

Research on Multidimensional Teaching Practice of EFL Students' English Vocabulary From the Perspective of Educational Information Technology

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ABSTRACT

In the traditional teaching process, teachers guide students to learn vocabulary in English classroom. With the development of modern science and technology, the informatization of English learning has become an irresistible trend. By integrating more digital teaching resources into traditional education and teaching and forming a new teaching scheme with the deep integration of English classroom and information technology, students can feel the interest, diversity and practicability of English vocabulary from multiple angles. Starting with vocabulary teaching, this paper introduces some problems in current English teaching and the direction to deal with them. This paper expounds the importance of vocabulary learning to English learning and teaching from three aspects: comprehensive language ability, academic achievement and learning approaches. This paper discusses the practical value of the combination of educational technology and classroom education, and demonstrates that the integration of educational technology is the direction of English classroom development from three aspects: classroom effect, learning materials and student supervision. Making good use of information technology is conducive to English teaching.

Keywords: TESOL, EFL, education technology, multidimensional teaching, vocabulary

1. INTRODUCTION

English vocabulary is an important part of English teaching, which is of great significance to improve students' Comprehensive English ability. Vocabulary learning runs through the whole process of English learning. Teachers should explore effective vocabulary learning methods to improve teaching. In English teaching, it is an important task for teachers to let students understand the importance of vocabulary learning, guide students to learn and memorize English vocabulary more effectively, and cultivate students' good vocabulary learning attitude. The development of modern educational technology not only promotes the improvement of educational methods and means, but also develops educational ideas and educational models. It can stimulate students' interest in learning, render the teaching atmosphere and create specific teaching situations. More importantly, it can effectively break through the teaching difficulties and achieve twice the result with half the effort. In order to make students have a strong interest in English, the use of modern educational technology is the best choice. It combines

vision and hearing to make students feel the continuous influence of language and audio-visual. In addition, educational technology adopts multi-dimensional, multi angle and high-density display mode to integrate sound, light and electricity, and fully mobilize students' multiple sensory participation, which is conducive to enhancing the sense of reality, mobilizing non intellectual factors and eliminating learning tension and anxiety. It can leave a deep impression on students and improve their learning efficiency. In the actual classroom teaching, there is a fast-paced and large-capacity classroom teaching. Teachers integrate computers as a teaching aid method, and students will be more interested. Mobilize students' enthusiasm and initiative in learning, speed up the pace of learning and improvement, and improve the ability to master classroom knowledge. This paper examines the problems existing in English vocabulary teaching and their importance, and explores the necessity of applying educational information technology to realize multi-dimensional teaching environment.

2. COMMON PROBLEMS IN VOCABULARY TEACHING

In China, high school graduates need to master about 3,500 words. However, the phenomenon of forgetting is common. The repetition rate of vocabulary in textbooks is too low, so it is challenging for students to form vocabulary accumulation, which affects listening, speaking, reading and writing skills. This problem is inseparable from how teachers implement vocabulary teaching.

2.1. Lack Of Study Guide For Students' Vocabulary Learning

In the process of vocabulary learning, some students memorize words according to new vocabulary lists and notes. These students only pay attention to memorizing the Chinese meaning of words but ignore the use of vocabulary in specific language environments, which causes them only learn sounds, shapes, and surface meanings. Therefore, these students cannot develop correct and appropriate listening, speaking, reading, and writing communication activities, which is common among students with English learning difficulties. In response to this situation, if teachers do not give timely guidance to students, students' English performance will become more polarized. Teachers can create situations from different angles to integrate old and new vocabulary so that students can gradually deepen their understanding of new vocabulary based on stable old vocabulary, allowing students to remember vocabulary in connection and differences.

2.2. Extensive Out-of-Context Vocabulary Teaching

English words are vibrant. There are many homophones and a large number of idioms. In addition, the phenomenon of polysemy and polymorphs in English is very prominent. At the same time, due to different historical backgrounds, living habits, local customs, and thinking conditions, including word pronunciation, meaning, form construction, and collocation usage, vocabularies have strong national characteristics. If vocabulary teaching is developed out of context, even if students memorize the form and meaning, it is not easy to apply them to actual communication activities. Combining vocabulary with context can not only help students stabilize vocabulary, but also improve students' interest in vocabulary learning. However, in the current vocabulary teaching, students rarely have the opportunity to use the vocabulary they have learned but simply progress in Chinese-to-English or English-to-Chinese translation, and there is no real communication. Vocabulary teaching basically stays at the two levels of memory and comprehension. The low-efficiency level of teaching words in isolation and memorizing their

meanings will not lead to effective vocabulary teaching and vocabulary accumulation.

2.3. Insufficient Attention Is Paid To Pronunciation Teaching

English words are alphabetic writing, and their pronunciation and spelling are closely related. Therefore, pronunciation can also help students to spell words correctly. Faced with the fact that not all students can read every phonetic symbol correctly, teachers need to pay attention to the teaching of pronunciation, correct the wrong pronunciation among the students, and help the students to read each new word correctly. Quite a few students often fail to grasp the correct position of word stress when reading multi-syllable words. Teachers must teach such students the relationship between spelling and pronunciation of English words to help them remember scientifically and improve their memory effect.

3. IMPORTANCE OF VOCABULARY LEARNING UNDER EFL BACKGROUND

3.1. Vocabulary Plays An Important Role In Both Receptive And Productive Language Skills

Vocabulary is a fundamental language component because it is the basis of all languages. It is the raw building blocks that people use to express thoughts and ideas, share information, understand others, and grow personal relationships. With the deepening of cultural exchanges between China and the West, vocabulary teaching has been paid more and more attention. As the linguist David A. Wilkins said, "without grammar, very little can be conveyed; without vocabulary nothing can be conveyed." The importance of vocabulary is implied. Therefore, learning vocabulary is usually the first step in learning English, and it helps develop other language skills. Paul Nation noted that "vocabulary is not an end in itself. A rich vocabulary makes the skills of listening, speaking, reading, and writing easier to perform." [1] The link between vocabulary size and second language proficiency has been extensively studied over the years. Receptive languages skills such as listening and reading skills are very dependent on vocabulary, especially when it comes to comprehension. Suppose someone is reading an article but cannot understand most words. This person might look every word up and use up all the energy for thinking. According to Manihuruk's research, "vocabulary knowledge of the students positively and moderately correlated with their reading comprehension skills. Thus, vocabulary enrichment is necessary to improve their reading comprehension performance." [2] This research shows that vocabulary can directly impact the quality of reading. Similar evidence can be found for listening skills. Stæhr's study provided empirical

evidence of a strong association between L2 learners' vocabulary knowledge and listening comprehension. The findings suggest that vocabulary is a major factor in successful listening comprehension. Furthermore, the results show that the depth of lexical knowledge contributes little to the success of listening comprehension compared to vocabulary size, implying that vocabulary size is an essential component of lexical knowledge in listening comprehension [3]. Again, when it comes to the impact of vocabulary on productive language skills, there is a wealth of linguistic research supporting this view. In Koizumi and In'nami's study, results showed that speaking proficiency could be effectively predicted by vocabulary knowledge [4]. Also, Laufer and Nation show in their study that "reasonably, learners' vocabulary size as measured by a vocabulary test to be reflected in the learners' productive use of the language." [5] The examples above conclude that the breadth and depth of vocabulary could positively impact four language skills.

3.2. Rich vocabulary Is linked to Greater Academic Performance

Many Chinese EFL primary students study English because they want to gain better grades at schoolwork, excel at higher level study, and get accepted into better junior high schools. A rich vocabulary can be helpful. Multiple studies have shown that vocabulary knowledge is closely related to most measures of English proficiency and academic achievement, and insufficient vocabulary knowledge can impact a student's academic success. Milton and Treffers-Daller have shown that general vocabulary knowledge is a good predictor of academic achievement [6]. Townsend et al. proved the positive impact of academic vocabulary knowledge on academic performance [7]. On top of these two studies, Masrai and Milton's study illustrated that "academic and general vocabulary knowledge combined can explain about 56% of the variance in students' GPAs". [8] Thus, the findings suggest that, in addition to L1 and L2 vocabulary size, academic vocabulary knowledge is an important factor explaining other differences in learners' academic achievement. Conducting research with multiple primary EFL students from various backgrounds, Saville-Troike concluded that "knowledge of English vocabulary is the most important aspect of oral English proficiency for academic achievement." [9] Vocabulary, therefore, taught in ESL should be as closely related as possible to the learning needs of students in the subject curriculum. Adequate vocabulary mastery leads to better overall English performance, both productive and receptive, which further improves academic comprehension and productivity, and ultimately enhances academic achievement. Students' vocabulary indicates their level of knowledge and willingness to learn. The more terminologies and expressions students master, the easier it is to learn in

their field. Bleses et al. also show that vocabulary mastery can predict the long-term impact on academic achievement. [10] The main finding of this study is that academic outcomes are related to an early measure of language development in school. What is more, it is noteworthy that this idea applies to both native and second language students, which is why many encourage children to read widely in their native language - the wider their vocabulary, the more information the students have access to, the better their chances of performing well academically.

3.3. The Open-Endedness And Lack Of Rules Of Vocabulary Systems Lead To Ongoing Learning Under EFL Background

Research has shown that one of the most critical challenges that learners will face during their English learning is learning vocabulary knowledge. Lack of this knowledge is a major hurdle for L2 readers to overcome. As stated by Nation, "when language learners travel, they do not carry grammar books, but dictionaries." [11] Unlike other properties of language, such as grammar and morphology, vocabulary is featured with its open-endedness and absence of rules or specific sequences to follow. Open-endedness is a natural property of English vocabulary, which means an unlimited count of words in the vocabulary system. Although generally knowing 4,000 to 10,000 words makes people advanced language users, language learners, even native speakers, still learn new words throughout their learning span. On top of that, languages are constantly changing and developing due to language borrowing from each other and technological advancement. EFL learners need to keep up the pace. Another feature is that the vocabulary system lacks rules or specific sequences. According to Alqahtani, there is no clear evidence showing which words should be learned first and what kind of rules should be followed for language learners. [12] For example, there is no evidence showing which categories of words could be learned most effectively for English foreign learners. It mainly depends on the preference of the language teacher or personal factors. For primary EFL students, these two features, along with other characteristics of vocabulary, can be overwhelming and place considerable stress on them. It is not news that Chinese students have struggled with memorizing and using English vocabulary. That is why teachers need to raise awareness of the importance of vocabulary learning to attract more research on the topic of vocabulary learning strategies.

4. A NEW BACKGROUND OF INFORMATION TECHNOLOGY FOR TEACHING PRACTICE IN THE CONTEXT OF EFL

4.1. Technology Can Enhance Motivation And Engagement In Language Classrooms

Classroom technology is undoubtedly becoming more innovative, and the digital age is changing the way students learn over time. Incorporating technology into EFL classrooms can give students an educational advantage. The presence of multimedia devices is also increasingly common in EFL classrooms. From young learners to adults, most EFL students have digital devices outside of the school. The technology they use every day, from smartphones and tablets to e-readers and gaming devices, can be used to help them absorb English concepts. According to Gilakjani, multimedia refers to any computer-mediated software or interactive application that integrates text, colours, graphic images, animation, audio sound and full-motion video into a single application. [13] The manifestations of multimedia technology in EFL classrooms generally include pictures, videos, slides, etc. Most studies show that the moderate application of technology can bring good feedback in classroom teaching; one of the advantages is that it can improve engagement and motivation in language teaching classrooms. According to a May 2013 poll of teachers across the US by Harris Interactive, 96% of teachers think educational technology increases student engagement in learning. Also, Teng and Wang researched the effect of educational technology on student engagement in Chinese EFL courses. Their research focused on two representative applications, Xuexitong and WeChat, to compare students' performances and draw on limitations. Their findings provide preliminary support that utilizing educational technology positively influences student engagement. [14] These examples are clear evidence that more and more EFL classes accept multidimensional reaching and view it as beneficial. There are numerous ways teachers can utilize multimedia to engage students. For instance, Kahoot!, a quiz application used frequently in language classes, is popular among students and teachers. Kahoot! was released in 2013 and thus is a relatively new software application. Iarenenko described its ease of use (even for novice players), its gamification effects, and the fun gameplay environment. [15] In Reynold's study on the impact of Kahoot! on students' vocabulary learning, instructors from the research especially emphasized the engagement effect on students. Most instructors have noticed that "students were having fun and participating" while using Kahoot!. [16] Therefore, it can be concluded that technology assisted EFL classrooms have become a trend, and most students preferable of this evolvement in pedagogy.

4.2. Technology Can Boost Multisensory Delivery And Authenticity

Compared with traditional classroom teaching methods, multimedia, with its advantages of convenience and efficiency, can bring multi-dimensional and multi-sensory feelings to classroom teaching, thereby improving students' learning experience and increasing the authenticity of teaching materials. According to cognitive psychology, learners can receive information through five senses, 83% of information is obtained visually, and 11% is obtained auditorily. Traditional teaching methods often only take care of the absorption of one or two senses and often take care of one or the other. One of the benefits of multimedia teaching is to increase and expand the channels for students to absorb information as much as possible so that learning can achieve the most effective results. For example, incorporating video into the classroom can allow students to receive both auditory and visual information simultaneously. According to Mayer's 12 Principles of Multimedia, people learn better from words and pictures than from words alone. In word learning, if students can associate the meaning of words with pictures, they can enhance memorization. Therefore, multimedia can leverage the integration of text, sound, animation, graphics, and images to present learning content in a multi-dimensional manner, thereby maintaining learner engagement. Another benefit of applying information technology is that it can enhance the authenticity of teaching materials. Various English teaching videos can provide EFL teachers with teaching ideas on today's online platforms. Language learning itself is a very cultural learning process. While learning a language, students also need to understand the culture behind the language. Information technology can make learning no longer limited to small classrooms. Pictures and video materials from around the world can allow students to go out of the classroom and experience the collision of language and culture more intuitively, thereby generating a stronger desire to learn. Educational content creators around the world can provide students with authentic learning materials and display different new learning techniques. For example, some students want to understand the differences in English accents in other regions. EFL teachers are often not proficient in all accents, but they can demonstrate through videos online. Videos can familiarize students with different sets of vocabulary through their authentic content. This multi-dimensional learning method allows students to have a wider learning channel instead of a single source of information.

4.3. Technology Adds Ease In Managing And Monitoring Student Progress

With the advent of the era of online classes, more and more EFL classes have also turned online. Although

online courses have become a trend, one big difference from offline courses is the supervision and management of students. Across the screen, the teacher's control over the classroom and the grasp of the students' learning progress seem to be limited. Fortunately, educational technology is also developing with the popularity of online courses. Software can help teachers better manage classrooms and even supervise online exams so that online classes can restore the look and feel and interactive quality of offline courses as much as possible. Quality mobile learning platforms have emerged at home and abroad, such as Xuexitong. They provide services to make it easier for students to hand in homework, clock in, watch online class replays, etc. They also provide teachers with ideas for lesson preparation, easy correction of homework, etc. Other software that focuses on class platforms, such as zoom, etc., also opens applications such as break-out room, which is especially important for language classes. This feature allows students to have group discussions, practice oral English, and not simply listen to the teacher speak. In general, the development of educational technology has played a critical complementary role in online classes, making up for some of the inherent disadvantages of online classes. Information technology can also play a role in student supervision in offline courses. For example, professors often use online class polls to record attendance in classes of hundreds of people at a university. Some online quizzes between classroom activities can keep students engaged and allow teachers to keep track of students' mastery.

5. CONCLUSION

With the development of multimedia computer technology, multimedia technology has widely entered the field of education, and increasingly shows its advantages in teaching. The scientific use of modern equipment to carry out English electronic teaching can make the language, characters and environment more closely combined, make language learning and language use closely combined, and better carry out teaching activities. This paper mainly expounds the importance of educational technology in English vocabulary teaching and the advantages of diversified teaching. At present, there are some common problems in the field of English learning, such as the lack of necessary guidance for students' vocabulary learning, vocabulary teaching out of context, insufficient attention to pronunciation teaching and so on. To some extent, these problems affect students' ability to master English vocabulary and interest in learning English.

This paper discusses the importance of vocabulary learning to English learning, which is mainly reflected in the impact on learners' overall English language ability, the embodiment of academic ability and the help to continuous learning. It emphasizes how educational

technology can constructively help solve some current educational challenges. With the wide application of multimedia technology in teaching, teaching reform has entered a new historical stage. Only by constantly exploring and striving for more scientific and effective education and teaching methods in the reform of senior high school English teaching can teachers reach a higher level.

It is really necessary to use multimedia in English classroom. However, teachers can not rely too much on multimedia lectures, nor can they become the "puppet" of multimedia. As classroom leaders, teachers should properly control the use of multimedia. For example, in the process of oral teaching, if teachers only use multimedia to show students, students will not be able to exercise their oral ability well. In oral practice, multimedia can not replace the communication between people. When using multimedia, teachers must pay more attention to the practical communication with students. In the actual process of education and teaching, teachers apply more advanced teaching assistance methods to teaching. At the same time, no matter how the times change, teachers are always the leading force of teaching. In order to use educational technology more accurately, English teachers must constantly improve their teaching methods in order to better use it for each student.

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