Exploration on the Use of Modern Information Technology in College English Teaching

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Abstract: Psychological research results show that multiple sensory stimuli can obtain much more information than single sensory stimuli (visual or auditory). The brain will process the information acquired from multiple senses in a deeper level to improve the efficiency of memory and learning. In professional English classroom teaching, multi-sensory stimuli realized by multimedia can interact with or simultaneously act on students' visual and auditory organs, so that students' ears, eyes, mouth, hands and brain can be used together, which can greatly attract students' learning attention and improve learning effect. In such a teaching environment, not only students learn fast and remember well, but also teachers teach easily and efficiently.

1. Human-Computer Interaction Enhances Students' Understanding and Processing Ability of Knowledge

After human-computer interaction has been realized in the learning process, one of the major changes brought about by the application of computer technology in education and teaching is immediate feedback. It can be said that "interactivity is the remarkable characteristic of multimedia computer, and also the unique characteristic of computer which can not be replaced by other means of audio-visual education". The teaching process of human-computer interaction linked by multimedia technology conforms to the psychological characteristics of curiosity and activity of primary and secondary school students, which can greatly stimulate their interest in learning and improve their learning efficiency.

For example, after a teacher tried to use the human-computer interaction function of computer assisted instruction(CAI), he wrote down the following experience:

> CAI courseware can effectively assist students to complete various forms of exercises, consolidate their knowledge in time, and effectively develop non-intellectual factors. After teaching the new textbook of "Learn to say", we prepared four small exercises on listening, which had been designed into games. In the process of answering questions by computer, sometimes a crying face was used to indicate "wrong", a smiling face was used to indicate "right", and sometimes a cute puppy could nod or shake his head to indicate "right" or "wrong". For example, we designed a "monkey picks peaches" program to let the monkey to pick peaches from a peach tree full of "key words" to complete sentences. The monkey pulled a word to pick the peach and put it in the sentence. When the word was chosen correctly, it stopped there and made a pleasant sound of "thump". When the choice was wrong, the word immediately returned to the tree, which was interesting. While students interact with computers, students can deeply feel the joy of learning process and taste the sweetness of "jumping up and picking fruit", which enhances their interest and confidence in learning.

In this example, according to the idea of letting students learn in the game, the teacher designs the dull listening exercise as a form of game, and it is also a game that students can participate in and regulate. In the course of games, students choose the appropriate practice process according to their level and ability, and when mistakes occur, they can have the opportunity to try again, so that

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students of different degrees can feel the joy of learning success. At the same time, such practice not only protects students' self-esteem, but also enhances students' confidence, which is of positive significance in cultivating students' emotional attitudes towards English learning.

2. The Platform of Inquiry and Collaborative Learning is Conducive to Cultivating Students' Research Ability and Cooperative Learning Consciousness

The development of network technology not only provides students with abundant learning resources for English learning, but also enables them to use computers and networks for inquiry and collaborative learning. According to their own learning needs and interests, students can independently search for relevant information on the Internet, search for useful learning resources, and conduct in-depth exploration on a specific topic (such as environmental protection issues). In this process, students not only satisfy their curiosity, but also develop their dispersive and creative thinking, and cultivate their inquiry ability.

For example, a teacher recorded his practice of using network technology to cultivate students' inquiry ability.

Before teaching the text "Alone in Antarctic", the teacher asked the students to consult relevant information about Antarctica and Antarctic exploration on the Internet, and let them introduce the location, area, climate, plants and animals of Antarctica with their own presentations. Then, teachers and students made the following summary: Antarctic is the coldest, highest, driest, windiest, and loneliest continent in the world.

In the above examples, the instructor first limited the subject scope of the online search to the students, that was the information about Antarctica and Antarctic exploration, and encouraged the students to independently search for resources related to the subject of this lesson on the Internet. After that, they asked the students to use the information they had inquired about to independently make a presentation about the South Pole. In such process of learning and exploring, students can not only learn knowledge, but also exercise their abilities.

Computer and network technology also create favorable conditions for collaborative learning. Teachers and students can use the human-computer interaction function of computer, as well as the network information fast transmission function and its powerful information resources network to cooperate with each other, and complement and share information, so as to realize the full sharing and utilization of information resources. For example, some teachers describe how they use new technology to guide students to carry out collaborative learning.

In teaching A Freedom Fighter, the author first divided the class students into several groups and gave an assignment to each group, such as Martin Luther King's Childhood, King's Family, King's Education, Conditions of the Blacks in the USA, King's Struggle, King's Death, King's Achievement, King's Influence on America, etc. Each group was asked to search Martin Luther King's information on the Internet and produce multimedia presentations. These groups could work together. In this process, students were particularly interested in this learning task. They integrated the text materials and sound images queried on the network, and produced exquisite presentation manuscripts. In class, the groups introduced Martin Luther King's family, education, life experience, experience of being murdered and his influence on the world. Students could also collaborate in role-playing. Finally, the teacher guided the students to evaluate and debate: "Has Martin Luther King's dream come true in the United States now?"

From this example, it can be seen that the learning behavior of students seeking the required information in the network is limited to the way of group cooperation.

In this learning process, students can work in a division of labor, share information resources and accomplish learning tasks together. For example, students respectively went to find out about Martin Luther King's life and family, check Martin Luther King's education, search for Martin Luther King's experience of being murdered, and search for Martin Luther King's achievements and influence. After that, the students synthesized, collated and summarized the information that each person obtained in the group, and formed a complete presentation about Martin Luther King. In such learning activities, students not only use less time to obtain a large amount of information, but

also learn to use multimedia technology to integrate information, process information and demonstrate information. What's more, it cultivates students' sense of cooperation with others.

3. Efficient Language Testing and Teaching Evaluation are Conducive to the Reform and Development of English Teaching Testing

One of the key points in the reform of professional English teaching is the reform of evaluation methods. The application of multimedia and network technology in the field of language not only improves the efficiency of language testing, but also provides convenience for the scientific evaluation of students from different angles, directions and levels.

With the assistance of computer technology, many problems in large-scale testing will be solved. For example, the application of computer technology in marking objective choice questions in language testing not only greatly liberates the labor force, but also has a very small error rate. In recent years, this marking technology has been widely used in the tests of millions of candidates, such as college entrance examination and high school entrance examination. In the past, tens of thousands of people took an oral English test. Therefore, it was painful for the test organizers to provide only the testers they needed, the testing sites and the time they spent on testing. In 2000, the Shanghai College Entrance Examination adopted the computer-aided method. In only two days, 63,000 candidates took the oral English test in more than 70 computer laboratories in 38 test sites in the city. There were about 400 scoring teachers at four scoring points, and the examinees' answers are scored in four days. From the result of the score, there was a strong correlation between the candidates' oral test scores and their normal oral proficiency.

Because of the involvement of computer network technology, it has created extremely convenient conditions for the establishment of question bank in language testing. For example, a teacher used computer technology and SPSS software to make a scientific analysis of a class's test results. He not only studied the difficulty, reliability, discrimination and relevance of the test questions, but also improved the reliable basis for further understanding students' learning situation and improving teaching methods. From this point of view, the construction of question bank is not only for language testing professionals to engage in research, and every primary and secondary school foreign language teacher can make some useful attempts in this regard. Computer-aided language testing technology also creates conditions for students' autonomous learning and self-evaluation. For example, a school in Shenzhen has made the following attempts to use computers to help student evaluate themselves. In the monitoring and evaluation of students, the school has adopted a software called Speaking Out. The specific operation is as follows:

Entering the "Access to 100 Points" module, students can click on the black triangle to choose their names. The teacher has edited the student's name in the list beforehand. This module is divided into two sub-modules. The first one is the "pass test". The system tests the students with 20 words that they often make mistakes in the previous unit learning. Students type words on the horizontal line on the right according to the picture on the left and the pronunciation of the words they hear, and press the key to confirm the completeion(each student has three chances). Then the computer system will automatically give the primary, excellent and full-score contestants the test questions at all levels, and they have to get all the answers right to move on to the next level. The second is the regular test paper. The interface shows the complete standardized test questions, and students click on the number of questions and then choose the answer. Finally, when students click on the "score" to submit the paper, the examination is over. In a tense and interesting atmosphere, students complete the test of this module, which not only cultivates students' sense of competition, but also reduces students' pressure on the test, so it is very popular among students.

4. Distance Interaction and Resource Sharing are Conducive to Opening up New and More Effective Ways of Learning

In recent years, the rapid development and improvement of computer network technology provide a technical basis for the implementation of distance education. New terms such as E-mail,

e-pal, online teaching and distance learning are emerging in an endless stream. Some people even think that learning has entered the era of E-learning. In the practice of English teaching in primary and secondary schools, it is an effective way for many teachers to develop and utilize the remote interactive function of the Internet to improve teaching efficiency and teaching effect. For example, a teacher guided students to establish E-pal contacts with middle school students in English-speaking countries through E-mail, which not only improved students' English reading and writing ability, but also created a real English communicative context for students, and also provided students with real opportunities to use and experience English.

5. Problems after Integration of Information Technology and English Teaching

In the early stage of the integration of information technology and English teaching, the learning based on network and information technology has achieved great results, however, the continuous development and use of new technology has brought many challenges to students' learning. The problems and obstacles in the process of online learning have posed certain challenges to students' online learning of English courses. Information technology-based online English learning mainly has the following problems.

In online learning environment, students need to have sufficient technical skills to maintain learning confidence. Some scholars have shown that some Chinese students are not familiar with English keyboards, and confirmed that poor typing skills affect students' writing performance.

Students must master the necessary learning and research skills to effectively locate learning materials. They need to learn to use search tools to successfully revise the initial search process by expanding, narrowing or changing keywords.

Students need to master English reading skills to evaluate online information. Without these skills in dealing with language materials, it is difficult for students to submit creative assignments because they cannot evaluate the materials comprehensively.

Students need adequate technical support. They often complain about slow Internet speed, slow download speed and other technical defects. Technical problems can cause anxiety, which affect students' learning motivation.

6. Conclusions

Over the past decade, with the popularization of computer hardware and network, it is generally accepted that a single learning software can no longer meet the needs of network-based English teaching. In order to meet students' individualized learning needs, it is urgent to develop a college English learning platform based on mobile network and information technology. Therefore, the network learning platform which can integrate multiple learning software has developed rapidly. Learning platform can realize many functions, such as information release, online examination, online question answering, video teaching, online evaluation, self-learning and so on. In recent years, various foreign language web-based learning platforms have emerged in China. College English teaching has also carried out various teaching reforms around the learning platforms. Through observation, it can be found that the use of information technology by teachers has not changed the traditional CAI model and method. Due to the outdated information concept of teachers and students and the inappropriateness of the existing teaching content of textbooks, the information technology based on computer network has not been fully utilized and its super functions have not been fully played.

References

[1] Nunan D. Second Languge Teaching& Learning[M]. Boston: Heinle &Heinle Hennebury, 1999.

[2] Adams, Catherine. On the 'informed use' of PowerPoint: rejoining Vallance and Towndrow[J]. Curriculum Studies 2007(2). Apperson, Jennifer M., Laws L. Eric and Scepansky A. James. An assessment of student preferences for PowerPoint presentation structure in undergraduate courses[J].

Computers and Education 2008(1).

[3] Wim and Roos Naeff. The Instructor as Stagehand Dutch Student Responses to PowerPoint[J]. Business Communication Quarterly 2004(1).

[4] Fischer, Howard. High-tech Statements OK[OL]. 2003. Arizona Business Gazette. 8 Oct. 2015.

[5] Reedy, Gabriel B. PowerPoint, interactive whiteboards, and the visual culture of technology in schools[J]. Technology Pedagogy and Education 2008(2).

[6] Szabo, Attila and Hastings Nigel. Using IT in the undergraduate classroom: should we replace the blackboard with PowerPoint[J]. Computers and Education 2000(3).

[7] O Mally J M.& ChamotA U. Learning strategies in second language acquisition[M]. Cambridge: Cambridge University Press, 1990.

[8] Cash.Create Organizational structure, control and information technology in the information age.2000.

[9] Wang Jianjun.Classroom reform and teacher professional development.2004.