

THE EFFECTS OF USING QUIZLET FLASHCARDS IN ENHANCING EFL SENIOR HIGH SCHOOL STUDENTS' VOCABULARY LEARNING IN ACEH

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SYAHWIL SAPUTRA

SULTAN IDRIS EDUCATION UNIVERSITY

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ABSTRACT

This research aimed to investigate the effects of Quizlet Flashcards (QFs) on vocabulary retention of two groups of Tenth Grade students (60 students) from two different senior high schools in Banda Aceh. The quasi-experimental research design was implemented. This study employed the non-probability sampling technique to determine the composition of both the experimental and control groups. A new word test was administered to select 60 target words and the Quizlet Flashcards (QFs) were used to help the participants learn the words. The scores of the pre-test and the post-test were analysed using the independent t-test, paired sample t-test and descriptive statistics. The score comparison and total improvement score in percentage were also presented. The results of the questionnaires in the student's feedback form were analysed descriptively through frequency counts, percentages, mean scores, and standard deviation. The qualitative data from the semi-structured students' interview was transcribed, categorised and coded using content analysis. The paired sample t-test results are ($t=19.284$, $df=29$, $p<.05$) for the experimental group and ($t=9.391$, $df=29$, $p<.05$) for the control group. Based on the results, both experimental and control groups improved significantly ($p=.000^*$). Nonetheless, the score improvement (M difference) for the experimental group exceeded the control group by 12. From the interview results, *Spelling* feature was revealed to be the students' most preferred vocabulary lesson while the least was the *Write* feature. Participants in the experimental group also reported positive perceptions towards the use of Quizlet Flashcards (QFs) as the vocabulary learning ($M=4.48$, $SD=0.594$). The implication of this study suggested that the use of Quizlet Flashcards (QFs), incorporating various features, significantly enhances students' vocabulary knowledge.

KESAN PENGGUNAAN QUIZLET FLASHCARDS (QFs) DALAM MENINGKATKAN PEMBELAJARAN PERBENDAHARAAN KATA PELAJAR SEKOLAH MENENGAH EFL DI ACEH

ABSTRAK

Penyelidikan ini bertujuan untuk mengkaji kesan Quizlet Flashcards (QFs) terhadap pengekaln kosa kata dua kumpulan pelajar Tingkatan Sepuluh seramai 60 pelajar daripada dua sekolah menengah yang berbeza di Banda Aceh. Reka bentuk kajian separa eksperimen (quasi-experimental) telah digunakan. Penyelidikan ini menggunakan teknik persampelan bukan kebarangkalian untuk menentukan komposisi kumpulan eksperimen dan kawalan. Ujian perkataan baharu telah digunakan untuk memilih 60 perkataan sasaran dan Digital Flashcards (DFs) dengan menggunakan Quizlet Flashcards (QFs) untuk membantu para peserta mempelajari perkataan tersebut. Markah ujian pra dan ujian pasca dianalisis dengan menggunakan ujian-t sampel tidak bersandar, ujian-t sampel berpasangan dan statistik deskriptif. Perbandingan skor dan jumlah peningkatan skor dalam bentuk peratusan turut dibentangkan. Hasil daripada borang maklum balas pelajar dianalisis secara deskriptif melalui kiraan kekerapan, peratusan, skor min, dan sisihan piawai. Hasil kualitatif daripada temubual pelajar separuh berstruktur juga ditranskripsi, dikategori dan dikod menggunakan analisis kandungan. Keputusan ujian-t sampel berpasangan ialah ($t=19.284$, $df=29$, $p<.05$) bagi kumpulan eksperimen dan ($t=9.391$, $df=29$, $p<.05$) bagi kumpulan kawalan. Berdasarkan keputusan, kedua-dua kumpulan eksperimen dan kawalan meningkat dengan ketara ($p=.000^*$). Namun begitu, peningkatan markah (perbezaan M) bagi kumpulan eksperimen melebihi kumpulan kawalan sebanyak 12. Daripada hasil temu bual, ciri *Ejaan* merupakan ciri pembelajaran perbendaharaan kata yang paling digemari oleh pelajar manakala yang paling kurang digemari adalah ciri *Tulisan*. Peserta dalam kumpulan eksperimen juga melaporkan persepsi positif terhadap penggunaan Quizlet Flashcards (QFs) sebagai pembelajaran kosa kata ($M=4.48$, $SD=0.594$). Implikasi kajian ini menunjukkan bahawa penggunaan Quizlet Flashcards (QFs) yang menggabungkan pelbagai ciri dapat meningkatkan pengetahuan kosa kata pelajar dengan ketara.

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LIST OF ABBREVIATIONS

A	Agree
APA	American Psychological Association
AWL	Academic Word List
BDT	Bloom’s Digital Taxonomy
BKOF	Building Knowledge of the Field
BRT	Bloom’s Revised Taxonomy
CALL	Computer-Assisted Language Learning
CD	Compact Disk
CLT	Cognitive Load Theory
CTML	Cognitive Theory of Multimedia Learning
D	Disagree
DFs	Digital Flashcards
EFL	English as a Foreign Language
EM	Extrinsic motivation
ESL	English as a Second Language
E-Society	Electronic Society
HOTS	Higher Order Thinking Skills
ICT	Information and Communications Technology
ICOT	Independence of the Text
IM	Intrinsic Motivation
JCOT	Joint Construction of Text
K-13	Kurikulum 2013 (The 2013 National Curriculum of Indonesia)

KKM	Kriteria Ketuntasan Minimal (Value of Minimum Completeness Criteria)
LOTS	Lower Order Thinking Skills
LPT	Level Processing Theory
L1	First Language Learners
L2	Second Language Learners
MALL	Mobile-Assisted Language learning
MAN	Madrasah Aliyah Negeri (Islamic Senior High School)
MAVL	Mobile-Assisted Vocabulary Learning
MOT	Modelling of Text
N	Neutral
NGSL	New General Service List
PC	Personal Computer
DFs	Digital Flashcards
PPP	Presentation, Practice, and Production
QA	Quizlet Application
QFs	Quizlet Flashcards
SA	Strongly Agree
SD	Standard Deviation
SD	Strongly Disagree
SLA	Second Language Acquisition
SMAN	Sekolah Menengah Atas Negeri (Senior High School)
SPSS	Statistical Package for Social Sciences
TEFL	Teaching English as a Foreign Language
TELL	Technology-Enhanced Language Learning

TOEFL	Test of English as a Foreign Language
TOEIC	Test of English for International Communication
UPSI	Universiti Pendidikan Sultan Idris
VLSs	Vocabulary Learning Strategies

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- A Vocabulary Test
- B List of Sixty Unfamiliar/Target Words
- C Student's Feedback Items
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- E Lesson Plans and Learning Activities

CHAPTER 1

INTRODUCTION

1.1 Introduction

English has emerged as a global language utilised across various spheres such as economics, social interactions, politics, and education. Fithriani (2018) asserts that due to globalisation, English has taken the forefront as the most prevalent language for trade, business, education, and tourism worldwide. In countries like Indonesia, English serves as a tool for fostering international relationships and strengthening ties between nations, underscoring its significance. Acknowledging the essential role that English holds in everyday life, there is a universal necessity for its comprehension and mastery. Furthermore, as highlighted by Sari and Sutopo (2018), English finds extensive use in newspaper and book publishing, as well as international communication networks. This underscores its crucial role in global relations,



emphasising the need for universal proficiency in English for effective communication among individuals from diverse linguistic backgrounds and countries.

The advancement of the English language holds significant importance within the educational system across various age groups. In educational contexts, English serves as a crucial tool for accessing global education, acting as the primary and vibrant standard for global communication, facilitating rapid progress and development in all spheres of life (Alsabbagh, 2019). In Indonesia, English is regarded as a foreign language rather than a second language. Presently, the Indonesian curriculum denotes English as the targeted language essential for teaching in schools (Munandar & Newton, 2021). Highlighted by Badawi, El Gabas, and Mohamed (2022), English stands as the international medium for communication, making learning English a critical concern across all educational levels. The primary educational objectives regarding English as a second or foreign language involve adeptly responding to real-life situations in public and expressing opinions and thoughts effectively.

In Indonesia, the government's directive involves incorporating English as a foreign language within the educational curriculum from elementary school to university levels. Moreover, Indonesian students are required to grasp two fundamental aspects while learning English—both skills and linguistic components. In line with the 2013 Curriculum (K-13), which has been implemented across high school levels since 2014, English as a foreign language course (TEFL) in Indonesia should emphasise enhancing language proficiency across four key areas: listening, speaking, reading, and writing are all skills. Additionally, the primary objective of



TEFL in Indonesia is to equip students with the capability to foster both oral and written communicative competence (Fithriani, 2018).

Alternatively, according to Kemendikbud (2018), the linguistic components encompass grammar, pronunciation, and vocabulary. Among these, vocabulary emerges as the crucial element that demands mastery across all student levels. Panjaitan (2021) emphasises that vocabulary extends beyond individual words, encompassing multiword phrases, idioms, and even complete sentences. The acquisition of vocabulary holds significant importance in nurturing language skills such as listening, speaking, reading, and writing, marking a fundamental step in English language acquisition (Alqahtani, 2015). Within the secondary school or high school level in Indonesia, Curriculum K13 delineates vocabulary as a linguistic element incorporated into the learning material, constituting an essential competency that teachers should appropriately impart to their students in each session. Additionally, high school students in Indonesia are introduced to fundamental vocabulary as part of their speech learning curriculum.

Newton and Nation (2020) emphasise that language focus stands as one of the four essential aspects to incorporate within the language subject. Furthermore, Nation and Yamamoto (2012) highlight various language aspects, including spelling, pronunciation, vocabulary, multiword units, grammar, and discourse, as crucial elements necessitating considerable attention. The primary objective of this aspect is not solely to address the message but also to grasp language components for short-term objectives (Setiawan & Wiedarti, 2020). Additionally, Newton and Nation (2020) indicate that purposeful learning activities focusing on language elements yield

a positive impact on both learning and language application. For instance, deliberate acquisition of vocabulary has been proven to yield a substantial amount of practical knowledge.

Vocabulary stands as a crucial part of language features that students need to intentionally acquire to enhance proficiency in the four English language skills. This necessitates classroom instruction focused on vocabulary to enable students to comprehend and express the intended language accurately. Alqahtani (2015) underscores its significance not only in foreign language learning but also in foreign language curricula. Moreover, according to Fernández-García (2007), words play a significant role in students' comprehension of texts. In essence, mastering vocabulary is indispensable in the process of learning English (Setiawan & Wiedarti, 2020).

Katempa (2021) asserts that vocabulary holds unparalleled significance as the cornerstone of language learning. Absence of a robust vocabulary impedes learners from effectively speaking, writing, reading, and comprehending spoken language. A deficiency in vocabulary comprehension can hinder learners from understanding sentences. Essentially, vocabulary serves as the fundamental building block in English language learning for EFL contexts, forming the bedrock of students' knowledge base to acquire a new language. In essence, vocabulary represents a foundational element essential for constructing sentences in a language (Katempa, 2021; ErKayana & Drower, 2012).

However, an evident challenge persists among many students when it comes to mastering vocabulary. This has been corroborated by several prior studies

addressing the deficiency in vocabulary proficiency encountered by students in Indonesia. Firstly, a study conducted by Praptika (2024) highlights that student encountered issues predominantly centered on translating individual words within texts and often struggled with word meanings. Additionally, Widiastuti's research (2014) underscores that student faced hurdles in both recognising and using certain English words. Thirdly, Aulia (2016) reports that students grappled with challenges in grammatical distinctions, specifically in identifying different parts of speech like nouns, verbs, adjectives, and adverbs. As an English educator at a high school, the researcher personally encountered similar challenges during teaching sessions, observing that students' inadequate vocabulary hindered their comprehension of English words.

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 Despite the significance of vocabulary in language acquisition, an initial study conducted by the researcher at Senior High School 1 and Islamic Senior High School 1 in Banda Aceh revealed that numerous students struggle to retain words, evident from their poor performance in vocabulary exercises. Consequently, there is a pressing necessity to introduce effective instructional tools within classroom activities, enabling students to store English vocabulary in their long-term memory. Implementing appropriate tools is anticipated to significantly enhance students' vocabulary attainment. Several researchers have noted the influence of instructional tools on English vocabulary learning and student achievement (Barani, Mazandarani, & Rezaie, 2020; Wijayanti & Gunawan, 2018; Rini, 2011). Coxhead and Nation (2001) further elucidated that visual aids such as pictures and objects facilitate swift comprehension of word meanings by students. Moreover, Wijayanti and Gunawan

(2018) highlights how these tools serve to facilitate students' reception of vocabulary materials.

The initial study uncovered another noteworthy observation which teachers heavily relied on vocabulary tasks involving gap-filling exercises from English books. This singular approach had a detrimental impact on students' ability to retain words effectively, as they primarily learned through guesswork. Hashemzadeh (2012), however, emphasises that diversifying exercise formats aids in better retention of vocabulary. Additionally, specific exercises like hierarchy tasks involving word matching and multiple-choice formats, as mentioned by Lin and Hsu (2013), can significantly enhance students' ability to retain words in their long-term memory. Hence, providing a variety of vocabulary exercise types proves crucial in aiding

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students' retention of words.

The author observed a lack of student motivation toward learning the vocabulary provided in the classroom. Motivation plays a crucial role in positively influencing students' performance in vocabulary exercises. This aspect holds significance not only in language teaching and learning overall but specifically in English language acquisition (Khansir & Dehkordi, 2017). Additionally, motivated students exhibit heightened effort and perseverance in their language learning tasks (Wang, Huang, & Tsu, 2015). Stroud (2014) similarly emphasises that integrating modern technology into vocabulary learning can substantially boost student motivation, fostering deeper concentration on learning. Essentially, employing tools to inspire students in vocabulary learning is vital. Furthermore, Chen, Lu, and Lien (2021) support the utilisation of technology in classrooms, acknowledging its wide-

ranging benefits in enhancing students' learning engagement and motivation. Loveless and Ellis (2001) note that advanced technologies offer more effective, efficient, and appealing opportunities for both teachers and students in English education. This underscores the importance of utilising modern technology judiciously to aid students in improving their English language skills through digital media.

Hoi (2020) highlights the widespread adoption of advanced technology, like mobile devices such as phones and tablets, which is significantly impacting the development and assessment of educational settings for practical learning endeavours. This surge in technology usage has prompted scholars to assess its potential as an effective tool for student learning (Di Meo & Martí-Ballester, 2020). Uz Bilgin and Tokel (2019) demonstrate that integrating mobile technologies in language learning not only enhances students' satisfaction with language acquisition but also contributes to improved language learning performance. Likewise, Klimova's review (2018), focusing on mobile phone usage and applications for English language instruction, reveals positive outcomes in language learning endeavours.

One mobile application known for its flashcards to aid in learning English vocabulary is Quizlet Flashcards (QFs). Davie and Hilber (2015) describe QFs as a convenient and enjoyable tool for learning vocabulary, offering various exercises like word matching, multiple-choice, and true/false tasks. Similarly, Toy and Büyükkarçi (2019) find QFs to be effective in improving students' vocabulary achievement. Wahjuningsih (2018) aligns with this view, noting that QFs provides benefits such as anytime, anywhere word study, interactive and engaging word retention methods, and

collaborative learning opportunities among students. Kálecký (2016) confirms that Quizlet Flashcard's potential in enhancing students' vocabulary test scores while making the learning process more enjoyable compared to conventional digital tools. Consequently, the current study aims to investigate the suitability of Quizlet Flashcards (QFs) as a tool for learning vocabulary.

1.2 Background to the Problem

Vocabulary serves as a crucial tool for communication, enabling students to participate effectively in various social and academic settings (Svensson & Sinclair, 2022). In Indonesia, each educational tier sets a specific goal for vocabulary proficiency. For instance, English learners are expected to grasp approximately 2500-3000 words to comprehend the texts they read (Rustan & Andriyanti, 2021). Yet, the vocabulary size among secondary school students in Indonesia falls short of the anticipated target (Mustafa, 2019).

Typically, individuals initially acquire vocabulary passively and gradually transition to active knowledge as they delve deeper into vocabulary learning (Webb, 2008). In the current landscape of technology's pervasive presence in education, exploring its advantageous integration with students for vocabulary acquisition becomes crucial. Specifically, educators and researchers encounter challenges in instructing academic vocabulary to secondary-level students (Jitendra, Edwards, Sacks, & Jacobson, 2004). This research aims to offer educators insights into optimal course materials and more effective teaching methodologies for academic vocabulary



instruction. Among various tools available for vocabulary teaching, Quizlet Flashcards (QFs) are commonly utilised across different settings. While positive potentials of technology-driven flashcards in vocabulary learning exist, limited knowledge exists regarding QFs' impact on secondary school students' acquisition of academic vocabulary compared to traditional methods. This study aims to bridge this gap by examining the influence of QFs on students' acquisition of academic vocabulary and gauging their perceptions of using QFs as a learning tool for English vocabulary. Consequently, this research holds significance in providing effective teaching tools for mastering academic vocabulary, especially crucial for high school students transitioning from primary education (Kuder, 2017; Jitendra et al., 2004).

Several studies have highlighted persistent challenges faced by students in grasping English vocabulary. Desiana (2018) points out their struggles in word recognition within texts and attributed a lack of motivation in reading to difficulties in vocabulary size. Similarly, Mustafa (2019) highlights limitations in vocabulary mastery among Indonesian high school graduates, falling short of the targeted vocabulary outlined in the current curriculum. Rustan and Andriyanti (2021) emphasise the ongoing need for senior high school students in Indonesia to enhance their vocabulary learning to meet prescribed targets. Katemba (2019) identifies a correlation between deficient vocabulary, limited comprehension, and lack of motivation to learn the language. Hence, Katemba (2019) suggests that parents play an essential role as learning allies, fostering motivation in their children's learning process. Moreover, within the school setting, teachers should employ engaging and compelling teaching methods to address these challenges.



Indonesian students commonly encounter challenges when learning English vocabulary due to the language's structural, pronunciation, and vocabulary differences from Bahasa Indonesia (Katemba, 2019). Additionally, their lack of motivation and limited capacity to memorise words, often associated with lower intelligence quotient (IQ), contribute to their struggle in vocabulary acquisition (Katemba, 2019). Understanding English terms poses a frequent challenge for students (Hao, Lee, Chen, & Sim, 2019; Roberts, Torgesen, Boardman, & Scammacca, 2008; Proctor et al., 2007). Their restricted vocabulary limits their comprehension of text meanings, leading to difficulties in grasping word contexts and impeding their ability to compose written assignments successfully. Furthermore, expressing identical sentences in English presents a challenge (Naiborhu, 2019), hindering effective communication, both in understanding English and expressing oneself proficiently (Razaq, 2022).

According to the writer's observations and insights shared by fellow English teachers at Senior High School 1 Banda Aceh and Islamic Senior High School 1 Banda Aceh, a considerable number of students continue to grapple with vocabulary exercises. This suggests a potential issue with their learned and retained vocabulary. Consequently, there is a belief that Quizlet Flashcards (QFs) could serve as a solution to this challenge, and it becomes imperative to assess its impact on students' vocabulary achievements in these schools. The students' scores served as a measurement to evaluate the potential of Quizlet Flashcards (QFs) in enhancing vocabulary learning and academic achievement.



Furthermore, the writer observed that students struggled to communicate fluently in English with their peers. Regarding writing proficiency, they found it challenging to construct sentences based on provided words and frequently made grammatical errors. Moreover, the students lacked enthusiasm for learning English vocabulary due to the absence of engaging tools incorporated into the learning process by the teachers. To address this, teachers introduced Digital Flashcards (DFs) during classroom activities, emphasising their use for vocabulary learning. However, despite the focus on Digital Flashcards (DFs), the students encountered difficulties in enhancing their vocabulary solely through this method. Consequently, the researcher aims to explore the effectiveness of Quizlet Flashcards (QFs) in English vocabulary acquisition. It is important to gauge its impact on senior high school students' motivation for vocabulary learning, especially considering the infrequent use of Quizlet Flashcards (QFs) by English teachers in most high schools in Aceh. Setiawan and Wiedarti (2020) mention that QFs might not fully motivate students to study vocabulary in classroom and are not extensively used in senior high schools due to internet access requirements as well as its feature limitations.

1.3 Problem Statement

Learning English as a second or foreign language involves mastering four key skills: speaking, writing, listening, and reading, all crucial for effective communication in English. Among these skills, vocabulary plays a significant role, considered a fundamental element in any language's meaning (McCarthy & O'dell, 2010). However, Rahmawati, Hidayatillah, and Amelia (2023) highlight that vocabulary



poses a major challenge for many learners, including those from Indonesia. The difficulties include a lack of English vocabulary, struggles with memorisation, challenging pronunciation due to vast differences from Indonesian, and the fear of making mistakes or being ridiculed by peers (Rahmawati et al., 2023). This aligns with Salam and Nurnisa's (2021) study, which reported students facing difficulties in pronouncing unfamiliar English sounds, spelling, memorising lengthy syllable words, and grasping the meanings of unfamiliar terms.

Given the urgency of vocabulary learning within language pedagogy, there remains ongoing debate regarding the most effective methods for teaching vocabulary and facilitating students' efficient learning. Through observations and insights from English teachers at two senior high schools in Banda Aceh, where the researcher conducted this study, it was evident that numerous students encountered challenges in answering vocabulary exercise questions. This aligns with the findings of Houn and Em (2022), who note widespread difficulties among students in vocabulary learning. Specifically, students faced issues in writing and spelling words, often due to disparities between spoken and written English forms. Additionally, Rohmatillah (2014) highlights that varying grammatical forms of words contributed to student struggles in vocabulary learning. These challenges impacted students' interest in learning vocabulary, their ability to memorise new words, their proficiency in identifying tenses, and their pronunciation skills. Thus, devising a strategy becomes imperative to address these challenges faced by students in learning English vocabulary (Houn & Em, 2022).



Learning vocabulary poses a considerable challenge for EFL senior high school students in Indonesia, a sentiment shared among learners in Banda Aceh's senior high schools, including the institution where the researcher teaches. Particularly, students grapple with limited vocabulary, often relying on English dictionaries when encountering new words due to difficulties in remembering their meanings and correct pronunciation. Notably, students demonstrate higher engagement when they have a fondness for the English subject, while their involvement diminishes if they lack interest. Therefore, English educators must explore alternative learning tools to enhance the effectiveness and enjoyment of the teaching and learning process.

In Aceh's state high schools following the 2013 Curriculum (K-13), students face individual learning demands. However, when it comes to vocabulary acquisition, students lack sufficient exposure to effective learning tools, hindering their ability to comprehend study materials efficiently. Instead, teachers often rely solely on instructing students to consult English dictionaries and memorise words individually, without introducing engaging alternatives when students struggle to grasp word meanings. This teaching approach proves ineffective, leading to diminished enthusiasm and waning interest among students in memorising vocabulary. Consequently, students struggle to fully absorb the study material, particularly encountering challenges in remembering word meanings. During text reading activities, students mechanically read without understanding the meanings of individual words, especially those classified as high frequency or unfamiliar words.



According to Nation (2013), high frequency words are those frequently encountered in texts and easily identifiable, whereas low frequency words, as described by Rustan & Andriyanti (2021), Nation (2013) and Marzouk (2008), occur less often and are typically less familiar, more formal, or foreign in nature. Over the years, students have relied on peers for pronunciation assistance or word meanings, a practice that began in their early English learning stages in elementary school.

Moreover, the students encountered challenges in conversing proficiently in English with their peers. Their writing abilities were also affected, struggling to construct sentences using provided words and frequently making errors in grammar usage. Additionally, the students lacked enthusiasm for English vocabulary learning due to the absence of engaging teaching aids from their instructors. Despite this, educators emphasised the vital role of media in language instruction, particularly in vocabulary learning. Among these instructional tools, Quizlet Flashcards (QFs) emerged as a suggested aid for vocabulary acquisition. However, there is a need to assess its impact on motivating senior high school students in vocabulary learning, given its limited integration by English teachers in classroom activities.

As an English teacher in high schools and a teaching assistant at a university in Aceh, the researcher noted that students' grasp of vocabulary remains at a relatively low level. Alwasilah (2001) highlights that Indonesian high school students are expected to have acquired roughly 3000-5000 English words according to the English curricula upon completion of their studies. This guideline is derived from Nation (2006), who emphasises that to effectively use English, learners should grasp around 2,000-3,000 words. However, Mustafa (2019) indicates that senior high school

students had only mastered 72% of the initial level (1,000) among the 14,000 word-families identified by Nation (2006). Given this shortfall in vocabulary size compared to curriculum expectations, it becomes imperative for Indonesian high school students to be proficient in all words within the first 3,000 listed by Nation (2006) to comprehend texts in national examinations. Conversely, Komari, Suryanto, and Hanum (2022) disclose that the average English vocabulary size among first-semester university students was merely 1,226, meeting Nation's (2006) recommendation. Consequently, it can be inferred that Indonesian students still lack an adequate vocabulary size for effective English communication.

According to Fan (2003), the university curriculum across Asian countries tends to allocate minimal attention to vocabulary. Typically, English instruction at Asian universities predominantly focuses on developing the four language skills. In many classroom settings, vocabulary instruction occurs incidentally, as noted by Catalan (2003). This implies that teachers usually provide word or phrase definitions if students encounter difficulties in comprehension. Hamzah, Kafipour, and Abdullah (2009) further elaborate that these definitions might include additional information, such as word collocations or details about the word's usage, such as its expression of negative emotions or its formality in certain contexts.

Furthermore, teachers occasionally prompt students to refer to dictionaries for meanings when they are left to their own devices. According to Catalan (2003), the process of learning vocabulary is largely sporadic and heavily reliant on both teachers' and students' efforts. This improvised approach to vocabulary acquisition could result in a general deficiency in vocabulary across Asian universities, including

those in Indonesia. Fan (2003) notes that researchers and educators have consistently highlighted this deficiency as a contributing factor to students' subpar performance in examinations. Fan (2003) continues by suggesting that this lack of lexical knowledge might impede students' proficiency growth and adversely impact their performance in public exams. It is imperative for lecturers to explore methods to bolster the vocabulary aptitude of university students.

Another issue highlighted in vocabulary acquisition, as noted by Lauer (2003), involves learners' tendency to associate their English word comprehension with their ability to deduce meanings. Based on the researcher's teaching experience, learners often rely on guesswork to derive word meanings in many instances. Therefore, this study aims to explore the potential of Quizlet Flashcards (QFs) as a tool for vocabulary acquisition among English as a Foreign Language (EFL) learners in Aceh. The primary focus is to assess the extent of vocabulary knowledge improvement among these learners.

1.4 Research Aims and Objectives

This study intends to underscore the significance of incorporating Quizlet Flashcards (QFs) as a support tool for vocabulary learning among senior high school EFL students. Alongside investigating the impacts of integrating Quizlet Flashcards (QFs), the researcher aims to comprehend the students' perspectives regarding the utilisation of vocabulary learning tools within educational settings. Additionally, it is crucial to discern students' preferences in utilising digital tools for enhancing their vocabulary

comprehension. The research objectives, derived from these aims, are delineated as follows.

1. To assess the difference on EFL senior high school students' vocabulary knowledge after receiving the learning instruction using Quizlet Flashcards (QFs).
2. To investigate EFL senior high school students' perceptions towards Quizlet Flashcards (QFs) as vocabulary learning tools.
3. To identify the effects of using the Quizlet Flashcards (QFs) in assisting EFL senior high school students' productive and receptive vocabulary learning.

1.5 Research Questions

The research questions are outlined in accordance with the goals.

1. Is there any significant difference on EFL senior high school students' vocabulary knowledge after receiving the learning instruction using Quizlet Flashcards (QFs)?
2. What are EFL senior high school students' perceptions towards Quizlet Flashcards (QFs) as the vocabulary learning tools?
3. How do the Quizlet Flashcards (QFs) affect EFL senior high school students' productive and receptive vocabulary learning?



1.6 Research Hypothesis

As a component of a mixed-method setup, the following research hypothesis is examined:

H0: There is no significant difference in the use of Quizlet Flashcards (QFs) on EFL senior high school students' productive and vocabulary learning.

H1: There is significant difference in the use of Quizlet Flashcards (QFs) on EFL senior high school students' productive and vocabulary learning.

1.7 Significance of the Study



The outcomes of this study offer contributions to two important areas: theoretical and practical domains. Theoretically, this research offers valuable insights into applying strategies that address students' needs in improving vocabulary proficiency. Meanwhile, on a practical level, it extends contributions to English educators, students, and future researchers. The detailed explanation is as follows:

1.7.1 For Teachers

This study can serve as a valuable resource for English educators, particularly in the teaching of vocabulary using digital flashcards. By exploring the utilisation of Quizlet Flashcards (QFs) as a teaching tool for vocabulary, this research will offer insights into effective media for English language instruction, specifically in improving



students' vocabulary attainment within classroom settings. Furthermore, the findings from this investigation will provide beneficial insights for language practitioners, encompassing English teachers and curriculum developers.

1.7.2 For Students

The findings of this study can be advantageous for students, aiding in enhancing their vocabulary acquisition and fostering greater engagement and motivation in vocabulary learning. Additionally, students can employ Quizlet Flashcards (QFs) as resources not only for enhancing their English skills but also for engaging in vocabulary-based games. Utilising the features of Quizlet, vocabulary learning can be more enjoyable for students, facilitating them with easier memorisation of the words.

1.7.3 For Future Research

This study presents an opportunity for further exploration into integrating Quizlet Flashcards (QFs) with various language components, language skills, or interdisciplinary studies. Additionally, it significantly contributes to the intersection of technology and language education, advocating for the incorporation of technology in teaching and learning English as a Foreign Language (EFL). This research significantly augments the existing body of literature concerning web-based tools for vocabulary acquisition, particularly in the context of English education in Aceh, Indonesia. Its outcomes are anticipated to contribute to future investigations regarding

students' vocabulary proficiency and motivation in vocabulary learning. Moreover, this study aims to heighten awareness regarding intentional vocabulary acquisition among practitioners and researchers, prompting additional research on vocabulary instruction. Ultimately, this research aims to validate the effectiveness of Quizlet Flashcards (QFs) in deliberate vocabulary instruction and learning.

1.8 Limitation of the Study

Like any study, there are limitations to the generalizability of these findings. Firstly, the investigation is limited to only two high schools in Aceh, which could constrain the comprehensive understanding of the topic. To enhance the credibility of the outcomes, it would be beneficial to compare these findings with those from diverse high schools across different regions in Aceh. Additionally, the relatively small sample size, consisting solely of tenth grade participants from Senior High School 1 and Islamic Senior High School 1 in Banda Aceh, might limit the representativeness of the conclusions. Thus, the results may not wholly reflect the broader high school population. Consequently, future research with a larger and more diverse sample size is recommended to fortify the generalizability of the current study's outcomes.

1.9 Operational Definition

Understanding the operational definition of the research topic is crucial to comprehend the focus of this study. Below are the given explanations.

1.9.1 Mobile-Assisted Vocabulary Learning (MAVL)

Mobile-Assisted Vocabulary Learning (MAVL) constitutes an integral component within Mobile-Assisted Language Learning (MALL), describing a significant aspect in enhancing language skills among EFL/ESL learners within the classroom. Fernando (2022) denotes Mobile-Assisted Vocabulary Learning (MAVL) as a subset of Mobile-Assisted Language Learning (MALL), specifically associated with mobile learning within the EFL/ESL classroom context.

Given the global trend of employing mobile applications for vocabulary learning, this study concentrates on assessing the effects of Quizlet Flashcards (QFs) within the scope of MAVL. The aim is to evaluate the impact on enhancing the vocabulary competence of EFL learners in classroom settings. Enhancing vocabulary is essential in language acquisition as it profoundly influences listening, reading, writing, and speaking skills. Employing innovative learning materials is expected to engage EFL/ESL learners actively, potentially enhancing their interest and focus on language acquisition.

1.9.2 Vocabulary Learning

Vocabulary learning encompasses the process by which individuals acquire, internalize, and retain words and their meanings in a language. It involves various cognitive processes such as recognising, understanding, and recalling words, as well as applying them in appropriate contexts (Afzal, 2019). Vocabulary learning often

includes activities such as reading, listening, speaking, and writing, and may utilise strategies such as repetition, context clues, mnemonic devices, and exposure to authentic language use (Katemba, 2022).

Vocabulary Learning in the context of this research refers to the process of acquiring, understanding, and retaining new words or terms within the domain of language education. It encompasses activities such as studying word meanings, pronunciation, usage in context, and memorization techniques aimed at expanding the learner's lexicon and improving overall language proficiency. This vocabulary learning focuses specifically on the acquisition and development of vocabulary skills among students through the utilization of Quizlet Flashcards as a learning tool.

1.9.3 Quizlet Flashcards (QFs)

Alghamdi and Elyas (2020) detail that Quizlet Flashcards (QFs) represent a deliberate approach to vocabulary learning, available in either a monolingual or bilingual learning format. The monolingual mode exclusively presents content in the learners' L2. Conversely, bilingual flashcards display an L2 vocabulary item on one side and the corresponding L1 translation on the reverse (Alghamdi & Elyas, 2020). Yüksel, Mercanoğlu and Yılmaz (2022) reference Quizlet Flashcards (QFs) as a frequently utilised tool among university students, aiding in studying subject concepts or terms and learning L2 vocabulary. Additionally, Mousavi and Nemati (2017) alongside Sage, Krebs and Grove (2019) highlight that Quizlet Flashcards (QFs) offer learners

personalized study plans, instant feedback, and adaptive sequencing features, potentially assisting in the reinforcement of technical vocabulary.

Quizlet Flashcards (QFs) stands as a highly popular mobile-oriented flashcard tool, boasting a user base of millions (Alghamdi & Elyas, 2020). This tool comprises sets of flashcards tailored for vocabulary learning, accessible for both English educators and learners. Its mobile application feature enables teachers to utilize it conveniently at any time, granting learners the flexibility to engage with vocabulary lessons from any location. Platzer (2020) characterises Quizlet as a user-friendly tool for vocabulary learning, accessible through the web or a mobile application. For this study, Quizlet Flashcards (QFs) refer to digital flashcards created and accessed through the Quizlet platform or mobile application. These flashcards consist of vocabulary items presented in a question-answer format, allowing learners to study and practice vocabulary on mobile devices such as smartphones or tablets.

1.9.4 Digital Flashcards (DFs)

The operational definition of Digital Flashcards (DFs) pertains to electronic or computerised versions of traditional flashcards, typically accessed and interacted with through digital devices such as smartphones, tablets, or computers. According to Dodigovic (2013), DFs contain educational content, including text, images, or audio, presented in a concise format suitable for memorisation and review. Similarly, Omachonu (2023) states that Digital Flashcards (DFs) serve as dynamic educational tools that encompass a variety of content types, such as text, images, and audio. In

this study, Digital Flashcards (DFs) were featured within PDF slides as a medium to deliver vocabulary learning materials, enabling teachers to present and review vocabulary items with students in classrooms or other learning environments.

1.9.5 Students' Attitudes in Language Learning

Students' attitudes in language learning encompasses the cognitive, affective, and behavioural dispositions and perceptions that individuals hold towards the process of acquiring and using a language (Doğan & Tuncer, 2020). This emphasises the multidimensional nature of attitudes in language learning, highlighting the importance of considering students' cognitive processes, affective responses, and behavioural tendencies when examining their attitudes towards language learning. Getie (2020) further adds that students' attitudes include beliefs, feelings, preferences, motivations, and reactions related to various aspects of language learning, such as language proficiency, language skills development, language use contexts, learning strategies, teacher-student interactions, cultural aspects, and the language learning environment. In this context of study, students' attitudes enclose the overall attitudes, motivations, preferences, and feelings regarding vocabulary learning activities, including their perceptions of the effectiveness, relevance, and enjoyment of using Quizlet Flashcards as a learning tool.

1.9.6 Students' Perceptions in Language Learning

Koenen, Spilt and Kelchtermans (2022) express that perceptions in language learning encompasses the subjective interpretations, understandings, and beliefs that individuals hold regarding various aspects of the language learning process. This includes their subjective views, opinions, interpretations, and evaluations of factors such as language proficiency, language learning strategies, learning materials, teaching methods, classroom environment, and cultural aspects related to language learning. Students' perceptions may shape their attitudes, motivations, engagement, and learning behaviours, thereby influencing their language learning experiences and outcomes (Mystkowska-Wiertelak, 2022). In this research, students' perceptions of various aspects related to language learning, including the effectiveness of instructional methods, the relevance of learning materials, the difficulty of vocabulary tasks, and the impact of technology-enhanced learning tools such as Quizlet Flashcards. It also considers students' perceptions towards their own language learning abilities, their motivation levels, and their confidence in using newly acquired vocabulary in communicative contexts.

1.9.7 Students' Beliefs in Language Learning

Students' beliefs in language learning refers to the cognitive frameworks, convictions, assumptions, and values that individuals hold regarding their own language learning abilities, the nature of language learning, and the factors that contribute to language acquisition (Shirzad, Barjesteh, Dehqan & Zare, 2022). These beliefs encompass a

wide range of aspects, including beliefs about language learning strategies, the importance of practice and exposure, the role of innate talent versus effort, the influence of cultural factors, the effectiveness of teaching methods, and the significance of motivation and perseverance. In this particular study, students' beliefs about their own language learning abilities, the efficacy of different learning strategies, the importance of vocabulary acquisition, and the role of technology in language learning, including the use of Quizlet Flashcards. It also includes beliefs about language proficiency, language aptitude, and the influence of external factors such as teachers, peers, and learning environments on language learning outcomes.

1.10 Summary

In essence, this study aims to evaluate the impact of utilising Quizlet Flashcards (QFs) in improving the vocabulary knowledge of EFL senior high school students. Additionally, it seeks to explore the perceptions of these students regarding the effectiveness of Quizlet Flashcards (QFs) as tools for vocabulary learning. The study's outcomes are anticipated to illuminate on the significance of vocabulary intervention initiatives and their role in enhancing the effectiveness of vocabulary learning for English language learners.