



Computer-aided Instruction in College English Teaching under the Network Environment

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Abstract. At the present stage, computer Internet technique has grown rapidly and has been put into various industries and fields, with a great improvement. Nowadays, most colleges and universities combine computer Internet technique to promote their management efficiency and teaching quality, deepen the reform of English teaching mode, accelerate the construction of college teaching management, build a better campus environment, and improve the level of information management. The current social demand for talents is not only the mastery of knowledge, but also the innovative thinking and the ability to analyze and solve problems. This requires teachers to improve their own quality and skills, innovative teaching methods. In the classroom, how to link the required information technique with the teaching of the subject has become a problem that educators need to think about. Since the 1990s, computer-aided language teaching (CAI) has been gradually popularized in foreign language teaching, especially in English teaching, and the development of the Internet has undoubtedly brought a real revolution to foreign language teaching. More and more foreign language teaching researchers, teachers and students begin to pay attention to computer-aided language teaching in the network environment.

Keywords: College English teaching; multimedia networks; Internet+; computer aided instruction

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1 INTRODUCTION

Teaching management in colleges and universities involves a lot of work, which is closely related to the development of colleges and universities and the growth of students. Therefore, computer Internet assisted technology has been added to the management of English teaching, which has greatly improved work efficiency and exerted a great influence on the teaching level of colleges and universities, San and Novel think so [1]. Computer Internet aided technology has been applied in the management of college examination, which has promoted the management of college

examination. English teachers can randomly select test papers for examinees through the computer test paper database; Tatjana believe that students can take the test directly on the computer Internet, and at the end of the computer can combine the answers assigned by the teachers to give the score [2]. In the process of using computer Internet assistive technology, on the one hand, it saves traditional examination papers, on the other hand, it saves manpower and time. When the examinee finished the test, soon can query the score and understand the difficult knowledge points. This is helpful for students to solve questions, and save manpower, teachers can use the computer to analyze the test scores of students, and students to master the relevant knowledge. David and William believe that daily teaching management is an important link. At present, the daily management of colleges and universities includes the standardized management of teachers' teaching standards. First of all, English teachers have the right to use their time freely when using computer aided Internet technology in teaching [3]. In addition to class time, students can also search for courses and arrange their own learning time in the daily teaching management system after class. Computer Internet assistant technology can provide teachers with a more modern mode of communication in their teaching, so as to ensure that the distance between teachers and students is gradually narrowed, so that teachers can better arrange their courses.

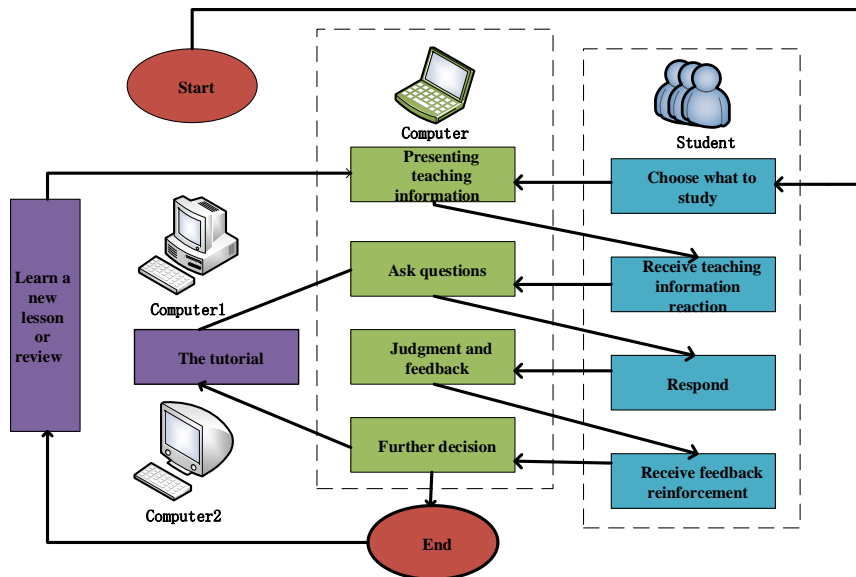


Figure 1: The computer teaching framework.

It is possible to combine computer Internet assisted technology in teaching, and adopt more vivid and interesting teaching methods to students in class, so as to improve students' learning enthusiasm. In addition, in the process of daily English teaching in colleges and universities, computer Internet assistive technology can help student's complete relevant homework at home and receive information related to courses, so that students can keep in touch with teachers. In this way, while avoiding the waste of resources, teachers' working pressure will be alleviated to some extent. According to the students' own characteristics, teachers can make suitable teaching plans or carry out curriculum adjustment, which can promote their learning. The application of computer Internet assistive technology in colleges and universities can further improve the application level of multimedia classroom equipment, and help students select the most suitable teaching methods from diversified learning resources, so as to help students internalize knowledge. In this way, for teachers, the teaching mode based on Internet technology can make English teaching simpler and more efficient, and for students, the application of Internet

technology can make daily English learning more rapid and convenient, shorten the distance between teachers and teachers, and keep communication with teachers all the time. The computer teaching framework is shown in Figure 1.

2 THE SIGNIFICANCE OF COMPUTER AIDED TEACHING

2.1 The Necessity of "Internet +" College English Teaching Mode Reconstruction

In the traditional college English teaching mode, teachers rely too much on empiricism and lack the ability to accept new things. The teaching mode blindly focuses on one-way output, and students are always in a state of passive acceptance. Due to Guoxing and Jing, under this teaching, students' interest in English study is low, the lack of learning desire and the independent initiative of building knowledge system, which largely restricted the development of college English teaching, very need teachers accept and grasp "Internet+" thinking, to build a new teaching idea, in order to improve students' learning interest in English [4]. Previous English teaching mainly revolves around the teaching material and teaching activities, teaching material update cycle time is too long, can't be in time into the new content and new ideas, natural cannot meet the demand of the students' knowledge according to the time development process, this leads to lack of interest, college English teaching content form is monotonous, boring teachers' weak consciousness of the cognition and use of new resources. In order to change these phenomena, college teachers need to take advantage of the "Internet+" era and reconstruct the college English teaching mode from all aspects.

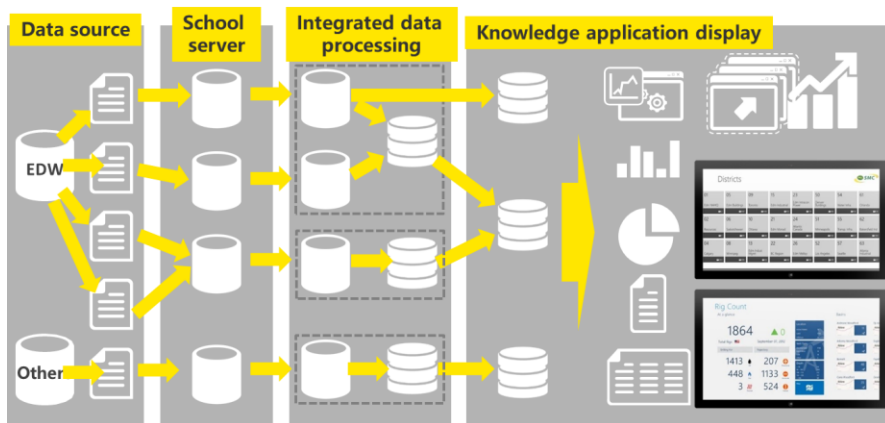


Figure 2: Schematic diagram of Internet+.

In addition to being a traditional practical application course, College English is also a subject that needs diversified development. Teachers and professors need to innovate the teaching modes and methods, and reorganize college English teaching with an open new teaching method. However, in terms of the actual development of English in colleges and universities, English teaching in colleges and universities is limited to different degrees in time and space, and the teaching time is mainly focused on classroom teaching. In terms of teaching space, it is also mainly concentrated in the classroom. To some extent, these have hindered the development of English teaching in colleges and universities, making it difficult for students' enthusiasm to be mobilized. Students' impression of English learning is defined as boring class, which fails to mobilize students' potential English learning ability. Figure 2 is a schematic diagram of Internet+.

2.2 The Advantages of Computer Aided Instruction

The research shows that the CAI has the following advantages: (1) the CAI in the network environment can enable learners to share the learning experience, making learners not only become the receiver of knowledge, but also become the creator of knowledge. (2) Computer-aided language teaching in a network environment with rich contents can help enhance students' learning interest and initiative. (3) Computer-aided language teaching in the network environment strengthens students' language skills by helping them establish self-training strategies and self-confidence, so as to improve their academic performance. (4) In the network environment, students can get reliable learning materials at anytime and anywhere, no matter at school or at home, to enhance their learning flexibility. (5) In the network learning environment, students and teachers can interact with students and even other learners through E-mail, Internet chat rooms and other video tools. (6) Computer-aided language teaching in the network environment takes into account the needs of different students and is conducive to personalized learning. Introverted students are better able to adapt to this personalized, self-centered learning style. Students can overcome their own character weaknesses through this learning style, while students with strong learning ability can give full play to their learning potential and learn more efficiently. (7) under the network environment, learning resource highlighting diversity of learning resource is no longer confined to textbooks, they can obtain more abundant learning material from the network to meet their learning needs [5]. (8) The Internet helps learners to learn foreign languages in a language and cultural environment, enabling them not only to learn foreign languages, but also to understand relevant cultural background. Schematic diagram of possible develop mode of computer instruction is shown in Figure 3.

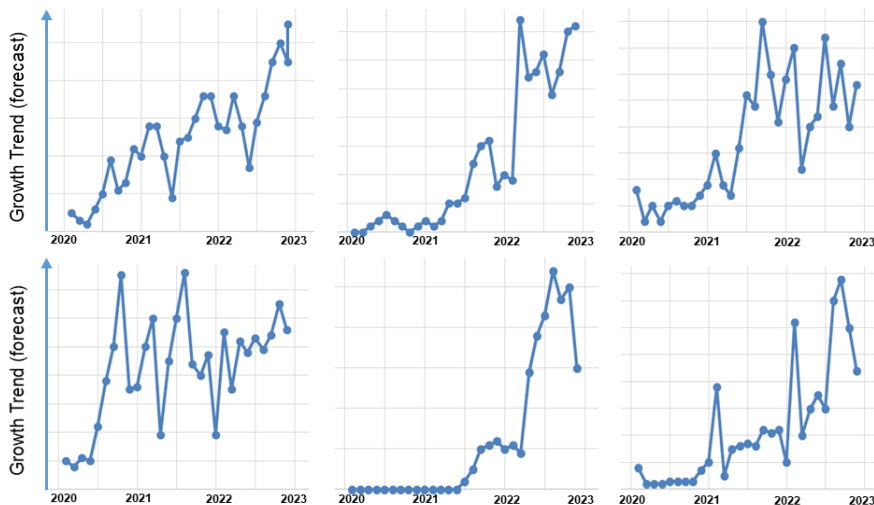


Figure 3: Schematic diagram of possible develop mode.

2.3 Application Status of Multimedia Network Assisted Instruction

Under the background of the great age of the "Internet +", teaching mode must be changed, the development of English teaching in network design work also needs to be borne by the teachers, and according to the current time background and the development trend of new teaching content, research and development new interactive form, arrange the student to carry on the online exam, not only in the college English teachers' teaching level have quite high demand, and also a challenge for teachers' innovation, research and development ability, the most important thing is that the teacher must have the perception of the Internet and the Internet, and computer

operation ability[6]. However, in view of the current situation, some teachers have limited ability and relatively conservative and outmoded ideas. They find it difficult to accept the combination of Internet technology and teaching and cannot apply Internet information technology to actual teaching. However, the "Internet +" teaching mode formulated by the school is difficult to form a high degree of agreement with students, which has formed a certain degree of hindrance to the development of students' English ability.

Whether the objective environmental factors are set reasonably also largely restricts the learning of English, Taehyung believes [7]. Under the background of "Internet +", the objective English teaching environment in colleges and universities has also changed to a certain extent. For example, with the construction of a good online teaching platform, the teaching place and space of English will not be limited as before, which provides a good help for college English teaching activities. For example, the wireless network coverage of some colleges and universities is low, the connection is difficult or there is no free access to the Internet, which, to a certain extent, hinders the development of networked English teaching in colleges and universities and the deepening of teaching reform [8]. Therefore, in the context of the new era, universities and teachers should actively explore new teaching modes and strive to improve the allocation of objective environment and hardware facilities, so as to make steady progress in the reform of education and teaching modes. Schematic diagram is shown in Figure 4:

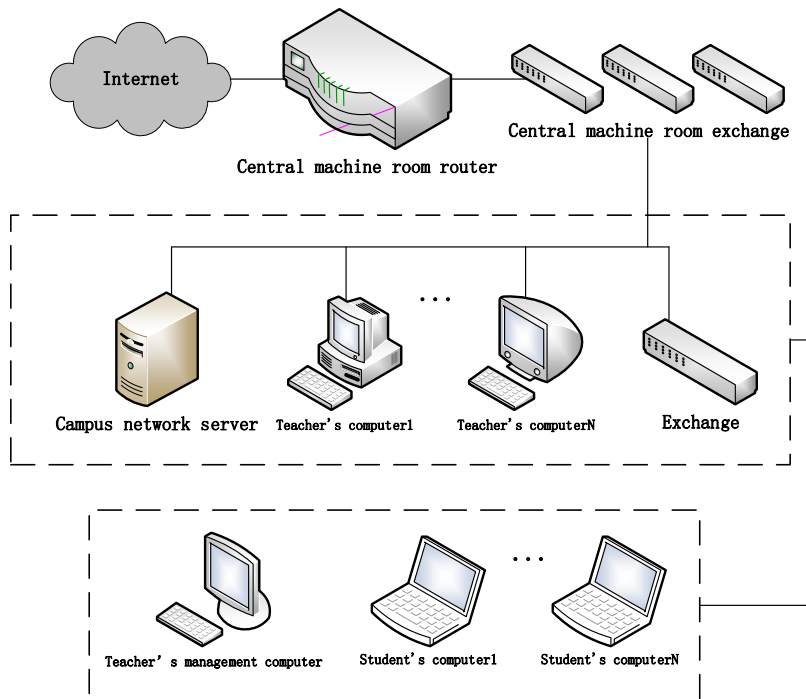


Figure 4: Application status of multimedia network assisted instruction.

3 THE PRINCIPLE OF COMPUTER AIDED TEACHING IN NETWORK ENVIRONMENT

3.1 The Great Significance of Computer Aided Teaching

At present, many online resources can be used in foreign language classroom teaching: lexicography, encyclopedias, web search engines, links to foreign language learning websites and

chat rooms, etc. As long as there is a network, learners can get learning information and resources from the network anytime and anywhere. For example, in class or after class, teachers can arrange students to learn the news of the world in real time from the videos, audio and text reports on the website, so as to practice their listening and reading skills. Students can also communicate with their classmates, teachers, other learners and foreign friends via video, audio and text via Internet chat tools and chat rooms, so as to improve their foreign language application and communication skills and cultivate their cooperative learning spirit. Network resources also further promote students' autonomous learning ability. The author once worked as a teacher in Nanning Guidance Center of The School of Network Education of Beijing Foreign Studies University. The facts have proved that good network teaching resources and effective network teaching management are the strong guarantee for the improvement of students' autonomous learning ability [9].

The emergence of the network and the use of computer multimedia technology will reshape the university foreign language teaching classroom, three-dimensional computer-aided language teaching emphasizes students should not be passive recipients of knowledge, but should become active participants and explorer. Learning foreign language is no longer the only source of knowledge for which the student studies, but students learning facilitator. Three-dimensional computer-aided foreign language teaching also emphasizes that we should provide economic and convenient opportunities for foreign language learners to communicate and learn. This brings new thinking to college foreign language teaching, and also brings great challenge to college foreign language teachers [10]. 6 main teaching mode is shown as Figure 5.

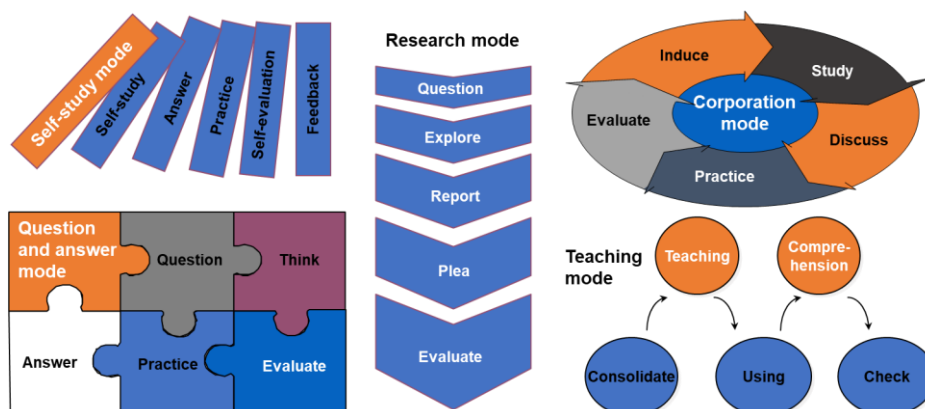


Figure 5: Mode of computer aided teaching.

3.2 The Importance of Using Computer Network to Assist Teaching

Computer-aided teaching is more suitable for today's social development. In the current information age, multimedia teaching has gradually become an indispensable way for teachers to teach. As far as the current situation is concerned, the epidemic is developing seriously, and we still do not know when students will resume their schooling. Computer-assisted instruction (CAI) provides an efficient and feasible way for colleges and universities to suspend classes. Even if students cannot go back to school, teachers can impart knowledge in the form of live or recorded broadcast. At the same time, resources are shared among colleges and universities, so students have the opportunity to learn courses of different schools and enrich their knowledge base.

The use of media network teaching provides a good interactive learning environment for college English teaching. The emergence of the Internet has solved the problem that college students are unable to communicate with English speakers and are afraid to communicate with others in

English. In the multimedia network, all kinds of teaching functions are completed by a series of interactions between students and computers directly. Through man-machine dialogue simulation, students can communicate with teachers and foreigners, making it easier for students to speak English freely. This mode of communication is unmatched by any previous medium of instruction. This interactive way enables students to be exposed to the English language environment, helps students to participate in the learning process more actively, and improves their learning enthusiasm. Computer assisted instruction (CAI) has created a good language environment for English learners. Computer-aided teaching, to a large extent, realizes the reproduction of high-quality images and sounds, presents students with very authentic English pronunciation, grammar and dialogue, and enables students to communicate with the speaker as if they were on the scene. Such vivid and interesting teaching methods can greatly stimulate the enthusiasm of students to open their mouth to communicate, help students to understand, imitate and use the language, help them to establish British thinking, and naturally enter the English environment. Computer-assisted instruction can mobilize students' various sensory organs. Due to computer assisted instruction has illustrated, the combination of audio and video features, to fully stimulate students in teaching the application of individual sense organs, so that the students in the learning process and at the same time to use visual, auditory, strengthen students' memory, help students to arouse the enthusiasm of their subjective initiative and learning, and make English become more interesting, thus directly improve the efficiency of classroom teaching and students' learning efficiency. At the same time, the application of computer-aided teaching can reduce the heavy workload of teachers, so that teachers have more experience to study, reform teaching, improve teaching ability. The CAI learning process is shown in Figure 6.

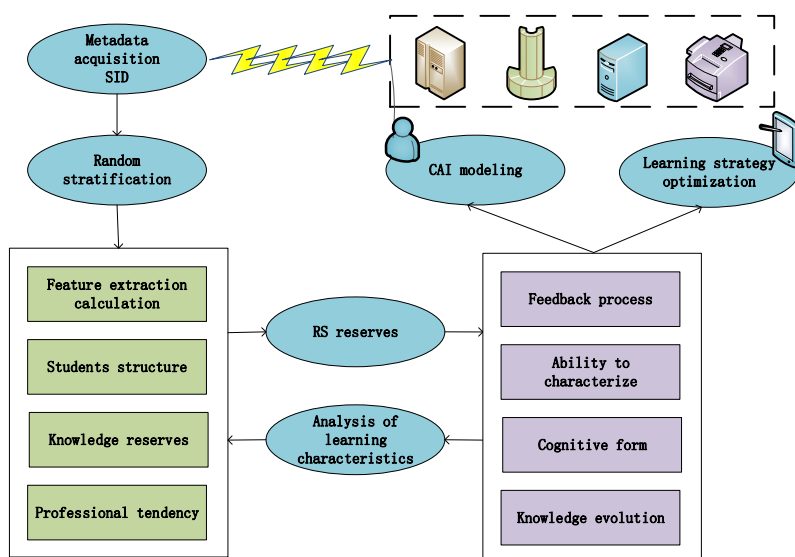


Figure 6: The CAI learning process.

3.3 The Reconstruction of English Teaching Mode Under the Aid of Computer

In practice, there are still some deficiencies in the integration of Internet + in College English teaching, but the degree is not very deep. Therefore, it is necessary to pay attention to this issue, reconstruct teaching through effective means, and promote the combination of Internet + and English teaching. Teacher: the reconstruction of teaching mode cannot be separated from the support of teachers. Therefore, in the era of "Internet Plus", college English teaching mode in

order to better and faster implementation of refactoring, English teachers should try to existing teaching resources integration of scientific, reasonable and, in turn, to the English teaching model for the adjustment of the organic, efforts to build a new form, new English education to help students in English learning for deeper exploration. Under this background, the teacher should for English teaching activities in a planned and prepared to explore, and according to the innovative development of teaching activities to develop a corresponding scientific teaching organization plan, gradually to the subject position in teaching activities into a classroom activity organizer and coordinator, for students to learn to be of help and support. Only in this way can we make reasonable and scientific reform and innovation to the teaching activities according to the extensive application of information activities and work out a more suitable teaching organization plan. Students: teachers should actively explore teaching models and methods favored by students to ensure that students' learning needs can be met in the new era. In the process of guiding students to explore the reform slowly, the traditional teaching mode can be changed and the former passive state can guide students to study and explore English subjects actively. In this process, attention should be paid to strengthen the learning of human-computer interaction to ensure that students can actively participate in it. It can improve students' Comprehensive English ability and effectively promote the level of College English talents training. Objective environment: in addition to teachers, the objective environment also has a significant influence on students' English learning effect. Therefore, it is necessary to adjust teaching activities timely from the objective environment. According to the requirements of the course content to provide comprehensive, rich technical equipment, and strive to create a new teaching model. Computers, projectors, audio equipment, for example, is the era of "Internet +" indispensable equipment in the process of English teaching, only in this way, can give full play to the objective equipment the role and status in English teaching, improving the quality of college English teaching, teaching for teachers to carry out the modernization of information to provide a certain amount of help and has played a big role in promoting, to improve students' English level good help. Now in China, almost all the provinces have taken it in use. Degree of use of cloud-assisted learning in some cities is shown in Figure 7.

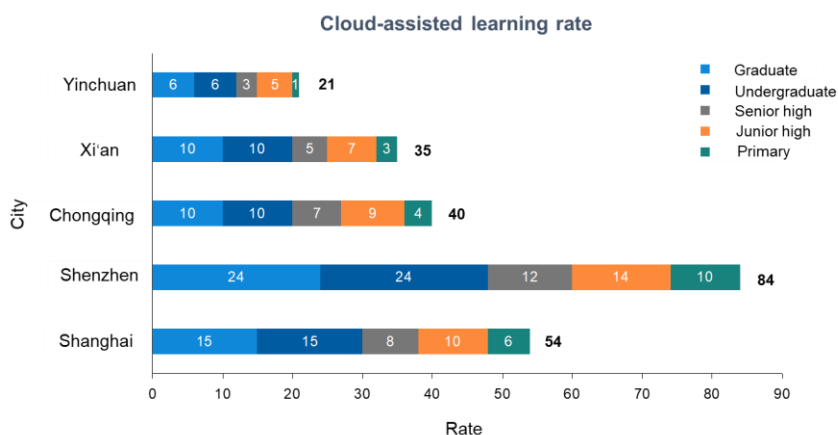


Figure 7: Degree of use of cloud-assisted learning.

4 PROBLEMS FACED BY COMPUTER ASSISTED INSTRUCTION

4.1 Problems Faced by College English Teachers

At present, the main factors affecting college foreign language computer-aided teaching are as follows:

(1) Lack of funds: funds are needed for the software hardware and daily maintenance of computer-aided teaching. Multimedia language laboratory is the main front of foreign language teaching in colleges and universities. The construction of multimedia language laboratory and the upgrading of its software and hardware often become a heavy burden for colleges and universities. Teacher training is also a big expense. As the implementation personnel of computer-aided teaching, teachers should have some understanding of relevant software and hardware, and training is indispensable. School of Network Education of Beijing Foreign Studies University (BFSU) has trained many teachers and administrators of network education in order to make the teaching guidance centers in different places operate effectively.

(2) The lack of applicable computer software and hardware is very critical in computer-aided teaching, and the most prominent problem is software. Applicable computer software not only makes computer-aided instruction possible, but also provides a solid foundation for improving teaching quality. At present, there is still a disconnect between software development and demand. Software developers do not fully understand the actual situation of college foreign language teaching, and the software they develop often has some defects, so it is difficult to apply it to teaching. However, as software development requires a large amount of funds, time consuming and high technical requirements, teachers themselves are unable to develop independently.

(3) The lack of technical and theoretical knowledge is another major problem in the computer-aided teaching of foreign languages in universities. What our teachers lack is not only the technology of teaching software development, many of them know little about how to use the new classroom teaching technology, let alone how to use these technologies comprehensively to achieve three-dimensional teaching. Improper use of teaching hardware and software often affects the normal operation of teaching.

(4) The era in which we live is an era of constant and rapid update of knowledge and technology. The progress of technology makes the original rules and regulations constantly broken, bringing new breakthroughs. Some teachers are not willing to use new technology to change the teaching methods and procedures. Wrong understanding has restricted the reform of classroom teaching and limited the trial and application of new technology.

4.2 Improve and Explore the Existing Problems in College English Teaching

(1) Only when students actively participate in learning, actively construct the meaning of knowledge, integrate knowledge with existing experience, process and internalize knowledge, and construct their own understanding, is the most effective learning. So, teachers in the teaching, should change their roles, become the student information providers, students learning facilitator and guide, partner, director, internalization, and designers, the organizer of discussion class to create a harmonious democratic classroom atmosphere, more use of situational teaching in class, let the students as the main body of learning. At the same time, teachers should change their ideas, correctly understand that the traditional teaching mode and multimedia network teaching technology should be integrated, make multimedia become an effective tool to assist teaching, change their own teaching methods, stimulate students' learning enthusiasm and creativity. Without adequate lesson preparation and grinding, all teaching tools are impossible to play their due role.

(2) Establish multi-dimensional interactive classroom from the perspective of innovation. Its advantage is that the design and implementation of interactive classroom provides a platform and guarantee, so that teaching is no longer a teacher's "one word". Multi-dimensional interactive classroom atmosphere means that the transmission of teaching information is not one-way or single. In the classroom, effective communication and multiple interactions can be carried out between teachers and students as well as between students, forming a democratic and active classroom atmosphere and promoting "teaching benefits learning". However, teachers should make it clear that multimedia network teaching is only a means to assist teaching, and should not

rely too much on multimedia courseware for teaching, and become what students call "a teacher who can only read PPT". In addition, in the design of courseware, should be concise, appropriate introduction of animation, pictures, music, video and other resources, so that students are full of interest at the same time to effectively study, not distracting, students focus on animation and other body.

(3) Starting from the foundation, strengthen the investment of multimedia hardware and software and the training of teachers. Group experienced front-line teachers, experts, etc., on the platform, content design and production, and can build a platform of foreign language teaching and learning management, evaluation system, to provide online or distance learning, and by the navigation, content browsing, query, real-time and non-real-time and so on. Provide choices for students to study, ask questions, discuss, teachers to teach, answer questions, evaluate, etc. Only by creating a harmonious and efficient seven-point Teaching in English class can students' enthusiasm be aroused to the greatest extent and their subjective initiative be brought into full play to promote their all-round development. In addition, schools should regularly train teachers in modern teaching techniques to help them fully master multimedia network teaching techniques. The presentation methods available to teachers are shown in Figure 8.

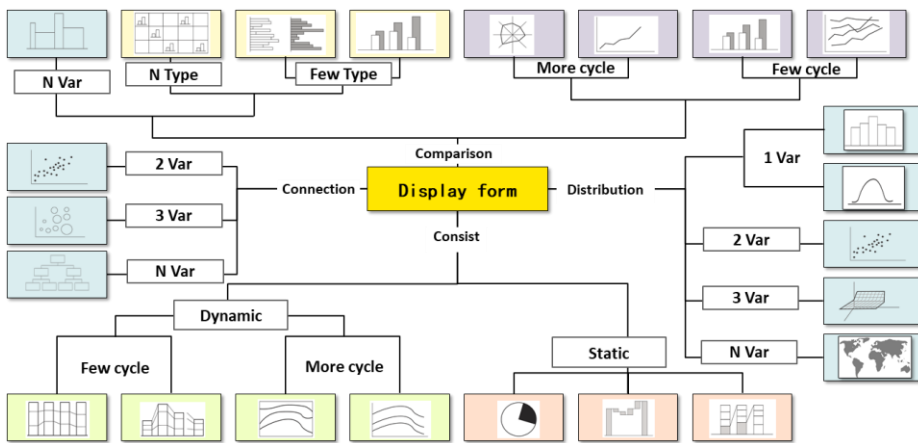


Figure 8: Presentation methods.

5 CONCLUSION

Three-dimensional computer-aided foreign language teaching is the only way for future foreign language teaching. The use of computers cannot solve all the problems in our teaching, we must be soberly aware that the most important problem in three-dimensional computer-aided foreign language teaching is still the problem of people in fact, is to change the concept of teachers and students. Computers and networks will not replace teachers, but they can provide more opportunities and more abundant resources for foreign language teaching and learning, making it more convenient and productive. All kinds of difficulties encountered in the process of promoting three-dimensional computer-aided foreign language teaching must be paid enough attention to and overcome together.

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