Research on New Approaches to the Reform of English Teaching Depend on Multimedia Technology

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Abstract. With the development of science and technology, big data technology has fully popularized the management of major enterprises, and big data technology has played a major role in the development of major companies. This article mainly analyzes and summarizes the characteristics of college English teaching in the context of big data, and it also explains the operating facilities of the new teaching model.

Keywords: College English teaching reform, Multimedia Network, New Teaching Model

1. Introduction

With the advent of the 21st century, computer and network technologies have developed rapidly. The multimedia network teaching design is a major innovation in the concept of college English teaching. Multimedia network teaching has brought revolutionary changes to college English teaching. It puts foreign language teaching in a real language environment. This not only mobilize students' interest in learning, but also optimize the teaching effect, thereby improving the quality of teaching [1].

2. The theoretical basis for the introduction of multimedia teaching mode in college English teaching

2.1. Piaget's constructivist learning theory

The content of constructivism theory is very rich, but its core can be summarized in one sentence: student-centered, emphasizing students' active exploration of knowledge, active discovery and active construction of the meaning of the knowledge learned. The latest contemporary information technology achievements provide strong support for the learning environment required by constructivism. Multimedia network teaching is guided by the theory of constructivism, using multimedia and network
communication technology to construct a learning environment, creating a student-oriented teaching model [2].

2.2. Dell's "tower of experience" learning theory

As shown in Figure 1, Dell's "Tower of Experience" divides the various experiences of people's knowledge and ability into three categories and ten levels. Human experience (information acquisition) is divided from low to high: doing experience, observing experience, and abstract experience. The so-called high or low refers to the degree of accumulation of information or experience that people obtain, that is to say, people first learn from doing it. With the accumulation of experience, they can obtain a certain degree through observation and seeing things or things. Experience, even if you do not personally participate, can also form memories in the brain.

![Dell's "Tower of Experience"](image_url)

**Figure 1.** Dell's "Tower of Experience"

In the network environment, we might as well replace the tenth layer with a multimedia network. With the popularization of computers and the development of the Internet, multimedia computers have entered the laboratories and homes of universities and colleges, which has facilitated students to obtain information more conveniently and quickly [3].

3. The significance of introducing multimedia teaching mode into college English teaching

In our country, college English teaching has been influenced by behaviorist theories for many years, especially due to the limitation of hardware conditions. We have always adopted a teacher-oriented teaching model in our teaching mode. In this mode, teachers are accustomed to speaking carefully, carefully and thoroughly. Students are busy copying notes in class and busy memorizing notes after class. There is very little communication between teachers and students, which will directly affect the teaching efficiency of teachers [4].
We need to use multimedia technology to construct a learning environment, which has the following two major advantages. ① Large amount of information, fast transmission, and high efficiency. Teachers use multimedia courseware in class to make language teaching richer and more specific and vivid. Multimedia teaching information resources are rich, saving valuable classroom time, and obtaining the largest amount of information in the shortest unit time, thereby greatly improving teaching efficiency. ② Strong enlightenment and good teaching effect. Teaching courseware produced by multimedia technology can enhance the intuitiveness and vividness of teaching. It can provide realistic communication situations. When various sensory organs are mobilized at the same time, it is conducive to the construction of knowledge and the exercise of learners' multiple skills, thereby mobilizing students' potential thinking ability to the greatest extent; subtly training students' practical ability to learn foreign languages and use foreign languages to achieve true The purpose of quality education, in turn, stimulates students' interest in learning and thirst for knowledge. In this way, a good teaching effect can be obtained [5].

4. Features of the new teaching model

The new multimedia network teaching model is not only to adapt to the requirements of the situation and relieve the pressure of teacher tension caused by the expansion of enrollment, but also to have some significant features that are superior to the traditional teaching model.

1) Multimedia teaching makes full use of the human visual and auditory potential, integrating graphics, text, sound and images, and the form is lively and novel. Can mobilize students' multiple senses, stimulate students' learning motivation and interest, and improve students' ability to acquire English knowledge.

2) The multimedia network teaching model promotes the cultivation of listening and speaking ability. Because listening and speaking ability is the weakest link in students' current English learning, "Course Requirements" regards improving English listening and speaking ability as the primary task of college English teaching. Training density is directly proportional to listening and speaking ability. Good listening and speaking are inseparable from a lot of practice. In traditional classrooms, due to the limitation of class size and teaching time, this kind of skill training is insufficient, and teaching software can replace this part of the teacher's work, and students can carry out unlimited training according to their own needs. At the same time, students can directly order English movies, satellite TV English programs and English teaching reference films on the Internet, which provides students with a more authentic language environment and helps improve their language communication skills [6].

3) The new teaching model has created conditions for changing the traditional teaching model that is teacher-centered and purely imparting language knowledge, and implements a new student-centered teaching method. Students can walk out of the classroom under the guidance of the teacher around a theme in the textbook, use the Internet to check materials, read documents, make surveys, write reports, and then return to the classroom to make statements and engage in discussions. This kind of activity organically combines listening, speaking, reading and writing, so that the language knowledge learned by the students is applied, and it is truly a combination of communicative activities and language learning.

5. Operation and implementation of the new teaching model
The operation and implementation of the new model are mainly based on the "teaching model composition diagram" in the "Curriculum Requirements" (see Figure 2). According to the composition diagram of this teaching model, the implementation of the new model can be carried out in the following four "combined" ways: the combination of large class teaching and small class exercise; the combination of classroom teaching and open independent learning; the combination of CD-ROM multimedia and network teaching; The first classroom teaching is combined with the second classroom activities [7].

![Teaching mode composition diagram](image)

**Figure 2.** Teaching mode composition

These four "combinations" lead to the general flow of the new mode of teaching operation, which are described below.

Large class classroom face-to-face teaching: mainly input, the main teacher uses multimedia projection to teach, lead in, explain the key and difficult points, and teach learning strategies.

Stand-alone self-study: in the computer room, students use teaching CD-ROMs, network teaching software, courseware, etc., self-study under the guidance of the teacher, the teacher controls the learning progress and is responsible for answering questions.

Interpersonal communication in small classes: focus on output. In the classroom, students are mainly trained in listening and speaking skills and practical communication skills under the direct guidance of teachers [8].

Self-study on the Internet: Students find time for self-study on the computer self-learning center, dormitory Internet or campus network network users, manage the implementation of network registration methods, and use computers to detect students’ learning time and effects.

Unit test: The teacher checks the students’ mastery of the unit’s knowledge through unit oral and written tests.
6. Evaluation system under the new teaching model

Now, the teaching evaluation system is no longer a single summative evaluation in the past, but a combination of summative evaluation and formative evaluation. In layman's terms, students' semester scores include, in addition to the traditional final one-off test scores (summative assessment), they also include the usual learning process scores (formational assessment). It can be said that the teaching evaluation system under the new model pays more attention to the evaluation of the student's learning process-formative evaluation, the ratio can be as high as 40%, and the content is generally records of students' participation in various teaching activities and unit test results. The records of students participating in various teaching activities include class attendance, text preview, oral classroom performance, participation in online discussions, homework submission, online self-study content and time, etc., generally accounting for 20%. Unit test scores include oral test scores, written test scores, and online test scores at the end of the unit, accounting for 20%. The summative assessment—the weight of the final exam has dropped from the original 100% to 60%, and in addition to the traditional written test, the oral test is added, and the oral score can reach 10%-20% [9,10].

7. Conclusion

Multimedia teaching has changed the traditional teaching ideas, methods and means. This greatly enriches the teaching content and improves teaching efficiency. We must combine the characteristics of multimedia with the unique personality of educators, so as to create an ideal human-computer education atmosphere.

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