Using Extensive Reading and Digital Flashcards for Vocabulary Acquisition

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Using Extensive Reading and Digital Flashcards for Vocabulary Acquisition

In Partial Fulfillment of the Requirements for the Degree

MASTER OF ARTS

in

TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES

by Zijin Feng
May 2020

UNIVERSITY OF SAN FRANCISCO

Under the guidance and approval of the committee, and approval by all the members, this field project (or thesis) has been accepted in partial fulfillment of the requirements for the degree.

Approved:

[Signature]
05/17/2020
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ACKNOWLEDGEMENTS

I would like to thank everyone who lent me academic and emotional support when I was powering through this project. Throughout the process, numerous people have contributed to the successful completion of this project.

I would like to acknowledge and thank my instructors at the University of San Francisco, who are passionate, compassionate teachers. I appreciate how Jessie Blandell scaffolded me through the initial writing process in a step-by-step manner, which was a great boost to my academic writing skills. I am grateful to Dr. Yi’s patience and guidance when I was working on this project. Also, I would like to thank Dr. Popal for his wisdom, encouragement and humor, which has made the USF TESOL department a welcoming community for international students.

Last but not least, I would like to thank my fellow classmates for holding virtual learning groups when I was in lockdown due to the COVID-19 pandemic, which lessened my loneliness and strengthened my immune system.
ABSTRACT

Non-native English learners often find it difficult to acquire adequate vocabulary knowledge. This can prevent them from making progress in other aspects of English learning, because learners have to understand most of the words that they hear or read to obtain comprehensible input. Fortunately, second language acquisition literature has long identified pleasure reading and spaced retrieval practice as effective in learning vocabulary. This field project examines the effectiveness of these two methods on vocabulary acquisition in adult English learners, and presents a handbook on how teachers can implement pleasure reading and spaced retrieval practice in the classroom. The handbook lays out how teachers can ease students into reading English books and introduces how to use digital flashcards to supplement vocabulary learning. By combining extensive reading and spaced retrieval practice, ESL teachers will be able to increase the vocabulary size and general English proficiency of intermediate adult English learners.
CHAPTER I
INTRODUCTION

Statement of the Problem

Second language acquisition scholars argue that vocabulary knowledge is the foundation of successful reading, communication and learning of a second language (Mohsen & Hamed, 2017). Mohsen and Hamed (2017) noticed that students often find it difficult to understand English and express themselves in conversations due to the lack of vocabulary knowledge. Meanwhile, limited vocabulary also leads to ineffective English learning, as the input theory (Krashen, 1982) claims that successful language learning can only occur when the learner understands the meaning of what they read or hear. That is to say, if learners do not know most of the words that they hear or read, they may fail to acquire more English knowledge through reading, listening and conversations. Therefore, a solid command of vocabulary knowledge is essential to all aspects of English learning.

However, it is an intimidating task for non-native English speakers to obtain sufficient vocabulary knowledge to achieve successful reading and listening. In order to understand an English text, a reader needs to recognize 98% of the words (Nation & Wang, 1999). Testyourvocab.com, a scientific program, collected data of English vocabulary size from over two million people across the world. The website estimated that most adult native English speakers recognize 20,000 to 35,000 words while non-native English speakers often have a vocabulary size of 4500 (Summary of Results, 2013). The gap is so huge that English learners often struggle with English reading and they identify the lack of vocabulary knowledge as the primary obstacle to their development of English proficiency (Cennet, 2019).
On the other hand, English learners recognize the importance of vocabulary knowledge (Ayesha, 2016; Ming, 2007; Moir & Nation, 2002). In Ayesha’s study (2016), over 100 16- to 17-year-olds in Bangladesh reported that they believed vocabulary knowledge was important to the development of their English skills and played an important role in their learning results of English. Likewise, Ming’s (2007) examined the attitudes of 60 Chinese university students’ attitudes towards English learning and found that they urgently wanted to improve their vocabulary. Moir and Nation’s (2002) study reported similar results.

English learners report that they find it difficult to improve their vocabulary knowledge (Afzal, 2019; Gao & Ma, 2011; Ming, 2007; Moir & Nation, 2002). For example, university students in mainland China and Hong Kong often work hard to memorize English words but they are not confident that they are tackling this problem properly (Gao & Ma, 2011). Another study found that students in one of the top universities in China identified vocabulary as an obstacle to the development of their English proficiency (Ming, 2007). The Chinese students also expressed their frustration that they forgot new words easily. The same problem is also shared by Arabian students. Afzal (2019) administered a questionnaire to 100 Arabian university students, most of whom admitted that they found it difficult to memorize the spelling, meanings of new vocabulary. In addition, in both Ming’s (2007) and Moir and Nation’s (2002) studies, participants indicated that they believed they spent excessive amount of time on learning English vocabulary to no effect.

According to all the studies mentioned above, students often use a combination of strategies to approach vocabulary learning (Afzal, 2019; Ali Rezvani Kalajahi & Pourshahian, 2012; Amirian & Heshmatifar, 2013; Amiryousefi, 2015; Hamzah et al., 2009; Ming, 2007; Moir & Nation, 2002). These strategies include, guessing meaning from context, associating nouns
with picture, learning a word repetitively, using dictionaries, paying attention to prefixes and suffixes and so on. However, students are still at a loss about how to acquire vocabulary knowledge effectively.

In summary, most English learners are aware of the importance of vocabulary but do not know how to tackle this effectively. Although most learners spend an enormous amount of time and employ a wide range of strategies to memorize English vocabulary, they still consider the lack of vocabulary knowledge a major obstacle to developing English skills.

**Purpose of the Project**

The literature of studies on English learners’ strategies to develop English vocabulary indicate that both students and instructors often lack the appropriate tools to improve learners’ vocabulary size (Afzal, 2019; Ayesha, 2016; Gao & Ma, 2011; Hamzah et al., 2009; Ming, 2007; Moir & Nation, 2002). This body of research rarely considers extensive reading as a vocabulary learning strategy and never mentions *spaced retrieval practice*. However, another body of research has demonstrated that extensive reading is a reliable way to expand learners’ vocabulary knowledge (Liza, 2017; Nation, 2001; Renandya, 2007; Stephen, 1989). Likewise, *spaced retrieval practice* has also been proven to be an effective strategy to commit information to long-term memory (Carpenter, Cepeda, Rohrer, Kang, & Pashler, 2012; Nation, 2001). Therefore, this paper maintains that English instructors should be equipped with the knowledge on how to use extensive reading and *spaced retrieval practice* to help students acquire English vocabulary effectively.

The purpose of this project is to inform English instructors of effective strategies to improve students’ vocabulary knowledge by training them to combine digital flashcards with
extensive reading. Following the strategies laid out in this project, teachers can help students build up their vocabulary knowledge in a systematic manner. The project will take the form of a guidebook. The guidebook will provide guidelines on how to instruct students to read extensively, how to create vocabulary flashcards based on the reading material, how to use flashcards to enhance vocabulary learning and how to help students understand the meta-cognitive strategies involved in the process. There will be an example of a lesson plan that instructs students to read a novel and learn new words encountered in the novel through reviewing flashcards. Therefore, teachers will be able to develop digital flashcards that allow students to learn new vocabulary items effectively and offer instructions on strategies of acquiring vocabulary through Anki, a digital flashcard application.

### Theoretical Framework

This project is guided by (a) Krashen’s input hypothesis; (b) the theory of desirable difficulty. The purpose of using these two theories together is to provide insight on how to build vocabulary knowledge effectively.

**Krashen’s Input Hypothesis**

Krashen’s input hypothesis suggests that a second language is acquired through extensive exposure to that language, a process very similar to how children learn their first language (Krashen, 1982). In other words, the learner acquires the language by having adequate input of the language. However, for language learning to happen, Krashen (1982) states that the input must be comprehensible for the learner. Meanwhile, the input should be $i + 1$, slightly more difficult than the learner’s current language ability so that their language proficiency can improve. Furthermore, Krashen claims that the ability to speak the language, i.e. output, occurs
naturally if the learner has access to a large amount of comprehensible input in the second language.

This project is supported by the hypothesis, which points out that the key is to provide readers comprehensible input which is $i + 1$. In order to improve learners’ vocabulary knowledge, according to this theoretical framework, this project considers extensive reading to be most effective. Scholars in second language acquisition, including Krashen (1989) and Nation (1999), also assert that extensive reading has been empirically proved to be effective in vocabulary acquisition.

On the other hand, the input hypothesis highlights the significance of this project by claiming that learning in a second language can only happen when the input is comprehensible. The purpose of this project is to assist English learners in vocabulary acquisition. In line with the input hypothesis, it can be safely inferred that a large vocabulary size leads to more learning of the language, because English learners can understand more of the language they are exposed to. Therefore, this project can contribute to the overall improvement of the learner’s English proficiency as well.

Desirable Difficulty

Bjork and Schimit (1992), drawing on the results of a battery of experiments in cognitive psychology, suggested that successful learning activities involved providing desirable difficulties for learners. These difficulties should not be so hard that learners give up learning altogether and they often come in three forms (Bjork & Schimit, 1992): (a) spacing, distributing time for learning over a long period of time; (b) retrieving, using testing as primary learning events; (c) interleaving, quick shifts between different study topics. Instructors can manipulate learning
conditions for the learner to create these difficulties. However, these forms of manipulations are aimed at enhancing long-term retention and may not produce short-term benefits (Bjork & Schimit, 1992). For example, if a student learns a vocabulary list, he or she may not score higher in a test the next day if the learning happens with desirable difficulties than without.

To better understand desirable difficulties, Bjork and Schimit (1992) theorized a distinction between storage strength and retrieval strength. Storage strength is a theoretical construct that measures how well information has been learned while retention strength reflects how easily information can be recalled. This dichotomy is important because it offers a comprehensible lens of how we can understand the results of different learning activities. For example, passive learning activities, such as rereading the information, increases storage strength but contributes little to retrieval strength. On the contrary, according to Bjork and Schimit (1992), learning activities involving desirable difficulties, retrieving, spacing and interleaving can not only boost storage strength, but result in a greater increase in storage strength compared to passive learning activities. Therefore, learning events that involve desirable difficulties are more effective than those that do not.

This theory will provide a lens for this study because it identifies learning activities that employ spacing, interleaving and retrieving as effective. Bjork and Schimit (1992) reviewed a battery of studies, which demonstrated that the theory of desirable difficulty can be applied to different types of learning material, including language, mathematics and even physical education. In relation to this project, it implies that vocabulary learning should provide as many opportunities as possible for learners to recall their vocabulary knowledge in different contexts. Considering that some scholars have found that doing vocabulary activities after reading can enhance vocabulary acquisition (Mirghasempoor, 2017), this project considers that using
flashcards to review vocabulary knowledge based on retrieving, spacing and interleaving is beneficial to learning vocabulary.

To summarize, these two theories fit together and provide a theoretical framework for vocabulary acquisition. Krashen’s input theory offers a fundamental paradigm of vocabulary acquisition—through exposure to large amount of comprehensible input. The theory of desirable difficulty specifies retrieving, spacing and interleaving as the key characteristics of successful learning activities that will lead to long-term retention and easy recalling. Combining the two theories, this study claims that extensive reading and using Anki to review vocabulary knowledge can lead to effective vocabulary acquisition. Extensive reading is aligned with the theory because it provides comprehensible input if the reading material agrees with the learner’s ability. It also fits into the theory of desirable difficulty as learners must recall vocabulary knowledge repeatedly in different contexts throughout the process of reading. For the same reasons, learning vocabulary with flashcards through spaced repetition is also aligned with these two theories. Therefore, both theories explain the claim of this study that reading extensively while learning vocabulary knowledge through spaced repetition is effective in English vocabulary acquisition.

**Significance of the Project**

This project can help ESL students acquire vocabulary knowledge with efficiency. Researchers in second language acquisition, such as Nation (1999) and Krashen (1982), claim that extensive reading is the best way for non-native English speakers to improve their vocabulary knowledge. Also, vocabulary learning through digital flashcards using spaced repetition has been proved to be effective (Cennet, 2011). Therefore, combining both extensive
reading and the vocabulary learning through digital flashcards, the project is promising to lay out the roadmap to effective vocabulary acquisition.

This project can also be beneficial in improving students’ general English skills other than vocabulary. There is consensus among scholars that extensive reading can benefit reading fluency, comprehension, vocabulary growth, reading speed, and cultivating a positive attitude toward English reading (Krashen, 1982; Liza, 2017; Nation, 2001). According to Krashen (1982), extensive reading provides comprehensive input to English learners, which is essential in acquiring general English skills. Therefore, good vocabulary knowledge is crucial in improving other language skills, as it allows learners to understand listening and reading materials well, which offers more comprehensible input.

**Definition of Terms**

**Spaced Retrieval Practice:** Spaced retrieval practice is a learning technique based on the spacing and testing effect (Hopkins et al., 2016). The spacing effect is the robust finding in cognitive psychology that retention of information is enhanced when learning events are spaced out in time, rather than presented in immediate succession. The testing effect is another well-documented phenomenon in cognitive science that humans’ long-term memory can be greatly boosted through actively bringing the information back to mind. Combining the two, spaced retrieval practice is when study sessions are arranged far away in time and testing is used as the format of study events. This technique has been found to reinforce long-term memory.
CHAPTER II
REVIEW OF THE LITERATURE

Introduction

The lack of vocabulary knowledge has long been identified as one of the primary difficulties that English learners encounter (Cennet, 2019). Vocabulary is essential to the successful understanding and learning of a second language. Mohsen and Hamed (2017) noticed that students often find it difficult to understand English and express themselves in conversations due to the lack of vocabulary knowledge. Nation (2001) estimates that English learners need to know 20,000 English words to be able to read general English texts without difficulty. However, most English learners are at a loss as to how to acquire vocabulary efficiently (Liza, 2017).

The claim for this field project is that extensive reading, in conjunction with intentional vocabulary learning through Anki, a digital flashcard software, may be effective in improving English learners’ vocabulary knowledge compared to extensive reading alone. In addition to a discussion of Krashen’s input theory and theory of desirable difficulty, four pieces of evidence justify this claim will be discussed in this literature review. This evidence includes research that demonstrates that (a) extensive reading is effective in improving vocabulary knowledge (b) After-reading vocabulary-focused exercises contribute to vocabulary acquisition (c) Spaced retrieval practice is effective in securing retention (d) Anki, a digital flashcard software that utilizes spaced retrieval practice, can help students acquire vocabulary.

Extensive Reading is Effective in Vocabulary Acquisition

Krashen’s input hypothesis suggests that a second language is acquired through extensive exposure to that language, a process very similar to how children learn their first language (Krashen, 1982). That is to say, the learner acquires the language by having adequate input of the
language. However, for language learning to happen, Krashen (1982) states that the input must be comprehensible and slightly more difficult than the reader’s current ability. Therefore, vocabulary language is essential to language learning, as increased vocabulary knowledge leads to more quality input and more acquisition of grammar.

According to the input hypothesis, Krashen recommends that pleasure reading improve vocabulary knowledge. Since beginning-level students do not have the competence to engage in conversations and understand what is heard or read in the target language, the instructor’s job is to help students’ vocabulary knowledge grow to the level where they can understand TV, radio and general reading texts. Krashen also suggests that teachers should provide a great deal of reading materials on different topics that are aligned with the competence of students of different levels. If students can read what interests them, they learn better (Krashen, 1982).

Related to Krashen’s Theory, there has been a plethora of experimental studies on the effect of extensive reading in second and foreign language settings. (Liza, 2017; Nation, 2001; Renandya, 2007; Stephen, 1989). For the purposes of this literature review, the research related to extensive reading and vocabulary acquisition will be reviewed in the following paragraphs.

Early studies have found extensive reading to be effective in learning English as a second or foreign language in primary schools. Back in 1970s, De’Ath (2001) introduced illustrated story books to Grade 3 pupils in Nieu, a small island in the South Pacific. One year later, De’Ath found that children in book-reading classrooms outperformed their audiolingual peers on reading comprehension, word recognition and oral sentence repetition. In another study, Elley and Manubhai (1983) found that second language learners in Fiji had seen dramatic development in their English proficiency. The participants were nine to eleven-year old children at Grade 4 and 5 from numerous schools. After 8 months, the extensive reading group in both grades improved twice as much as the control group taught in audiolingual classrooms.
Similar positive results of comprehension and vocabulary gains were also found in adults. Mason and Krashen (1997) conducted four experiments on postgraduate Japanese students who learned English as a foreign language to examine the effect extensive reading on English acquisition. All extensive reading groups performed significantly better than the control groups on reading comprehension, writing and reading speed. Therefore, Mason and Krashen concluded that extensive reading is effective in EFL classrooms. In still another study (Suk, 2017), after 168 hours of class time over a 15-week semester, Korean college students in the extensive reading group showed more progress than their counterparts in the intensive reading group in reading speed and vocabulary.

In summary, research demonstrates that extensive reading is effective in vocabulary acquisition (Liza, 2017; Nation, 2001; Renandya, 2007; Stephen, 1989). For extensive reading to be effective, learners need to read materials of which they can understand at least 95% of all the words encountered in reading. In the next section a complementary strategy, intentional vocabulary learning through after-reading vocabulary exercises is discussed. Taken together, these two bodies of research help to justify the claim that extensive reading, together with intentional vocabulary learning through Anki, a digital flashcard software, may be effective in improving English learners’ vocabulary knowledge.

**After-reading vocabulary-focused exercises contribute to vocabulary acquisition**

As noted above, there is a general agreement that extensive reading can lead to effective incidental vocabulary learning and improvement in other aspects of second language (Liza, 2017; Nation, 2001; Renandya, 2007; Stephen, 1989). A separate body of research demonstrates the effect of intentional vocabulary learning. Intentional vocabulary study, in the form of reviewing word cards or other vocabulary activities focused on form, can be used as a complement to extensive reading to expedite vocabulary acquisition. For example, Hung (2015)
suggests that paying attention to the form and meaning of vocabulary items can optimize vocabulary acquisition. In the same vein, Nation (2001) contends that learners acquire vocabulary knowledge faster when they pay attention to the spelling and the direct definition of vocabulary items. Other studies have demonstrated that intentional vocabulary learning can benefit long-term retention. The following paragraphs explain this research.

In 2017, Mirghasempoor addressed vocabulary acquisition among sophomore undergraduate in order to investigate whether vocabulary-focused after-reading activities can bring more vocabulary gains. In this study, 45 participants were randomly assigned into two groups. Both groups later read 3000 to 5000 words for each session and were given a post-test after eight sessions. However, one group was given spelling-focused after-reading activities while the other group meaning-focused ones. The results of this study demonstrate that extensive reading can significantly increase vocabulary knowledge and after-reading vocabulary-focused activities contributes more to vocabulary gains compared to meaning-focused exercises.

Similar to the findings of Mirghasempoor (2017), Laufer and Rozovski-Roitblat (2015) took a step further to quantify vocabulary gains produced by pleasure reading, different types of after-reading activities and their combinations. 185 EFL students of different nationalities were divided into different groups and they encountered the same 30 words under different conditions. All interventions took roughly the same amount of time. Half of the groups read the texts without dictionary while the other groups had access to dictionary and after-reading exercises. The texts were the same stories but were tweaked so that students encountered the same words at different number of times. A post-test on word meaning, form and recognition was given 2 weeks after the treatment to examine long-term retention of the words. The study found that students who can use a dictionary and were assigned after-reading activities performed better than those who only
read. Moreover, those who used a dictionary and did more vocabulary exercises outperformed those who had fewer exercises but met the words more times. Therefore, Rozovski-Roitblat concluded that the effect of vocabulary-focused exercises was so strong that they should be an integral part of the learning material.

In summary, research demonstrates that after-reading vocabulary-focused exercise can be beneficial to acquiring vocabulary knowledge. Mirghasempoor (2017) illustrates that after-reading vocabulary exercises can be beneficial to vocabulary acquisition. Laufer and Rozovski-Roitblat’s further demonstrates that exercises that direct readers’ attention to vocabulary produce a significant gain in vocabulary knowledge compared to pleasure reading alone. Taken together, this body of research helps to justify the claim that extensive reading, in conjunction with intentional vocabulary learning through Anki, a digital flashcard software, may be effective in improving English learners’ vocabulary knowledge. Related to this is a body of literature that describes another vocabulary acquisition strategy, known as spaced retrieval practice, which will be discussed in the following section.

**Spaced retrieval practice is effective in securing retention**

The literature on human memory has established that the spacing and testing effects are effective for long-term retention (Carpenter, Cepeda, Rohrer, Kang, & Pashler, 2012; Nation, 2001). Spacing refers to the practice that schedules study and restudy sessions of the same material across a long period of time. The testing effect, also known as *retrieval* is the practice of studying in the form of recalling information. Studies on cognitive science have long recognized the positive effect on spacing and testing on learning. On the other hand, research in this field often investigates how the combination of the two, known as spaced retrieval practice impacts
retention. The following paragraphs will discuss studies that illustrate how spacing, testing and spaced retrieval practice enhance long-term memory.

The *spacing* effect, is considered to be one of the most reliable findings in research on human learning (Carpenter, Cepeda, Rohrer, Kang, & Pashler, 2012). It refers to the phenomenon that studying information across multiple separate sessions produces much better long-term retention than studying information with the same amount of study time spent all in one session. Hundreds of published studies have reported benefits of spacing and it has been found to be effective in learning a wide variety of subjects, including mathematics, language and physical movements both for children and adults (Carpenter, Cepeda, Rohrer, Kang, & Pashler, 2012).

For example, in 2011, Sobel examined the spacing effect on college students’ retention of uncommon English words. The students were given the same tutorials twice. One group watched the tutorial twice on the same day while the other group watched the second tutorial a week later after the first tutorial. The results showed that the spacing students scored slightly higher than the non-spacing students when the test was given 1 week later after the second tutorial. However, the non-spacing group scored twice as much as the non-spacing group when the test was administered 4 weeks after the second tutorial. This experiment demonstrates that spacing is significantly more beneficial to long-term retention than studying information all in one session.

Related to the spacing effect, another robust finding that often goes hand-in-hand in research on human memory is the *testing* effect, the phenomenon that testing the learner on their memory of information consolidates retention much more than merely reviewing the information (Brown, Roediger & McDaniel, 2014). For example, in one study (Brown, Roediger, & McDaniel, 2014), students who took a test immediately after reading a passage without any
feedback recalled 50% more of the information than students who were not tested after reading when both groups were given the test one week later. Brown, Roediger and McDaniel (2014) also reviewed multiple studies that showed the positive effect of testing on retention. It is worthy of note that in such studies, researchers tested the participants without given them feedback and therefore the boost in retention can only be attributed to the effort of recalling the information. Simply one test with no feedback resulted in a large improvement in the final scores and more tests produced even better results.

Meanwhile, there has been a large body of research on the combination of the spacing and the testing effects, known as spaced retrieval practice (Hopkins et al., 2016; Janiszewski et al., 2003; Karpicke & Roediger, 2007; Rowland, 2014; Smith & Karpicke, 2014; Sobel et al., 2011; Storm et al., 2010). These studies consistently show that learning through retrieving information to the mind repeatedly in multiple sessions that are separate in time can boost long-term retention. However, these studies focus on either exploring the effects of retrieval practice under different conditions or attempting to identify optimal study schedules to improve learning. None of those studies compared spaced retrieval practice against learning conditions that do not involve the spacing and testing effects. In the next paragraph, we are going to discuss how different study schedules impact retention.

Studies on the optimal space between learning sessions often indicate that longer intervals between learning session produce long-term benefits in retention (Bahrick et al., 1993; Bahrick & Phelps, n.d.; Karpicke & Roediger, 2007; Storm et al., 2010). In one longitudinal investigation (Bahrick et al., 1993), 4 participants learned 300 English-foreign language word pairs. They learned the words at intervals of 14, 28, or 56 days and were tested 1, 2, 3, or 5 years after all the learning sessions. The 56-day-interval group acquired the words more slowly than
other groups. However, their long-term retention was found to be much higher; they were able to recall 65% of all words while the 14-day-interval group 35%. In another study (Bahrick & Phelps, 1987), Participants learned Spanish word in successive learning sessions, spaced at intervals of 0, 1, and 30 days. 8 years later, the 30-day group recalled the highest number of words.

Although it has been well-established that lengthy intervals between study sessions boost long-term retention, research results are conflicted as to whether learning sessions should be increasingly spaced as time goes by. Some studies suggest that learning intervals should continue to expand to achieve better retention while others indicate that learning intervals should be consistent. The mainstream position is that expanding spaced retrieval is superior (Karpicke & Roediger, 2007; Storm et al., 2010). Kapricke and Roediger (2007) conducted a comprehensive quantitative study to investigate how expanding and even intervals affected learning. 58 learned 52 GRE words under different conditions. All participants learned the vocabulary items in the first session. After the first learning session, they took 3 test sessions, following three schedules: 0-0-0 (all sessions on the same day), 1-5-9 (after the first learning session, the first test session happens one day later, the second 5 days later after the first, the third 9 days later after the second), 5-5-5. When given feedback, students performed better on the 2-day-delayed test. However, when students received feedback immediately after each test and the first test happened 5 days later after the first study session, students performed the same irregardless of their schedules. The results suggest that whether learning intervals are expanding or even has little to no effect on the learning results.

This result is aligned with the hypothesis of desirable difficulty, which suggests that the effort involved in recalling information is the most reliable indicator of the efficacy of the
learning process. For the purpose of the field project, this paper assumes that expanding spaced retrieval practice is better for vocabulary acquisition.

Among the theories that explain why the and testing effects benefits learning, the theory of desirable difficulty receives the most attention. Bjork and Schimit (1992), suggested that successful learning activities should maximize the opportunities of recalling information, which provides desirable difficulties for learners. This theory is aligned with all the afore-mentioned studies on the benefits of spacing and retrieval practice. It also fits into the finding that longer gaps between study sessions produces more robust learning. Since long learning intervals lead to forgetting and thus force the learner to spend more effort recalling information, spaced learning, by logic, should be superior.

In summary, research demonstrates that the primary principle of learning knowledge is spaced retrieval practice. This includes research that demonstrates that (a) learning should happen in multiple sessions, (b) long gaps between learning sessions lead to better long-term retention, (c) learning should happen in the form of recalling. Taken together, this body of research recommends that learners review information several days or even weeks after the initial learning if the goal is to achieve long-term retention. This research helps to support the claim that extensive reading, in conjunction with intentional vocabulary learning through Anki, a digital flashcard software, may be effective in improving English learners’ vocabulary knowledge. In this final section of this literature review, the use of the Anki software will be discussed.

**The Use of Anki to implement spaced retrieval practice**

Anki, a digital flashcard software, was designed to implement spaced retrieval practice (“Anki Manual,” n.d.). Users are allowed to create their own flashcards or download those made
by others. Reviewing Anki flashcards is retrieval practice as users have to read the question on
the front of the card first and recall the answer. When reviewing a flashcard, the user has to
choose how they feel about the easiness of recalling the answer by tapping one of the four
buttons: “again” (restart the learning process of the card), “hard”, “good” and “easy”. The choice
made by the learner triggers a specific interval between reviews. As the number of reviews
increases, the next review will be further away. For example, if a card is reviewed for the first
time, “good” indicates it will be reviewed 1 day latter; but when it has been reviewed for several
times, “good” indicates the next review could be 1 month away. Therefore, with the capability of
playing videos, audios and pictures, Anki can remind users to review flashcards after reasonable
periods of time so spaced retrieval practice can be carried out without planning the reviews.

Numerous studies have demonstrated the effectiveness of Anki in learning vocabulary
lists. These lists were context-independent and were not taught in and out of the classroom. In
one study, students used Anki to learn 446 essential TOEFL words during a 3-week period and
their scores improved significantly (Mohsen & Hamed, 2017). Another study showed that
learners reviewed 10 words with Anki everyday for 3 weeks (less than 10 minutes per day)
and became proficient in half of the word list (Cennet, 2019). Moreover, the participants in
Cennet’s (2019) study also reported that they found Anki easy to use, helpful in learning
vocabulary and they enjoyed the learning processs.

In summary, research demonstrates that Anki is considered one of the ideal flashcard
applications for spaced retrieval practice, due to its functionality and availability. This includes
(a) Mohsen & Hamed (2017) who illustrates how students can acquire vocabulary faster using
Anki, (b) Cennet (2019) who points out that students enjoy using the Anki app. Taken together,
this body of research helps to justify the claim that extensive reading, in conjunction with
intentional vocabulary learning through Anki, a digital flashcard software, may be effective in improving English learners’ vocabulary knowledge.

**Summary**

This literature review claims that extensive reading in conjunction with intentional vocabulary learning through Anki is effective in improving English learners’ vocabulary knowledge. Evidence that supports this claim includes: (a) scholars in second language acquisition agree that extensive reading is effective in improving vocabulary knowledge, (b) learning activities focused on vocabulary knowledge can consolidate learners’ vocabulary knowledge, (c) spaced retrieval practice benefits retention of information, (d) Anki, a digital flashcard software that employs spaced retrieval practice, can be used to improve learners vocabulary knowledge. This claim and body of evidence addresses effective vocabulary acquisition strategies by English reading and learning vocabulary knowledge relevant to the reading material with Anki. This field project intends to provide a curriculum of how to implement extensive reading with the use of Anki to improve English learners’ vocabulary knowledge.
CHAPTER III
THE PROJECT AND ITS DEVELOPMENT

Description of the Project

The purpose of this handbook is to provide English instructors with the necessary methods, tools, and strategies for promoting students' vocabulary knowledge through extensive reading and digital flashcards. The target audience of this handbook is English teachers who teach in English speaking countries. The handbook consists of 6 modules and is designed for teachers who teach intermediate-level adult students who learn English in ESL classrooms.

The first module gives a brief explanation of the rationales underlying the project—extensive reading and spaced retrieval practice. The aim is to inform teachers of the benefits and effectiveness of the two strategies.

Module 2 describes how to implement extensive reading, create after-reading activities and digital flashcards in a step-by-step manner. This module deals with how to carry out extensive reading in the classroom so that even reluctant English readers will begin reading. It also provides detailed instructions and strategies on how to create digital flashcards based on the reading material to maximize students’ vocabulary gains.

Module 3 is a sample teaching material adapted from the first two chapters of Oxford Bookworms Library: The Hound of the Baskervilles, a level-4 graded reader of Bookworms series by Oxford University Press (Patrick, 2005). The aim is to demonstrate the final result of the strategies and steps covered in Module 2.

In Module 4, a presentation with a script and graphics is provided for teachers to persuade students to take up extensive reading and digital flashcards to improve their English
proficiency. The main goal is to dismantle the fear around reading in English and motivate them to read independently. It also informs students how to use the learning materials effectively. Teachers can use the presentation prior to the implementation of extensive reading to encourage a positive attitude towards it.

Likewise, Module 5 is a presentation designed for informing other English educators of how to acquire vocabulary knowledge through extensive reading and using digital flashcards. It starts by introducing Krashen's input hypothesis and empirical evidence that supports extensive reading. The goal is to raise the awareness of extensive reading among teachers. Next, there is a short lecture on spaced retrieval practice and scientific evidence that supports it. After this lecture, teachers will be convinced of why extensive reading contributes to vocabulary gains and understand how digital flashcards can promote vocabulary learning.

Module 6 is a list of resources that teachers can use to implement the strategies laid out in the handbook with efficiency.

In sum, the project explains the rationale of vocabulary acquisition through extensive reading and the use of digital flashcards and how to implement these two approaches. Besides, it includes two presentations for teachers to inform other educators and students of the two approaches.

**Development of the Project**

The inspiration for this project stems from my own experience of learning English and teaching in China from 2016 to 2018. I started learning English in elementary school ever since I was 10 years old. However, I was frustrated that I was barely able to speak, write, or read English. It was until the age of 23 when I read *Principles and Practice in Second Language*
Acquisition by Stephen Krashen that I began to understand that I had been taught and learned the language in an outdated pedagogy. I then started to design my own learn English process according to the theories laid out by Stephen Krashen. After one year of doing so, my English improved so much that I felt confident enough to teach others. I then became an English teacher in the hope that I can steer students in the right direction of acquisition.

In my experience as an English teacher in China, I experimented with extensive reading as the primary means of teaching vocabulary. I observed that it was difficult to persuade students to take extensive reading instead of memorizing words and sentences to improve their English knowledge, given that my students had to concentrate on preparing for the high-stake English test in the college entrance examination. I understood their concerns, because, as a Chinese, I also took the test at the age of eighteen. On the other hand, I was firm in the belief that extensive reading was more productive than traditional grammar-translation even in the context of the college entrance examination in China. Therefore, in order to create a learning experience for students to change their beliefs, I created vocabulary lists that included the words and phrases that were required by the test but also appeared in the extensive reading text I gave my students. In the meantime, I instructed students to learn the vocabulary lists according to the well-established strategies laid out by cognitive science. As a result, students saw their general English proficiency grow rapidly while they also had a firm grasp on the vocabulary lists. Encouraged by this experience, I continued to experiment with the combination of extensive reading and vocabulary flashcards both in English teaching.

In effect, I experimented with this system in my English learning too. As of this writing, I have read over 70 English bestsellers and seen my vocabulary size grow from 6000 to 20000,
according to the test result from testyourvocab.com. Now that I can effortlessly understand podcasts, standup comedies, I have witnessed the power of this method.

These experiences led me to my research topic. I seek to explore strategies supported by empirical evidence that can help to fine-tune this teaching methodology that employs pleasure reading and learning vocabulary flashcards. I embarked on this journey in the hope that English instructors can be empowered by effective strategies and techniques to improve students' vocabulary knowledge and general English efficiency.

The Project

See Appendix for The Project in its entirety.
CHAPTER IV
Conclusions and Recommendations

Conclusions

Learning English vocabulary is a daunting task for non-native English speakers. Most linguists believe that the key to learning a second language is a large amount of comprehensible input. Therefore, a working knowledge of vocabulary is essential to improving language proficiency because learners need to recognize 98% (Nation, 2001) of the words in reading and listening to obtain meaningful input. It is estimated that one needs a vocabulary size of 20,000 words (Nation, 2001) to read general English text with ease. As a result, it is not surprising that teenage and adult learners often identify the lack of vocabulary knowledge as the primary obstacle that prevents them from further developing English proficiency. With this problem in mind, my intention for this project is to search for effective ways to acquire vocabulary.

Fortunately, research in second language acquisition has identified extensive reading as an effective and practical approach to acquiring vocabulary knowledge (Liza, 2017; Nation, 2001; Renandya, 2007; Stephen, 1982; Stephen, 1989). Over decades, the effectiveness of extensive reading on improving English proficiency, especially vocabulary, has been well documented in theoretical and empirical evidence. Theoretically, Krashen has been a vehement advocate of self-selected reading (Stephen, 2004; Stephen, 1989). At the same time, researchers conducted English extensive reading programs in Korea (Suk, 2017), Japan (Mason & Krashen, 1997), and Singapore (Ng & Sullivan, 2001), which achieved better outcomes compared to traditional teaching. Confident in the knowledge that reading can reliably boost English learners’ vocabulary, the handbook lays out how teachers can introduce students to extensive reading step-by-step.
In another development, numerous studies show that intentional vocabulary learning can also make the process more efficient. Some researchers found that high quality vocabulary activities lead to more vocabulary gains (Mirghasempoor, 2017; Laufer & Rozovski-Roitblat, 2015). Therefore, this field project also offers strategies and resources for teachers to create after-reading vocabulary exercises. Meanwhile, cognitive science has accumulated decades worth of scientific evidence to support learning vocabulary through spaced retrieval practice, which is to actively recall information in separate study sessions over a long period of time (Carpenter, Cepeda, Rohrer, Kang, & Pashler, 2012; Nation, 2001). This project incorporates this idea in the form of learning vocabulary through Anki, a popular digital flashcard application.

In conclusion, this project examines the evidence for using extensive reading, after-reading vocabulary activities, and spaced retrieval practice to improve English vocabulary learning. Also, the project combines the three ideas in the form of a handbook that English instructors can use to implement in the classroom.

**Recommendations**

This handbook is designed for English instructors. It is intended to be a guide for ESL teachers who teach intermediate-level adult students to implement extensive reading and the use of digital flashcards in the classroom to increase students’ vocabulary knowledge. This handbook recommends that teachers treat pleasure reading as the main avenue to boost vocabulary knowledge and overall English proficiency. Although many teachers and students find it hard to fully appreciate the effectiveness of extensive reading and spaced retrieval practice, educators can use the presentations in the handbook to inform and persuade their colleagues and students. My hope is that teachers can instruct their students to engage in reading and enjoy learning English.
It is crucial to keep in mind that the handbook is designed to help students read fluently so that they can keep reading as an enjoyable habit and thus obtain a significant amount of comprehensible input. Therefore, it is recommended to instruct students to do after-reading exercises to reinforce vocabulary comprehension. However, students should be allowed to skip those activities if they consider those activities a distraction, as some can read fluently without the help from those activities. Likewise, the use of digital flashcards is to add to students’ confidence with vocabulary so that they find reading more relaxed and thus learn more. In addition, spaced retrieval practice through using digital flashcards can help students acquire vocabulary knowledge faster and allow them to focus on the items of their needs. On the flip side, some students might be reluctant to use digital flashcards. Some may be burdened with other commitments and find it hard to make time for reviewing those cards. Some may not be comfortable enough with this application. If students enjoy reading and yet find digital flashcards unmotivating, they should feel free not to review flashcards.

In implementing the recommendations of the handbook, teachers can start with a presentation to persuade their colleagues and students to get on board using the template presentations. Next, teachers can either purchase printed grade readers or use the online resources suggested in the project to provide English learners with plenty of books to choose from. Instructors who are not comfortable with computers might do not have to create after-reading activities and flashcards, because after-reading activities and the use of Anki are supplementary. In addition, computer-savvy teachers are encouraged to utilize the online resources to create vocabulary activities and Anki flashcards to aid students in learning vocabulary.
Further development of the project can take in different forms. First, teachers can employ the strategies in the handbook to create reading instructions and after-reading vocabulary activities based on graded readers. Also, English language instructors can create high-quality flashcards based on the needs of students at different levels. For example, B1 students may want to focus on improving passive vocabulary knowledge of the most common 3000 English words. In this case, teachers can create Anki flashcards with content focused on the definition of the 3000 items. However, for C1 students who want to improve the accuracy of their writing and speaking, they might prefer digital word cards that target word collocations and phrasal verbs. These developments can be achieved if English instructors work together. On the other hand, programmers can collaborate with teachers to create a mobile phone application that allows readers, do after-reading activities, and review flashcards in a seamless experience. I envision that such an application can be popular among English learners as it provides an effective, interactive, and smooth learning experience that satisfies the reader’s individual needs.
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Appendix
Extensive Reading and Digital Flashcards

A Comprehensive Solution to English Vocabulary Learning

By Zijin Feng
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Module 1 Rationale: Powerful Vocabulary Learning Strategies

Extensive Reading

The main goal of this handbook is to promote extensive reading in the classroom. When students read extensively, they read easy books to build their general language fluency and vocabulary knowledge in particular. Second language acquisition researchers suggest that the key to learning a second language is a large amount of exposure to the language in a way that learners can understand. Extensive reading aims to fulfill this purpose. Therefore, readers should read books that they find interesting and easy so that they can read quickly and fluently (at least 150-200 words per minute or a little lower for beginning students) and enjoy reading. Ideally, they should be able to follow the flow of the text without having to refer to a dictionary, which interrupts fluency.

There are many benefits of extensive reading:

It is useful for building vocabulary and grammar. When students read, they encounter words, phrases, and grammar structures many times in different contexts.

It helps students to build reading speed and reading fluency.

It boosts students’ confidence, motivation, enjoyment, and a love of reading, so they want to read more and make progress faster.

It also helps lower anxieties about language learning as students have full control over reading.
Spaced Retrieval Practice and Anki

Cognitive science has long identified two effective learning strategies that can be applied to a wide range of learning subjects: Spaced practice and retrieval practice. Retrieval practice is to recall information rather than merely re-read or re-listen to it. Spacing is to spreading study sessions across a long period of time. Combined together, spaced retrieval practice, also a robust finding in cognitive science, involves providing students with quiz or course content spaced over time. Meanwhile, spaced retrieval practice has been applied to learning vocabulary and proved to be effective. However, as it takes a lot of planning to implement spaced retrieval practice, we recommend that students learn with Anki, a digital flashcard software that presents questions repetitively on different dates that are far apart. This handbook recommends that teachers instruct students to use Anki to learn vocabulary.

Learning English vocabulary with Anki has the following benefits:

1. Students can learn anytime and anywhere because Anki is available on the phone.

2. It allows learners to improve their vocabulary systematically and quickly. The app has a sophisticated algorithm to decide when to review flashcards to achieve the best time efficiency.

3. It boosts learners’ confidence with vocabulary. Whether students use Anki to learn general English vocabulary or the words required by the coming test, they can be rest-assured that they will remember those words forever.

When to use Anki:

1. When teachers want to ensure students have a good command of the most useful words in English (e.g., the most frequently used 3000 words). We will discuss how to implement this later in the handbook.
2. When students need to remember a wordlist for a test that is 2 or 3 months later.

(We will discuss how to implement this later in the handbook.)

3. When students read graded readers, teachers can create vocabulary flashcards based on the reading material. We will discuss how to implement this later in the handbook.
Module 2 Implementation

Selecting the Right Book

In order for students to learn from the reading material, they should be reading at an appropriate difficulty level and a reasonable speed (150-200 words per minute or a little lower for beginning students). Ideally, students should find the book interesting so that they are motivated to keep reading. Therefore, students should read Graded Readers, books written especially for language learners to build their reading fluency. They are called ‘graded’ readers because they come in increasing grades, or levels, of difficulty. They are graded through control of the vocabulary level and grammar complexity. Graded readers are written with the most useful words to help to learn.

Teachers can have access to graded graders:

1. At online or offline bookstores

2. By turning to the Recommended Online Resources section to find more information about online graded readers.

Create a Summary for Each Chapter

Teachers should provide students with a summary of each chapter to enhance their understanding. Also, it can help to ease students into the next chapter because they do not need to worry about if they misunderstood something. Also, a chapter summary provides the reader with relevant information in the chapter to ensure the reader follow the flow of the book and keep his interest engaged. This handbook proposes that a good chapter summary for non-native English learners should possess the following features:

1. The word count of such a summary should be around 150 words.
2. Use simple language that the reader can understand with ease, as the goal of the summary is to enhance comprehension of the text. This website can help to identify difficult words and replace them with easy ones:

https://www.simplish.org/conversion/AC983DA9/

3. Focus on connections between chapters. Keep in mind that each chapter serves to enhance comprehension of the text and help the reader to follow the flow of the book. Therefore, it should explain how the current chapter is connected to the previous one and sparks curiosity for the coming one.

**Why We Need Vocabulary-Focused Activities?**

Research shows that vocabulary-focused leads to better vocabulary awareness compared to comprehension questions. Also, this handbook recommends offering vocabulary-focused activities for the following considerations:

The reader can check their understanding of seemingly easy words because they tend to ignore many seemingly easy words for some common reasons. Some word pairs that are nearly identical in pronunciation or meaning, which even confuse native speakers, deserve more attention from English learners such as affect v.s. effect, conscience v.s. conscious, lose v.s. loose. Besides, since most easy words have different meanings in different contexts, it is helpful to help learners identify them.

1. Vocabulary activities accelerate the acquisition of vocabulary knowledge, as studies show that one high-quality after-reading activity contributes to learning new words much more than encountering them in reading text. This
handbook maintains that reading is necessary, but vocabulary-focused activities can help non-native English speakers learn.

2. Some learners may like to have vocabulary activities to increase their confidence with the text or to prepare for the coming high-stake English test.

3. The teacher should decide whether to create vocabulary exercises based on students’ needs. The aim to promote reading fluency. If students find the text easy and prefer to enjoy the flow of reading, vocabulary exercises can be redundant. On the other hand, if students find the vocabulary a little challenging and would like to have extra instruction, a short quiz can be beneficial.

**Create After-Reading Vocabulary Activities**

For each book that teachers assign students to read, this handbook encourages teachers to create vocabulary-focused after-reading activities to enhance students’ comprehension of the reading text. However, it is essential to keep in mind that reading extensively is the priority. Therefore students do not have to do after-reading activities if they prefer to keep reading with no interruptions. The very purpose of extensive reading is to expose learners to as much comprehensible input as possible. Thus students should read fast and enjoy the flow of the text without looking up words in the dictionary frequently. Therefore, after-reading vocabulary exercises can be beneficial as they reinforce comprehension of difficult keywords in the text. Better vocabulary comprehension can lead to better reading comprehension and fluency. On the other hand, considering students might be reluctant to use digital flashcards, vocabulary activities can be an excellent way to promote vocabulary in this case.
This handbook considers that creating a smooth, engaging reading experience for English learners is the priority and thus after-reading exercises should be a relaxing break in between reading sessions that takes little time. Therefore, this handbook only uses multiple-choice exercises. The following table shows example exercises for promoting understanding of different aspects of vocabulary items.
<table>
<thead>
<tr>
<th>Promote the understanding of</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>In <em>She insisted on him wearing a suit.</em> “insist on” can be replaced by ____</td>
</tr>
</tbody>
</table>
|                             | a. Demand  
|                             | b. Estimate  
|                             | c. Highlight  
|                             | d. exaggerate |
| Antonyms                   | The meaning of “insist on” in *she insisted on him wearing a suit.* is the opposite of ____ |
|                             | a. Refuse  
|                             | b. Whisper  
|                             | c. Give up  
|                             | d. emphasize |
| Definition                 | In *She insisted on him wearing a suit.* “insist” means to ____ |
|                             | a. Ask for something to be done  
|                             | b. Say sth is true  
|                             | c. Continue doing  
|                             | d. Continue to exist |
| collocation                | She ______ him wearing a suit. |
|                             | a. Asked for  
|                             | b. Insist on  
|                             | c. Learned to  
|                             | d. Persisted in |
Create Digital Flashcards

This handbook uses Anki as the digital flashcard application because it is all-platform, popular, and user-friendly. It takes less than 30 minutes to go over how to use this application by watching the video tutorials on this link: https://www.youtube.com/watch?v=QS2G-k2hQyg&yt%3Acc=on. If students want to focus on the most useful English words, for example, the Oxford 3000 Word List, they can download a flashcard deck from the link: https://ankiweb.net/shared/decks/.

Still, teachers are encouraged to create flashcards based on reading material and the needs of students. It seems to be a lot of workload on teachers, but they can use Wordsmyth (https://www.wordsmyth.net/) to create flashcards quickly. After that, the teacher should upload the flashcards deck to https://ankiweb.net/shared/decks/ so that students can download and learn flashcards on their phones. Word flashcards should include the following information:

a. **Only one meaning of a vocabulary item.** An English word often has multiple meanings and comes in different fixed collocations. For instance, the word “cut” has over 80 items in Merriam Webster Dictionary (https://www.merriam-webster.com/). Not only is it unnecessary to memorize all these items, as native English speakers may not know all of the items, but it is impossible to remember a flashcard like this. In addition, if there is more than one item in a flashcard, students will most likely review the same flashcard for one flashcard should deal with one item that fits students’ specific needs, because

b. **One easy definition.** Make sure that lower-level English learners are able understand its meaning.
c. **Word parts.** Knowledge of affixes and words roots can help learners build their vocabulary knowledge in the long run.

d. **Introduce word parts.**

e. **A sample sentence.** It would be better that the sample sentence comes from the reading text.

f. **Collocation.** If the teacher knows that one collocation is important for students to know, it should be included.

g. **A reminder for students.** In order to make the learning process smooth and effective for students, I suggest that instructors include a reminder at the end of each flashcard that reminds students to take some time to recall the information that the particular flashcard is intended for.
**Flashcard Front**

**Insist v.**

**Flashcard Back**

Meaning: to demand, to firmly say something;

Example: *She insisted on him wearing a suit.*

Word Parts: sist, sis, st: to stand

Collocation: insist on something/doing something

Reminder:

1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.

2. You don’t have to remember the items other than the meaning. They are just for your information.
How to Choose Relevant Words from a Text Fast

Choose high-frequency words from the text that aligned with students’ levels. This option is only available when teachers have access to the digital text of the books. Fortunately, this website (https://english-e-reader.net/) offers the digital texts of most graded readers. Teachers can download the text from this website and then upload it to http://www.englishprofile.org/wordlists/text-inspector, a text analysis tool provided by Cambridge University. This service will calculate the occurrences of each word and their levels according to the Common European Framework of Reference (CEFR) or New General Service List (NGSL). For example, if a B1 students read a 3,000-word text, the teacher can select the 10 B2 words that have the highest amount of occurrences and create vocabulary activities and flashcards based on them.

Read the First Book Together

In order to ease the reluctant readers in the class into reading, teachers should instruct students to read together during class time. The teacher can present the benefits of extensive reading to students using the presentation template provided in this handbook and instruct students to read the same book for 20 minutes during each class session. After reading, the teacher should spend 5 minutes doing after-reading activities with students.

Ideally, the teacher can later instruct students to use Anki, a digital flashcard software, to learn some new words together. This handbook recommends that The teacher can use just one account for all students. The teacher can show the question on the front card and invite students to answer. After that, the teacher can poll the students to decide on the difficulty level of the
card. The teacher can spend 15 minutes during each class session to enhance students’ vocabulary knowledge.

After the first book, the teacher can continue to do the same with other books if students are satisfied with the arrangement. The teacher can also assign reading as homework later.

Summary

This handbook focuses on how to accelerate vocabulary acquisition. It recommends that extensive reading should be used as the primary device to improve overall English proficiency and especially vocabulary size for non-native English learners. In order to reinforce vocabulary acquisition, this small book also presents how to create after-reading vocabulary-focused exercises and how to use spaced retrieval practice to learn vocabulary effectively. All the recommendations of the book could be summarized as following:

1. English teachers should employ extensive reading as the main venue for teaching vocabulary.
2. English teachers can encourage students to use ready-made digital flashcards daily to enhance their vocabulary knowledge.
3. Teachers who are comfortable with computers can use the tools laid out in this book to create high-quality after-reading vocabulary exercises and flashcards based on the learning needs of the students.
4. After-reading vocabulary activities are encouraged if students enjoy them.
Module 3 Sample Material Adaption

The reading passages are adopted from Oxford Bookworms Library: The hound of the Baskervilles, a level 4 graded reader of Bookworms series by Oxford University Press (Patrick, 2005). Designed for B1 and B2 students, this book contains the first 1400 most frequently used English headwords. Therefore, the after-reading vocabulary activities are focused on vocabulary items in B1 and B2 levels.

Reading Text

Chapter 1

The Case Begins

The September sun was shining brightly into the windows of 221B Baker Street, and London was enjoying a beautiful late summer. I had finished my breakfast and was reading the newspaper. As usual, Holmes had got up late, and was still eating. We were expecting a visitor at half past ten, and I wondered whether Holmes would finish his breakfast before our visitor arrived.

Holmes was in no hurry. He was reading once again a letter he had received three days ago. It was from Dr James Mortimer, who asked for an appointment with Holmes.

'Well, Watson,' Holmes said to me, 'I'm afraid that a doctor from Devonshire won't bring us anything of real interest. His letter doesn't tell us anything about his business though he says it's very important. I hope we can help him.'

At exactly half past ten there was a knock on our front door.

'Good,' said Holmes. 'Dr Mortimer is clearly a man who will not waste our time.'

We stood up as our visitor was brought into the room.
'Good morning, gentlemen,' he said. 'I'm Dr James Mortimer, from Grimpen in Devonshire, and I think you must be Mr Sherlock Holmes.' He shook hands with Holmes, who said:

'How do you do, Dr Mortimer? May I introduce my good friend, Dr John Watson, who helps me with my cases. I hope you will allow him to listen to our conversation.'

'Of course,' said Mortimer, as he turned to me and shook hands. 'I need your help very badly, Mr Holmes. If it will be useful for Dr Watson to hear what I have to say, please let him stay and listen.'

Mortimer did not look like a country doctor. He was very tall and thin. He had a long thin nose. His grey eyes were bright, and he wore gold glasses. His coat and trousers were old and worn. His face was young, but his shoulders were bent like an old man's and his head was pushed forward. He took some papers from his pocket, and said:

'Mr Holmes, I need your help and advice. Something very strange and frightening has been happening.'

'Sit down, Dr Mortimer,' said Holmes, 'and tell us your problem. I'll help you if I can.'

[Chapter 1 Vocabulary Activity] Please choose the word that matches the definitions.

1. ______ means to say that someone may do something;
   a. allow
   b. wonder
   c. frighten

1. ______ to cause fear in someone; to make someone afraid.
   a. frighten
   b. allow
   c. wonder
Chapter 2

The Baskerville Papers

In the previous chapter, Holmes was having coffee when Dr James Mortimer came from Devonshire. He asked Holmes for help because he saw something strange.

'These papers were given to me by Sir Charles Baskerville,' said Dr Mortimer. 'He asked me to take good care of them. You may remember that Sir Charles died suddenly three months ago. His death caused much excitement in Devonshire, the county where Baskerville Hall is. Sir Charles was a sensible man, but he believed the story which is told in these papers.'

Dr Mortimer went on: 'The story is about the Baskerville family. I have come to see you because I need your help. I think that something terrible is going to happen in the next twenty-four hours. But you can't help me unless you know the story in these papers. May I read them to you?'

'Please continue, Dr Mortimer,' said Holmes, and sat back in his chair with his eyes shut.

Mortimer began to read in his high, rather strange, voice:

I, William Baskerville, write this for my sons in the year 1742. My father told me about the Hound of the Baskervilles. He told me when it was first seen, and I believe his story was true. I want you, my sons, to read this story carefully. I want you to know that God punishes those who do evil. But never forget that He will forgive those who are sorry for any evil they have done.

Over a hundred years ago, in 1640, the head of the Baskerville family was Sir Hugo Baskerville. He was a wild and evil man. He was cruel and enjoyed hurting people. Sir Hugo
fell in love with the daughter of a farmer who was a neighbour of his. The young woman was afraid of the evil Hugo, and avoided him. One day, Hugo heard that her father and brothers were away. He knew that she would be alone. So he rode to the farm with five or six of his evil friends. They made the girl go back to Baskerville Hall with them, and locked her in a room upstairs. Then they sat down in the great dining hall to drink. As usual, they drank bottle after bottle and soon they began to sing and laugh and shout evil words.

The girl upstairs, who was already very frightened, felt desperate when she heard the terrible things they were shouting. So she did a very brave thing. She opened the window, climbed out of the room and down the ivy on the wall. Then she started to run across the moor towards her home.

A little while later, Hugo left his friends and went upstairs to the room to take her some food and drink. When he found an open window and an empty room, he behaved like a man who was mad. He ran down the stairs. He screamed that he would give himself to the Devil if he caught the girl before she reached home. Some of Hugo's drunken friends told him to let the hounds chase her, and so he ran from the house and unlocked the dogs. Then he jumped onto his black horse, and rode off over the moor with the hounds running and crying around him.

Hugo's friends fetched their horses and followed him. There were thirteen of them. After a mile or two they passed an old farmer and asked him if he had seen Sir Hugo and the hounds. The man looked half mad with fear and spoke with difficulty. He said that he had seen the girl and the hounds running close behind her. Sir Hugo had been riding just behind the hounds. 'But I have seen more than that,' the old man said. 'Behind Sir Hugo I saw a huge and terrible hound running silently. May God keep me safe from that hound of hell.'

The thirteen men laughed at the old man and rode on. But their laughter soon stopped when they saw Sir Hugo's horse running wildly towards them without a rider.

The thirteen men moved closer together as they rode on. They were suddenly afraid. over the moor they went until, at last, they caught up with the hounds.

Everyone in the county knew that the Baskerville hounds were brave and strong. But now they were standing at the head of a deep valley in the moor with their ears and tails down. They were very frightened. Hugo's friends stopped. Most of them would not go on, but three were brave enough to go down into the valley.

The valley had a wide flat floor. In the middle of the flat ground stood two great stones. They had stood there for thousands of years. The moon was shining brightly on the great stones, and between them, on the flat ground, lay the girl. She had fallen there, dead of fear and exhaustion.
Sir Hugo's body was lying near her. But it was not the sight of Sir Hugo or the girl that filled
the men with fear. It was the sight of the huge animal that was standing over Sir Hugo. Its teeth
were at his throat. It was a great black creature that looked like a hound. But it was larger than
any hound they had ever seen.

As they watched, it tore out Hugo Baskerville's throat. Then it turned towards them. Its eyes
were burning brightly. Its body shone with a strange light. Blood ran from its mouth. The men
screamed and kicked their horses. They rode back up the valley as fast as they could go. Later
that night one died from the horror he had seen. The other two were mad for the rest of their
lives.

That was the first time the Hound appeared, my sons. It has been seen many times since then,
and many of the Baskervilles have died in strange and terrible ways. Because of this I warn you
not to cross the moors at night. The Devil finds it easy to do his work when the world is dark.

1. In “A dark shape appeared in the distance”, appear could be replaced by ______.
   a. disappeared
   b. showed up
   c. jumped
   d. rose

2. If a man is brave, he ______.
   a. Is not afraid
   b. Kills people
   c. Moves fast
   d. Escapes from troubles

3. Fear is a feeling that _____.
   a. You are going to be in pain or danger
   b. You don’t know what to do
   c. You feel bad about yourself
d. You lost a lot of money

4. The big man fell to the _____.
   a. Sky
   b. Water
   c. Cloud
   d. Ground

5. When Lily gets angry, she would _____ at me.
   a. Eat an ice cream
   b. Cook
   c. Scream
   d. Laugh

6. The sight of a lion is _____.
   a. The fact that you saw the lion
   b. When you love the lion
   c. Where you saw the lion
   d. How you saw the lion

7. Jimmy’s grandma suddenly died of a heart attack. Suddenly means _____.
   a. It happened fast and nobody expected it to happen
   b. It happened fast
   c. It happened unexpectedly
   d. It happened recently

8. A valley is _____.
   a. Between mountains or hills
b. A river

c. A mountain

d. A wall

**Flashcard Content for Sample Activities**

Chapter 1

[Flashcard Front 1]

**Allow**

[Flashcard Back 1]

Meaning: to let sb do sth

Example: His parents won't allow him to stay out late.

Collocation: all sb to do sth

Reminder:

1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.

2. You don’t have to remember the items other than the meaning. They are just for your information.

[Flashcard Front 2]

**Frighten**

[Flashcard Back 2]

Meaning: to make someone feel afraid

Example: Sorry, I didn't mean to frighten you.

Reminder:
1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.

2. You don’t have to remember the items other than the meaning. They are just for your information.

[Flashcard Front 3]  
wonder

[Flashcard Back 3]  
Meaning: to try to think about sth  
Example: I wonder what this animal is.

Reminder:  
1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.

2. You don’t have to remember the items other than the meaning. They are just for your information.

Chapter 2

[Flashcard Front 1]  
appear

[Flashcard Back 1]  
Meaning: to show up  
Example: A bear appeared on the street.

Word parts: ad=to;  
Reminder:
1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.

2. You don’t have to remember the items other than the meaning. They are just for your information.

[Flashcard Front 2]

Brave

[Flashcard Back 2]

Meaning: not afraid

Example: He was brave enough to fight the bear.

Reminder:

1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.

2. You don’t have to remember the items other than the meaning. They are just for your information.

[Flashcard Front 3]

Fear

[Flashcard Back 3]

Meaning: the feeling that you are in danger

Example: Her eyes showed no fear

Reminder:

1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.
2. You don’t have to remember the items other than the meaning. They are just for your information.

[Flashcard Front 4]

ground

[Flashcard Back 4]

Meaning: The surface of the earth
Example: The little boy is sitting on the ground.

Reminder:

1. Please take 3 seconds to recall the the meaning, the process of recalling makes the information grow in your brain.

2. You don’t have to remember the items other than the meaning. They are just for your information.

[Flashcard Front 5]

Scream

[Flashcard Back 5]

Reminder:

1. Please take 3 seconds to recall the the meaning, the process of recalling makes the information grow in your brain.

2. You don’t have to remember the items other than the meaning. They are just for your information.

Meaning: speak or cry loudly (when angry)
Example: He screamed that he would give himself to the Devil if he caught the girl before she reached home.
Collocation: He screamed at me to stop.

[Flashcard Front 6]
sight

[Flashcard Back 6]
Reminder:
1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.
2. You don’t have to remember the items other than the meaning. They are just for your information.

Meaning: the act of seeing

Example: The sight of the snake scared me.

[Flashcard Front 7]
suddenly

[Flashcard Back 7]
Meaning: quickly and unexpectedly

Example: I suddenly realized what I had to do.

Reminder:
1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.
2. You don’t have to remember the items other than the meaning. They are just for your information.

[Flashcard Front 8]
valley
[Flashcard Back 8]

Meaning: an area of low land between hills or mountains, often with a river flowing through it

Example: It is a small town set in a valley.

Reminder:
1. Please take 3 seconds to recall the meaning, the process of recalling makes the information grow in your brain.
2. You don’t have to remember the items other than the meaning. They are just for your information.

**Answer Keys**

Chapter 1
1-3 acb

Chapter 2
1-5 baadc
6-8 aa
This presentation can be used as a template for English teachers to explain the benefits of extensive reading and the use of digital flashcards. It uses simple language to introduce the theories behind extensive reading and spaced retrieval practice. Teachers might use this in the classroom to persuade students. Please feel free to modify all slides and transcripts.

“Hi everyone! Today we are going to talk about extensive reading, the best way to learn English. You might have a lot of questions now. How is it possible? I don't know enough words to read. What should I read? And so on. Be patient, in the next few ten minutes. I'm going to address all of your questions. First of all, why should we read to learn English? Because it works even if your goal is to interact with people in English at work.”
"Let me explain, the most important principle of learning English is to expose yourself to English as much as possible. However, your English can only improve when you can understand the English you hear and read. Researchers on language learning have long found that without understanding, without learning. Let me say it again. Only when you understand the English you hear or read, your learn English FAST!

Now, you may be wondering: my vocabulary is limited. I don't know enough words to understand people or books.

I totally understand. Vocabulary is the key to understanding. In most situations, if you know enough words, you will be able to understand what people say and what you read in books, so you can learn very fast."
"Next, let me explain why extensive reading is the best way to learn vocabulary.

First, it's fun. You can choose anything you are interested in to read, be it jokes, celebrities, politics, psychology, you name it.

Second, when you read, you have full control. While reading, if you don't know a word, you can take your time and look it up. However, if you don't know a word and you are too lazy to look up its meaning. It is totally fine. By the way, if you read on the phone. You can read anywhere you want and anytime you want.

Reading is the easiest way to expose yourself to English words and you can read slowly to ensure understanding, so experts on language learning say it is the best way to improve vocabulary. Also, native English speakers learn vocabulary through reading.

During reading, you can guess the meaning of new words according the context. If you read English on your phone or on the computer, you can check the meaning of words you don't know just by tapping the word. As you read more and more, you will naturally see the same new
words hundreds and even thousands of times. In this way, you will be able to remember those words forever.”
"Right now, you might be thinking. You know reading can improve my vocabulary size and overall English proficiency. Maybe you have already tried to read English books but there are so many words you don't know and it would be so boring to look up new words all the time.

Here is the good news. You can read Graded Readers. Graded Readers are books written for English learners. They come in many different levels and different subjects, meaning you can always find a book that is suitable for your current vocabulary level and you interest.

However, I know you also have other concerns. Some of you only want to remember the most-frequent English words so that your English learning is more efficient. Most of you need to learn vocabulary lists because you need to prepare for tests. Here I will teach you the most efficient way to remember vocabulary lists."
“There are three techniques. Taken together, will more than double your learning efficiency.

One is spacing. Spacing refers to the practice that schedules study and restudy sessions of the same material across a long period of time. For example, let's say you are going to learn a vocabulary list of 50 words and you only have one hour for study. You can either spend the one hour of study all at once or study the vocabulary list one half hour today and then one half hour tomorrow. If you divide your study time into two sessions, scientific research shows that you will remember about 40% or 50% more in the long run. “
“The second one is testing. I understand that most people hate tests. So do I. However, decades of scientific studies have shown that actively trying to recall the information you have learned is the best way to learn. In order to remember a vocabulary list, most students would look at the word and then look at the definition and repeat this process many times. However, some students would look at the word and pause for a second, trying to remember what it means. After that, they would look at the definition to check their answers. They are always testing their memory. If given a vocabulary test one month later, studies have found that the testing group could remember around 40% more than the simply repeating group.”
“You might be wondering why these simply techniques can work magic. There are some explanations. First, when you learn, the brain grows new cells. After a good sleep, the cells would become much stronger. This is why spacing is so helpful because it allows the brain enough time to process what you have learned during sleep. Second, testing works because when you take a test, you have to actively bring the information you have learned back to mind. Practice makes perfect. Therefore, practice recalling information makes you learn much better.”
With that being said, you might be wondering, how to apply spacing and testing to vocabulary learning? You don’t want to set many alarms to remind you review your vocabulary list. So the answer is Anki, a digital flashcard app. The good news is you don't even have to make your own flashcards. If you download this app, Anki, you can use ready made vocabulary flashcards. It is designed based on the spacing and testing. It will remind you to review flashcards at exactly the right time so you don't need to ask yourself when to review or what words to review. It will always be on your phone, so you can review English vocabulary when you are standing in line, commuting on the bus or waiting for someone.

This app can be found on all platforms. You can go to the app store and download it. It's free on Android and windows but charges 24 bucks on iphone. With this App, you can remember all the words you want to remember forever. But when you think you don't any word, feel free to delete the flashcard.
If it is the first time you review a flashcard, first you look at the question and take a few seconds trying to recall the answer. You tap the screen and it will show you the answer. Now Anki has three difficult levels. If you think you need to learn this flash all over again, you click again and the app will show you the card in 10 minutes. Click good, this card will show up one day later, Good, 4 years later. Easy, 1.8 years later.
“As you get more and more familiar with a flashcard, the restudy sessions will be further and further away. Let's say I have reviewed this card many times before. I tap the card, it has 4 levels of difficulty. If you can't recall the information, “Again” means the card will show up 10 minutes later; “Hard” means 7.6 months later; “Good” means 1.4 years later; “Easy” could be 1.8 years later.”
“What are the takeaways from today?

First, please read. Read a lot. Read whatever graded Readers you are interested in. I promise you will be surprised by how much English you learn if you keep reading just ten minutes everyday.

Second, if you want to make sure you can remember the meanings and spellings of common English words efficiently and never forget, use Anki. Later I will give you a handout to show you where you can have access to over one thousand graded readers and how to use Anki. Thank you and have a great day.”
FOR ENGLISH EDUCATORS: WHY EXTENSIVE READING AND DIGITAL FLASHCARDS

This presentation can be used as a template for English teachers to advocate extensive reading and the use of digital flashcards. It briefly presents the empirical evidence that supports extensive reading, spaced retrieval practice, and the use of Anki. Teachers might use this at a faculty meeting to persuade other teachers. Please feel free to modify all slides and transcripts.

“Hi, Everyone. Today I’m going to talk about how to use extensive reading and digital flashcards to help ESL students learn vocabulary.”
“As English teachers and educators, we are all aware of Steven Krashen's "Input Hypothesis". According to Krashen, the essential element in learning any language, be it your first or second language, is to have massive amounts of comprehensible input (Krashen, 1982). Language learning happens only when the learner understands what they hear or read. Therefore, Krashen claims extensive reading is the best way to improve vocabulary size and English proficiency. When English learners read, they are relaxed, and the affective filter is low. If they don't understand a word, they can look it up. Besides, since they can read whatever they are interested in, they can keep reading for thousands of hours. As a result, they get large amounts of comprehensible input, and their overall English proficiency will improve very quickly.

“Numerous studies have demonstrated the benefits of extensive reading. In 1983, two researchers found that nine-to-eleven-year-olds in Fiji had seen dramatic development in their English proficiency (Elley & Manubhai, 1983). The participants were nine to eleven-year-old children at Grade 4 and 5 from numerous schools. After 8 months, the extensive reading group in
both grades improved twice as much as the control group taught in audiolingual classrooms. In another example, from 1985 to 1987 in Singapore, 700 primary school students participated in the extensive reading intervention group (Ng & Sullivan, 2001). They were exposed to a large number of storybooks. Three years later, the intervention group scored 5 points higher on average than the control group in the final test. The improvement in the intervention group was significant given that the final test was just a regular school English test heavy on grammar, and yet they performed better. Also, given the fact that primary students in Singapore have a lot of homework, it showed that students in Singapore were able to fit pleasure reading into their busy schedule. 90% of teachers were satisfied with the program, as they noted Improvement was also noted in speaking, reading, writing, and spelling skills when they compared REAP pupils with those they had taught in the past.”
“Now, you might be thinking, we all know that reading is perhaps the best way to learn English. However, I understand that you have other concerns.

But, what if the students are not interested in the book? This is no one-size-fits-all solution. However, as long as students have enough books to choose from, they can find books that interest them. Many websites offer materials of different genres of different levels. Also, there are hundreds of graded readers out there, books designed for English learners.”
“Also, I know you also have some concerns about vocabulary.

First, we have a lot of tests, so there are compulsory word lists to remember.

Second, you may want to focus on the most frequently-used English words so students can have the best value for their time.

Third, according to your own experience of using English, you understand that reading may not ensure good spelling, because we still make a lot of spelling mistakes after reading the same words thousands of times.”
You may have your own answer. Next, I'm going to talk about the two most robust scientific findings on human memory.

First is spacing. Many of you have heard of the so-called "forgetting curve". The human brain does forget, which is why we need to review what we have learned. Spacing is the idea that spreading restudy sessions across a long period of time can significantly reinforce long-term memory. In one study, researchers instructed 10-year-olds to learn 8 GRE words. They covered all the words in one session and then gave another session to review those words. The spacing group had the two sessions one week apart, and they took a test 4 weeks after the second session. The control groups went through the two sessions all in one day and then took the same test four weeks after the second session. The result was that the spacing group remember twice as many words as the control group. Similar studies have been done on many different subjects, including mathematics and motor skills.”
“Moving on to the second technique. Let me ask you a question. Do you like tests? I understand how the word test is loaded with negative connotations. However, testing is actually the best way of studying rather than measuring the result of it. For example, in one study (Brown, Roediger, & McDaniel, 2014), students who took a test immediately after reading a passage without any feedback recalled 50% more of the information than students who were not tested after reading when both groups were given the test one week later. Again, similar results have been found in many other subjects, including learning a foreign language, mathematics, and motor skills. In cognitive science, this phenomenon is called the testing effect or retrieval practice.

The idea behind this strategy is to bring information to mind from memory. The key is to take the effort to try to recall the information. At this point, you may have noticed that spacing and testing and intertwined in the sense that spacing also increases the effort of trying to
remember information. Therefore, we can put the two learning techniques into one formula:

recalling + sleep = learning.”
“Now that we have a formula that promises to get rid of forgetting, you might be thinking, there must be a catch here. Yes, it is a lot of hassle to arrange study sessions that spread across a long period of time. Also, it takes a lot of discipline to stick to the restudy schedules. That's where Anki, a digital flashcard application, comes in.

If you download this application, you can use ready-made vocabulary flashcards. It is designed based on the spacing and testing effects. It will remind you to review flashcards at precisely the right time, so you don't need to ask yourself when to study or what words to review. It will always be on your phone, so you can review English vocabulary when you are standing in line, commuting on the bus or waiting for someone.

This application can be found on all platforms. You can go to the app store and download it. It's free on Android and windows but charges 24 bucks on Iphone. With this App, you can remember all the words you want to remember forever. But when you think you can remember a flashcard perfectly well, feel free to delete it.”
If it is the first time you review a flashcard, first you look at the question and take a few seconds trying to recall the answer. You tap the screen, and it will show you the answer. Now Anki has three difficulty levels. If you think you need to learn this flash all over again, you click again, and the app will show you the card in 10 minutes. Click "Hard", this card will show up one day later, "Good", 4 years later; "Easy", 1.8 years later.
“As you get more and more familiar with a flashcard, the restudy sessions will be further and further away. Let's say I have reviewed this card many times before. I tap the card, it has 4 levels of difficulty. If you can't recall the information, Again means the card will show up 10 minutes later, "Hard" means 7.6 months later; "Good" means 1.4 years later; "Easy" could be 1.8 years later.

As teachers, if you may want to focus on the most frequently-used English, you can use read-made flashcard decks. For example, in Anki, we have 4000 essential English words. You can also create flashcards of vocabulary items you want students to remember based on the reading materials.”
“The takeaways from this presentation are:

First, extensive reading is the surest way to Fluency.

Second, in order to remember vocabulary forever, use this formula: recalling + sleep = learning

Third, use the Anki app to store all the information you want students to remember.

In addition, I'm also aware that this solution is not perfect, because when there are too many words to learn, students may get overwhelmed by the amount of workloaded presented by the Anki app. My suggestions is: students should make sure they only accept 10 more new words each day so they can keep using the Anki app as a habit.”
Module 6: Recommended Online Resources

**Digital Flashcard**

https://apps.ankiweb.net/

Anki is an all-platform digital flashcard software that utilizes spaced retrieval practice. It is easy to use and allows users to create flashcards with audios, images, and videos.

Anki Card Decks Recommended for ESL Teachers and Learners

https://ankiweb.net/shared/decks/

This link provides ready-made flashcard decks that include word definitions and sentence examples for each word. Using flashcards focused on the most essential English words can make sure they do not forget and encourage them to read more. Teachers can search for the following card decks to find the right fit for students:

1. 1000 Basic English Word
2. 2000 Core English Words
3. 4000 Essential English Words

**Graded Readers**

In order for extensive reading to be effective, learners must have access to a large variety of books. Therefore, they can find those books that are both interesting and suit their proficiency. I have curated a list of online resources of English graded readers s:

https://xreading.com/

This website provides over 1000 graded readers of all genres in 7 levels. Books come with audios, quizzes. It also offers a learning management system that allows teachers to monitor students’ progress. The rate is 5 dollars a month for individual teachers but free for students.
https://www.er-central.com/text-helper/

A free website for extensive reading that contains over 1000 short stories in 19 levels with audios and quizzes. Also, teachers can monitor the reading process of students. Besides, it allows students to save new words and play vocabulary games.

https://english-e-reader.net/

A free website features over 600 graded readers. It only allows motivated readers to read online without quizzes. All users can download books and audios. It is superior for teachers who seek to customize reading materials for students.

https://www.newsinlevels.com/

A free website that offers news written in the most frequent 3000 words in the English language. All news stories come in three levels, accompanied by audios. A superb resource for B1 to C1 students.

http://www.seg.co.jp/sss/reading_level/C/index.shtml

**Services for Making Original Digital Flashcards Faster**

http://testyourvocab.com/

This website tests vocabulary size. Over 2 million people, both native English speakers and non-natives, have tested their vocabulary there. The test is free, and it takes about 5 minutes. It is recommended to use a dictionary when an English learner takes the test by themselves because they tend to mistake words that they do not know as those they know. Better still, students can take the test under the guidance of a teacher to ensure the accuracy of the result.

https://www.visualthesaurus.com/vocabgrabber/
This online tool can be used to generate a vocabulary list from every text. It ranks the words according to occurrence or relevance. When words are ranked by occurrence, they are listed by number of occurrences in the text from the highest to the lowest. When words are ranked by relevance, this tool compares how frequently words are used in the text and how frequently they are used in general written English. Any word that is much more often used in the text than it is in the general written English is considered to be very relevant to the text. Therefore, teachers can use this tool to identify relevant words in a text. In addition, this tool is free to use as a vocabulary list generator.

http://englishprofile.org/index.php/wordlists/text-inspector

This is perhaps the most powerful vocabulary list generator online. It provides a holistic vocabulary profile of any text uploaded by users. Not only does it calculates the occurrence of each word in the text, but it also groups words according to their ranks in British National Corpus, New General Service List, Common European Framework Reference and so on. It allows instructors to quickly identify words they want to teach according to students’ current English proficiency. However, it costs 6 dollars a month.

https://www.wordsmith.net/

The website automatically generates word lists, multiple-choice, fill in the blank quizzes, an excellent tool for creating vocabulary flashcards and vocabulary-focused after-reading activities. It allows users to add definitions, sentence examples, and even word parts to each word. Free users can create a word list of 12 words. The subscription rate is 10 dollars a year.