Guided Study and Learning Anxiety Reduction Through Anki

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Summary

Among languages, Japanese is one of the most difficult to learn. Students of Japanese must learn three writing systems: Hiragana, Katakana, and Kanji. Anki is a free flashcard program available for download and use on all major mobile and desktop computer platforms. Based on data from previous sessions, Anki decides the quantity and content of flashcards an individual should study on a daily basis. Suitable for kanji, vocabulary, grammar and more, Anki is used by many foreign language learners, including myself.

Many types of anxiety are connected with learning a foreign language. In tests, presentations, and other contexts, anxiety levels can run quite high. For this study, I am researching ways in which Anki reduces foreign language learning anxiety. Through a survey distributed to 89 Anki users, Anki was found to reduce anxiety in most cases.

Introduction

Anki is a flashcard program used by a wide age group that uses the theory of Spaced Repetition. What sorts of features does Anki have, and what sorts of features do Anki users favor? Additionally, what effect does Anki have on foreign language learning anxiety? In this study, Anki users will be examined, to determine the influence of Anki usage on foreign language learning anxiety.

1. Significance of the Study

During my studies in Japan, I had to learn large numbers of kanji, the hardest of the three Japanese character sets, for tests. The one thing that helped me the most was a computer program called "Anki".

Anki uses a principle called "spaced repetition" (SRS) to help users memorize words. This unique approach organizes your study and makes it more efficient.

I want to analyze Anki user's opinions on the program, as well as measuring how useful Anki is in decreasing their Japanese learning anxiety.

2. Research Question

To what extent does knowing when and what to review using Anki reduce anxiety and assist in learning kanji?

3. Research Background

3. 1. In studying a foreign language, anxiety is sometimes felt when reading and speaking. When anxiety is too high, it can cause grades to drop and students to lose confidence.

Several studies have been conducted to measure this form of anxiety. Saito, Horowitz, Garza, and others provide the following examples of situations that raise anxiety:

- o I feel intimidated when I see a whole page of Japanese in front of me.
- o I get upset whenever I encounter unknown grammar when reading
- o I keep thinking the other students are better at Japanese than I am.
- o I feel more tense and nervous in my Japanese class than in my other class.
- o I worry about the consequences of failing my Japanese class.

(Saito, Horwitz, & Garza 1999)

3. 2. Anki is a program that uses smart flashcards. Each time you flip a card, the program asks whether you remembered the answer or not. If you forget, the card is scheduled for the following day. If you remember, the computer will guess how long it will take you to forget the card, and schedule a review right before that happens. This is called "Spaced Repetition". By doing this, Anki ensures you only study cards which are difficult for you. This approach allows you to procedurally learn very large decks of cards, without a huge time commitment.

Although other programs use spaced repetition, Anki is special because it is well supported, compatible with all major platforms, customizable, and has pre-made decks available online.

3. 3. This is the history of Spaced Repetition Systems. In 1885, Herman Ebbinghaus discovered the forgetting curve, a concept that Anki is built around.

Image 1: The Forgetting Curve
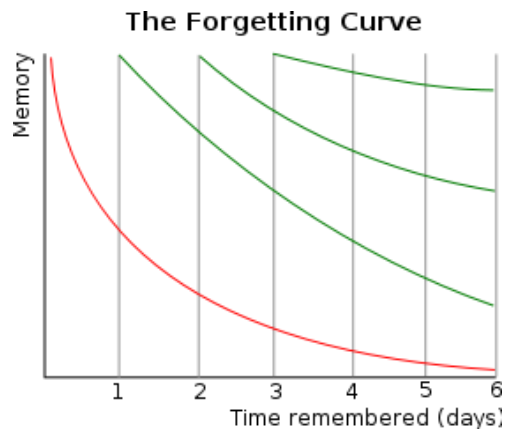
3. 4. In this illustration the forgetting curve is shown as a red line. Subsequent green lines show how much more can be remembered if one studies every day (Image 1).

3. 5. In 1939, H.F. Spitzer conducted the first large scale study on spaced repetition. Spitzer asked 3600 elementary school students to read a short paragraph, then tested their memory of it at varying intervals. By timing periods of review, he was able to greatly improve student's recollection of the paragraph.

3. 6. Graduated Interval Recall is the name of a review system proposed by Paul Pimsleur to take advantage of spaced repetition while also minimizing review time (Pimsleur, 1967). The Leitner System is a way of organizing flashcards based on how well you remember them. Anki is a combination of these two systems.

4. Research

4. 1. Object of study

The survey respondents were 89 Anki users, collected from the Koohii.com and Japanese Level Up websites. 69 respondents were male, 17 were female. 64.1% were older than 25. 57% had taken Japanese classes.

4. 2. Research method

An English survey was drafted, with data gathered online.

5. Results

5. 1. To what extent does knowing when and what to review using Anki reduce anxiety and assist in learning kanji?

From Image 2 it can be gathered that 55% of respondents were between 26 and 39.
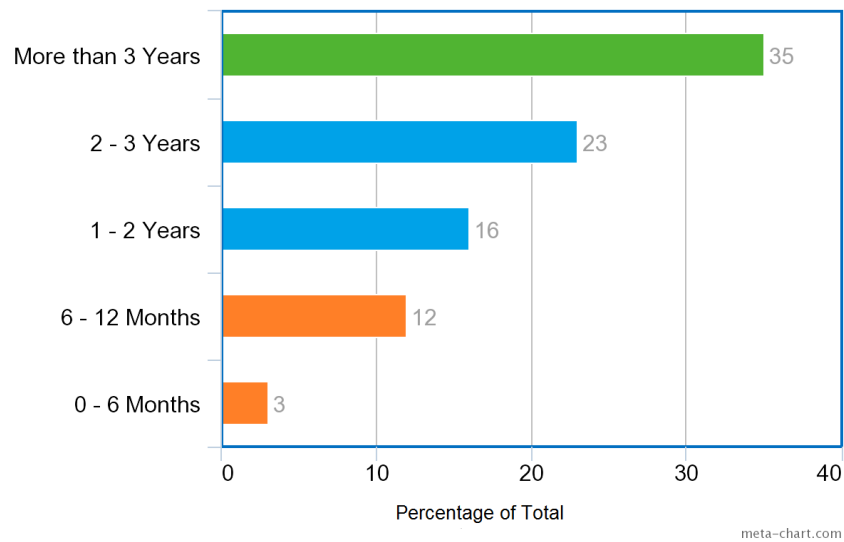
Image 1: Age of respondents
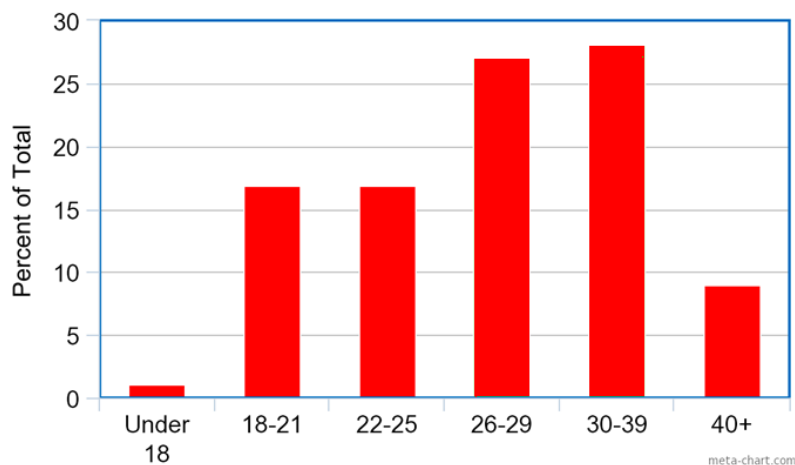
Image 3: Respondent's class experience
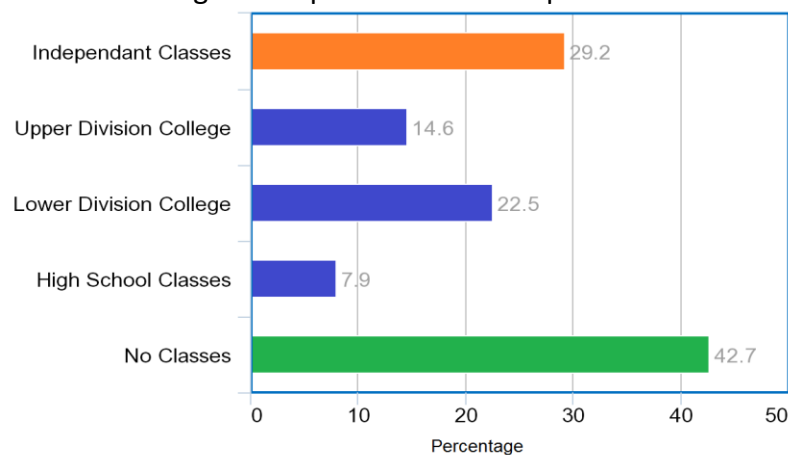
About 43% of respondents had never taken a Japanese class. Among the 57% who had taken classes, 23% had taken it for one or two years. 15% had taken higher level college classes. 8% had taken high school classes (Image 3).
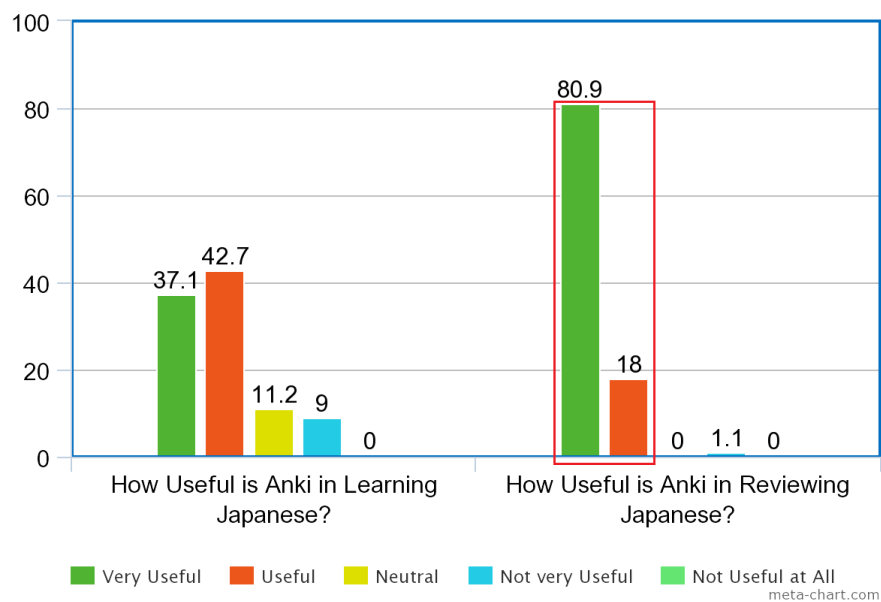
Image 4: Respondent's Japanese study experience

About 35% of respondents had studied Japanese for over three years.

しかし、この図からもわかるように日本語の学習期間にかかわらず使用しているようだ(Image 4).

Image 5: Is Anki better for learning or review?

When asked whether Anki was better for learning or review, nearly 100% believed it was useful for review. 80% also found it useful for learning. It can be deduced then that Anki is useful for both (Image 5).

Image 5: What do you use Anki to study?
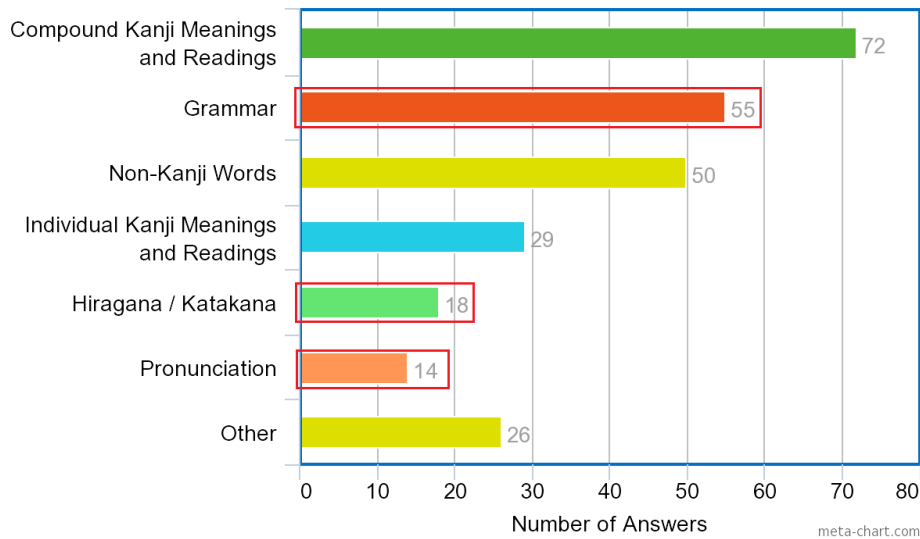
Anki can be used to study a large variety of things. About 72% of people surveyed use it to study kanji compound words. About 50% use Anki to study grammar and non-kanji words (Image 6).

Image 7: What are Anki's best features?
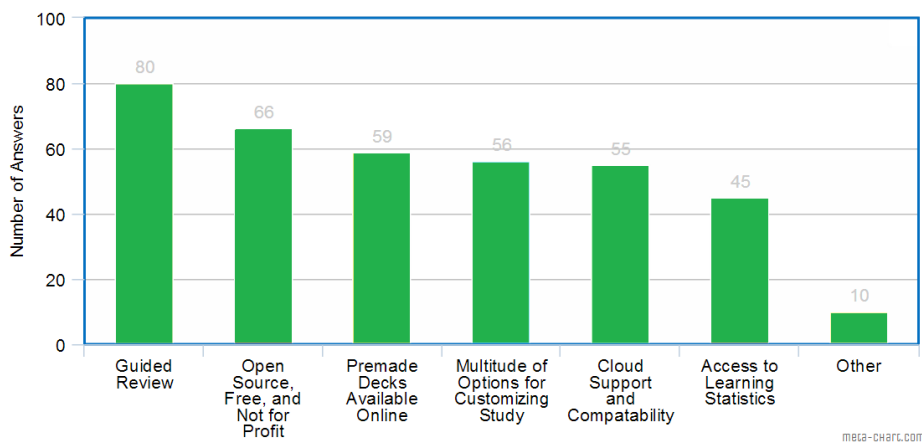
Asked what features they liked Anki for, 80% of respondents listed guided review, making it the most universally liked feature. Users also liked that Anki was free, open source, and not for profit.

Image 8: What is bad about Anki?
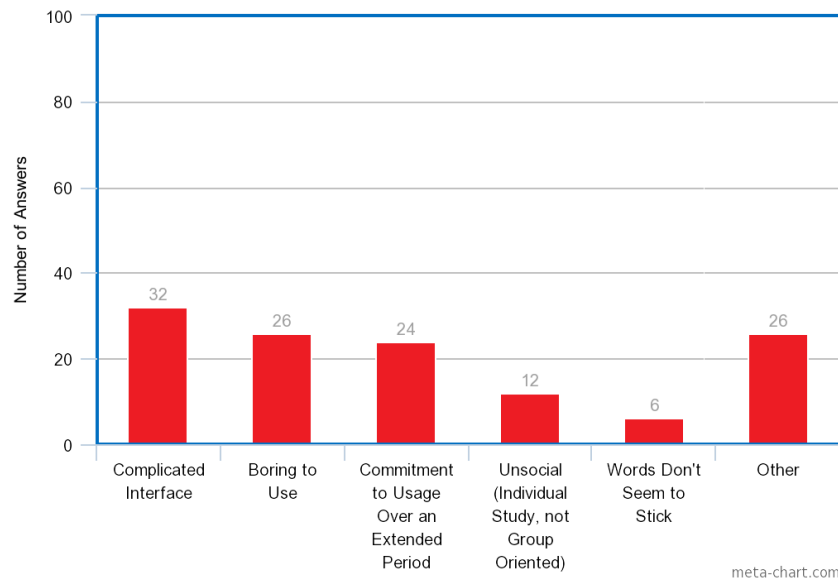
Asked about features they disliked, users listed Anki's difficult interface. Many also found the program wearisome to use after a while (Image 8).

5. 2. Does Anki reduce foreign language anxiety?

To answer this question, I will compare the answers from the Foreign Language Reading Anxiety Survey (FLARAS) with the results of my Capstone research. The FLARAS studied various kinds of foreign language anxiety. In this vein, it studied French, Russian, and Japanese together as examples of cognate, semi-cognate, and non-cognate languages respectively. Because my Capstone is only studying Japanese, only the Japanese portion of the FLARAS results will be compared.

Six questions were chosen from the FLARAS. My respondents and the FLARAS's Japanese respondents were asked the same questions, then I compared their answers. Three

questions relating to reading anxiety were chosen, two general classroom anxiety questions were chosen, and finally one test anxiety question was chosen. The green lines represent the FLARAS results, the orange ones my own Capstone's.

Image 9: I feel intimidated when I see a whole page of Japanese in front of me.
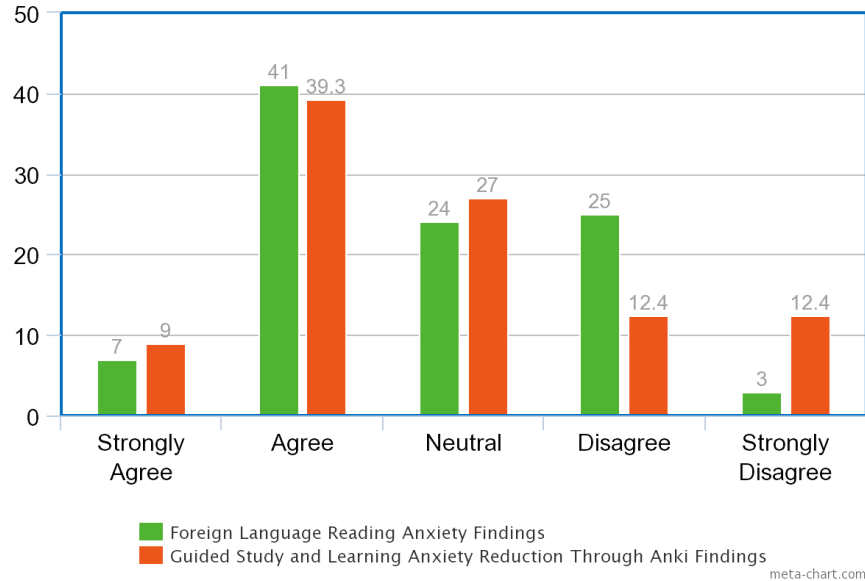
In answering this question, about half of both groups were intimidated. It is interesting to note that 12.4% of Anki users were not intimidated at all (Image 9).

Image 10: I get upset whenever I encounter unknown grammar when reading.
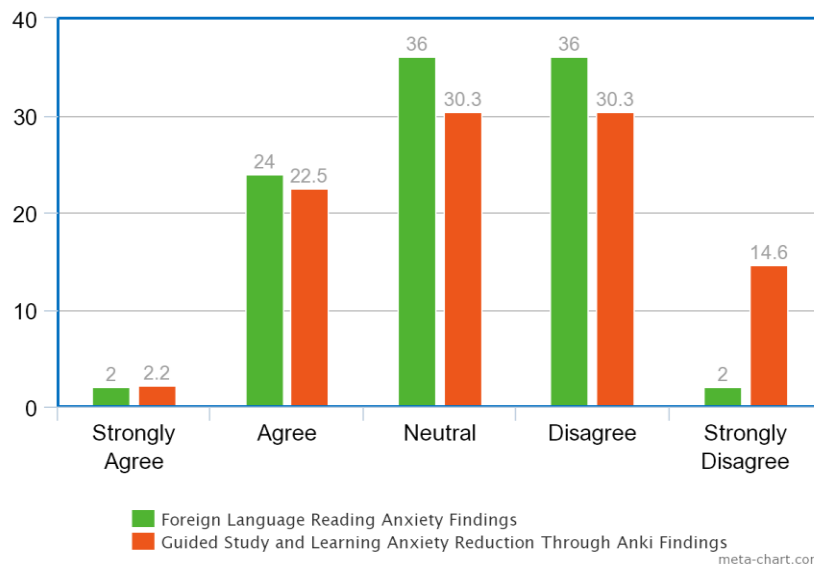
Compared with FLARAS, some Anki users, there seems to be a greater number of students in the Anki group who are very comfortable with grammar. About 15% are not uncomfortable at all (Image 10).

Image 11: I don't mind reading to myself, but I feel very uncomfortable when I have to read aloud.
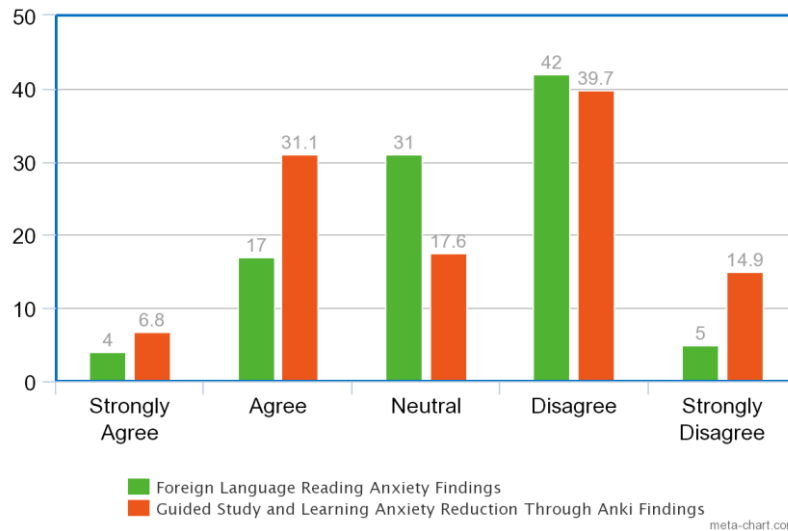
When asked this question, Anki users seem less comfortable with reading aloud than FLARAS respondents (Image 11).

Image 12: I keep thinking the other students are better at Japanese than I am.
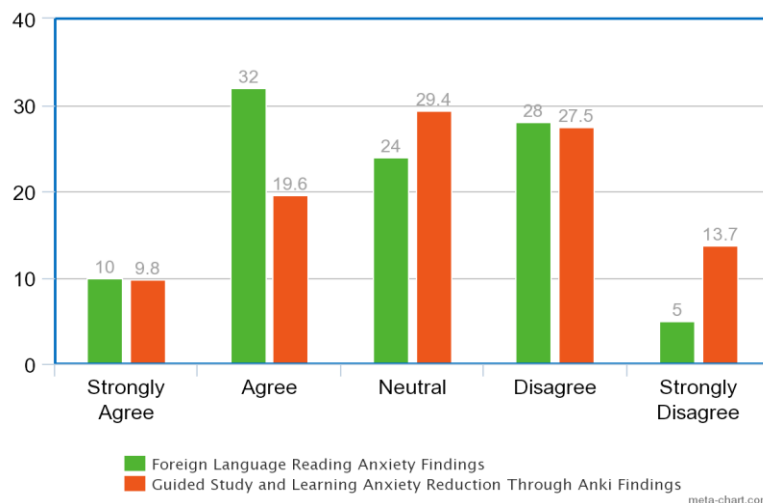
Anki users here appear to be more confident in their Japanese ability than non-Anki users (Image 12).

Image 13: Class moves so quick, I worry I'll get left behind.
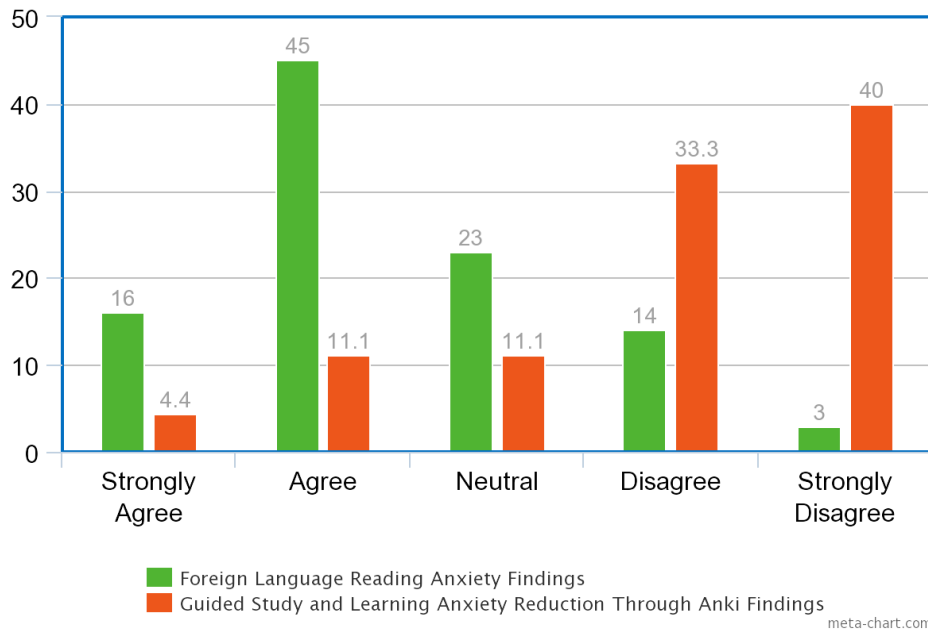
Anki users asked about how comfortable they were with the speed of class reported far more comfort than the FLARAS group (Image 13).

Image 14: I am usually at ease during tests.
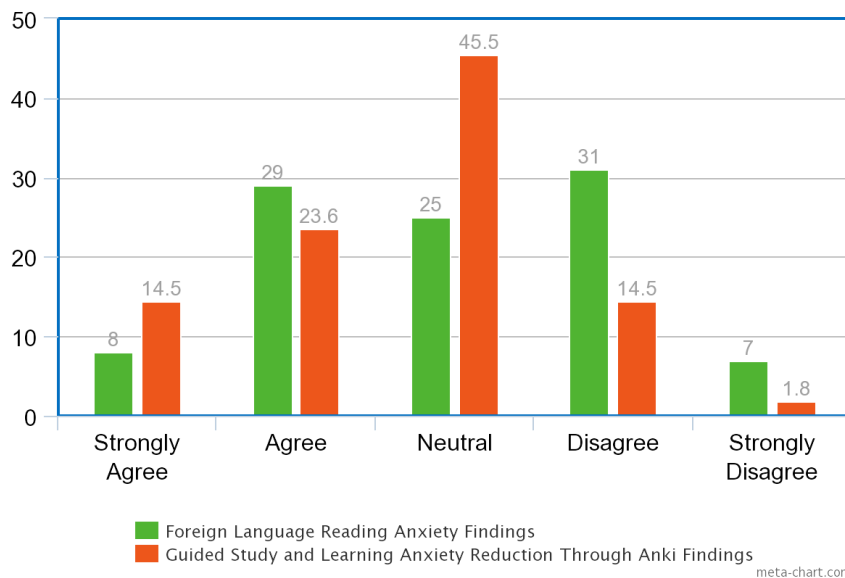
Anki users appear more confident in tests than non-users. A full 45% answered neutral.

6. Conclusions

From this information, it can be concluded that Anki does decrease foreign language learning anxiety.

7. Limitations of the Study and Further Research

Because I only focused on two small groups of Anki users on the internet, the responses may not be representative of average Anki users. For future study I would like to go over the data further, and look for possible correlations to determine the optimal strategy with which to approach Anki. Additionally, I would like to examine the ways individuals use Anki, and attempt to learn which strategies are useful and which are not. I would like to examine the diversity of skill levels within the group, to see how this relates to anxiety levels. Finally I would like to create a longitudinal study to compare learning between Anki users and students using other methods.

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