

# *Quizlet: A Tool for Classroom Study and Autonomous Learning*

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## INTRODUCTION

Flashcards have been a powerful and popular study tool for students for many years. Every student has had the experience of painstakingly crafting keyrings full of flashcards with English vocabulary on one side and Japanese on the other to help them to prepare for exams. While a digital version of this system is not a novel idea, Quizlet offers extra functionality that is worth understanding and sharing with students. Quizlet is a mobile and web-based study platform that, in the United States, is currently used by half of high school students and one third of college students (Kolodny, 2018). Students learn content by using sets of flashcards, playing games and taking tests. As of early 2018, there are over 30 million active learners using Quizlet, and over 200 million study sets (Quizlet.com, 2018a). Quizlet is available via their website ([www.quizlet.com](http://www.quizlet.com)) or their free mobile application, which is available on iOS and Android. The website has more functionality, so, as a teacher, it is recommended to visit the website first to become familiar with the platform.

The first task is to register for a free account, which enables users to record their progress and save information they have entered into the website. If the user already has a Google or Facebook account, they may use that, and their registration will be complete; however, a separate Quizlet account can be created if desired. The Quizlet website is available in Japanese, so even users with a low level of English will have no difficulty in registering and navigating the website. There are different types of accounts for teachers and students. The teacher account allows the user to create classes and share content with class members. There is also a paid teacher subscription (\$34.99 annually), which provides several advanced creation and customisation features, which will be explained later.

Quizlet allows teachers to support and engage students by providing interactive study material via activities and games that can be accessed in and out of the classroom. It provides elements of gamification that students today enjoy and respond well to. Gamification, which can be defined as “the use of game mechanics and experience design to digitally engage and motivate people to achieve their goals” (Burke, 2014), is an essential component of computer assisted language learning today. Furthermore, a common frustration for students is that they have little sense of their progress other than when they take a mid-term or end-of-term test. However, Quizlet allows students to see their knowledge develop over time and, as a result, they are motivated to use the application and continue studying. It is a fun, accessible, easy to use and powerful tool

that students can use, not only for language learning, but in other classes, too.

## 1. Quizlet for Teachers

Before using Quizlet with students, it is important to become familiar with the features of the platform. Once registered, start by browsing Quizlet for pre-made content. All of the content on Quizlet is user-generated. A study set is a list of terms to be learned plus their corresponding definitions. The words “term” and “definition” can be misleading, so it is perhaps better to think of them as two sides of a flashcard; any type of information can be used on either side of the flashcard. A term could be a single word, phrase or sentence, while a definition could be a word, phrase, sentences, image or even a sound (see figure 1).



Figure 1 : An example of a study set with terms on the left and definitions on the right.

To find a study set, click the Search field at the top of the screen and enter one or more keywords. The more specific the search terms are, the more appropriate the results tend to be. For example, we can search for “English Japanese verbs”. This search result shows a list of English verbs with Japanese translations. Some study sets also have images, which is useful as it has been shown that images can help learners make stronger connections to words, enabling them to learn them more easily (Plass et al., 1998). With a teacher account, it is possible to search for sets created by users with teacher accounts, which means that the content of the sets may be more reliable. Other search filters allow you to search for sets with images or sets that use diagrams, which can help to support students who have a more visual learning style.

If a suitable set is found, it can be copied by clicking the *Copy* button, which adds the set to the user’s own account. This set can now be studied and also edited, if required. This is important as there may be some changes that need to be made to a study set, such as terms that should be

added or deleted, or definitions that need to be modified. While pre-made study sets can be a convenient way of collecting content to study, time must be taken to ensure that the content is accurate so as to avoid studying incorrect information. Before describing the different study modes available in Quizlet, I would first like to explain how to create a new study.

### 1.1 Creating a Study Set

At the top of the screen, next to the *Search* field, is the *Create* button. Clicking this allows the user to create their own study set (see figure 2).

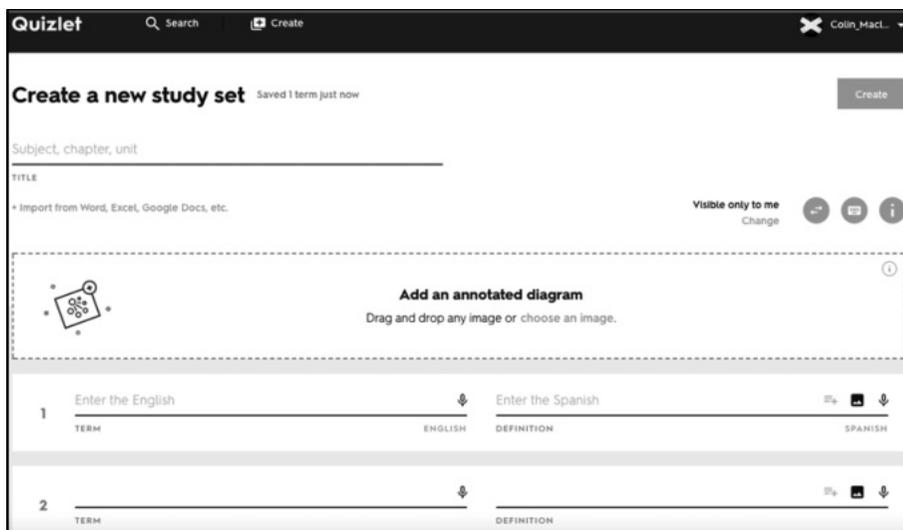


Figure 2 : Creating a study set

Each new study set must be given a title, and a description can be added by clicking the information button (the *i* symbol) on the right-hand side of the screen. The next stage is to start adding terms and definitions. Quizlet currently supports 18 different languages (Quizlet.com, 2018b), so text can be written in either Japanese or English. Not only can text be entered in different languages, Quizlet also has a text-to-speech function. This means that when a student is studying a set, they have the option to hear the English word spoken by the computer. This sound can be set to play automatically, or it can be activated anytime by clicking the term or the speaker symbol (see figure 3).

Text-to-speech technology has improved greatly in recent years, and the quality of the English speech on Quizlet is acceptable. This is one aspect in which Quizlet is superior to traditional flashcards; having the option to hear an English word spoken every time a student reviews it provides crucial listening and speaking practice (if the student repeats out loud what they hear). This can lead to more confidence in using English and an increased willingness to communicate (Yashima, 2009). Teachers creating content for their students also have the option of recording their own audio, which is particularly useful when focusing on pronunciation of individual words

A one-way ticket to Edinburgh, please.	エジンバラ行き片道切符を下さい	☆ 🔊 ✎
A return ticket to Edinburgh, please.	エジンバラ行き往復切符を下さい	☆ 🔊 ✎
Which platform does the train depart from?	何番のプラットフォームから出ますか?	☆ 🔊 ✎
How much is it?	いくらですか?	☆ 🔊 ✎
How long does the trip take?	時間はどのくらいかかりますか?	☆ 🔊 ✎

Figure 3 : Text-to-speech : phrases in both English and Japanese can be clicked on to hear them read aloud by the computer

or on stress and intonation in longer phrases.

Using images in the definition field, rather than Japanese translations, is worth experimenting with, as it can create a mental link to the English term without using Japanese. This reduces the amount of translating that the students do. This is related to Pavio’s idea of “dual-coding”. The brain works with two classes of mental representation, verbal and images, stored independently in memory. The image can increase the recall of the word because it is associated in memory where one evokes the other (Pavio, 1990).

## 1.2 Importing Data

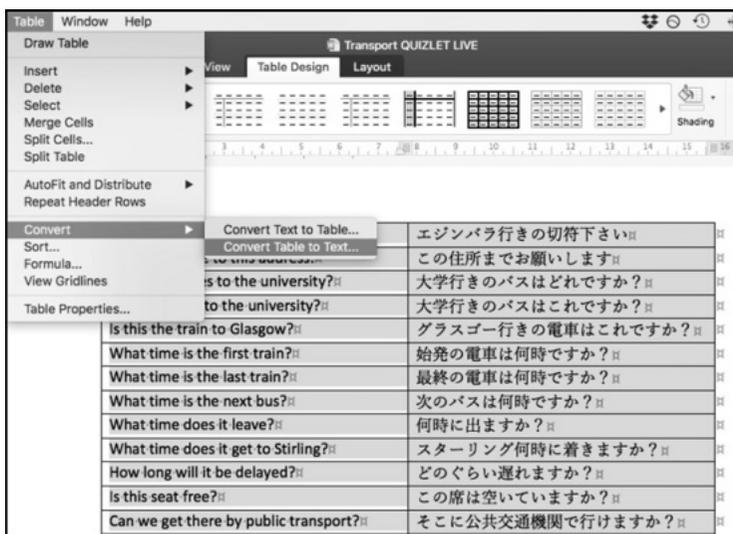


Figure 4 : Preparing a table for batch-importation

Entering terms and definitions one at a time on Quizlet can be quite time-consuming, but it is possible to import word lists from documents such as Microsoft Word. Batch-importing to Quizlet takes just a few moments. First, create a two-column table in Word with terms on the left side and definitions on the right. Once all the terms and definitions have been entered, select Table from the tool bar and then *Convert Table to Text* (see figure 4). This converts the table into a format that Quizlet can accept. It is important to note is that the document uses tab spaces to mark the different columns, and each term-definition pair is written on a separate line. Once the correctly-formatted data has been created, click *Import from Word, Excel, Google Docs, etc.* in a new Quizlet set and paste the data into the box provided. Quizlet will then ask the user which languages the terms and definitions are written in so that the text-to-speech function can operate correctly.

### 1.3 Auto-define

Quizlet also provides the option to auto-define terms. For example, if the word “blue” is entered as a term, and the definition field is set to receive a Japanese word, the user can click *auto-define* and will be given the Japanese translation of the word blue. As with all automatically-generated content, the accuracy of the content must be checked. However, this feature works well in most cases and can save a lot of time when entering a long list of terms. Also, Quizlet can suggest images for words. Again, using the term “blue” as an example, the user is presented with images of the colour blue and also things that are blue, such a blue bird or blue jeans. It is important to know what key term being studied (blue, rather than *bird* or *jeans*). While creating sets can be quite time-consuming, they can be re-used, so the time invested can be worthwhile in the long term. If a teacher were creating sets for each unit during a semester, it is also possible to create a master set to share with the students as preparation for an end-of-semester exam by combining the smaller sets.

### 1.4 Diagrams

A recent feature on Quizlet is diagrams, which allows users to take any image and assign labels to different parts of the image ; the image and the labels then become a study set. This is helpful



Figure 5 : Using an image as a study set – the definition given as a label on the image

for visual learners and language which lends itself to visual representation. To create a diagram study set, the teacher must find a suitable image and then label each term ; effectively, the labels on the diagram become the definitions, to use the Quizlet terminology. Each term is highlighted on the diagram with a small circle. In the example below, the different parts of the face are marked as definitions (see figure 5). In a quiz mode, one item would be highlighted, and the student would be asked to write the English or select the correct answer from a list of options. Alternatively, a term would be presented, and the user would have to choose the correct definition.

### 1.5 Creating a Class

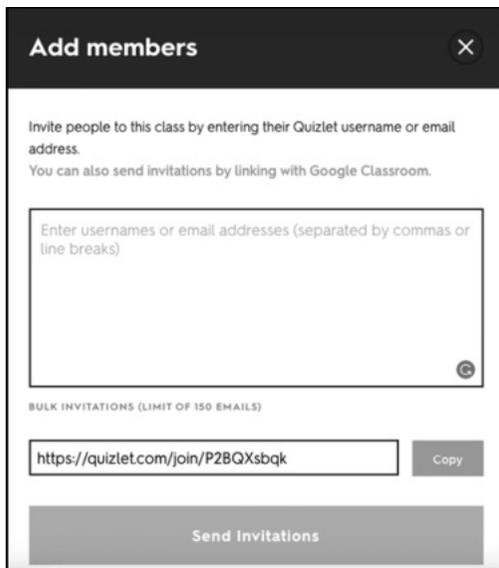


Figure 6 : Adding members to a class

One of key features in Quizlet for a teacher is the ability to create a class. If there is a list of terms that students need to learn, a teacher can create a study set and share it with the class. To create a class, visit the Quizlet website and click *Create Class* in the left-hand panel. You will then be prompted to provide a class name and a description of the class. You must also add the school name (Atomi University is listed as an option). Next, click the share arrow and enter the email address for each student in the class ; this will send an email link to the students asking them to join the class (see figure 6). Next, make sure that all of the students are registered with Quizlet, so that their progress can be recorded. It is helpful for the teacher if students use their real names, as it makes it easier to track their activity. They

will automatically be notified of, and have access to, any new sets that are added to the class ; for example, if a new set is added on the completion of a unit.

### 2. Quizlet for Students

Quizlet can used by students on their own either in class or at home, or they can use Quizlet

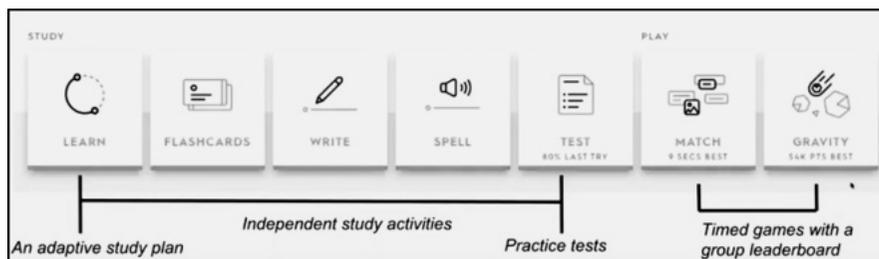


Figure 7 : The different study modes available on the Quizlet website

Live, which is designed for collaborative learning in class. First, I will explain the different types of learning modes available in Quizlet when used individually.

Quizlet has a range of different study modes. On the website, there are seven study modes, and five of those are available on the mobile platform (see figure 7) ; *Gravity* and *Spell* are not available on the mobile platform.

## 2.1 Learn

Learn is the most recent study mode on Quizlet. This mode helps students master a study set by creating an adaptive study plan that tracks their progress, helps them stay on target, and motivates them with encouraging checkpoints and study reminders. As a student begins to progress and answers questions correctly and more regularly, Learn will transition from easier question types (true / false and multiple choice) to more challenging question types (written). This allows the students to stay within the flow channel, where the task they are presented with is neither too difficult nor too easy, so boredom and frustration can be kept to a minimum (Csikszentmihalyi, 1997). In the options menu, students can select whether they wish to be prompted with the term or the definition, whether they want to study only starred terms, and whether they want to turn the automatic audio on and off. Learn mode helps the students to focus on the items in the study set that they are having the most trouble with, rather than requiring them to repeatedly study every item in the set. The *Progress Score* percentage informs the students about how close they are towards the goal of mastering all the terms in the study set.

## 2.2 Flashcards



Figure 8 : Flashcard displaying both the term and definition

This is the most basic study mode. Each term can be viewed as an onscreen flashcard and then the “card” can be flipped to reveal the definition. Alternatively, both term and definition can be viewed together on the same screen (see figure 8). This is a useful way to become familiar with the terms before using some of the more challenging study modes. At all times, the text-to-

speech function allows students to click on the audio button and hear the term spoken out loud. Any terms that the student wants to isolate for extra revision can be highlighted by clicking the star in the top right-hand corner of each card.

### 2.3 Write

This mode presents students with a definition, which could be a word or phrase in Japanese, or an image, and they have to write the English for what they see. Correct and incorrect answers are recorded, so the student can check which terms they are familiar with and which ones they are having difficulty with. At the end of each round of questions (which is made up of 10 items selected from the study set), the student can see their progress towards mastering the items in the study set. When a question is answered correctly, it will not be displayed in future rounds, so students only focus on the items that they are having difficulty with. This is a very simple example of an adaptive learning system. If a student needs four rounds to complete the study set (meaning that they have answered each question correctly once), then they can try to complete the study set in fewer rounds next time. This provides a measurable way for students to know whether they are improving.

### 2.4 Spell

This study mode creates a spelling bee using the terms in the study set. The term to be studied is spoken by the computer and the student must type what they hear. This simple exercise practices listening skills as well as spelling accuracy. Any mistakes are spelled out by the computer and the students are asked to type the correct answer before they can move on to the next item. Getting an answer correct marks that term as *learnt*, while answering that question correctly twice (on different rounds) marks it as *mastered*. Again, a progress score allows the student to see how close they are to mastering all the terms in the set.

### 2.5 Test

This mode allows students to automatically generate tests based on the set they are studying. The student has the option of writing, matching, multiple choice, or true / false questions (see figure 9). A new variation of the test can be automatically generated by the computer, so a student can practice with Test mode repeatedly. The length of the test can also be set. Teachers can create tests and share them with a class through Quizlet, or a test can be printed for use in class. If the test is done online, the student can see their score on the left of the screen, while teach-

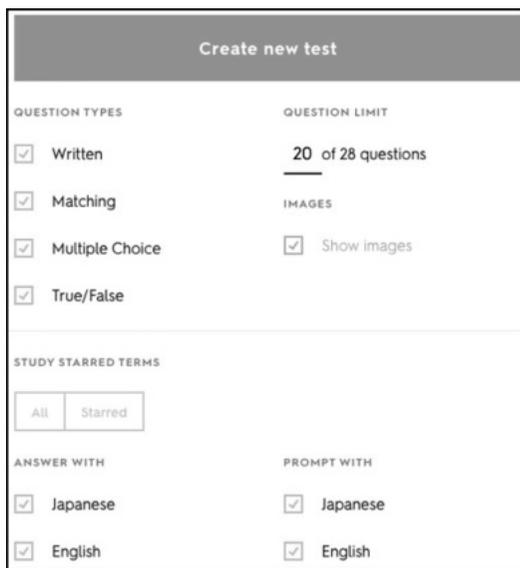


Figure 9 : Choosing question types in Test mode

ers can see the scores for each student through the class analytics.

## **2.6 Match**

The first of two timed-games on Quizlet is Match. Students are presented with a selection of terms and their corresponding definitions randomly scattered on the screen. The students must drag and drop the matching information together. This activity is done against the clock, so the students can try to improve their score. This element of competition provides them with a reason to practice repeatedly, thereby cementing their knowledge.

## **2.7 Gravity**

The second of the timed-games is Gravity. Terms (or definitions, if preferred) fall from the top of the screen and the students have to type the corresponding information. If an item falls to the bottom of the screen before the correct answer is typed, the game stops and the student is presented with the correct answer, which they then have to type out in full. The game then continues with other items falling from the top of the screen. If an item falls to the bottom of the screen for a second time, the game will stop, and the student's score will be recorded. Points are awarded for the number of correct answers and also the speed at which the answers are given. Points are deducted for each incorrect answer given. For both Match and Gravity, the teacher can see the best score for each student through the class analytics.

## **2.8 Mobile Application**

In some cases, it is easier to use Quizlet on a computer, such as when creating or editing a study set. However, when studying using the different modes described above, the free mobile application is often preferable. The application and the website version sync with each other, so any changes made or practice done in one will be automatically noted in the other. Having the mobile application means that students can study at any time, wherever they are. The Quizlet application also works offline, so if students do not have access to Wi-Fi, they can still study. Students should be reminded to switch off cellular data for the Quizlet application on their smartphone to avoid incurring unwanted charges to their mobile data plan.

## **3. Collaborative Classroom Learning**

Quizlet Live was designed for teachers to use with their students in class. It enables a more collaborative style of learning. It is important that the students can access Wi-Fi, so that they do not have to use their personal mobile data plan. The teacher connects his or her computer to a projector, selects a study set, and then clicks the *Live* mode on the right-hand side of the screen. On the projector screen, the students will see a six digit join code, which they can enter when they visit [www.quizlet.live](http://www.quizlet.live) on their smartphones or tablets. The students will also be asked to enter their name ; it is important that they give their real name as they will need to form groups later. The projector screen will now be displaying the names of all the students who have successfully joined the game. Once all of the students have joined (a minimum of 12 students is required for

Quizlet Live) the teacher will ask Quizlet to randomly assign the students to teams of three or four. The teams are of a size such that all students can participate, and no student can be anonymous during the game. The students must then stand up, find their team members and sit together. By randomly generating teams, students who do not usually talk to each other are required to work together. Once the teams have formed, the game can begin.

The students are given a term (or definition, if the teacher prefers) and they have to select the corresponding information. To give a very simple example, the question prompt could be a sentence with a missing word: *Johnny \_\_\_\_\_ his grandparents every Sunday.* Each student will be presented with four different possible answers as to what the blank could be. However, only one student will have the correct answer. This means that the students must work together and decide who has the correct answer and then select that answer. If a correct answer is given, one point is added to their team's score, which is being displayed on the projector screen via the teacher's computer. The team scores are displayed as a bar moving from left to right on the projector (see figure 10). If a team makes a mistake, their team's score returns to zero. The winning team is the first team to correctly answer 12 questions in a row.

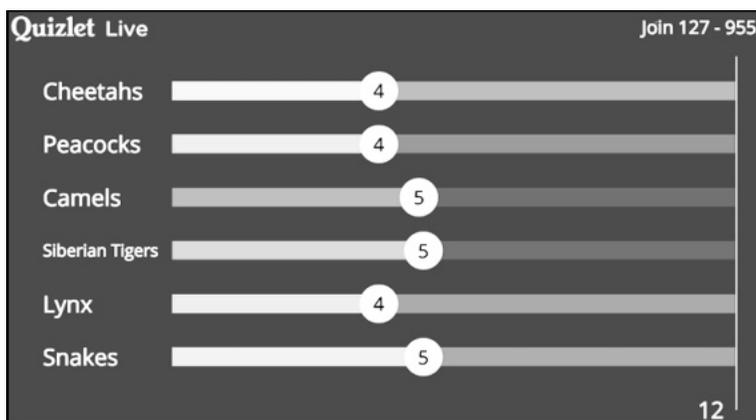


Figure 10 : Scoreboard during Quizlet Live

Not only are students reviewing terms and definitions, they are also learning soft skills like teamwork and communication. Regular use of this game mode can help to create a better classroom dynamic over time. Once the game is finished, a new game can be started with the same teams or with newly randomised teams. Quizlet Live also collects data on the mistakes the students have made, allowing the teacher to provide extra learning opportunities or context for those terms.

### 3.1 Class Analytics

If a class has been created, a teacher can view the activity of each student in the class analytics. If a student has started a study mode, the mode icon will be darkened on their profile. If the student has achieved a progress score of 100%, a green checkmark will be located beside the mode

icon. If there has been no any activity on a mode, the icon will be a light grey colour. By placing the mouse pointer over a mode icon, it is possible to see when a student has started or finished that mode.

Although Quizlet has not yet been designed for use in class assessment, teachers can view their students' best scores in Test, Match, and Gravity modes for a sense of how well the material has been understood by the students. To know which terms students are struggling with and which terms they are already familiar with, teachers can simply visit the study set page, select the class from the sort dropdown menu, and the terms in the study set will be categorised by how well the students know them. The categories are : often missed, sometimes missed, rarely missed, never missed, and no answers yet.

## CONCLUSION

Quizlet is a simple idea that has been very well executed. This tool takes advantage of complex theories of spaced repetition and provides free access to adaptive learning software. It allows teachers to create study sets and distribute them with their students, but having students understand how to create their own sets, and to invest time in doing so, can be a powerful part of the learning process. Creating their own sets allows the students to take ownership of their learning and to then watch as their progress scores increase. It is tempting for a teacher to give students all the study sets that they need to learn in order to pass a test, but learning how to select, categorise, and verify information while creating study sets is vital, and it can give the students confidence in their autonomy as learners. This helps to reinforce the growth mentality that is needed when learning a foreign language. Once the sets have been created, students can study at their own pace in and outside of the classroom. Some students require more time to master certain language, while others can strive for higher scores in games like Match or Gravity. In both cases, Quizlet promotes an increase in the time being invested in the learning process beyond that which would have occurred if the only tool available were a keyring with paper flashcards.

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