA REPUBLIK INDONESIA
UNIVERSITAS ISLAM NEGERI MAULANA MALIK IBRAHIM MALANG
FAKULTAS ILMU TARBIYAH DAN KEGURUAN
Jalan Gajayana 50, Telepon (0341) 552358 Faximile (0341) 552358 Malang
<http://fitk.uin-malang.ac.id> email: fitk@uin-malang.ac.id

Nomor : 3109/Un.03.1/TL.00.1/10/2025
Sifat : Penting
Lampiran : -
Hal : Izin Penelitian

02 Oktober 2025

Kepada

Yth. Kepala MAN 1 Jember
di
Jember

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	: Grifian Azharinas
NIM	: 210107110013
Jurusan	: Tadris Bahasa Inggris (TBI)
Semester - Tahun Akademik	: Ganjil - 2025/2026
Judul Skripsi	: Analyzing EFL Students' Vocabulary Mastery and Perceptions Through Knoword Application
Lama Penelitian	: Oktober 2025 sampai dengan Desember 2025 (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.


Dr. Muhammad Walid, MA
NID 18730823 200003 1 002

Tembusan :

1. Yth. Ketua Program Studi TBI
2. Arsip

Appendix III Validation 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 : B-3264/Un.03/FITK/PP.00.9/10/2025
Lampiran :
Perihal : Permohonan Menjadi Validator

10 Oktober 2025

Kepada Yth.
Harir Mubarak, M.Pd.
di -

Tempat

Assalamualaikum Wr. Wb.

Sehubungan dengan proses penyusunan skripsi mahasiswa berikut:

Nama : Grifian Azharinas
NIM : 210107110013
Program Studi : Tadris Bahasa Inggris (TBI)
Judul Skripsi : Analyzing EFL Students' Vocabulary Mastery and Perceptions Through Knoword Application
Dosen Pembimbing : Rendhi Fatrisna Yuniar, M.Pd.

maka dimohon Bapak/Ibu berkenan menjadi validator penelitian tersebut. Adapun segala hal berkaitan dengan apresiasi terhadap kegiatan validasi sebagaimana dimaksud sepenuhnya menjadi tanggung jawab mahasiswa bersangkutan.

Demikian Permohonan ini disampaikan, atas perkenan dan kerjasamanya yang baik disampaikan terima kasih.

Wassalamu'alaikum Wr. Wb.



Appendix IV Instrument Validation Letter

Validation Sheet

Instrument Validation Sheet of Interview Questions and Test Items for Research Entitled

“Analyzing EFL Students’ Vocabulary Mastery and Perceptions Through Knoword
Application”

Validator : Harir Mubarak, M.Pd.
NIP : 198707082023211024
Expertise : English Vocabulary
Instance : Maulana Malik Ibrahim State Islamic University of Malang
Validation date :

A. Introduction

This validation was made to obtain an assessment from the validator (Mr/Ms) on the research instrument used in this study. Every comment and suggestion given is very useful to improve the quality of the research instrument. Thank you for your willingness to become a validator instrument in this research.

B. Guidance

1. In this section, asses by ticking (✓) with the following criteria to the columns below :

1. Very poor
2. Poor
3. Average
4. Good
5. Excellent

2. Please give comments and suggestion In the columns below :

C. Validation Sheet

No	Aspect	Score				
		1	2	3	4	5
1.	Suitability of Instrument with basic competencies Basic Competence				✓	
2.	Instrument Indicator Clarity of question items contained in the research instrument				✓	
3.	Clarity of instrument on each question items contained in the research instrument				✓	
4.	The research instrument is relevant with the relevant with the research objectives				✓	
5.	The research instrument can help the researcher find out students abilities in vocabulary skills.				✓	
6.	The research instrument is easy to understand				✓	
7.	Each question has one correct or most correct answer				✓	
8.	The research using proper grammar				✓	
9.	The choice of answers to the research instrument is appropriate and logical in terms of material				✓	
10.	The subject matter must be formulates clearly and unequivocally				✓	

D. Suggestion

I hope by this instrument can dig up the data based on your research question.

E. Conclusion

Based on the validation sheet above, it can be concluded that the instruments that have been made is :

Please cross out (abcd) the answer that doesn't match the conclusion you gave.

- 1. The instrument can be used without revision.
- 2. The instrument can be used with alight revision.
- 3. The instrument can be used with many revisions.
- 4. The instrument can be used.

Malang, 7th October 2025

Validator, U



Harir Mubarak, M.Pd.

NIP:198707082023211024

Appendix V Learning Module

A.	General Information	
1.	Teacher's Name	Grifian Azharinas
	Institution Name	MAN 1 Jember
	Academic Year	2025 - 2026
	School Level	Senior High School
	Phase/Class	F/XI
	Semester	I
	Time Allocation	6 x 45 minutes
2.	Competence	
	Competence Target	Students are able to identify and understand English vocabulary related to the lesson topics, apply the learned words appropriately in simple contexts, and demonstrate improvement in their vocabulary mastery through the Knoword game-based activities.
3.	Pancasila Student Profile	
	Pancasila Student Profile related	4. Creative 5. Critical Thinking 6. Mutual Cooperative
4.	Infrastructures	
	Facility	Laptop, Projector
	Place	Classroom
5.	Participant Target	Regular Students
6.	Amount of Participant	28 Students
7.	MODA/Method/Learning Model	Offline, Game-Based Learning, Discussion
B.	Core Components	
1.	Learning Objectives	4. Students are able to identify and understand the meaning of English

		<p>vocabulary accurately.</p> <p>5. Students are able to apply newly learned vocabulary through game-based tasks.</p> <p>6. Students are able to use Knoword independently and collaboratively to enhance vocabulary learning</p>
2.	Assesments	<p>3. Formative Assesment</p> <p>4. Sumative Assesment</p>
3.	Meaningful Understanding	<p>Mastering vocabulary is an important step if we want to learn a language. Traditional ways like memorizing word lists is very boring. Instead, we rely on technology advancement and use game-based app like Knoword.</p>
4.	Igniter	<p>4. Is memorizing vocabulary hard to do?</p> <p>5. How do you usually learn vocabulary?</p> <p>6. What do you think is the most effective way to learn vocabulary?</p>
C.	Learning Activities	
1.	Learning Activity	
	Meeting 1	
	<p>Pre-Activity (10 minutes)</p>	<ul style="list-style-type: none"> ● Teacher greets students ● Teacher invites one student to lead a prayer ● Teacher checks students' condition ● Teacher checks attendance ● Teacher motivates students to be eager learning English ● Teacher explains the competence, objectives of the day

	Main Activity (70 minutes)	<ul style="list-style-type: none"> ● Teacher explains materials currently learned ● The teacher introduces <i>Knoword</i> and how to use it to learn vocabulary ● The teacher introduces vocabularies related to the material and demonstrates them using <i>Knoword</i>. ● The teacher demonstrates gameplay of <i>Knoword</i> by using existing word packs available. ● The teacher gives students chance to explore <i>Knoword</i> (they can try wordpacks available in the app)
	Post-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher and students reflect on today's learning ● Teacher expresses gratitude for students' participation ● Teacher ends the meeting with a prayer ● Teacher greets the students
	Meeting 2	
	Pre-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher greets students ● Teacher invites one student to lead a prayer ● Teacher checks students' condition ● Teacher checks attendance ● Teacher motivates students to be eager learning English ● Teacher explains the competence, objectives of the day
		<ul style="list-style-type: none"> ● Teacher asks students to review

	Main Activity (70 minutes)	<p>about previous meeting's material</p> <ul style="list-style-type: none"> ● Teacher asks each student to make a pair ● Teacher prepares the class for paired session using Knoword ● Teacher gives a word pack for students to do in <i>Knoword</i> ● Teacher monitors and helps students if there is any difficulties and technical issues ● Teacher shows the overall score rankings and gives appreciation
	Post-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher and students reflect on today's learning ● Teacher expresses gratitude for students' participation ● Teacher ends the meeting with a prayer ● Teacher greets the students
	Meeting 3	
	Pre-Activity (10 minutes)	<ul style="list-style-type: none"> ● Teacher greets students ● Teacher invites one student to lead a prayer ● Teacher checks students' condition ● Teacher checks attendance ● Teacher motivates students to be eager learning English ● Teacher explains the competence, objectives of the day
		<ul style="list-style-type: none"> ● Teacher asks students to review about previous meeting's material ● Teacher asks students to prepare their <i>Knoword</i>

	<p>Main Activity (70 minutes)</p>	<ul style="list-style-type: none"> ● Teacher prepares class for individual <i>Knoword</i> session ● Teacher monitors the class during the work and helps students whenever technical issues occurred. ● Teacher shows the overall score rankings and gives appreciation
	<p>Post-Activity (10 minutes)</p>	<ul style="list-style-type: none"> ● Teacher and students reflect on today's learning ● Teacher expresses gratitude for students' participation ● Teacher ends the meeting with a prayer ● Teacher greets the students
2.	Assesments	
	Formative Assesment	<p>4. Knowledge of Forms: Oral Question</p> <p>5. Form Skills: Students learn to memorize and use vocabulary in <i>Knoword</i></p> <p>6. Attitude Profile of Pancasila Students Form: Mutual Cooperation</p>
	Sumative Assesment	<i>Knoword</i> word pack quizzes

Appendix VI Pre-test

Name:.....

Class:.....

Pre-Test

1. Rudi : "I'm sorry I'm late, Sir."
Teacher : ".... next time, please."
A. Come earlier
B. Don't be on time
C. Be late again
D. You may go home
2. Santi : "I got 100 on my math test!"
Vina : "Wow,! You're really smart."
A. That's terrible
B. What a surprise
C. Congratulations
D. I'm sorry
3. Andre : "Would you like to come to my house tonight?"
Dimas : "...., I've got homework to finish."
A. Sure, I'd love to
B. I'm afraid I can't
C. That's great idea
D. Sounds fun
4. Laila : "Excuse me, may I sit here?"
Tono : "...., it's empty."
A. I'm sorry
B. Sure
C. Don't do that
D. Never mind
5. Father : "Turn down the volume, please."
Son : "...., Dad."
A. No way
B. All right
C. I can't
D. I won't
6. Dina : "How was your vacation in Bali?"
Lani : "It was I really enjoyed it."
A. bored
B. wonderful
C. tiring
D. awful
7. Rian : "I'm hungry. Let's go eat something."
Rio : ".... there's a good café nearby."
A. I agree
B. I doubt it
C. I don't want
D. Forget it
8. Waiter : "Are you ready to order?"
Guest : "Yes, I'll have fried rice and orange juice,"
A. please
B. sorry
C. maybe
D. never
9. Tina : "Would you mind helping me carry this box?"
Rudi : "...."
A. Of course
B. Not at all
C. Yes, I mind
D. Sorry, I won't
10. Fina : "Happy birthday, Adit!"
Adit : "...."
A. Don't mention it
B. You're welcome
C. Thanks a lot
D. That's okay
11. Mother : "Don't forget to lock the door before leaving."
Son : "...., Mom."
A. Never mind
B. I won't
C. Of course not
D. No, I don't
12. Bob : "What do you think of the movie?"
Leo : "I think it's than the first one."
A. more boring

- B. most bored
C. bored
D. more bored
13. Maya : "I can't find my wallet anywhere."
Dila : "Oh no,!"
A. be happy
B. I'm sorry to hear that
C. that's great
D. don't worry, it's good
14. Teacher : "Who broke this window?"
Student : "...., Sir."
A. I did
B. I don't break
C. I will not
D. I didn't doing
15. Yuli : "Do you like reading novels?"
Mira : "Yes, I do. Especially"
A. adventure stories
B. boring stories
C. tiring books
D. cooking books
16. Tommy : "Would you help me move this table?"
Riko : ".... It's quite heavy."
A. With pleasure
B. I refuse
C. I don't like
D. No way
17. Nina : "Oh, I dropped your pen!"
Rara : "Never mind,"
A. it was expensive
B. it's okay
C. you broke it
D. buy another one
18. Edo : "What will you do after graduation?"
Arka : "I study abroad."
A. am planning to
B. plan
C. planning
D. plans
19. Mother : "Do you know where your brother is?"
Son : "He in the garden."
A. is playing
B. plays
C. played
D. play
20. Lisa : "Do you mind if I open the window?"
Dinda : "...., it's really hot here."
A. Go ahead
B. Yes, I do
C. Please don't
D. I'd rather not
21. Andy : "Could you pass me the salt?"
Tini : "...., here you are."
A. Sorry
B. Sure
C. Don't do that
D. I can't
22. Zaki : "What are you doing?"
Andi : "I'm writing a letter to my cousin."
The underlined expression shows
A. past action
B. present activity
C. future plan
D. habit
23. Father : "What time will you be home?"
Son : "I'll be home 8 o'clock."
A. in
B. on
C. at
D. by
24. Anna : "Where's Mira? I haven't seen her today."
Bima : "She's been sick since yesterday."
The expression shows
A. happiness
B. sympathy
C. excitement

D. anger

25. Arif : "I think smartphones make people lazy."

Beni : "....., they also make communication easier."

A. I disagree

B. I don't think so

C. I agree, but

D. Exactly

Appendix VII Post-test

Name:

Class:.....

Post-Test

1. Sinta : "I've just won the English speech contest!"
Dewa : "Wow,!"
A. Poor you
B. That's amazing
C. I'm sorry
D. What a pity
2. Mother : "Be careful when you cross the road!"
Son : "...., Mom."
A. No problem
B. All right
C. I don't care
D. Forget it
3. Doni : "Do you mind if I borrow your dictionary?"
Wawan : "...., take it."
A. Not at all
B. Of course I do
C. Yes, I mind
D. I'd rather not
4. Lia : "Could you tell me the way to the library?"
Guard : "Go straight ahead and turn left."
The expression shows
A. giving direction
B. asking for permission
C. giving invitation
D. asking for help
5. Teacher : "Make sure you submit the task tomorrow."
Student : "...., Sir."
A. I will
B. I don't
C. I'm not
D. I won't
6. Elsa : "Can I get you something to drink?"
Rani : "...., I'm not thirsty."
A. No, thanks
B. Sure, please
C. Yes, please
D. Please don't
7. Gita : "I feel really tired."
Rani : "You should and take a rest."
A. study
B. go to bed
C. go out
D. keep working
8. Boy : "Do you know what time it is?"
Girl : "Yes, it's"
A. seven o'clock
B. morning
C. a clock
D. the time
9. Andre : "Let's play basketball this afternoon!"
Bima : "...., I have to finish my project."
A. I'd love to
B. I'm afraid I can't
C. That's a great idea
D. Let's go
10. Lala : "Thank you for your help, Dina."
Dina : "...."
A. Don't mention it
B. Forget it
C. I don't like it
D. No, thanks
11. Yudi : "Would you like a cup of coffee?"
Riko : ".... I've just had one."
A. Yes, please
B. No, thanks

- C. I'd love to
D. That's great
12. Fajar : "Oh no, I lost my phone!"
Rian : ".... I hope you can find it soon."
A. That's too bad
B. That's great
C. Good for you
D. Never mind
13. Toni : "I'm going to visit my grandparents this weekend."
Sari : "Really? to them for me."
A. Say hello
B. Don't speak
C. Don't tell
D. Give it
14. Yola : "How are things with you?"
Mega : "Everything's fine, thanks."
The expression "How are things with you?" means
A. Asking health
B. Asking time
C. Asking name
D. Asking direction
15. Mother : "Turn off the TV and go to bed now!"
The expression shows
A. prohibition
B. order
C. permission
D. invitation
16. Fani : "It's very hot here, isn't it?"
Seno : "Yes, open the window."
A. let's
B. I can
C. we should not
D. I don't want
17. X : "Would you mind waiting for a moment?"
Y : "...., take your time."
A. Not at all
B. Yes, I do
C. Sorry, I mind
D. I'd rather not
18. Student : "Could you explain that again, Sir?"
Teacher : "...."
A. No, I won't
B. Sure, listen carefully
C. Don't ask me
D. It's not my job
19. Yuda : "Do you enjoy listening to jazz music?"
Raka : "Yes, I listen to it every night."
A. always
B. never
C. rarely
D. hardly ever
20. Siska : "Could you lend me your pen?"
Vania : "...., I'm using it now."
A. Sorry
B. Here you are
C. Sure
D. Take it
21. Arman : "I feel dizzy."
Doctor : "You should and drink more water."
A. sleep
B. eat more candy
C. skip meals
D. keep running
22. Guest : "Excuse me, where can I find the toilet?"
Clerk : ".... the corner to your right."
A. Beside
B. Between
C. Inside
D. Around
23. Mira : "Do you think this dress suits me?"
Rani : "Yes,"
A. you look beautiful
B. it's too small
C. I don't think so
D. not at all

24. Dian : "Can I take your book for a while?"

Sita : "....., I still need it."

- A. I'm afraid not
- B. Yes, sure
- C. Of course
- D. Please do

25. Toni : "I think social media is useful for students."

Rio : "....., but it can be distracting too."

- A. I totally disagree
- B. I agree with you
- C. I hate it
- D. That's not true

Appendix VIII Students Answer Sheet

Name: Muhammad Aji Hani Al Hafidh

Class: XI B

Pre-Test

1. Rudi : "I'm sorry I'm late, Sir."
Teacher : ".... next time, please."
A. Come earlier
B. Don't be on time
C. Be late again
D. You may go home
2. Santi : "I got 100 on my math test!"
Vina : "Wow,! You're really smart."
A. That's terrible
B. What a surprise
C. Congratulations
D. I'm sorry
3. Andre : "Would you like to come to my house tonight?"
Dimas : ".... , I've got homework to finish."
A. Sure, I'd love to
B. I'm afraid I can't
C. That's great idea
D. Sounds fun
4. Laila : "Excuse me, may I sit here?"
Tono : "...., it's empty."
A. I'm sorry
B. Sure
C. Don't do that
D. Never mind
5. Father : "Turn down the volume, please."
Son : "...., Dad."
A. No way
B. All right
C. I can't
D. I won't
6. Dina : "How was your vacation in Bali?"
Lani : "It was I really enjoyed it."
A. bored
B. wonderful
C. tiring
D. awful
7. Rian : "I'm hungry. Let's go eat something."
Rio : ".... there's a good café nearby."
A. I agree
B. I doubt it
C. I don't want
D. Forget it
8. Waiter : "Are you ready to order?"
Guest : "Yes, I'll have fried rice and orange juice,"
A. please
B. sorry
C. maybe
D. never
9. Tina : "Would you mind helping me carry this box?"
Rudi : "...."
A. Of course
B. Not at all ✓
C. Yes, I mind
D. Sorry, I won't
10. Fina : "Happy birthday, Adit!"
Adit : "...."
A. Don't mention it
B. You're welcome
C. Thanks a lot
D. That's okay
11. Mother : "Don't forget to lock the door before leaving."
Son : "...., Mom."
A. Never mind
B. I won't ✓
C. Of course not
D. No, I don't
12. Bob : "What do you think of the movie?"
Leo : "I think it's than the first one."
A. more boring ✓

- B. most bored
C. bored
D. more bored
13. Maya : "I can't find my wallet anywhere."
Dila : "Oh no,!"
A. be happy
B. I'm sorry to hear that
C. that's great
D. don't worry, it's good
14. Teacher : "Who broke this window?"
Student : "...., Sir."
A. I did
B. I don't break
C. I will not
D. I didn't doing
15. Yuli : "Do you like reading novels?"
Mira : "Yes, I do. Especially"
A. adventure stories
B. boring stories
C. tiring books
D. cooking books
16. Tommy : "Would you help me move this table?"
Riko : ".... It's quite heavy."
A. With pleasure
B. I refuse ✓
C. I don't like
D. No way
17. Nina : "Oh, I dropped your pen!"
Rara : "Never mind,"
A. it was expensive
B. it's okay
C. you broke it
D. buy another one
18. Edo : "What will you do after graduation?"
Arka : "I study abroad."
A. am planning to
B. plan
C. planning
D. plans
19. Mother : "Do you know where your brother is?"
Son : "He in the garden."
A. is playing
B. plays
C. played
D. play
20. Lisa : "Do you mind if I open the window?"
Dinda : "...., it's really hot here."
A. Go ahead ✓
B. Yes, I do
C. Please don't
D. I'd rather not
21. Andy : "Could you pass me the salt?"
Tini : "...., here you are."
A. Sorry
B. Sure
C. Don't do that
D. I can't
22. Zaki : "What are you doing?"
Andi : "I'm writing a letter to my cousin."
The underlined expression shows
A. past action
B. present activity
C. future plan
D. habit
23. Father : "What time will you be home?"
Son : "I'll be home 8 o'clock."
A. in
B. on
C. at ✓
D. by
24. Anna : "Where's Mira? I haven't seen her today."
Bima : "She's been sick since yesterday."
The expression shows
A. happiness
B. sympathy
C. excitement

D. anger

25. Arif : "I think smartphones make people lazy."
Beni : "....., they also make communication easier."
A. I disagree
B. I don't think so
C. I agree, but
D. Exactly

Name: Ilham Zidni Pangestu
Class: XI BIC-1

S= 2

Post-Test

1. Sinta : "I've just won the English speech contest!"
Dewa : "Wow,!"
A. Poor you
☒ B. That's amazing
C. I'm sorry
D. What a pity
2. Mother : "Be careful when you cross the road!"
Son : "...., Mom."
A. No problem
☒ B. All right
C. I don't care
D. Forget it
3. Doni : "Do you mind if I borrow your dictionary?"
Wawan : "...., take it."
A. Not at all ✓
B. Of course I do
☒ C. Yes, I mind
D. I'd rather not
4. Lia : "Could you tell me the way to the library?"
Guard : "Go straight ahead and turn left."
The expression shows
☒ A. giving direction
B. asking for permission
C. giving invitation
D. asking for help
5. Teacher : "Make sure you submit the task tomorrow."
Student : "...., Sir."
☒ A. I will
B. I don't
C. I'm not
D. I won't
6. Elsa : "Can I get you something to drink?"
Rani : "...., I'm not thirsty."
☒ A. No, thanks
B. Sure, please
C. Yes, please
D. Please don't
7. Gita : "I feel really tired."
Rani : "You should and take a rest."
A. study
☒ B. go to bed
C. go out
D. keep working
8. Boy : "Do you know what time it is?"
Girl : "Yes, it's"
☒ A. seven o'clock
B. morning
C. a clock
D. the time
9. Andre : "Let's play basketball this afternoon!"
Bima : "...., I have to finish my project."
A. I'd love to
☒ B. I'm afraid I can't
C. That's a great idea
D. Let's go
10. Lala : "Thank you for your help, Dina."
Dina : "...."
☒ A. Don't mention it
B. Forget it
C. I don't like it
D. No, thanks
11. Yudi : "Would you like a cup of coffee?"
Riko : ".... I've just had one."
A. Yes, please
☒ B. No, thanks

- C. I'd love to
D. That's great
12. Fajar : "Oh no, I lost my phone!"
Rian : ".... I hope you can find it soon."
☒ A. That's too bad
B. That's great
C. Good for you
D. Never mind
13. Toni : "I'm going to visit my grandparents this weekend."
Sari : "Really? to them for me."
☒ A. Say hello
B. Don't speak
C. Don't tell
D. Give it
14. Yola : "How are things with you?"
Mega : "Everything's fine, thanks."
The expression "How are things with you?" means
☒ A. Asking health
B. Asking time
C. Asking name
D. Asking direction
15. Mother : "Turn off the TV and go to bed now!"
The expression shows
☒ A. prohibition
B. order
C. permission
D. invitation
16. Fani : "It's very hot here, isn't it?"
Seno : "Yes, open the window."
☒ A. let's
B. I can
C. we should not
D. I don't want
17. X : "Would you mind waiting for a moment?"
Y : "...., take your time."
A. Not at all ✓
☒ B. Yes, I do
C. Sorry, I mind
D. I'd rather not
18. Student : "Could you explain that again, Sir?"
Teacher : "...."
A. No, I won't
☒ B. Sure, listen carefully
C. Don't ask me
D. It's not my job
19. Yuda : "Do you enjoy listening to jazz music?"
Raka : "Yes, I listen to it every night."
☒ A. always
B. never
C. rarely
D. hardly ever
20. Siska : "Could you lend me your pen?"
Vania : "...., I'm using it now."
☒ A. Sorry
B. Here you are
C. Sure
D. Take it
21. Arman : "I feel dizzy."
Doctor : "You should and drink more water."
☒ A. sleep
B. eat more candy
C. skip meals
D. keep running
22. Guest : "Excuse me, where can I find the toilet?"
Clerk : ".... the corner to your right."
A. Beside
☒ B. Between
C. Inside
☒ D. Around
23. Mira : "Do you think this dress suits me?"
Rani : "Yes,"
☒ A. you look beautiful
B. it's too small
C. I don't think so
D. not at all

24. Dian : "Can I take your book for a while?"
Sita : "...., I still need it."
☒ A. I'm afraid not
B. Yes, sure
C. Of course
D. Please do
25. Toni : "I think social media is useful for students."
Rio : "...., but it can be distracting too."
☒ A. I totally disagree
☒ B. I agree with you
C. I hate it
D. That's not true

Appendix IX Documentation



Appendix X Curriculum Vitae

CURRICULUM VITAE

Nama Lengkap	: Grifian Azharinas
Tempat, Tanggal Lahir	: Banyuwangi, 12 April 2003
Jenis Kelamin	: Laki-Laki
Agama	: Islam
Fakultas, Jurusan	: FITK, Tadris Bahasa Inggris
Perguruan Tinggi	: UIN Maulana Malik Ibrahim Malang
Alamat Rumah	: Dsn. Selorejo Ds. Kaligondo Kec. Genteng Kab. Banyuwangi
No. HP/Telepon	: 085733546131
Nama Wali	: MOH. IKSAN



Riwayat Pendidikan

- | | |
|-------------------------------------|---------------|
| 1. TK ABA 3 Denpasar | 2008-2009 |
| 2. SD Muhammadiyah 3 Denpasar | 2009-2015 |
| 3. SMP Firdaus Negara | 2015-2016 |
| 4. SMP Bustanul Makmur | 2016-2018 |
| 5. MAN 1 Jember | 2018-2021 |
| 6. UIN Maulana Malik Ibrahim Malang | 2021-Sekarang |