Memrise

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| Title	Memrise
Author	Dr. Greg Detre and Ed Cook
Contact Information	http://www.memrise.com/app/
Type of Product	Vocabulary learning website
Current Compatibility	The website can be used with computers and is compatible with Chrome, Firefox, and other common internet browsers. Available on all Android tablets and smartphones, iPhone and iPad.
Platform	Web-based
Registration	Required for participation
Price	Free; Pro version for $9 US/month, $19 US/three months, or $59 US/year

Introduction

According to Nation (2001), an educated native speaker of English knows approximately 20,000 word families, while even well-educated English language learners (ELLs) know, perhaps, less than one-quarter of this amount (Laufer & Yano, 2001). Online language learning tools have incredible potential to close the lexical gap between native speakers' and ELLs' vocabulary because of their potential to provide learner autonomy. One of these tools that could assist ELLs in improving their vocabulary is a website called Memrise.

Memrise was launched in 2010 and was created by Ed Cook, a "Grand Master of Memory," and Greg Detre, who received his PhD from Princeton University in computational neuroscience, specializing in the science of memory and forgetting (Memrise, 2016). The creators founded Memrise on the foundation of science, with the goals of facilitating enjoyable learning communities and providing learners with strategies that are entertaining, but also effective (Memrise, 2016).

Getting Started

Starting a Memrise account is easy and only requires a username, email, and password (see Figure 1). Users have the option to choose a free account or to pay either $9 US a month, $59 US per year, or $19 US for three months. Paid memberships allow learners access to the Pro

version, which includes features such as audio reviews, personal statistics, additional listening practice, a video corpus of native speakers' speech, audio examples and tests, and for those studying English, the ability to interact with videos and native-speakers via video chat.
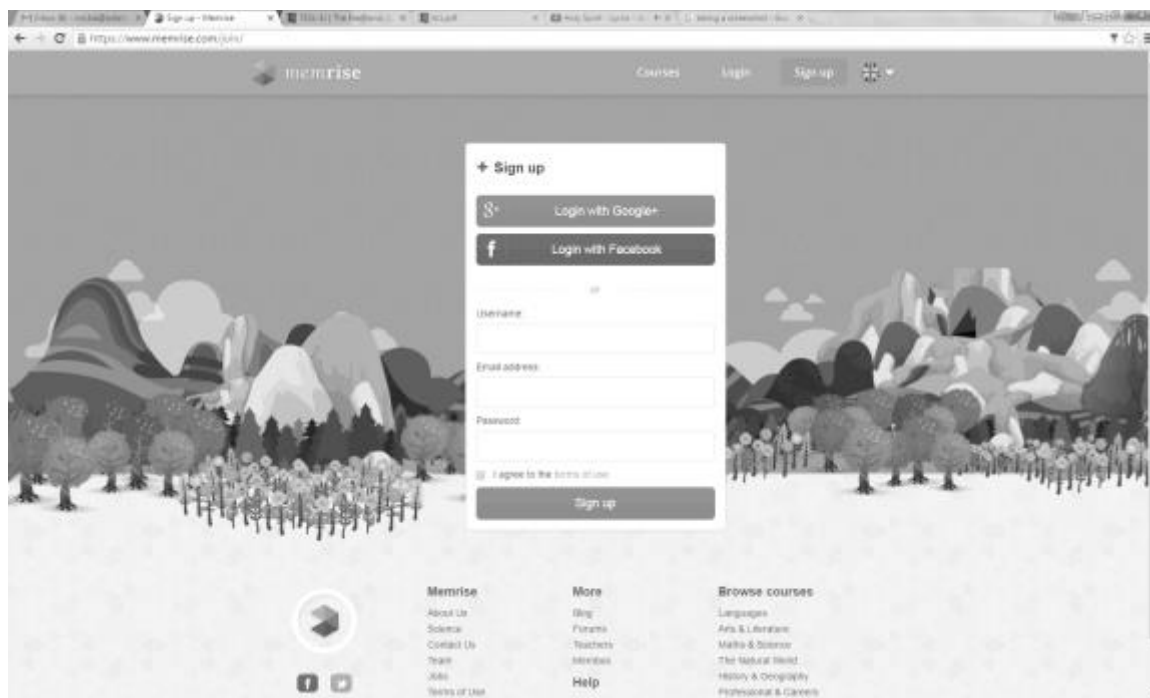

Figure 1. *Memrise homepage for starting an account*

Upon creating an account, a user has the option to identify the language they speak natively, which determines the language in which users receive definitions for words they are memorizing (see Figure 2). Users can choose from 1 of 94 languages, including American and French sign language.
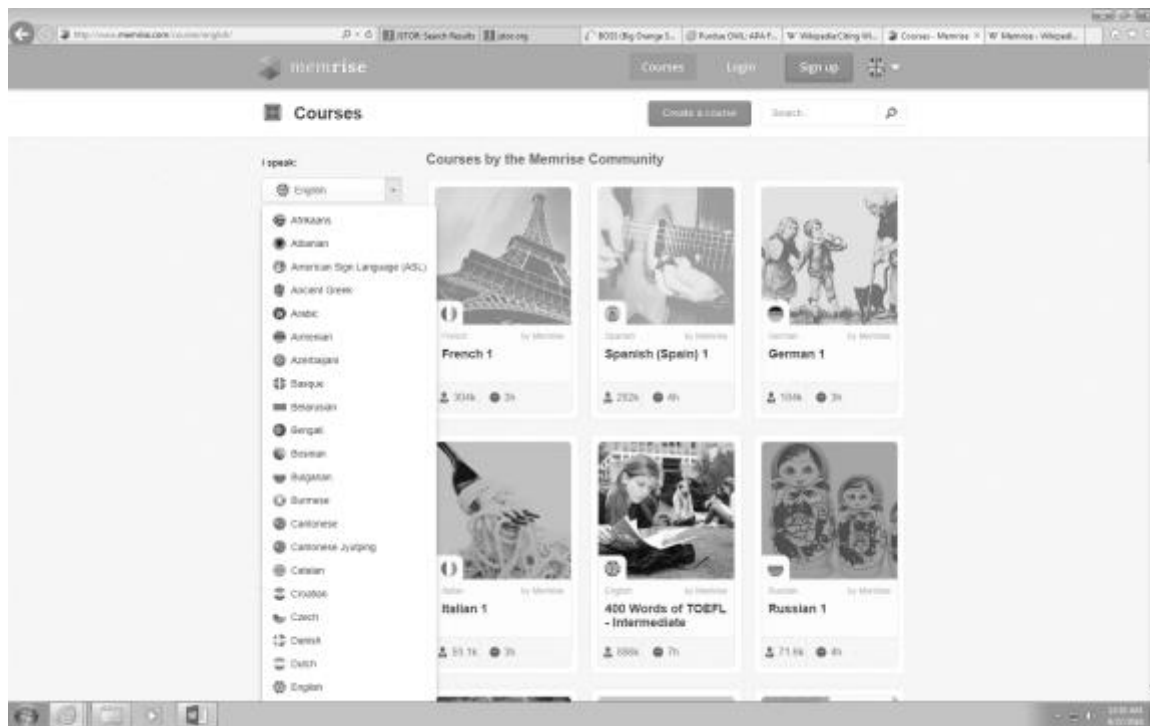
Figure 2. *Language options for Memrise interface*

Once learners have created an account and declared their language, they choose the course or courses they would like to start studying. There are multiple courses that Memrise users can choose from, such as arts and literature, math and science, the natural world, history and geography, and entertainment, although the majority of available courses are for language learners. According to Memrise producers, the program has over 200 languages available to learn and over 300,000 existing courses. Each course includes multiple levels that often cover different content topics or functions. For example, the "1500 Word Spanish Intro" course includes 32 levels and each level covers a different content topic such as love and romance, feelings, and politics (see Figure 3).
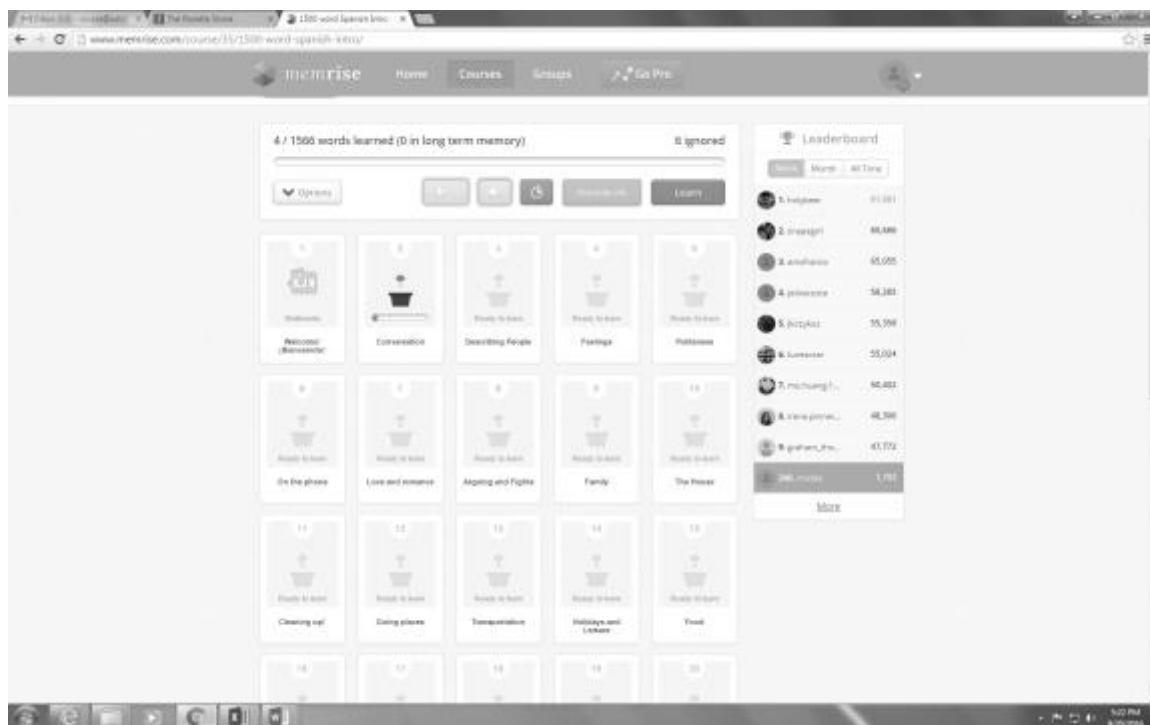
Figure 3. *Levels of "1500 Word Spanish Intro" Course*

One excellent benefit of Memrise courses is that the learner can review the words that will be covered in each course and choose to ignore words (see Figure 4). This enables learners to avoid the frustrating experience of learning and reviewing words they already know, as is the case with many other online language learning tools such as Duolingo. Additionally, users do not have to complete one level to move on to the next, which affords the learner the ability to cover topics in which they are currently interested.

Learning Sessions

Each level contains a set number of words to learn, which varies depending on the course. However, the user has the option to determine how many words they will be exposed to per learning session, which can be any number from five to 20 (see Figure 4).

Figure 4. *Option to set number of words per review session*

When users are learning a new word, they are initially provided a flashcard with the definition of the word accompanied by a mnemonic device of their choosing (called Mems) to help form sensory memories. These Mems can be videos, photos, example sentences, or anything to help learners make associations between new words and ideas with which they are already familiar (see Figure 5). Along with each flashcard and Mem, words are introduced with an audio recording so that users can hear how the word is pronounced.

After initial exposure to the target word, learners' memory of the word is tested repeatedly within that same session through activities such as typing the appropriate word for a given definition, selecting the correct word for a given definition, or typing the correct word for the given audio recording. According to Folse (2011), exposing learners to a repeated, but limited number of words each session is a beneficial practice. Memrise creators' decision to limit the number of words per session not only prevents boredom and cognitive overload, but also provides the learner multiple encounters with the target word.

Figure 5. *New word with definition and mem*

Review Sessions

Through the duration of the course, users are encouraged to review words that they have previously learned. Memrise's creators based their review system on their research in cognitive science, which suggests that the brain must be challenged in recalling a word to strengthen the memory; this means learners should see a word often enough to form a memory, but not so often that their brain is not challenged. Therefore, the creators developed algorithms to be able to determine when and how often a learner needs to review a word to store it in their long-term memory (Memrise, 2016).

The frequency with which a word appears in a review session is dependent upon how recently the user learned the word and how often the word has been practiced. In other

words, the more frequently the word is reviewed with success the less it shows up again for review. The review sessions are helpful, because users are not required to keep track of how often they should practice their words. The creators posit that "[b]y tracking when you should review and practise material, we do the hard work for you- making your learning as effortless and fun as possible" ("About," n.d., para. 11).

During a review session, users may be given a definition and asked to supply the correct word in the target language or listen to an audio recording of the target word and be asked to type it. When users provide the wrong answer, the Mem that has previously been chosen for that word will appear along with the definition of the word and an audio recording, and users will be asked to supply the correct answer.

Memrise uses the illustration of a flower to help learners visualize the process of memorization (see Figure 6). They equate reviewing a word to a gardener doing the necessary work of growing a garden, and every time a word is reviewed correctly, a new piece of the flower is added to an icon that appears at the top of the page. This symbol relates to how frequently the word shows up in the review function of Memrise.


Figure 6. *Flower illustration indicating how well a learner knows the target word*

Community Engagement and Motivation

Memrise has attempted to create a virtual classroom through their community engagement efforts. These different methods of community engagement demonstrate the creators' belief that learning with others inspires curiosity and creativity in the learning process, which results in more motivated learners and effective learning environments.

One of the most interesting aspects of Memrise is that users have the opportunity to create groups that are committed to taking the same course (see Figure 7). This feature is beneficial for teachers who want to supplement their instruction with online work or groups of friends who want to help each other learn certain topics. All that is necessary for a person to start a group is to choose a course and invite other users (see Figure 8).
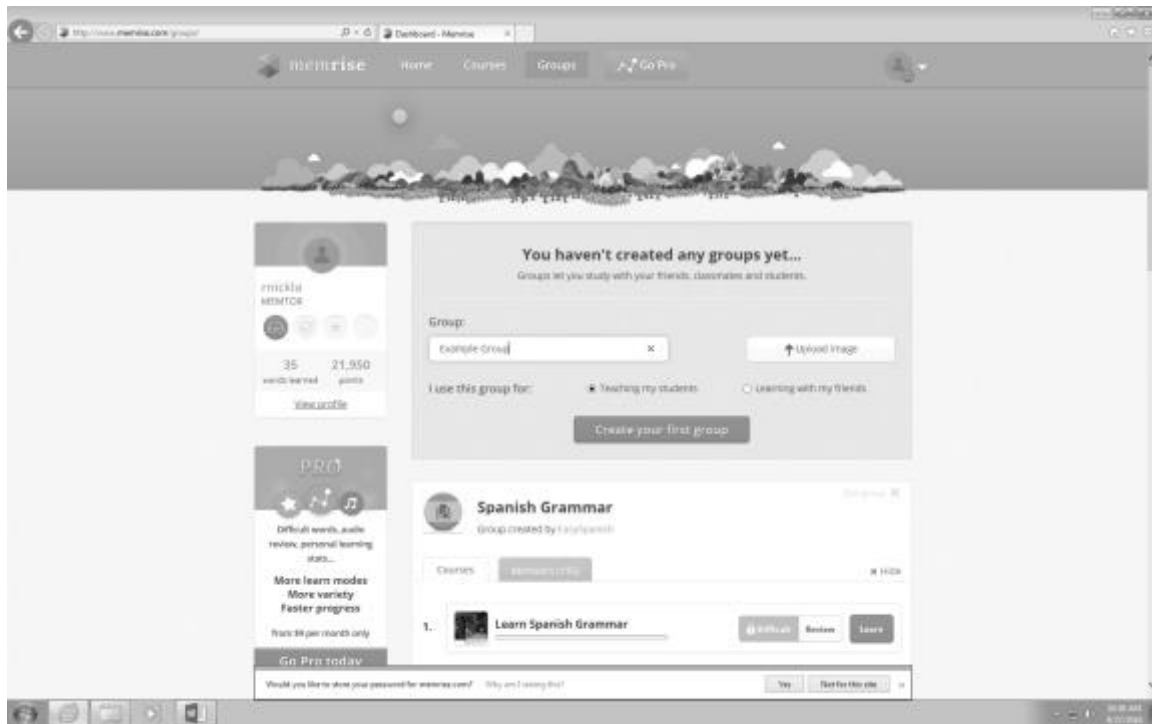
**Figure 7**. *Option to organize a group*
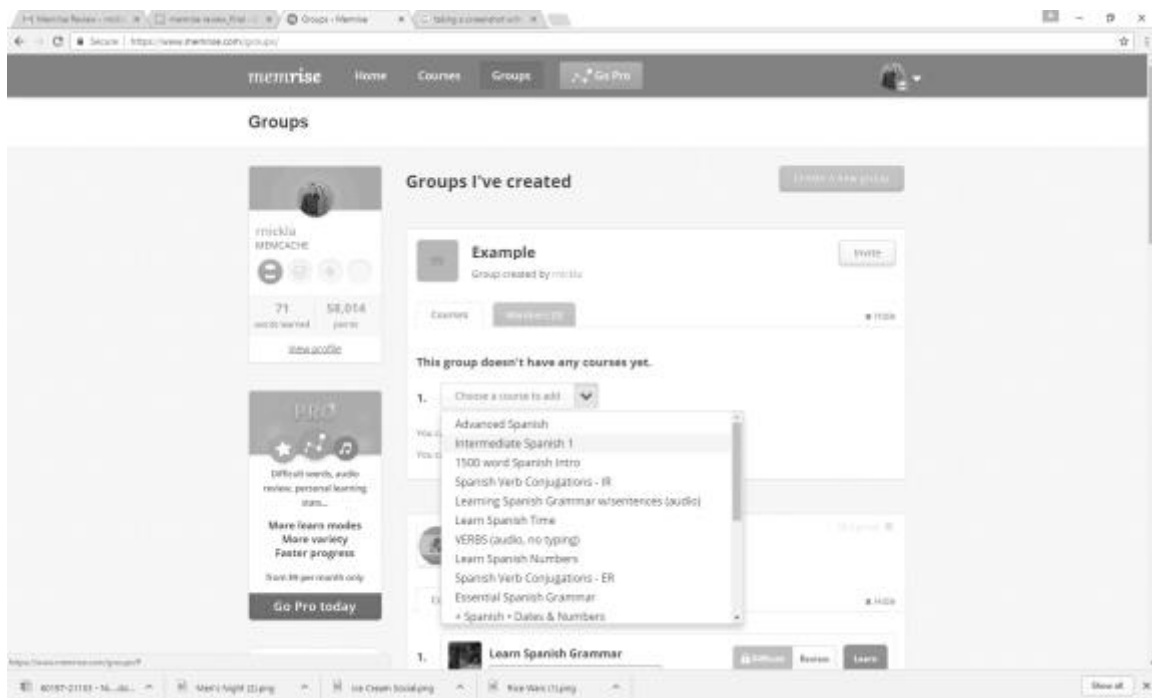
Figure 8. *Option to invite others in a group to participate in the same course*

In addition to groups, users can create courses (see Figure 9) and mems (see Figure 10). While some courses and mems are created by Memrise staff, others are created by users in the

community. When a course or mem is created by a user, it is made available to all other users. This is another positive feature of Memrise, because not only do users have the potential to learn through creating, but also the Memrise course and mem selection can continue to expand.
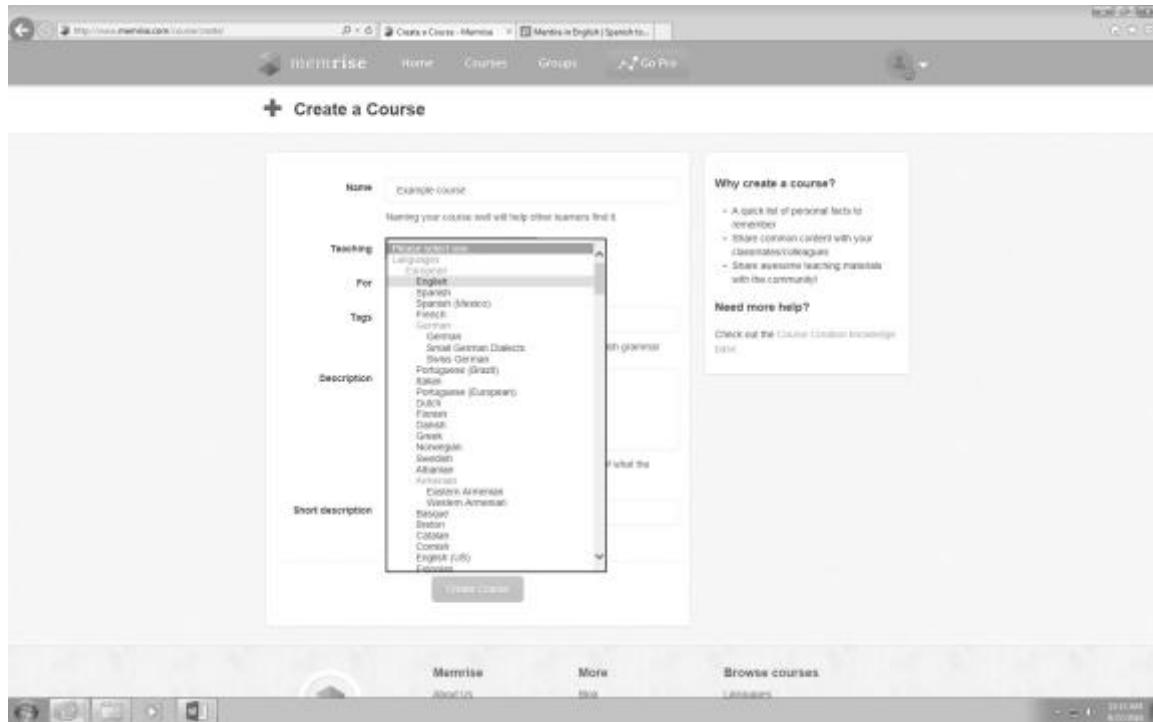
Figure 9. *Option for users to create their own course*

Figure 10. *Option for users to create mems*

Memrise creators have tried to utilize social media as much as possible in order to create a communal feel for their users. For example, users can create personal profiles so that they can interact with and "follow" other people to check their progress by seeing how many points other users have obtained. Memrise has also involved Facebook and Twitter and provides an on-site forum where learners can share ideas about learning, teaching, and their progress in the language. The staff members have also created a blog where they share ideas about language learning and update users on their current projects aiming to improve Memrise. These efforts to develop interconnectedness among users has the potential to motivate individual learners.

In addition to seeking to motivate learners externally through community, Memrise has also attempted to motivate learners intrinsically by providing users with opportunities to set individual goals. Users can set daily goals for each course and Memrise keeps track of their "streak," or how many days in a row they have completed their goal.

Teacher and Learner Value

Memrise has a number of strong features that make it an appealing learning option for students and teachers. The site is built on the foundation of cognitive science, so learners can engage with the material in a way that enables information storage in the long-term memory. Memrise uses multiple methods for instructing and assessing learners on materials they are exposed to, so that several learning styles, namely, visual, auditory, and linguistic can

potentially be engaged. Additionally, the fact that the site generates review lists for learners at appropriate intervals saves users the hassle of trying to determine when and what words to review. The various methods for connecting users has the potential to motivate individual learners and provide teachers with resources to supplement their classroom instruction and create collaboration among their students, even outside of the classroom. Lastly, providing users with several ways to personalize their learning enables them to have control of accomplishing their own goals.

Although Memrise is an effective site in terms of memorizing the definitions of words, it is only partially useful as a language learning tool. First of all, unless a user pays for the Pro version, there is no opportunity to hear these words in an authentic context. This means that, although learners may know the definition of the word, they may not be able to recognize the possible ways that the word can function in a sentence. However, this needs to be weighed against the fact that some courses offer more context than others. For example, many of the Spanish grammar courses that the author has used contain phrases in order to demonstrate verb conjugation in certain contexts, rather than single words alone. Still, when words do appear in context, to successfully fulfill the task for that session, a user simply needs to memorize the phrase rather than understand how the target word truly functions to create meaning. This lack of explicit focus-on-form (Long, 1991) is unlikely to provide the learner with necessary knowledge to analyze the sentence for deductive learning, and the lack of multiple occurrences of the same structure in a variety of contexts is unlikely to provide the kind of input required for inductive learning. Moreover, without the opportunity for learners to really practice using the words, it is possible they will not acquire productive knowledge of the target vocabulary considering that most second language acquisition research suggests interaction is a necessary component for learners to develop productive skills (see, e.g., Gass & Selinker, 2008; Long, 1996; Swain, 1985, 1995).

Taking the strengths and weaknesses of Memrise into consideration, the value of this site to teachers and learners is that it offers a wide range of repeated instances of vocabulary exposure in a manner that is engaging and competitive and can promote collaborative learning. Students can benefit from this site by learning the meanings of multiple words so that, as they are exposed to these words in other environments, they can begin to analyze the different ways the word functions to create meaning. Teachers can use this site as a supplement to classroom instruction by creating Memrise groups with their students. However, once students are exposed to words through Memrise, it will be important to provide them with the target word in context and opportunities to use the word productively.

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