

A Study on the Effectiveness of Mobile Learning of English Vocabulary for College Students in the Internet Era—Take “VocabGo” Platform as an Example

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Abstract: In order to study the effectiveness of mobile learning of English vocabulary for college students in the Internet era, this paper takes the “VocabGo” platform as the example and uses research methods such as questionnaire and group interviews to investigate students’ evaluation of the use of “VocabGo”. Then by analyzing the advantages and disadvantages of “VocabGo” and testing the vocabulary level of college students before and after using “VocabGo”, the test results were compared and analyzed to further explore the effectiveness of mobile learning of English vocabulary for college students.

Keywords: English Vocabulary, VocabGo, Mobile Learning, Effectiveness

1. Introduction

Nowadays, with the rapid development of information technology, Internet has changed the way of knowledge learning and production, and also has brought impacts, challenges, and opportunities to higher education. The “College English Teaching Guide” issued by the Ministry of Education in 2020 gives the direction that “College English should vigorously promote the integration of course teaching and information technology”. With the popularization of mobile devices, the improvement of mobile networks, and the increasing richness of mobile application scenarios, English teaching and learning are no longer restricted by time and location. The “Internet plus English learning” model is developing rapidly. The acquisition of English vocabulary is the foundation of English learning and the top priority of English teaching. More and more college students choose mobile learning platforms to memorize and learn English vocabulary. “Mobile learning” provides a new way for English vocabulary learning. For the younger generation in China, who are named as the natives of the “Internet” era, their tools to learn English vocabulary are no longer traditional paper dictionaries or electronic dictionaries, but various vocabulary learning applications (Apps). It is really convenient for students to learn English vocabulary by applying mobile learning technology, they can decide when and where to learn by themselves according to their own schedule. However, learning English by using mobile learning technology also faces some challenges, such as how to fully utilize the advantages of mobile learning to avoid the “fragmentation” of learning. So it is worthwhile to further explore how to promote students’ autonomous and effective learning and to stimulate students’ enthusiasm and creativity in mobile learning. This research takes the “VocabGo” vocabulary learning platform as the research object, explores college students’ evaluation of the use of “VocabGo” by questionnaires, group interviews and tests so as to gain a deeper understanding of the specific impact of “VocabGo” on college students’ English vocabulary learning outcomes and their effectiveness in college English teaching.

2. Related research

2.1 The concept and characteristics of mobile learning

Mobile learning is a new learning model that has emerged in recent years with the rapid development and popularization of communication technology. It is an extension of digital learning, referring to a new form of learning that uses wireless mobile communication network technology, wireless mobile communication devices, and personal digital assistants, etc. to obtain educational information and

resources. It is also a new educational service form [1].

Different from traditional teaching methods, mobile learning breaks through the limitations of time and space. Students can learn anytime and anywhere through wireless mobile terminals (such as mobile phones, laptops, IPDA, etc.); similarly, teachers can also review teaching content anytime and anywhere through wireless mobile terminals. The classroom is no longer the only place for teaching, and classroom time is no longer the only time for teachers to answer questions and solve doubts. Therefore, unlike traditional teaching methods, mobile learning breaks away from the restrictions of time and space and takes full advantages of the 4A (Anytime, Anywhere, Anybody, Anything) [2].

Secondly, mobile learning reflects “student-centered” learning. Mobile learning allows learners to learn at different levels, for different purposes, and in different forms. Students can choose corresponding learning content according to their own knowledge level, can choose different study methods for their learning content according to their own learning style; they can also determine the learning progress according to their own learning ability, and thus formulate a learning plan that suits their actual situation [3]. Therefore, mobile learning breaks the limitations of traditional learning methods, meets the requirements for different students and fully stimulates the initiative of students. This kind of learning mode changes the way of study from passiveness to activeness, with students as the dominant position.

Thirdly, mobile learning enhances the interactivity of learning. Mobile learning is different from the single traditional learning method. There is more interactive communication between students and teachers, students and students, and students and learning content. Besides, students themselves can exchange their learning experiences on the online platform. They can provide real-time feedback on their learning progress for teachers and solve problems encountered in the learning process. They can also conduct self-tests at any time and regularly examine their learning results by Internet[4]. What’s more, students can not only share their ideas and feedback, but also learn from each other by mobile learning.

In summary, the new form of mobile learning, which breaks through the limitations of time and space and changes students’ learning from passive to active, embodies the teaching concept of “student-centered” and enhances the interactivity of student learning. With the widespread use of mobile phones and the popularity of word memorization software, vocabulary learning models based on mobile learning have become more and more popular, and so research on this kind of leaning models has become increasingly important.

2.2 *VocabGo*

“VocabGo” is an English smart learning platform launched by Shanghai Foreign Language Education Publishing Co., Ltd. in 2018. This platform, in the form of WeChat official account, builds a vocabulary corpus matched the vocabulary from related English textbooks, CET-4, CET-6 and postgraduate entrance examination, which is a helpful tool for college English vocabulary teaching. Different from the traditional learning method of reading and memorizing words, the “VocabGo” platform based on the corpus presents the learning content in various forms, such as pronunciation, spelling, and example sentences. The platform collaboratively applies sounds, images, text, and colors to generate dynamic vocabulary exercises, ranging from simple to complex, which enables learners to repeatedly compare and study the usage of words in different contexts. The corpus dynamically generates exercise at different levels, which avoids mechanical memorization and repetitive questions. Thus, students can deepen their understanding of words by practicing those different multiple exercises to consolidate their learning results and improve learning efficiency.

In addition, the platform provides management and supervision functions for teachers’ vocabulary teaching. Teachers can establish and manage classes at this platform and assign word learning and other tasks corresponding to the texts. With the help of “VocabGo”, teachers can know the progress of students’ tasks and remind the students who have fallen behind in progress, they can also get the real-time scores for each student and know their performance, which can help teachers understand the learning context and arrange the teaching content effectively.

School administrators can organize vocabulary competition activities for all the students by making use of the function of organizing competitions based on the platform, which can help administrators obtain first-hand data materials of vocabulary learning of all students. By this way, the administrators can know the English learning situation of all students in the school and facilitate teaching research properly. At present, there are countless word memorization software based on mobile phones in the market. However, there are really not many platforms similar to “VocabGo” in the form of universities and colleges with a large number of participating students. The vocabulary learning method of this

platform that comprehensively combines language, image, sound and other means is welcomed by teachers and students.

3. Research design

3.1 Research questions

This study mainly explores the following questions: (1) How do students evaluate the learning effect of “VocabGo”? (2) Can the use of the “VocabGo” stimulate students’ learning motivation and improve autonomous learning in English? (3) Can the use of “VocabGo” promote the increase of students’ vocabulary and enhance their college English level?

3.2 Research objects

The research objects of this study are first-year non-English major students in a certain engineering institute. According to the students' college entrance English scores, these who have relatively higher English scores are in Class A, and others who have relatively lower scores are in Class B. For this study, non-English major students from Class B who are taught by the author and have been applying the “VocabGo” platform for one year are selected as the objects. Their textbook, New Progressive College English Integrated Course, is from the same organization with “VocabGo”, so the vocabulary parts are matching, which is more targeted for teachers and students to deal with.

3.3 Research methods

In this study, questionnaires, interviews and tests are used to collect various data. The questionnaire mainly revolves around students’ evaluation of the learning effect of the “VocabGo” platform, their satisfaction with “VocabGo”, and the changes brought about by “VocabGo”, such as whether it can improve learning autonomy, etc. The interview adopts a semi-structured form, which is a supplement to the questionnaire. Ten learners are randomly selected from these who fill out the questionnaire as interviewees.

Pre-test and post-test are applied in this study too. Before the start of the teaching experiment, students should attend the test to examine their English vocabulary level, which is the pre-test. Then at the end of the teaching experiment, students have another test in order to know whether their vocabulary level is improved after they have studied the vocabulary by using “VocabGo” for a year, which is the post-test. So the pre-test observes the students' English vocabulary level before the teaching experiment begins while the post-test mainly observes the students' vocabulary level after the teaching experiment ends[5].

Meanwhile, in order to better promote the effectiveness of the vocabulary study based on the platform “VocabGo” and to enhance students’ enthusiasm for mobile learning, Wechat learning group is established to service as a communication aid. Students who are proficient in English are selected to monitor the process. They should release the vocabulary learning tasks daily according to the teacher’s assignment, record and summarize students' learning process, and thus dynamically monitor students' vocabulary learning. Besides, some reward mechanisms are formulated to create an active learning atmosphere and motivate them to keep studying, for example, the students who have excellent performance during the vocabulary study are invited to share their good experiences in class.

4. The effectiveness of English vocabulary mobile learning

4.1 Analysis of the results of the questionnaire

4.1.1 Students’ evaluation of the effect of using “VocabGo”

In this questionnaire, the first part is about students’ general attitude towards the platform “VocabGo”. The results of this part reveal that 71% of students have a positive attitude towards the effect of using “VocabGo”, they think that learning English words by “VocabGo” is effective and their vocabulary increases, which help them have a sense of achievement. Further 72% of students give the feedback that after using “VocabGo”, their pronunciation has improved and they can also recognize the corresponding words after hearing the audio, since there is related pronunciation for each word to listen to when they study new words by the platform “VocabGo”. And 61% of the students reflect that their listening

comprehension has also significantly improved. However, a few of the students demand that there is no obvious effect, the reason for this is that there is low completion rate of vocabulary tasks in “VocabGo” for them, that is, they cannot persist in completing the daily vocabulary learning exercise on time, so their test scores are low, and the sense of learning achievement is naturally not high.

4.1.2 The analysis of students’ satisfaction with “VocabGo”

Apart from the students’ evaluation about the effect of this platform, students’ satisfaction with it is also surveyed: “Are you satisfied with “VocabGo” when you learn new words by it?” 83% of the students choose they are very satisfied or relatively satisfied. The results show that most students are aware of the importance of vocabulary in English learning, therefore, they are willing to strengthen this aspect by applying this smart learning method. When we study the new words, we should not only focus on the elements such as sound, spelling and meaning, but also grasp the usage of words in specific contexts and master their collocations and related meanings. Many students in the author’s class can have good performance in the former part, while for the latter part, they should practice more and do better. Unlike dull traditional word memorization books, a large number of useful vocabulary collocations and interesting example sentences are provided in the platform “VocabGo”, which allows students to continuously learn the new words from different and various aspects and thus to deepen their understanding about the certain words. To some degree, such continuous practice can help students grasp the usage of the words in specific contexts. Besides, “VocabGo” is different from other word memorization software, the vocabulary in this platform matches with the teaching content, teachers can plan and design students’ vocabulary learning task in different forms according to the progress of the English course in class, which makes students’ word learning more purposeful targeted. In addition, the “VocabGo” based on mobile phones makes it possible for students to learn anytime and anywhere and to make full use of the fragmented time. All these advantages of “VocabGo” increase students’ satisfaction and sense of achievement.

4.1.3 The analysis of students’ autonomous learning

Regarding the evaluation of students’ autonomous learning by using “VocabGo”, three questions are designed in this dimension, which are about the interest, motivation and independent learning ability. 65% of the students admit that “VocabGo” makes vocabulary learning more interesting. The sequence of the exercises from simple to complex allows students to continuously study and compare the usages of words in different contexts, which avoids mechanical memorization and repeated answering of questions. By this way, students can reinforce their comprehension of the new words and consolidate their learning results. So various types of exercises make students learn more interesting and vividly, which can improve students’ learning autonomy. The model of vocabulary learning in which student administrators assign learning tasks every day and discuss questions in Wechat group and the teachers check those tasks and make further explanations for the difficult parts is highly approved by the students. 76% of students reflect that timely feedback is really helpful and encourages them to keep studying. The active and competitive learning atmosphere in the class where everyone is chasing after each other stimulates their autonomy and enthusiasm for learning. Moreover, the establishment of Wechat group provides an ideal interactive platform for students and also stimulates their participation.

4.2 The analysis of interview results

The interview is a supplement to the questionnaire. Ten students are randomly selected from the learners who filled out the questionnaire as interviewees. During the interview, most of the interviewees mentioned that compared with traditional paper vocabulary books, it is convenient for them to learn and recite vocabulary by “VocabGo” anytime and anywhere due to the portability of smart phones. Besides, they also mention the effectiveness of the Wechat study group, they can discuss their questions and exchange their opinions in the virtual group with their peers during the learning process, which improves the efficiency of learning. Secondly, they also mentioned that compared with other word memorization software in the market, such as Shells, Word Cuts, etc., the vocabulary in “VocabGo” platform matches the words in the students’ textbooks and can be combined with the process of teaching materials and specific context, which can help students gain the sense of achievement. By this way, it is also more conducive to the internalization of learners’ learning. As is mentioned in the interview, teachers’ guidance and supervision are significant for the students to improve their learning autonomy, they said, the teacher checked their vocabulary task every week by quiz and ranked the result, which plays an important role in promoting their vocabulary learning and helps cultivate their autonomous learning ability. For example, a student said in the interview: “Sometimes I want to be lazy and don’t want to complete the assigned vocabulary learning task, but considering that the teacher will conduct tests and rank them, I dare not

slack off. Over time, I form the habit of learning words every day.”

4.3 Analysis of two tests

4.3.1 The process of the vocabulary tests

First, at the beginning of the semester, the students will attend a vocabulary test in the platform of “VocabGo”, requiring students to independently complete 50 vocabulary test questions within 30 minutes. Each question is worth two points, and the total score is 100 points. After students complete the test, the test results will be reviewed and scored automatically in the online platform. Pre-test data will be generated from the test results to comprehend the current situation of students' vocabulary learning. During the experiment, the basic vocabulary teaching model is as follows: before class, the daily vocabulary learning tasks with the content that is mainly from the textbooks and CET-4 vocabulary are assigned based on the platform of “VocabGo” to check whether the students have grasped the weekly learning content. For the students who do not meet the required scores, they are asked to re-learn this week's content and re-test them. After a semester's training and learning under this kind of model, another vocabulary test is conducted to evaluate the situation of students' vocabulary. Just as the pre-test, students are required to finish the test with 50 questions in 30 minutes based on the platform of “VocabGo”. After the test, the results will still automatically be reviewed and scored, which will generate the post-test data.

4.3.2 The results of vocabulary test

In this study, based on the “VocabGo” learning platform, 106 non-English major students learn vocabulary under the teacher's supervision for a semester, and vocabulary pre-test and post-test are conducted respectively. The specific data is shown in the table below.

Table 1: The comparison of pre-test and post-test

score	0-59	60-69	70-79	80-89	90-100
pre-test	15%	36%	32%	12%	5%
post-test	3%	16%	21%	35%	22%

It can be seen from the table that in the pre-test, 15% of the students did not meet the standard (score:60), which indicates that some of the students do not have good vocabulary study. That is because these students from Class B have relatively low level of English and also the vocabulary part is difficult for them. Most of the students' vocabulary level is in the medium, with scores ranging from 60 to 79. This group of students accounts for about 68%. Students with a good level of vocabulary, whose score above 80, account for 12% while excellent students are even fewer, only 5%. Therefore, it can be seen from the table that the overall vocabulary level of students in the pre-test is not high.

Based on “VocabGo”, after training and learning for a semester, the post-test is conducted. According to the table, the number of students whose vocabulary did not meet the standard in the post-test vocabulary is greatly reduced, from 15% in the pre-test to 3% in the post-test. The overall vocabulary level of most students has been greatly improved, 24% of the students scored between 70 and 79, an increase of 8% compared with that in the pre-test; meanwhile, 35% of the students scored above 80, with an increase of 23%. And the number of students who scored above 90 in the post-test also increased by 17%, from 5% to 22%. In the post-test, students' scores generally improved significantly, and most students' vocabulary has reached at average level or even higher, which reveals that most students have great improvement in vocabulary study and also confirms the effectiveness of mobile learning of college English vocabulary based on “VocabGo”.

5. Conclusion and suggestions

Mobile learning is an inevitable trend in the development of human society and a significant product to meet the diverse and personalized learning needs of human beings.

Mobile English vocabulary learning can be a supplement to classroom learning and has a great positive impact on the effective study of vocabulary. Compared with traditional paper-based word memorization materials, this kind of word memorization software can not only make memorizing words no longer boring, but also better help students arrange their learning plans, evaluate learning results, and broaden students' learning experiences, which can help stimulate learners' learning initiative and autonomy in learning and ensure the effectiveness of mobile vocabulary learning. We believe that with the development of mobile terminal device technology and the improvement of mobile-assisted

vocabulary learning, mobile learning will become an important and effective way to assist English learning and English teaching.

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