

English vocabulary teaching based on multimedia technology

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Abstract

With the rapid development of internet technology, there is a deep connection between social fields and information network. Under such background, this paper will focus on exploring various problems of traditional English vocabulary teaching in current network environment, analyzing these problems with target, summarizing the innovation and reform of English vocabulary teaching mode in network environment, theoretically analyzing the ways of innovation and reform, analyzing and summarizing the realistic conditions. Through the research, the paper found that the English vocabulary teaching based on multimedia technology can better stimulate students to learn English vocabulary, with better teaching result than traditional English vocabulary teaching.

Keywords: multimedia technology, English vocabulary teaching mode, reform and innovation, exploration

1 Introduction

Take English vocabulary teaching assisted by multimedia technology as an example: English vocabulary teaching assisted by multimedia technology has fundamentally improved the basic form of traditional English vocabulary from forms and means multimedia technology teaching means with aid of projection technology of computer science & technology [1, 2]. Abundant data repository of internet technology, turning dull contents of textbooks into colorful pictures or flash short videos, can efficiently improve the fun in English vocabulary teaching, and entrust a whole new meaning to English vocabulary teaching mode from multiple levels such as teaching concept [3, 4], teaching process, teaching method, and teacher-student relationship, etc.

By using multimedia technology, the teaching atmosphere of English class will be more close to students, and learning & discussing environment with interaction between students and teachers can be created with the assistance of intuitive expression of multimedia technology. The flash short movie of multimedia technology can stimulate the students' English knowledge from various angles such as sound [5], and vision, etc. The knowledge content of English class can also be enriched by large files in internet database (e.g. add content hyperlink in English courseware PPT to directly inquire relevant pages in internet database, etc). In such a context, this paper will research on English vocabulary teaching based on multimedia technology from teaching perspective, and conduct the research with relevant Equation.

Firstly, analyzing teaching effect of English vocabulary teaching based on multimedia technology by F verification & analysis Equation:

$$F = \frac{n_1^2 n_2^2 \Gamma\left(\frac{n_1 + n_2}{2}\right) x^{\frac{n_1}{2}-1}}{\Gamma\left(\frac{n_1}{2}\right) \Gamma\left(\frac{n_2}{2}\right) (n_1 x + n_2)^{\frac{n_1 + n_2}{2}}} \quad (1)$$

Secondly, verify the reliability of English vocabulary teaching based on multimedia technology by t verification Equation:

$$t = \frac{|\bar{d} - \mu_d|}{s_d} = \frac{\bar{d}}{s_d / \sqrt{n}}, v = n - 1 \quad (2)$$

2 Basis of carrying out reform and innovation of English teaching mode based on multimedia technology

2.1 THEORETICAL BASIS

In the 1980s, the international scientific educational reform based on cognitive learning theory began to rise in education. The core concept of the international scientific education reform is constructivism learning which thinks that there is a direct relationship among students' thinking ability, innovation ability, cognitive ability, leading method and their learning process during their process or cognitive learning. Constructivism learning theory most emphasizes the importance of learning subject, and emphasizes that the learning subject is the constructor of recognition.

In order to efficiently improve students' English learning effect, English teachers should fully realize that their own teaching task is to guide students learning English; during the English vocabulary teaching [6-8], take advantages of their own English vocabulary teaching experience and understanding of students' English leaning psychology and give students sufficient instruction during students' English learning; fully emphasize requirements for students' English learning initiative, English leaning

context during teaching process, and fully emphasize that students should develop their own English learning concept during the teaching process; focus on cultivation of students' English learning concept instead of mechanical memory and recitation taken by traditional English vocabulary teaching mode; and design the teaching system according to the frame showed in Figure 1.

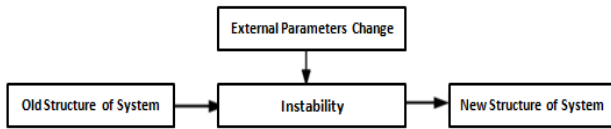


FIGURE 1 Frame diagram of English vocabulary teaching system design

Under such background, to promote the improvement of students' English learning efficiency in network environment, teachers should fully take advantage of internet technology to stimulate students' English learning initiative, to help students to form active English learning objective, and to keep exploring education and teaching methods.

2.2 REALISTIC CONDITION

The realistic condition for implementing reform and innovation of English vocabulary teaching mode in network environment is an organic combination between characteristics of English vocabulary teaching and characteristics of internet mode.

Firstly, the foundation for realizing reform and innovation of English vocabulary teaching mode in network environment is build on English vocabulary teaching mode with combination of internet technology. With the development of internet technology, multimedia technology and computer technology are being perfected. Multimedia teaching means based on internet technology and computer technology gradually becomes one of main trends of current education development. The so called multimedia teaching method is the means that use internet technology and computer technology to realize high-speed transmission and share of English materials, and to efficiently realize the teaching objective of English vocabulary teaching; its effect can be tested by the relevant Equation:

$$\alpha_1 = 1.86 \left(\frac{\lambda}{d_i}\right) \text{Re}^{\frac{1}{3}} \text{Pr}^{\frac{1}{3}} \left(\frac{d_i}{L}\right) \left(\frac{\mu}{\mu_w}\right)^{0.4} \tag{3}$$

Secondly, the subject of English is a subject with higher practicality and broader range of knowledge during its teaching. During the process of students English learning, it can help students fully understand the culture that behind the language. It is a subject integrated full of philosophy and life experience, which determines that students need abundant reading and accumulation of English knowledge. To such as situation, during English vocabulary teaching, combine computer technology and internet technology can sufficiently take advantage of abundant internet resources and give full play to advantages of subject of English [9], so as to make the whole process of English learning no longer dull, and give full play to students' enthusiasm and initiative of English learning. Such as students' desire for English

vocabulary teaching based on multimedia showed in Figure 2.

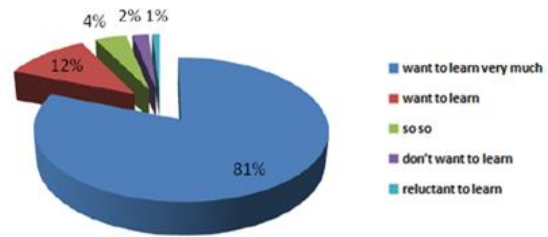


FIGURE 2 Students' desire for English vocabulary teaching based on multimedia

For example, in 2007, the ministry of education puts forward new demand for fully using information technique means according to need of English vocabulary teaching in network environment. Under such background, it has become main trend of development.

3 Content of carrying out reform and innovation of English teaching mode based on multimedia technology

Firstly, by using internet technology and computer technology in English vocabulary teaching can greatly improve the teaching method "teacher-centered" of traditional English vocabulary teaching mode, and identify students' own status during the English learning. To be more specific, the main role of English teachers required by English vocabulary teaching mode in network background is "guiding role" rather than "professor role". English teachers are required willing to be guider in students' English learning, and serve the process of students' English learning during the teaching process. In the process of students' English learning, teachers should fully summarize basic characteristics of English learning of each student, and establish the teaching mode in accordance with students' actual characteristics, to help students actively acquire new knowledge, forming new English learning skill and forming their own conscious English learning attitude with the help of teachings' guidance. In the same time, English vocabulary teaching in network environment can also entrust more teaching creativity to English teachers. During their English vocabulary teaching, teachers can add their own teaching ideas and concepts into courseware PPT according to their understanding of teaching content [10, 11]. Due to the high compatibility of internet knowledge and abundant knowledge content, there's a huge space for English teachers to create and meet students' actual need for English learning by fully combining key teaching points of teaching materials, and to test it by Equation: by A verification Equation:

$$a_2' = b^s \sqrt{\frac{\gamma}{\Sigma d_0 \cdot q}} \tag{4}$$

Finally, English teachers can improve students' enthusiasm of autonomous learning by internet technology and computer technology. To be more specific, limited by traditional English vocabulary teaching mode, many students' enthusiasm and creativity of English learning has

been somewhat restricted; their personality is difficult to get played in the learning process, and their desire to create is also hard to be satisfied. To use internet technology can sufficiently release students from the limitation of traditional English vocabulary teaching mode, and students can conduct autonomous learning according to requirements of multimedia courseware. It efficiently solved the problem of "one size fits all" in traditional English vocabulary teaching mode. Meanwhile, by using internet technology, communication between students and teachers can be more convenient, which can help students to understand their own deficiency in their learning and adjust their learning method in time during their English learning; so as to truly realize the requirement of personalized English learning. In addition, the massive English learning resources and data on internet can also provide more convenience to students for their English learning. Under such background, it has profound significance for English vocabulary teaching with internet technology to greatly improve students' comprehensive quality and creative thinking, and it can be tested by Equation: test it by Equation: by A verification Equation:

$$\alpha_2 = \frac{\alpha_2'}{1 + 0.4y^{0.8}} \quad (5)$$

4 Conclusion

Above all, reform and innovation of English vocabulary teaching mode based on multimedia technology is a great revolution in traditional English vocabulary teaching mode from teaching ideas, teaching method, teaching means with the guidance of modern education concept. By using internet technology and computer technology, this new English vocabulary teaching mode can change positions between English teachers and students, closing the relationship between them so as to make students truly become the main part of English class, to efficiently improve students' English learning efficiency, and to greatly improve students' comprehensive ability and innovation ability.

To such situation, in network environment, innovative reform of English vocabulary teaching mode that fully integrated with internet technology and computer technology is worthy to be implemented in colleges and universities, and to offer more help for English vocabulary teaching.

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