

# IMPROVE STUDENTS' ENGLISH VOCABULARY WITH THE MEMRISE MOBILE APPLICATION

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## ABSTRACT

Developing learner's vocabulary is one of the most important keys to learning English because vocabulary is the foundation of learning English. With Internet, students have many opportunities to use online tools to apply advanced skills and expand their vocabulary. Recently, with the proliferation of devices, the possibility of Mobile Assisted Language Learning (MALL) is being considered. This research is based on Mnemonics, a vocabulary building application. The authors also investigated changes in the vocabulary levels of English learners in foreign language schools and their attitudes towards using the mobile app to improve their vocabulary. Additionally, our research shows how students rate the quality of their apps. Furthermore, the article provides specific advice on using her Memrise for students with different levels of English.

**Keywords:** Vocabulary, mobile applications, Memrise, MALL, suggestions

## INTRODUCTION

English is the most important foreign language in Vietnam and teaching English is a compulsory subject (Goh and Nguyen, 200). Vocabulary is undoubtedly one of the most important factors for any degree of mastery of a foreign language, especially English. Furthermore, vocabulary plays an important role in the expression and reception of language. As the famous linguist said: "*Without grammar, nothing can be taught; without vocabulary, nothing can be taught.*" When learning a foreign language, vocabulary is taken into account, which is a small part of the common potential of using this language. Therefore, college students have to spend a lot of time learning vocabulary and researching by paraphrasing various learning materials, especially on the Internet. However, laptops and computer systems can be prohibitively expensive for most students, especially those who are away from home. Recently, with the popularization of mobile devices, the possibility of Mobile Assisted Language Learning (MALL) has been discussed. In addition to computers, mobile devices have emerged as potential tools for enhancing language acquisition. With the rapid development of a new generation of mobile devices such as mobile phones and tablets, the potential of mobile devices as effective language learning tools is enormous. (Gold, 2011). As the most popular learning software, Memrise is the best solution for learning English vocabulary. This research focuses on how mobile applications can be used in foreign language schools to effectively increase the vocabulary of English learners.

## LITERATURE REVIEW

### ***Vocabulary Acquisition***

Several researchers have pointed to the importance of vocabulary in language learning (Harris, 1969; Evans, 1978; Pouwells, 1992; Bismonte, Foley and Petty, 1994; Pellow, 1995; Watts and Bucknam, 1996; Laufer, 1996). However, little attention has been paid to vocabulary construction (Cates and Swafar, 1979; Prince 1996). Vocabulary plays an important role in the development of the four language skills of speaking, listening, reading and writing (Harris, 1969; Siribodhi, 1995). Evans (1978) stated that vocabulary is crucial for linguistic intelligence. He further agreed that it allows speakers to change their way of speaking. Evans explains that using the wrong wording can be misleading. Conversely, correct use of vocabulary makes it easier to read, write, communicate, and speak well. In language learning, vocabulary affects most ability such as reading, writing, speaking, listening, discussion, conversation and oral communication such as language preparation. It also plays a very important role in our continuous development and improvement. One of the challenges most teachers face is providing an environment in which new vocabulary can be taught. In addition, Trump, Trechter, and Holisky (1992) argue that introducing and teaching vocabulary through concepts and word domains leads to a range of activities that engage students with different learning styles with different sentences.

### ***CALL, MALL and Mobile Applications***

Computer-assisted language learning (CALL) is one of the earliest computer-based language learning techniques. Vandewaeterea & Desmet (2009) point out that foreign and second language learning can be greatly improved with the emergence of the CALL CALL as the oldest technique applied to learning any language.

MALL is also known as Mobile-Assisted Language Learning (MALL). Many theories about education have been put forward today, but almost all theories state that learning usually takes place in classrooms with trained teachers (Sharples et al. 1). Some educators believe they have created a theoretical explanation for learning outside the classroom (Sharples et al. 1). In the 1960s, laboratories were replaced by computer-based practice instruction, followed by computer-assisted language learning (CALL) and the Internet in the early 1960s. The 1990s saw the development of computer communications (Chinnery, 2006).

Previously, educators defined e-learning as learning supported by "electronic" digital tools and media, whereas Keegan defined e-learning or e-learning as the electronic delivery of education and training. There is also a proven track record of research in teaching and learning English that reflects the adoption of technology to support English learning. The focus is on computer-assisted language learning (CALL) and mobile-assisted language learning (MALL).

According to the Mobile Markup Association (2008), mobile applications, commonly called apps, run on mobile devices such as smartphones and tablets. In this study, we will develop mobile applications through mobile phones to facilitate educational activities through mobile applications. According to Sharples, Taylor, and Vavoula (2005), the word 'learning' implies the mobility of learning anytime, anywhere. Therefore, the generic term "mobile learning" refers to a learning process that occurs all the time, regardless of time and place. Learning on mobile devices or mobile learning means that you can learn anytime, anywhere. Students are constantly on the move and learning can take place outside the classroom (Nordin, Amin & Yunus, 2010).

### ***Memrise Software in Vocabulary Learning***

There are two main reasons to choose this app. First, it provides users with a variety of topics and lessons to improve students' vocabulary. Below is the mobile version of the famous web tool Memrise. Additionally, the program won the Best App Award at the 2017 Google Play

Awards. This ensures the reliability of the program.

This app is available for download from the Google Play Store and Apple App Store. It provides users with a series of lessons covering various vocabulary topics. All lessons include spelling, meaning and pronunciation in your native language. In this app you can speak Arabic, Ancient Greek, Chinese, English, French, German, Icelandic, Italian, Japanese, Klingon, Korean, Latin, Portuguese, Russian, Spanish I can. You can learn Chinese, Swahili, Swedish, Turkish and more. However, in this study, researchers focused only on learning English. The app uses audio, visual, and mnemonic techniques to help students to associate words and easily recall them. Quizzes are also used to ensure users remember these concepts.

Memrise is based on a frame of scientific knowledge about how we learn and use our scientific minds to help you learn faster. Memrise uses the concept of "writing complex code" to help users remember course content. According to Memrise, when users learn a new word, they think of it as a memory seed. And each time they revisit that memory, they help it grow bit by bit, like watering a flower. Memory is the most sensitive and needs the most love and attention when a user first learns a new word. Memrise looked at them early on and reminded them regularly to ensure the words were safely planted in their brains. Science shows that many early exercises and tests have a very positive effect on the health of long-term memory, so Memrise suggests that learners take six tests to complete the development of a new memory.

Memrise uses adaptive spatial repetition learning techniques to help students focus on the words they need to learn. When users start learning, students see, hear, and recognize most of the linguistic elements in sentences. Students answer multiple choice questions and finally start writing in the language the user is learning.

New items are being introduced and maintained all the time. Memrise also uses the Mems system to help users remember elements of language by associating words with pictures, videos, model sentences, and more. It is designed to stimulate the senses, imagination and emotion to make learning more enjoyable and effective.

Learners study words many times in the early stages of learning and move them regularly to retain them in long-term memory. Users can easily see their progress as the Seed Her icon grows in the corner of each item and eventually blossoms as the learner masters the word.

This study has the following questions:

- i. How can students learn English vocabulary effectively?
- ii. How does Memrise affect students' vocabulary learning?
- iii. What problems and challenges do students face when learning with Memrise?
- iv. What are suggestions on how to solve the problems students encounter when learning English vocabulary, especially when using the Memrise app?

## **METHODOLOGY**

The method chosen for this study is a case study that allows experimental investigations to gain a deeper understanding of real phenomena (Yin, 2009). Case studies are the most widely used qualitative research design, allowing researchers to learn more about their subject (Merriam, 2009). Using this approach, researchers consciously monitor conditions that trigger important events, propose interventions, and measure the difference they make (Cohen, Manion, & Morrison, 2013). This experiment is based on a combination of quantitative research methods, observations, and interviews. This research design was ~~experience will be~~ conducted both online and offline for students of the University of Da Nang, Faculty of Foreign Studies, English

Language Institute. All of these can be viewed as nested building blocks of analysis or design (various units of analysis) (Yin, 2009). This approach helps us better understand the improvements her Memrise has made to enhance students' English vocabulary learning. Therefore, the results of this study are applicable to other schools in similar situations (Cohen et al., 2011).

The subjects of this study are 200 student volunteers studying in the English department of the University of Foreign Studies, Danang University. These 200 of her students were randomized into her two groups, a control group and an experimental group, to process the results. All eligible college students have a similar educational background. This is a testament to self-regulation in English learning. Prior to testing, these participants were asked to answer a series of questions about how they learned English to ensure that all participants had mastered English through self-study.

Data collection was divided into two phases: pre-memrise and post-memrise. People in the experimental group received experimental treatment with Memrise for six months, while the control group did not. Using this technique, the authors believe that memory improves student performance. You can easily see the effect. In both phases, data were collected by distributing questionnaires immediately before and after use. The name, purpose, and usage of the tool are documented in the manual.

**Table 1:** Experiment method design (Pre-test Post-test Design)

Random Assignment	Control group	Pretest	No Treatment	Posttest
Random Assignment	Experimental Group	Pretest	Experimental Treatment	Posttest

The traditional design used in this study included tests, questionnaires and direct measurements. The data required for this study are preliminary. Baseline data is training data collected through pre- and post-testing with Memrise. Data were collected using direct-measured vocabulary tests and questionnaires were used for all student participants in either the experimental or control groups.

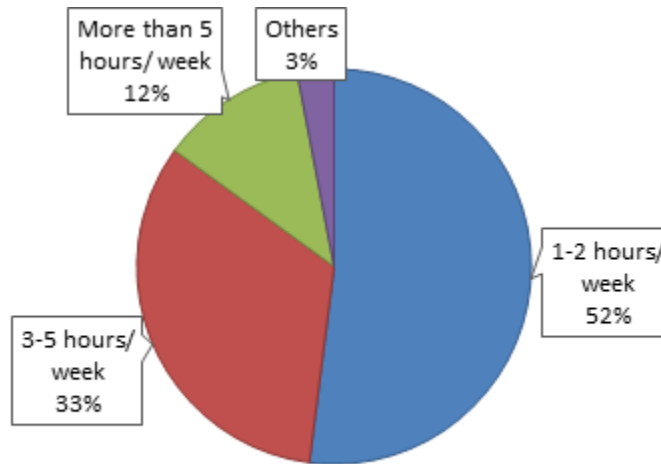
A pre-use questionnaire included personal information, students' vocabulary learning methods, and students' attitudes toward independent vocabulary using mobile vocabulary learning apps. Six months later, a post-use survey was conducted to learn about students' impressions of Memrise, their self-learning vocabulary in the mobile app, their evaluation of the tool, and their use of the web to acquire attitude skills.

In addition to the test, two vocabulary tests are created and used to assess students. They consist of two subsections, pre-use tests and post-use tests. These tests are called vocabulary tests and are designed by experts. Paul Nation – Emeritus Professor of Applied Linguistics, Linguistics and Applied Linguistics (LALS), Victoria University, Wellington, New Zealand. This test measures written word form, form-meaning relationships, and, to a lesser extent, conceptual knowledge. Although the words being tested are presented in a context-independent context in the test, these tests primarily measure context-independent knowledge of the word. These tests only measure vocabulary knowledge, not the vocabulary used. With this in mind, this study used vocabulary tests and quizzes to assess students' progress in vocabulary learning.

## FINDINGS

The results of this study were classified according to the following criteria: a pre-use questionnaire, a post-use questionnaire and a two-stage vocabulary test. The results will be discussed in detail below.

### *Survey results before the experiment*



**Figure 1:** Self-study time for first-stage students

The data showed that 52% of the participants (10 students) spent 1-2 hours a week improving their vocabulary. While 33% (66 students) required 3 to 5 hours per week, only 12% (2 students) spent more than 5 hours per week on self-study skills. Finally, 3% of the participants (6 students) indicated that their exercise time varies due to certain factors.

To explore students' attitudes toward learning English using mobile-her technology, researchers asked if they had ever used the mobile-her application to improve their English or vocabulary. The majority of respondents (85%) said they used mobile girlfriend apps to improve their English skills and vocabulary, while the remaining 15% said they did not.

**Table 2:** List of cellular applications utilized by students

Online Application Name	Percentage
Quizlet	12%
Dictionary (in general)	40%
Games (in general)	7.1%
Scribd	12.7%
Coursera	6%
Duolingo	14.3%
Jonny Grammar's word Challenge	4.9%
Others	3%

In addition, this study looked at why 19 college students had no prior online application experience and gave several reasons. It can be seen that almost half of the students (2.1%)

said that they do not know which online application is suitable and useful for learning English. 21% of students say they don't have enough time to explore mobile apps. Meanwhile, 10% of college students hate mobile apps because they don't know how to use them properly. Also, 16.9% of students have practiced their skills through other methods, so they don't think using a mobile app is necessary. Other students admitted that these mobile apps weren't interesting, so they didn't want to try them. The final reason cited by 5% of students is that online applications require users to pay high fees. The results help predict potential factors that prevent students from successfully using mobile apps.

The study also highlights students' attitudes towards the use of mobile applications in the pre-use period. First, most students have a positive attitude towards learning with mobile apps, with 17.5% agreeing and 5% strongly agreeing that using mobile apps is an effective way to improve learning and vocabulary. The number of students objecting was 14.5%. In addition, 12% of students strongly oppose and 23.5% oppose not using mobile applications to learn English vocabulary. However, it has a contrast ratio of 21.5%. When asked if mobile apps inspire students to work harder, 3% agree and strongly agree. This number is much higher than the percentage of dissenters (19.5%).

Prior to using Memrise as a mobile app, more than half (55.5%) of respondents felt that using the mobile app for vocabulary learning required a high level of understanding on mobile devices, while nearly a quarter of them reject this idea. 35.5% have a negative view of mobile apps because they think it takes too long to learn vocabulary with mobile apps, while 2% disagree.

### ***Survey results before the experiment***

Participants were divided into two groups, an experimental group and a control group. This data was collected from the experimental group after her six months of using Memrise. The post-use survey data also quantified her four major factors: the student's first impression of Memrise, the student's self-study vocabulary using Memrise, and the student's attitude towards Memrise as a mobile after the use.

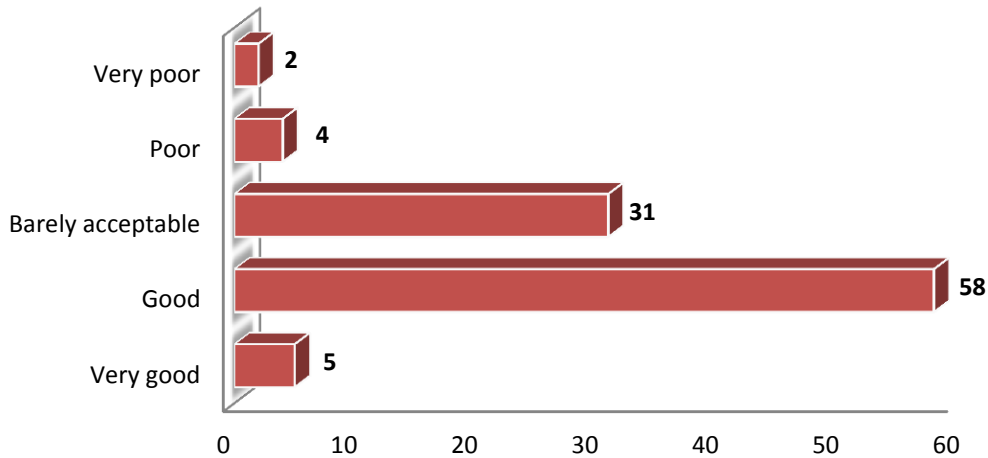
**Table 3:** Students' first impressions of the introduction of the Memrise

<b>Type of Impression</b>	<b>Percentage</b>
A good tool for learning English	48%
New, need to understand	33%
Difficult to use	11%
Too complex	3%
Others	5%

We can see that the highest proportion (48%) is due to the impression that mnemonics are a useful tool for learning English. Another 33% of the students thought her Memrise was new and should be recognized. Other prints are just a few. Specifically, 11% of students said the app was difficult to use. Only 3 students (3%) said the program was too complicated, and 5% of the participants had different impressions of the program. From this result, we can conclude that Memrise made a positive impression on the majority of the students who participated in the survey.

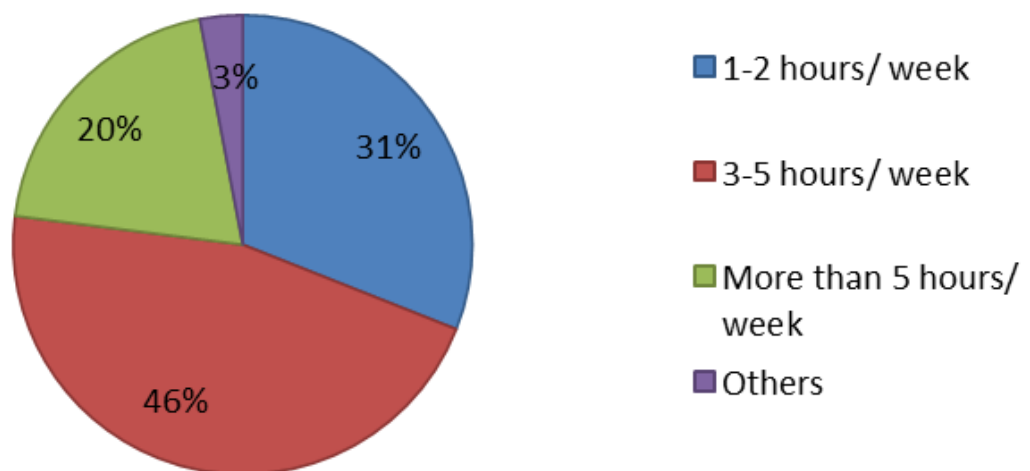
A survey by Memrise found that 8% of the students use her Memrise for 8-10 hours a week to practice vocabulary. Most students (46%) use Memrise 1-3 hours a week to learn vocabulary. Most students use the mobile app to practice 4-7 hours a week, or 30%. Note that many students (13%) use the app for less than 1 hour per week to support vocabulary learning. However, it is easy to see that Memrise as a mobile app attracted 100% of participants.

Memrise's launch attracted 100 different users and received various quality ratings. Figure 2 shows how students rated the software on a scale from very good to very bad.



**Figure 2:** Memrise quality rated by students

To find an explanation for Quality Score, researchers continuously asked student about the experience with Memrise. The following table compares the duration of vocabulary's self-study between the first stage and the second stage.

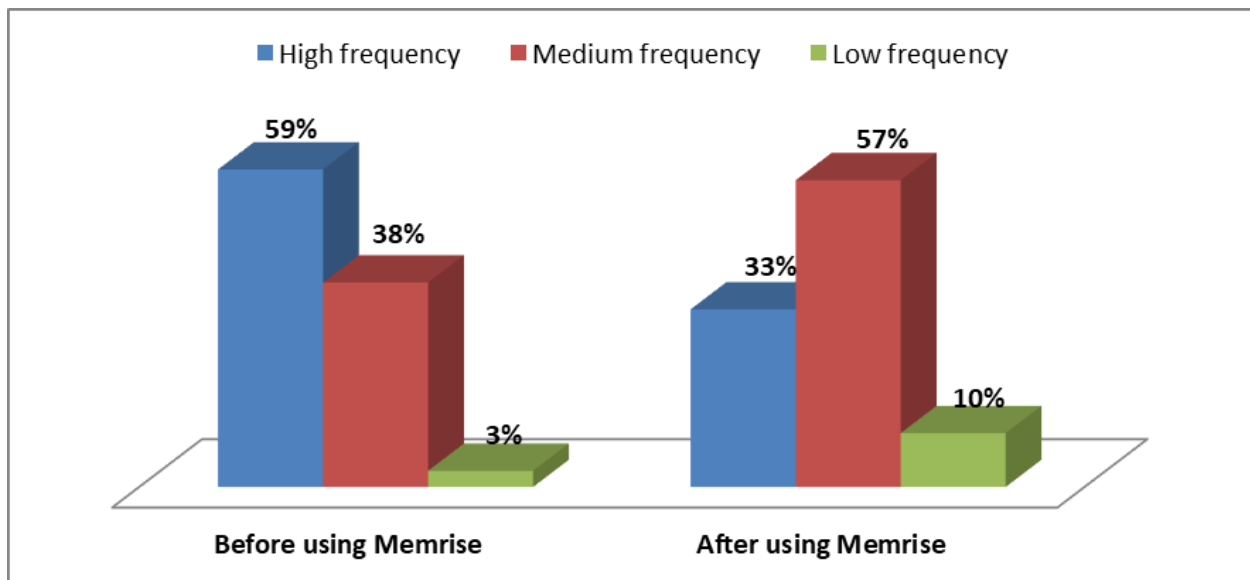


**Figure 3:** Total time for vocabulary self-study for students at the second stage

According to Figure 3, there is a large change in the duration of the first period and the second period. The number of students studying vocabulary 1-2 hours per week decreased from 52 (52%) to 31 (31%). The percentage of students practicing a skill for more than 5 hours increased significantly from 33 students to her 46 students. The number of students studying vocabulary 3-5 hours per week increased from 12% to 20%. Her other three students were less clear about their self-study hours.

Designed to assess student vocabulary, the two vocabulary tests consist of two subtests (a pretest and a posttest). These tests, called vocabulary size tests, were developed by Professor Paul Nation, Emeritus Professor of Applied Linguistics, Department of Linguistics and Applied Linguistics (LALS), University of Victoria, Wellington, New Zealand (Nation, P. and Crabbe, D. (1991)). Participants in both the control and experimental groups should have the dictionary prior to use. After 6 months, the experimental group required post-use vocabulary.

There is a significantly improvement level of vocabulary of students that is shown in the Figure 4 below.



**Figure 4:** Comparison of students' vocabulary level before using Memrise

Results showed an increase in the number of students who spent 3-5 hours per week practicing vocabulary, as shown in Figure 4. The number of students spending more than 5 hours increased from 6% to 53%, he increased from 12% to 20%. Therefore, we can conclude that Memrise encourages students to spend more time studying. 66% of students agree that Memrise motivates them to learn.

### ***Factors Affecting Effectiveness of Vocabulary Learning with Memrise***

The purpose of this part is to answer the research question: *What are the factors that influence the effectiveness of students using the Memrise mobile application to improve their vocabulary?*

There were two main factors affecting effectiveness of vocabulary learning with Memrise. Firstly, the inefficiency in using the Memrise mobile application is due to students' negative attitudes. Most students have a positive impression of her Memrise, but "Memrise is a useful software for learning English" or "Memrise is a must-have". It is undeniable that a



minority of students are against applying. They think Memrise is too difficult or too complicated. This impression indicates that students do not want to use mobile applications. When asked to describe its use, students were not as effective as other sources, even though they had tried it before. In addition, they also have the prejudice that Memrise is not attractive. 70% of these students scored low on the second vocabulary test. In addition, 25% of students with the second lowest score on the vocabulary test do not believe in the usefulness or necessity of using mobile phone apps.

Secondly, frequency of software usage is also a factor in Memrise's effectiveness. The study found that only 8% of students practiced Memrise eight to 10 hours a week, and eight of those students performed much better on their second test than on the first. The majority of students (49%) only use the app for 1-3 hours per week. These students account for 38% of students who do slightly better on the second test and 30% of those who do not. 13% of the students practiced the program for less than one hour a week, and 70% of the students with the lowest scores on the second exam belonged to this group. Researchers, therefore, believe that the more students practice with the software, the more effective it will be.

Application inefficiencies can also be due to the limitations of the application itself. 38% of users complained that the app always required internet access, which is a downside. Another big limitation is the functionality of Memrise. Some features are only available to the Pro members. A user has to pay VND 349,000 (\$20) to become a Pro member and enjoy all Memrise features. However, these issues still exist in most mobile apps today.

## **DISCUSSIONS AND CONCLUSION**

In the previous section, we have clearly described some of the problems and challenges that teachers face. The results of this case study proved that Memrise is making a significant contribution to improving students' vocabulary. Students also explained that Memrise completed all stages of vocabulary learning that were not possible with the traditional methods they started with. Students should therefore use her Memrise and other similar mobile her apps to improve their vocabulary and general skills.

From the search results, we can conclude that Memrise is very helpful for English learners, especially vocabulary learning. However, most Vietnamese students who have studied English for at least 9 years do not have a good command of the language, mainly because they do not have enough vocabulary to support their language skills. Memrise is a good choice. Students can use this application, which is currently very popular in Vietnam, directly on their mobile devices to improve their English without restrictions on course materials, time levels, locations and especially vocabulary. Memrise's special properties also allow students to learn vocabulary at home. Meanwhile, Memrise can also make self-regulatory courses more accessible to students (Kramarsky & Guttman, 2006).

In addition, mobile learning is a potential way to learn languages due to the flexibility of mobile devices, which can be used anytime and anywhere. Thanks to today`s advanced technology, students can easily access Internet resources through mobile devices without the need for laptops or expensive computers. With the development of mobile technology, many language learning apps have been created. However, during studies at the Faculty of Foreign Languages of Da Nang University, most students use digital dictionaries only on their mobile devices, instead of using the full potential of their mobile devices with many other useful applications such as Memrise.

Memrise is a mobile app for improving students' vocabulary, and our research and tests prove it. After getting to know the app better, the students realized that they didn't need

advanced mobile skates to learn vocabulary with Memrise, as they spent a lot of time. Most students find Memrise to be an effective way to learn and practice vocabulary, but whether this method outperforms traditional methods remains to be seen.

Regarding the ineffectiveness of using Memrise, the researcher found that it was caused by a number of factors. First, some students are not able to improve their vocabulary due to their negative attitude towards this app. Then, their software usage frequency and limited mobile skills are also contributing factors. Furthermore, there are also application limitations.

To use mobile software effectively, students must have a great attitude towards the software. They must be excited to use these programs. They should be careful to use the machine to try to make real bets and not lose interest again after having a problem. More practical judgment should be exercised when attempting to use a program in parts. Second, we learned that researchers often want to train Memrise as a cellular program. The more they train, the less difficult it is to use the equipment and the more rigid the program. Also, if students play sports, it also helps improve their cell usage skills. They can search the internet for some opinions about the software and find out so they won't be overwhelmed in the first place. Another way is that they can make friends with different customers and ask them for helpful advice.

But convincing students to use the latest technology in their studies is no easy task. Therefore, teachers should encourage students to use their mobile apps. Teachers can try Memrise as their own mobile app and mentor students in class. Teacher appreciation is more believable and persuasive because students always trust the teacher's skills and experience. Teachers can also use the app to assign homework to students.

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