How to Memorize Words Using Anki

Mamoru Takahashi

Abstract

The Anki Flashcard app (https://apps.ankiweb.net) is one of the most popular digital memorization tools available, but the interface is such that users will need to familiarize themselves with it before they can take full advantage of the app. Once they get used to the interface, they can modify the preferences and, through regular use, start learning new words. Students can access a number of free card decks, and/or they can convert their own custom decks from Quizlet and use them with Anki. It is well-known that the form-meaning relationship of a word cannot be memorized in a single session, but learning new vocabulary requires spaced repetition. The words have to be revisited after a delay of not only a few days, but also a few weeks and even a few months. Anki automatizes this complex revisiting process. Even though Anki can be an invaluable resource, learners still need the self-discipline to use it regularly for it to have the proper effect. The students' reactions to using study supplements such as flashcard apps, paper flashcards, and vocabulary notebooks was obtained through a questionnaire. 70% of students used either a learning flashcard app, a vocabulary book, paper flashcards, or a vocabulary notebook. The remaining 30% could not enjoy the benefit of learning vocabulary.

Keywords: learning flashcard app, paper flashcards, vocabulary notebook, vocabulary book

Introduction

English vocabulary books are called *tangocho* (単語帳) or *tangoshu* (単語集) in Japan. How are we supposed to use the small box next to each word?
They look like this:

> ☐ longstanding（形）長年の
> //A longstanding relationship 長年の関係

I used to put a check mark on the box when I already knew the word. After spending a long time for memorizing words from vocabulary books, I noticed that I was doing it wrong. By putting a check mark on box next to a word I already knew and leaving the box next to an unknown word blank, I was making myself unable to see how many times I encountered the same word. When I started checking the box next to a word that I don't know the meaning, I was able to see how many times I could not answer correctly. Memorizing words is not an easy task. We need to learn and forget words repeatedly until we can finally use them in

context. In this paper, I will explicate why we need to memorize words and how we can effectively utilize the digital memorization tool called Anki Flashcard app.

The following questions will be answered in this paper:

1. Why do we need to memorize words?
2. Why do we need to memorize 8000 words?
3. What are the three numbers at the bottom of the Anki App screen?
4. What did I learn from the questionnaire asking students if they used supplementary materials to increase vocabulary?

5000 words are necessary for some comprehension to take place

In *Vocabulary in the Foreign Language Curriculum,* Milton and Hopwood (2023) wrote that the most frequent 2000 words are of course important, but lots of functional words are included in them. In other words, these 2000 words include many words such as "a", "the", and "at", which cannot formulate a meaningful sentence by themselves. Therefore, the students whose vocabulary level is under 2000 cannot understand the meaning of the sentences they encounter in their daily lives.

However, the coverage is not the same as the level of comprehension. Figure 3.4 (the graph of the upper right) in their book shows an S-curve. This curve shows the relationship between vocabulary level and comprehension. They think that students who know less than 2000 words have very little comprehension (very close to zero percent) and that a minimum of 5000 words (that is, the Eiken Level 2) is a requirement for comprehension of the gist.

How words are covered in our classes

Figure 6.9 in Milton and Hopwood (2023) shows the words that we cover in class. This model shows that the inner circles from 1000 to 5000 shows the full range of target words while the ovals are the vocabulary we teach in our courses. When I drew this picture on the white board in classes, my students understood this model very well.
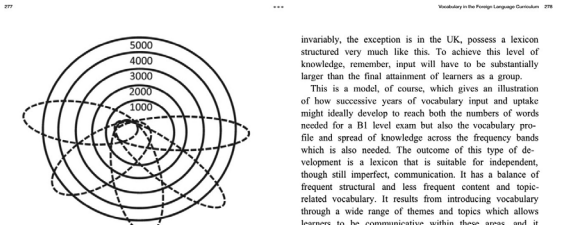
Figure 6.9 Lexical learning in the hypothetical 5 years, spread across the frequency bands and calculated to bring learners to a level of vocabulary suitable for B1 level exams

The reason for learning 8000 words

While the oval shapes in Figure 6.9 show the vocabulary we teach in our classrooms, there are many other words that cannot be covered. I always thought that it would be enough to teach false-beginner level students how to use words that are intermediate level, but now I know I was wrong. Even in low-level classes, it is necessary to include both high-frequency and low-frequency words to improve our students'
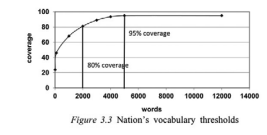

Figure 3.3 Nation's vocabulary thresholds

Figure 3.4 The vocabulary comprehension S-curve

The graph on the left (Figure 3.3) shows the coverage and word levels. 5000 words cover the upper 90%. I have thought that 5000 words is enough for our students.

comprehension. The reason for the necessity of teaching low-frequency words at the 8,000-word level is that those words are used in the Eiken Level 1 exam. Knowing those words is definitely an advantage for understanding information we receive from TV, the Internet news, and academic papers in English in our daily lives. English language learners at the 5000-word level can understand the gist of the discourse, but the learner at the 8000-words level can understand the details of discourse. Eiken Grade 1 is a CEFR C1 level exam, which requires a vocabulary size over 8000 words. As such, we need a vocabulary of 8000 words.

What I learned through my experience of memorization

As a learner of English, there is no ending in my learning English. I still keep memorizing English in my free time. What I have learned through my experience of memorizing words is that I would soon forget them. I cannot increase my vocabulary unless I continue to review them once every few months. So far, I don't know how long it would take to learn words permanently. There is no definitive answer even among experts. The words that I learned often disappeared within a few months, even if I could recall the meaning of them for a week. That is why it is necessary to constantly review what we have learned.

How often we must review new words?

We should review new words every month. To optimize the memorization process, it is crucial to understand how often we should review new words. The work of Cepeda et al. (2008) in Milton & Hopwood (2023) suggests that "the form-meaning relationship of a word should be revisited with a delay of about a month for optional memorization."

Method

The materials I gave them for learning

So far, I have discussed why students need to expand their vocabulary. Next will be the procedure that I took in my class. The 62 male and female students in the freshman English class in 2022 were not only taught the rationale for improving their vocabulary, but they were also given decks that could be used with Quizlet and the Anki Flashcards app. In addition to these decks, I gave them paper flashcards (Kokuyo Campus Flashcards with Binder Rings). Using these tools, they studied AWL (Academic Word List) 570 words during the summer vacation. The AWL is a list of words that contains 570 word families that account for approximately 10% of the total words in academic texts. The AWL words were provided to them in the form of Quizlet and the Anki Flashcards decks. Students were tested after they returned from their vacation. It is not the purpose of this paper to report on the test results, but in general, it depends on the individual whether or not they could memorize the words. It was no surprise that low level students scored poorly on the test, and higher-level students scored well.

The merit of Anki flashcard app

I wanted my students to learn vocabulary by encountering them repeatedly over time. For that purpose, the Anki Flashcards app is ideal. The app automatically provides repeating vocabulary quizzes with the proper intervals, but, unfortunately, the interface looks such that it is hard to use. At the beginning, even I did

not know where to touch on the app because there were only three numbers that looked like 0 + 4 + 6 beneath a target word on a flashcard screen and that was all. After carefully scrutinizing how to use config or preference (called "options" in the Anki Flashcards app), I finally understood how to use it.

Mini-workshop: the Anki flashcard app

I made a short video for my students to familiarize them with the Anki Flashcards app. App Store contains many similar looking memorization apps, so I advised my students to go directly to the Anki Flashcards app homepage.

https://apps.ankiweb.net/

This is the logo of the Anki.
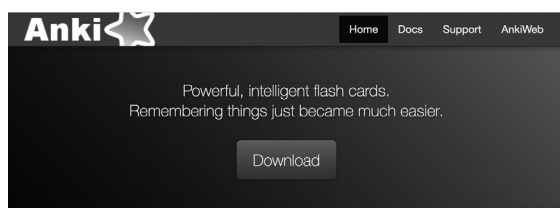
If you download Anki on your Mac, Windows, or Linux successfully, it will be called "Anki" on your desktop.
This is the initial screen you will see.
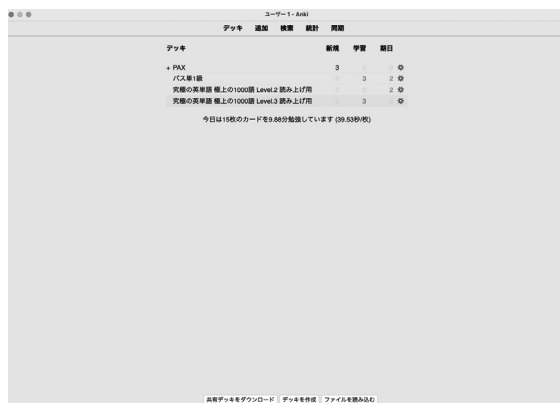
パス単1級 (Pass Words 1ˢᵗ Grade) and 究極の英単語（Ultimate English Vocabulary）on this screen are the decks I'm currently studying. If you click on the lefthand side

button (共有デッキをダウンロード meaning "download shared deck") at the bottom of this screen, you can download a deck.
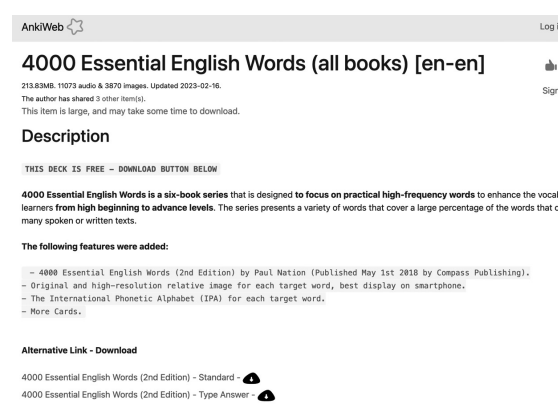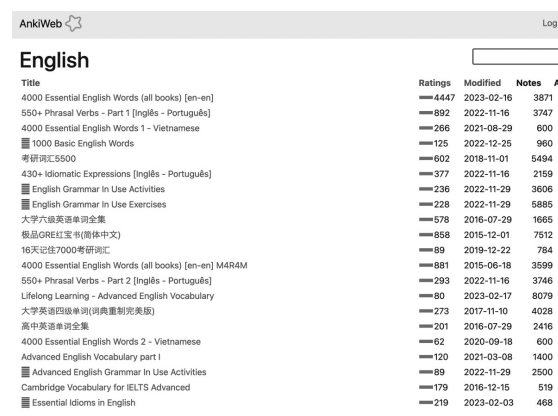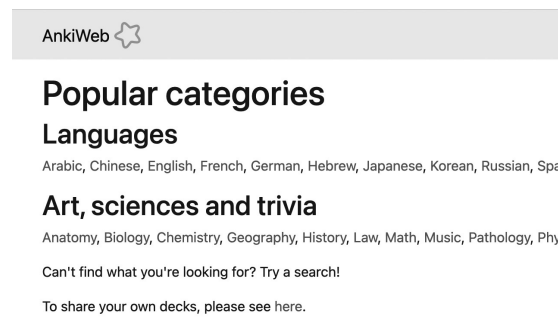
Appropriate number of words to memorize

What I would like to explain next is how to change the option. Why do we need to change the option? The main reason is the limited time we have. For example, if you place 10 decks on the screen, and they all have twenty new words in each deck, what

will happen? Actually, there are 20 words in each deck in the initial default setting. 20 new words!

It would take a whole day to memorize 10 sets of 20 new words, so you will have no time to do anything else. Besides, you will see more words on the next day, and the number of words increases day by day. If you study 20 words in a deck, you'll end up with a spinning head. In my case, I can comfortably memorize words when I limit the total number of new words to around six words a day. In total, 10 or 20 words would show up because the Anki app reviews new words as well as the words we learned several days ago.

How to change the "option"

A total of 10 to 20 new words would be the appropriate number to study in a day. The key trick is to change the option and reduce the new words from 20 to 3. First of all, this is a screenshot of my MacBook Air. If we launch the Anki app, we will see a gear mark on the right side of each deck.

This is a gear mark.

If we click the gear mark, we will see option（オプション）.

Then we will click the option （オプション）and will see the boxes in which we can

limit the number of words to study in a day.

On this screen, it is written that the words to be reviewed needs to be 30 if the number of new words is 3. We must ignore the warning and limit the number to 2. This is how to change the number of words when using a laptop or desktop computer.

How much does it cost?

If you want to use the Anki app on your iPad, you have to buy it on the App Store. The computer version is free, but AnkiMobile for iPad costs over 3000 yen. Android version is also free. I strongly recommend that you pay 3000 yen because of the added motivation to work harder to recover the cost.

Screenshots of Anki app on iPad

The next screenshot is that of my Anki app on my iPad.

Even though the gear mark is found on the upper righthand corner, we cannot see the option for changing the number of cards to study. For that, the gear mark we need to use is found in a different place. What you need to do is to first choose one of the decks.

I'm going to use the deck パス単一級 as an example. The screenshot looks like this:

We can find the gear mark on the lower righthand corner. When we use this gear mark it looks like this:
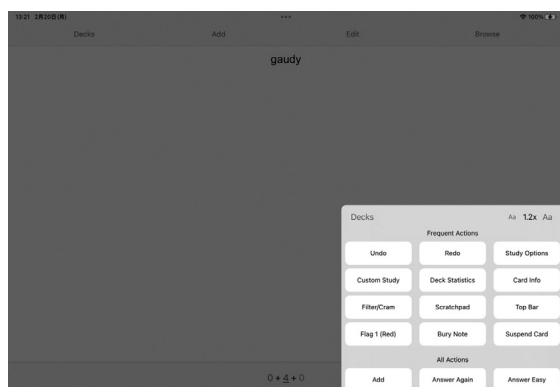
Notice the many different actions and one of them is the "Study Options" button.

We will see the next screenshot when we touch the Study Options button.
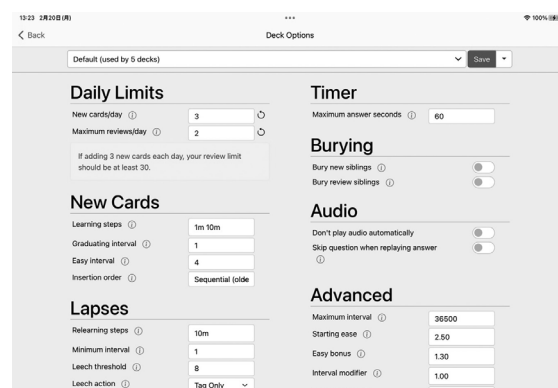
Look at the Daily Limits. There are boxes next to New Cards/day and Maximum reviews/day. As you see, I put 3 new cards and 2 review cards in the boxes.

So far, I have shared the way of changing the daily limits of words in Anki app, but why is this necessary? One reason is that we will not be able to study efficiently if we try to learn too many words in a single day. In my opinion, limiting the number of words per day is the single most important thing for using the Anki app effectively. The next will be about my students' reactions.

Results and Discussion

The results of the questionnaire: students' reactions to using supplements such as flashcard apps, paper flashcards, and vocabulary notebooks

Question 1: Did you use learning flashcard apps on a daily basis?

Used	12 students	27.9%
Not used	31 students	72.1%

	used	did not use
number of high scorers	6	17
number of low scorers	6	14

	used	did not use
TOEIC Bridge average score of high scorers	77	74
TOEIC Bridge average score of low scorers	53	50

High scorers (CEFR A2 level) vs. Low scorers (CEFR A1 level)

So, 27.9% of the students used a learning flashcard app while 72.1% did not. When I separated them into groups of high-score and low-score students, I found that the high-score group of students were more likely NOT to use an app. However, when looking at the score on TOEIC Bridge test conducted in December, the average scores of those who used the apps in both the high scorers and the low scorers were higher than the average scores of those who did not use them.

Question 2: What learning flashcard app did you use?

Mikan	7
WordHolic	1
Quizlet	1
Anki app	1
Study English	1
Target Friend	1

When asked what kind of apps they used, half of the students who used them answered Mikan. It's sad that only one person used the Anki app that I recommended. When I interviewed a student who used Mikan, he replied: ""Mikan is easy to use and has quizzes from commercially available vocabulary books, so it's a good app."

Question 3: Why didn't you use a learning flashcard app?

I'm learning from a vocabulary book 9
It is troublesome to put it in the smartphone and set it 5
I will end up using entertainment apps on my smartphone 3
Somehow. There is no particular reason. 3
Because I'm using paper flashcards 2
I don't know which app I should use
I will remember by writing by hand 2
I have no habit. 2
I don't know the word app existed. 2
My friends don't use word apps 1

When I asked those who did not use the learning flashcard apps why they didn't use them, the most common reason for not using the apps is because they used vocabulary books. The next most common reasons were "because it was troublesome for them to set up", and "they would play games or watch YouTube when playing with their smartphones". Students who answered that they just didn't use it or they just didn't have a habit of using learning flashcard apps are as good as admitting that they don't have proper learning habits.

Question 4: Do you use paper flashcards?

Yes 25 (58.1%)
No 18 (41.9%)

Question 5: What did you write on your paper flashcards?

Words I didn't know in class 21
Words that I saw in class 2
English words on the front, Japanese translation on the back 2

When asked if they used paper flashcards, 58.1% said yes. When asked what they wrote on them, almost all students

answered "unknown words from their text-book."

Question 6: Why didn't you use paper flashcards?

Because I'm using a learning flashcard app. 6

For some unknown reason. 3

It is troublesome to write. 3

Because I'm learning from a vocabulary book 2

I have no habit. 1

Because I'm using a vocabulary notebook 1

I don't know how to use it. 1

It is troublesome to carry around. 1

41.9% of the students said they did not use paper flashcards. To the question why they did not use paper flashcards, the most common answer was that they used a learning flashcard app, followed by a large percentage that they used vocabulary books and vocabulary notebooks. Some students made excuses and did not use paper flashcards. They replied such as: "it was troublesome", "I didn't know how to use them", or "I didn't have the habit of studying".

Question 7: Did you use a vocabulary notebook

Yes 17 (39.5%)

No 26 (60.5%)

Question 8: What kind of notebook did you use?

Kokuyo Campus Notebook 7

Loose leaf 5

GoodNotes 1

Mikan 1

Quizlet 1

An English Learning app 1

Google Translate 1

To the question if they used a vocabulary notebook, 39.5% of them answered in the affirmative. Among those who used them, the "Kokuyo Campus Notebook" was the most popular, followed by a loose-leaf notebook. The remaining 33% of the students used a note-taking app.

Question 9: Why don't you use a vocabulary notebook?

Because I use paper flashcards. 7

I learn from a vocabulary book. 4

I don't think it's effective. 4

No habit. 3

For some unknown reason. 3

I do not know how to use it. 2

Writing is troublesome 2

Because I'm using a learning flashcard app. 1

Thus 60.5% of the students answered that they did not use vocabulary notebooks. When asked why they didn't use them, the most common answer was that they used paper flashcards, followed by vocabulary books. More than half of those who did not use them made excuses that prevented them from using vocabulary notebooks: they were too lazy, they had idea how to use them, or they had poor study habits.

Question 10: Are you satisfied with your current vocabulary level?

Yes 2 (4.7%)

No 41 (95.3%)

Question 11: Why don't you want to further improve your vocabulary?

Because my vocabulary is enough for my daily life. 1

Because there are almost no new words that I do not understand. 1

Question 12: What are you going to use for studying vocabulary from now on?

A learning flashcard app 14

A vocabulary book 11

Extensive Reading in English 8

When I come across a word I don't know, I look it up and put it in a notebook and

review it at home. 5

Vocabulary notebooks 2

Paper flashcards 2

TOEIC official workbooks 3

To the question what they would use to learn English vocabulary from now on, about 33% of the students answered that they would use learning flashcard apps, 25% of the students answered that they would read vocabulary books, and 20% said that they would read extensively in English, 20% of the students answered that they would memorize words they encounter randomly, and about 5% of the students answered that they would study the official TOEIC workbook.

Conclusion

Although less than 30% of the students used a learning flashcard app, students who used the app had higher average scores on the TOEIC Bridge test than those who did not. This is likely due to their higher motivation and the learning effect of the learning flashcard apps.

On the contrary, 70% of the students did not use learning flashcard apps. Among them, 70% of the students (34% of all the students, 14 students) made excuses such as "it is troublesome to use apps".

Nearly 60% of students replied that they used paper flashcards. All those who used them answered that they wrote "the unknown words in the textbook on the flashcards." It seems that paper flashcards had positive effect for their learning.

Nearly 60% of the students answered that they did not use vocabulary notebooks. Half of the people who didn't use them replied that they used other substitutes, but the other half made excuses such as it was troublesome, or they didn't know how to use them.

Overall, 70% of students used either a learning flashcard app, a vocabulary book, paper flashcards, or a vocabulary notebook. The remaining 30% of the students made excuses and did not study vocabulary.

In conclusion, it is clear that those supplementary materials were effective for the students who actively studied, but were not effective for those who made excuses and did not learn vocabulary by distancing themselves from using vocabulary leaning tools. In other words, the students who avoided vocabulary learning by making excuses could not enjoy the benefit of learning vocabulary.

References

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Milton, J., & Hopwood, O. (2023). *Vocabulary in the Foreign Language Curriculum: Principles for Effective Instruction.* Taylor & Francis.