

## Transforming Vocabulary Learning With Quizlet

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Vocabulary acquisition is an essential component of becoming a proficient English language user and should play a significant role in any EFL course. Quizlet is an online vocabulary-learning tool that allows users to create flashcards or use flashcard sets created by other learners. I conducted a small-scale study ( $N = 106$ ) to explore if having students create online flashcards with Quizlet on their smartphones is a worthwhile activity regarding time and whether or not accuracy would be an issue. Results suggest that the time burden was relatively small and that accuracy is a problem that needs to be addressed specifically. If implemented thoughtfully, Quizlet has the potential to help students improve their English proficiency through more effective vocabulary learning.

語彙習得は堪能な英語話者になるためには必要不可欠であり、どの英語の授業にも取り入れるべき要素である。Quizletはオンライン上で単語カードを作成したり、他の学習者の単語カードを用いて学ぶことができる語彙学習のツールである。本研究では学習者 ( $N = 106$ ) がQuizletを用いて単語カードを作成するのにどれくらいの時間が必要か、またどの程度正確に作成することができるかについて調査した。その結果、時間においてはそれほど負担がない一方で、正確さの面において問題があることが判明した。これらの点を考慮してQuizletを導入することにより、語彙の習得が促進され、学習者の英語力の向上が期待できる。

Vocabulary learning is an essential part of becoming a proficient user of any language. Wilkins (1972) stated, “Without grammar very little can be conveyed, without vocabulary nothing can be conveyed.” Most language teachers would agree that learning new vocabulary is important. Nation (2013) stated that language-focused learning, which includes deliberate vocabulary instruction and learning, should play a significant role in any foreign language course. Laufer, Meara, and Nation, (2005) also suggested that rote

learning using flashcards with the target word on one side and the L1 translation on the other is an effective way for learners to increase their vocabulary size. Quizlet is one such online flashcard tool available for students to use to increase their vocabulary.

### Quizlet

Quizlet (<http://www.quizlet.com/>) is an online flashcard creating and learning site that can be used on computers and smartphones. Users can create virtual flashcards with the target word on one side and the L1 definition on the other. There is also a feature that allows the user to listen to the pronunciation of any word or to record audio to play with any word. Image files, uploaded by the user or from those provided by the site, can be added to either side of the virtual flashcard. These user-generated flashcards can be studied in four different modes:

- Flashcard: like a paper flashcard with the L2 word on one side and definition(s) (L1 or L2) on the other,
- Learn: the definition is shown and the user inputs English target word,
- Speller: the user inputs the target word he or she hears,
- Test: like a paper test utilizing multiple formats, such as multiple-choice and matching.

Two games can be played using the target vocabulary:

- Match: the user drags (PC version) or taps (mobile version) to match the target word and definition,
- Gravity: the target word or definition descends from the top of the screen, and the user types the corresponding definition or target word.

Users create an account that can be accessed on their computer or smartphone. Certain activities are more appropriate for different devices. For example, any activity involving English input will be easier using the full keyboard of a computer whereas the Match game activity, in which users try to match words and definitions as quickly as possible, works best with a touchscreen smartphone or tablet device. Students are encouraged to use both their computers and smartphones to study vocabulary as this increases their opportunities to have contact with the words. Nation (2013) said that knowing a word involves both receptive knowledge (e.g., recognizing the written form or sound of the word) and productive knowledge (e.g., spelling the word or expressing the meaning of the word). Having students interact with the target vocabulary in a variety of ways in Quizlet allows them to experience several of these different aspects of knowing a word. Ideally, students initially learn the words by using the basic flashcard mode and play the matching game with their smartphones (perhaps on their commute to university) and then do the remaining input-based activities on their laptop computers at home.

Foster (2009) introduced the basic functions of Quizlet and suggested that it can be a useful tool for students to review vocabulary learned in class as well as to make their own vocabulary sets and share them with other students. Dizon (2016) used Quizlet in a small class of high-level English learners to study the Academic Word List (Coxhead, 2000) and found through administering the Vocabulary Levels Test in a pre- and posttest design that the students showed improvements in their vocabulary knowledge. One drawback of this study is that there was no control group, so it is hard to attribute the gains solely to the use of Quizlet. However, the positive perceptions students had towards using Quizlet to improve their vocabulary lends support to the case for implementing it in an EFL class setting. Chien's (2015) study in Taiwan investigated EFL learners' perceptions of three different vocabulary flashcard websites. Results showed that the participants had positive attitudes towards using Quizlet to improve their vocabulary.

Chien (2013) also conducted a study with Taiwanese EFL learners using Quizlet to make vocabulary word lists. The objective was to analyze which words students chose to include in their lists, which activities students found useful, and what kind of issues students had when making the lists. The result from Chien's study that relates to this current study has to do with specific issues students had when making the cards. Chien reported that students did not have difficulty with the mechanics of making the flashcards but that choosing the correct definition for the target word provided the most difficulty. When making flashcards in Quizlet, the user can choose definitions from those provided by the website. Words often have more than one definition, so choosing the one most appropriate for the student's situation is not a straightforward task.

## Technology

When a teacher decides to implement a piece of technology into the curriculum or for class activities, he or she must determine whether there will be a benefit. A useful way of thinking about this is through the RAT (replacement, amplification and transformation) framework proposed by Hughes, Thomas, and Scharber (2006) that suggested that before technology is introduced as a way to improve instruction, learning, or the curriculum, it should be determined whether the technology will be a replacement, amplification, or transformation of what is currently being done. In the case of Quizlet, if students are making and studying vocabulary with only the flashcard mode, then it would be replacing what could be done with paper. Amplification implies a vast improvement in effectiveness or efficiency. With Quizlet, this could mean that it is much easier to make and study flashcards and that pictures and audio could be added to the definitions of the terms. Also, teachers could make vocabulary sets and share these with students, so they can access and study them at any time. Transformation could mean that students would share sets with classmates and learn the target words using the various study and game modes. With a teacher account (\$25/year at the time of writing), student progress can be checked.

After considering the potential usefulness of a certain technology, it is also important to consider whether students themselves will accept it and use it for their own independent studies. The technology acceptance model proposed by Davis (1989) suggests that perceived usefulness and perceived ease of use are the two most important determinants to whether a certain piece of technology is adopted by users or not. It is not enough that the teachers think a certain technology will be useful; students themselves must believe that the technology will be useful for them and that it will be easy to use. In this case, if students find Quizlet to be a useful tool and easy enough to use, they will be more likely to adopt it.

## Current Study

The current study was focused on the ease of use of Quizlet, specifically for students making their own flashcard sets. If the case can be made that Quizlet is easy to use, then students may be more likely to adopt it for their own independent studies. In addition, if students are making their own flashcards to learn new vocabulary, it is worthwhile to investigate whether there will be any issues that need to be addressed. Technology can greatly enhance learning if implemented properly, but the teacher needs to understand how the technology works and the implications of using the technology.

## Research Questions

The following research questions were used to guide this study:

- RQ1. How long will it take students to make 20 English-Japanese flashcards in Quizlet using their smartphones?
- RQ2. How accurate (English spellings and Japanese definitions) will the flashcards be?

## Context

This small-scale study ( $N = 106$ ) was conducted in the fall semester of 2015 at a private 4-year engineering-focused university in the Hokuriku region of Japan. Participants were all my students. I used Quizlet in my Business Communication courses for students to study vocabulary that would be useful for completing in-class tasks. Over the duration of the 15-week semester, students studied 10 sets of 20 words each (200 words total) and were familiar with how Quizlet worked as a study tool but had never been assigned to make flashcards of their own. There is no English major at the university, but all students are required to take four English courses in total. Business Communication fulfills one of the English requirements, but because it is focused on group work and task-based activities, the more outgoing and motivated students tend to take it. The participants were mostly 1st- and 2nd-year students and could be categorized as (a) beginner to intermediate including many false beginners and (b) relatively highly motivated.

## Method

In the final week of the course, students completed an activity in which they first chose 20 words from flashcard sets that were studied during the semester and wrote the English and Japanese translations on a worksheet (see Appendix). Students worked individually or with a small group and divided the task of choosing the words with their classmates. As the purpose of this study was to determine the time it took for students to input the words, it was not important if each set was not individualized or that the words had been previously studied. Students followed the instructions on the worksheet to create an empty flashcard set on their smartphone where they would input the words and definitions. Once all students had done this, they began at the same time to input the words on their smartphones. A large stopwatch timer was displayed on a screen at the front of the room, and when they finished, students wrote down the time it took for them to complete the task. The final step was to share the link to the flashcard set with the teacher using a feature in Quizlet or via email. This final step was not included in the timing.

## Results

The time it took each student to properly complete the task was recorded. The average time for all students' completion was 7 minutes and 49.5 seconds. The standard deviation was 2 minutes 53.1 seconds. About three quarters of the students completed the activity between approximately 5 and 11 minutes. The fastest time was 3 minutes and 7 seconds and the slowest time was 19 minutes and 30 seconds.

Regarding accuracy, if a set contained a target word or Japanese definition mistake then the entire set was considered to be not accurate. I was able to check 102 student flashcard sets (four students had inadvertently made their sets private, so they could not be checked) and found 65 of the 102 sets (63.7%) to contain one more mistakes.

## Discussion

The answer to Research Question 1 was that it took the participants an average time of 7 minutes and 49.5 seconds. It is a reasonable amount of time for an activity to be included as part of a weekly homework assignment. When introducing Quizlet to students and explaining how to use it, students may find it less intimidating or burdensome if they are told that it will probably take them less than 10 minutes to create a flashcard set on their smartphones. Though it was not a focus of the study, having students share their sets first with the teacher may mean that they will find it easier to share their sets with other students if the opportunity arises in the future..

The answer to Research Question 2 is 36.3% accuracy. However, note that the inaccuracy rate of 63.7% applies to sets that contain one or more mistakes, not word-definition pairs. The reason it was analyzed in this manner is that Quizlet is mainly used for rote memorization, and if students are committing an incorrect word-definition pair to memory, then this will have to be unlearned (or relearned) when or if the mistake is discovered at a later time. This seems to be counterproductive to language learning. As such, this low rate of accuracy is troubling and should be dealt with.

## Input Mistakes

Students made many different types of mistakes that are summarized in Table 1.

Table 1. Types of Input Mistakes

Mis-input	Type of mistake
<i>requiverment</i>	Misreading or miswriting similar letters: <i>v-r</i> and <i>a-d</i>
fix-救う, <i>sukuu</i> (Should be 直す, <i>naosu</i> )	Wrote wrong Japanese definition
Business cartoon-名刺, <i>meeshi</i> (Should be <i>business card</i> )	Predictive input mistake
<i>descride</i> (should be <i>describe</i> ) <i>odservation</i> (should be <i>observation</i> )	Confusing <i>b</i> and <i>d</i>
<i>every day</i> instead of <i>everyday</i> -日常的な, <i>nichijootekina</i>	Words are pronounced the same but are used differently
<i>propose</i> -目的, <i>mokuteki</i> (should be <i>purpose</i> ) <i>brightly</i> -礼儀正しく, <i>reegitadashiku</i> (should be <i>politely</i> )	Correct spelling but wrong English word Did not recognize that the word and definition do not match up
<i>HumanResources</i> <i>enormas</i> (should be <i>enormous</i> ) <i>attractive</i> (should be <i>attractive</i> )	No space between words Word sounds correct but is misspelled

Carelessness may account for many of the mistakes (e.g., confusing *v* and *r*) and even though students were informed that the time result would not affect their grade, having a stopwatch displayed at the front of the room may have caused them to feel pressure and compounded their carelessness. In the case that students worked in groups, if one student made a mistake when writing the word or definition on the worksheet, it was likely that all students in the group had that same mistake in their flashcard sets.

### Dealing With Accuracy

The most effective way to deal with accuracy is for the teacher to check all students' flashcard sets. This is not a practical solution and would take away a vital element of learner autonomy. Mistakes could possibly be decreased if students checked each other's work.

Quizlet has an audio function that will pronounce the input word. Students could play the audio for each word to make sure it sounds like a valid English word. This may work for more proficient learners, but beginners may find it difficult to discern whether a word sounds valid or not. Also, the audio function pronounces misspelled words as though they are correct. In the last three examples in Table 1, *HumanResources* (with no space) and the misspellings for *enormous* and *attractive* are all misspellings but are pronounced correctly.

There is no easy solution to making sure the content of the flashcards is accurate. The most efficient method may be to have each student-made set checked by multiple students before it is deemed ready to use. This could be incorporated as part of the homework assignment.

### Conclusion

Learning vocabulary is important for students to improve their English proficiency. Quizlet has the potential to be a powerful vocabulary-learning tool if used properly. This study found that the time burden of creating flashcard sets is not too heavy, but that accuracy is an issue that needs to be dealt with. If students feel that Quizlet is a useful tool and that it is easy to use, they will be more likely to adopt it for their own studies. However, teachers need to give students a way to make sure that their flashcard sets are accurate before beginning to commit the words to memory.

Although Quizlet can be a powerful tool, it needs to be made clear to students that it is only one of many tools they have at their disposal to improve their English proficiency. Also, Quizlet is only one step in the process of students becoming more proficient English users. Students need to consider which words they will choose to learn and once they have memorized the word-meaning pairs, how to practice and use them in context.

Several limitations of this study should be pointed out. First, the participants were all students in my class. Second, I alone analyzed the students' word lists for errors. It would have been preferable to have at least two other raters. Third, follow-up interviews could have been used to find out why students made some of the mistakes they made and to get their overall impression of making word lists in Quizlet. Finally, students chose the words and definitions from lists that were provided for them. If students were required to choose the words based on other criteria, such as personal usefulness or relevance to class, then the total time required may have increased and varied widely depending on the student.

A further line of research would be to investigate if accuracy could be ensured through checks by multiple students. Also, in the analysis of error types, it would be useful to

know which type of errors occur most frequently so that teachers could target accuracy more efficiently and effectively.

### Bio Data

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## Appendix

### Handout for Students to Follow

1. **With your group**, look at all the Quizlet vocabulary sets and choose 20 words that you think will be useful. Write the words in English and Japanese.

English	Japanese

2. You will now make a Quizlet set.

- Click "CREATE SET"
- Click "Set Info"
- LANGUAGES: Terms → English; Definitions → Japanese

3. **When Mr. Wright says "start"**

- You will type the words in English and Japanese.
- Set title:  
*Business Communication 1 Integrated Learning*

4. How long did it take you? Time: \_\_\_\_\_

5. Send your Quizlet vocabulary set to Mr. Wright.

- Click here
- Click "Share"

**Choose one method:**

Email Mr. Wright at [brentwright.kit@gmail.com](mailto:brentwright.kit@gmail.com)

or write the URL here:

