

Status Quo of Foreign Language Teaching Based on Multimedia Equipment-assisted Teaching

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Abstract: *Multimedia-assisted foreign language teaching could combine the features of text, sound, image and animation into one, which helps create a good language learning situation, maximize the motivation and initiative of students' learning and enhance the teaching efficiency. Multimedia equipment-assisted teaching is a teaching method that many foreign language teachers are exploring and trying. However, some front-line teachers still have a vague understanding of it and lack theoretical guidance. The situation of foreign language teaching is quite different from other forms of foreign language teaching. Foreign language teaching in most schools meets the needs of entrance examination to a large extent. As a result, university teachers began to take the road of multimedia-assisted teaching in foreign language teaching in universities, that is, to take the advantages of different schools of teaching methods, to remove the shortcomings of each school of teaching methods, and use multimedia equipment to assist teaching, exploring a teaching method that can not only adapt to the development of the times, but also effectively promote the improvement of college students' foreign language proficiency. Through the investigation of the application of multimedia-assisted teaching in foreign language teaching, it verified several problems in foreign language teaching, and designed the application of multimedia platform, so that multimedia equipment-assisted teaching can be reasonably used in foreign language teaching, and cultivate students' cross-cultural communication. At the same time, students should be motivated to participate actively in learning practice so as to improve the quality of foreign language teaching.*

Keywords: *Multimedia Integration; Multimedia Teaching; Foreign Language Teaching; Eclecticism*

1. Introduction

Since the 1990s, especially in this century, China's economy and technology have developed rapidly, so many advanced teaching facilities in Colleges and universities are introduced. Some universities are equipped with multimedia devices, such as computers, projectors, speakers, radios, televisions, and even a network. Under the background of the new era, foreign language teaching is also influenced by scientific and technological factors. Multimedia is gradually encouraged to be used in language teaching. With the help of multimedia, teaching should gradually innovate teaching methods and means, change the ways of students' learning, teachers' teaching and interaction between teachers and students, and create a new era of foreign language teaching. Therefore, it can be seen that the trend of foreign language teaching in the future is multimedia-assisted foreign language teaching. Although the policy of encouraging the use of multimedia has been promulgated for many years, the actual application of teaching is not satisfactory [1,2]. In practical teaching, teachers still rely mainly on traditional teaching methods, inappropriate use of multimedia, misconceptions have emerged. Multimedia is not a "assistant" to a large extent in practical teaching, but a "substitute" for teachers' chalk blackboard. Teachers present the contents on the blackboard through multimedia in class, and the emphasis of teaching is still on the presentation of language knowledge, which deviates from the original intention of the policy document of curriculum standards for foreign language teaching.

On the premise of completing the teaching process and teaching quality, improve the enthusiasm of each student in learning foreign languages. Freeing students from "duck-filling" and "dumb foreign languages" is a requirement of foreign language teaching and a pressing problem at present. The emergence of multimedia can greatly help the improvement of foreign language teaching. Multimedia technology has changed the dull teaching method of traditional foreign language teaching, which only relies on one book, one chalk and one exercise book [4-6]. There are many advantages in combining

multimedia technology with foreign language teaching. This is beyond the reach of traditional foreign language teaching. In foreign language teaching assisted by multimedia equipment, more channels and ways can be used to input and output language teaching. It can combine many features of text, sound, animation and images in teaching and learning activities. It can improve the atmosphere of foreign language classroom learning, hoping to maximize the mobilization and improvement of students' learning enthusiasm and initiative, and change the traditional teaching in the past. Studying dull classroom atmosphere can improve classroom efficiency, teaching effect and students' ability to use foreign languages. Multimedia provides a good platform for foreign language teaching reform.

Multimedia-assisted teaching plays an active role in high school English teaching, enabling students to truly participate in the classroom, opening students' horizons, and improving class efficiency[7]; Learn about the history and culture of European and American countries through audio; it can enable students to obtain more valuable resources in a limited time[8]; It conforms to the characteristics of the English subject and exercises students' listening and speaking ability; it can alleviate the teacher's writing tasks in the classroom [9]. Through the use of multimedia assisted teaching in the classroom, students can improve their ability to use English comprehensively. This article analyzes multimedia-assisted teaching, analyses the objectives, methods and contents of multimedia foreign language courses, and finds out its characteristics and advantages. Then the specific requirements of the design and development of multimedia training course documentation. The paper also makes an empirical analysis and analyses the difficulties of examinations, verified several problems in multimedia teaching in foreign language teaching, and designs the application of multimedia platform so as to make multimedia use reasonably in foreign language teaching, maximize its advantages, promote students' language knowledge and skills learning, cultivate students' cross-cultural communication awareness, and stimulate learning at the same time. Students become actively involved in learning practice, thus enhancing the quality of foreign language teaching.

2. Literature Review

2.1 Multimedia Integration Language

Multimedia Integration Language (MIL) enables web designers to clearly specify and coordinate elements of multimedia for web display and interaction [10]. It can associate media files of different locations on the Internet through their URLs to form SMIL files. SMIL files are only associated files, which do not contain real media content. When playing, the player automatically calls these associated media files from their respective storage locations, and according to the playback order and location set in the SMIL files, this will be done. Some media files are integrated into the same window to complete interactive multimedia demonstration with similar TV quality [11]. SMIL allows designers to transmit multiple movies, pictures and sounds separately, but in a time-coordinated manner. Each media object is accessed through a unified resource address (URL), which means that objects from multiple locations can be used to make presentations, and these objects can be easily reused in multiple presentations. SMIL can accommodate multilingual channels. SMIL statement is simple, you can use text editor input, and anyone who can use HTML can use SMIL.

In order to emphasize the difference between traditional media and static media, early descriptions combined various static media and dynamic media, which are now mainly accomplished by computers. Text media and image media are static and sound is dynamic, but computer technology can transform static text and image into dynamic. Dynamics is one of the important characteristics of multimedia, so "text + static image" can not be called multimedia, such as newspapers and magazines with illustrations, although it is a combination of the two media [12-15]. "Computer Multimedia Technology" refers to an integrated technology that will digitally collect, acquire, process and store information forms such as text, sound and image through a computer, and then present them in a separate or composite form. The narrow sense of multimedia technology refers to computer multimedia technology. Multimedia technology, based on computer technology, interacts with a variety of media information. It has the characteristics of diversity of media information, integration of media and equipment, interaction and non-linearity.

2.2 Multimedia Teaching Method

Due to the convenience of the network, multimedia computers provide more abundant learning resources for learners. At the same time, multimedia computer also provides learners with a good

language communication environment [16]. Kuo Y C, et al summed up a series of teaching methods from the perspective of audio-visual, and put forward a series of audio-visual teaching theory. The sources of human learning experience are divided into ten levels according to the degree of abstraction, and the ten levels are classified into three categories [17]. In these ten levels, there are multimedia elements such as text, sound, image and so on. Mayer, a famous American psychologist, has made great contributions to the research on the application of multimedia-assisted instruction. Mayer published a paper on multimedia, which has attracted the attention of pedagogy, psychology and computer science. Since then, related research activities have been gradually carried out. Moens M F has put forward the role of multimedia in language teaching in their own research. More scholars believe that this is the new trend of language teaching in the future [18]. In view of the role of multimedia in language teaching, Daly C J, et al. regards multimedia as a way of language input. Multimedia can provide more sufficient language input for learners, and through the guidance of multimedia, learners can participate in language learning more actively, and learners will be more responsible for their own language learning [19]. Hsu F S (2014) believes that multimedia can create a more vivid and real language environment in the classroom, which is conducive to eliminating the blockade and monotony of the existing foreign language learning environment of learners and stimulating students' motivation and need to use the target language for language expression [20]. Many scholars affirm the role of multimedia in teaching according to the teaching practice of multimedia application in teaching. Moreover, the use of multimedia in teaching will improve some problems in the current language learning process, such as insufficient language input of students and inadequate language teaching activities in the classroom. In terms of learning strategies, Ruslia M (2015) found that when interacting with multimedia, students edit the language they want to input, and then input the desired language into the computer [21] after deciding on the choice. Through the participation of multimedia in teaching, students can monitor their own language input.

2.3 Efficiency and Interactivity of Multimedia Teaching

Multimedia can provide learners with a more authentic language environment according to the characteristics of English subjects [22]. When teachers use multimedia teaching to teach, students can engage in learning with multiple senses, and learning will be more efficient for English learners [23]. In high school English classrooms, multimedia can accommodate more teaching information in different places, and students can be trained in listening, speaking, reading, and writing skills at the same time in a class; Multimedia teaching can enable teachers to obtain teaching resources from all over the world at any time in the classroom, saving teachers time to collect information and reducing teachers' writing tasks. Students can also quickly obtain the latest knowledge and resources, and independently choose what they need to learn [24].

Multimedia teaching can realize direct interaction between teachers and students and the computer, and can give feedback immediately without waiting. Multimedia can ingeniously combine students' watching and listening with the interactive functions of computers, and it has become a new learning mode that not only enables students to obtain audio-visual effects, but also adjusts the rhythm of the classroom at any time [25]. In English teaching, teachers can break away from traditional teaching textbooks and avoid step-by-step teaching. In the classroom, teachers can freely choose teaching content that meets the teaching goals, and can adjust classroom progress and content at any time according to student feedback. This efficient interactive method enables students to integrate into the classroom more actively, and diversified teaching methods can effectively arouse students' interest in learning English and improve students' enthusiasm for participating in the classroom. The interactive characteristics of multimedia teaching can increase teacher-student interaction and improve class efficiency in an effective time.

3. Research Method

This paper, through various experiments, verifies the effectiveness of multimedia-assisted teaching for students' foreign language learning, and expects to find out more effective ways for students to learn. Therefore, this paper mainly discusses and analyses the following two issues: the current situation of students' foreign language learning under multimedia, and multimedia-assisted teaching and its influence on students' foreign language learning ability.

3.1. Research Objects

The subjects of this study are 156 students from two natural classes. 79 students in Class 1 were in the experimental class and 77 students in Class 2 were in the control class. The teaching level and working years of the two teachers in the two classes are comparable. The two classes have a basic level of foreign language learning, which guarantees the success of the experiment. The results of foreign language learning are shown in Table 1.

Table 1: Comparison of foreign language learning levels

Class	Experimental class	Control class
Number	79	77
Average score	76.7	77.2
Over 85 points	18	17
More than 85 points	22.8%	22.1%

3.2. Research Methods

(1) Experimental method

With the experimental method, the subjects are divided into experimental class and control class to implement teaching according to different curriculum design. The curriculum design of the experimental class is that 145 hours of multimedia-assisted teaching mode are used in classroom teaching and 45 hours of independent learning after class. The control class adopted the traditional classroom teaching mode, learning plan guidance and basic training. Table 2 shows the gender of the tested students and their majors.

Table 2: The gender of the tested students and their majors

Gender	Male	Female	Total
Student (person)	80	76	156
Percentage (%)	51.3	48.7	100
Professional	English major	Non-English Major	Total
Student number	74	82	156
Percentage (%)	47.4	52.6	100

(2) Questionnaire survey

The questionnaire is divided into two parts. The first part is teacher's questionnaire and the second part is student's questionnaire. Teachers' questionnaires were distributed and collected at the seminar on foreign language teaching in Huaxian County. Students' questionnaires are distributed and collected by teachers. Have a comprehensive understanding of the use of multimedia-assisted teaching methods. Table 3 shows how English teachers use supplementary teaching resources.

Table 3: The use of auxiliary teaching resources by English teachers

Usage frequency	Have	Sometimes
Number of teachers	50	42
Percentage (%)	32.1	26.9
Usage frequency	Frequently	Rarely
Number of teachers	50	14
Percentage (%)	32.1	8.9

Provide special guidance to the students participating in the experiment, effectively use multimedia assisted teaching to improve learning ability, and then the experiment was guided by effective follow-up service method. We regularly train students on learning strategies, but each semester will have different emphasis. At the beginning of each semester, students are trained in meta-cognitive strategies to help them set short- and medium-term goals, such as semester goals and weekly goals. Next, it mainly focuses on the training of cognitive strategies, such as memory strategy, recitation strategy, foreign language practice strategy, judgment and reasoning of information, and guessing through context. Table 4 shows the use of auxiliary teaching resources combined with images, sounds, and animations.

Table 4: The use of auxiliary teaching resources combined with images, sounds, and animations

Combination situation	Have	Sometimes
frequency	11	21
Percentage (%)	12	23
Combination situation	Frequently	Rarely
frequency	26	35
Percentage (%)	28	37

4. Analysis Result

4.1. Design of Network Architecture for Multimedia Teaching Platform

In the process of developing the foreign language multimedia teaching system, the B/S model was chosen. The B/S structure uses the system network architecture shown in Figure 1.

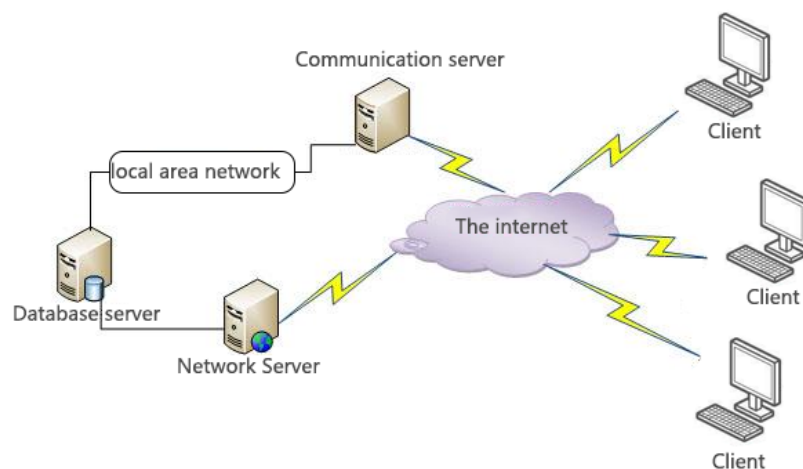


Figure 1: B/S Architecture using the network architecture of the system

A remarkable feature of B/S mode is that user experimental browser accesses network information such as text, image, data, video and sound on the network, and the information is generated by a large number of network servers. Each server can connect with the database server in different ways, so that a lot of data is actually stored in the database server. In addition to the World Wide Web browser, the client usually does not need any user program, as long as it downloads the program from the server to execute locally. When it encounters instructions related to the database, the server passes the instructions to the database server for interpretation and execution, and then returns them to the server, which returns to the user. User's service is mainly installed in the Web client or Windows client. This is the user's direct contact with the software system level, which is dynamically generated with the support of the second layer (Web server layer) and the third layer (data layer). The second layer is the Web server layer. It is responsible for the operation of the data layer, that is, to combine the operation of the data layer. The third layer is the data layer, which is the operation layer of the original data. The atomicity of the function of the data access layer should be guaranteed when implementing this layer. The information provided by the data layer is used to generate each dynamic network surface of the system. According to the different uses of data information, it can be divided into different types, and then stored in the corresponding database in an orderly manner. Table 5 shows whether students like teachers to use multimedia teaching.

Table 5: Whether students like the teacher's use of multimedia teaching

Do you like it	Generally like	Like
Number of people	73	28
Percentage (%)	46.8	17.9
Do you like it	Like very much	do not like
Number of people	47	8
Percentage (%)	30.1	5.2

4.2 Realization of Multimedia Teaching Platform

When developing the data layer of the system, the connection pool technology of the database is applied. When operating the database, the same order of JSP pages should be connected, and a statement is generated after the connection. The data can be connected by this statement, and the SQL operation is carried out before the database is disconnected. This process is rather tedious. In order to improve the accuracy of connecting and disconnecting the database, it is necessary to use JavaBean to realize the SQL operation when establishing the connection. The platform background code interface is shown in Figure 2.

The image shows a screenshot of an IDE with a Java code editor. The code is for a Spring MVC controller. It starts with a package declaration and imports. The class is annotated with @Controller and @RequestMapping("/manageBase"). It extends BaseController. A private field userManagerService is annotated with @Resource. The class has a public method getPage(HttpServletRequest request) that sets a file path, creates a ModelAndView, and sets its view name. It also has a setUser method that gets the current user and sets it in the model. The code is highlighted in green and yellow.

Figure 2: Background design interface

The interaction design of multimedia man-machine interface should meet the needs of users. In the process of understanding the needs of users, we should also define our main goals of usability and user experience. Usability goal is to meet specific usability standards, while user experience goal is to make clear the quality of user experience. Teachers and users mainly carry out the actual teaching management of courses, including: the management of courses and students; curriculum introduction, syllabus, teaching calendar, curriculum announcements and other curriculum information release; learning materials preparation; question-answering discussion; organization of learning groups; homework and testing activities, mainly involving platform design resources learning interface as shown in Figure 3.

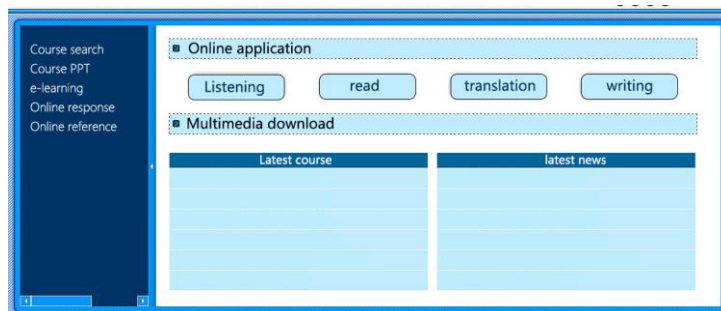


Figure 3: Multimedia resource learning interface

The image shows a screenshot of a web form for submitting a multimedia question. It has a blue header. The form has three main sections: 'Resource title' with a text input field, 'Keyword' with a text input field, and 'Resource description' with a rich text editor. There are buttons for 'Preview' next to the keyword field, and 'Code', 'Design', and 'Preview' buttons below the rich text editor. At the bottom are 'Upload', 'Apply', and 'Cancel' buttons.

Figure 4: Multimedia online question submission

Multimedia learning resources are composed of several modules, each module must have a complete module description and answer to become a legitimate module, while the module can be associated with knowledge points. Resource submission is an effective way for teachers to answer students' questions. By asking questions and answering questions, teachers can help students solve problems in time. At the same time, other students in the class can also browse. For good questions and answers, teachers can add common questions, so common questions are some questions extracted from online answers. They are only for browsing, not editing. To modify their contents, they must be revised in online answers. Multimedia online resources submission is shown in Figure 4.

4.3. Multimedia-assisted Foreign Language Teaching Experiment

Using multimedia teaching, the questionnaire is an experimental implementation. Through the questionnaire of teachers and students, we can understand the practical application of multimedia-assisted teaching in foreign language teaching and the views of teachers and students on reading lessons. This will not only help the author to better understand the actual use of multimedia by teachers and students, but also focus on the more reasonable application of multimedia in foreign language teaching. Through the questionnaire survey, we have learned about students' satisfaction with multimedia combined with foreign language teaching methods. The attitudes towards foreign language learning were investigated in two classes. The results are shown in Figure 5. Table 6 shows the statistics of students' ideal English auxiliary teaching resources.

Table 6: Students' ideal English auxiliary teaching resources

Ideal resource	Many voices	Many pictures
Number of people	35	46
Percentage (%)	22.4	29.5
Ideal resource	Video	Animated
Number of people	56	19
Percentage (%)	35.9	12.2

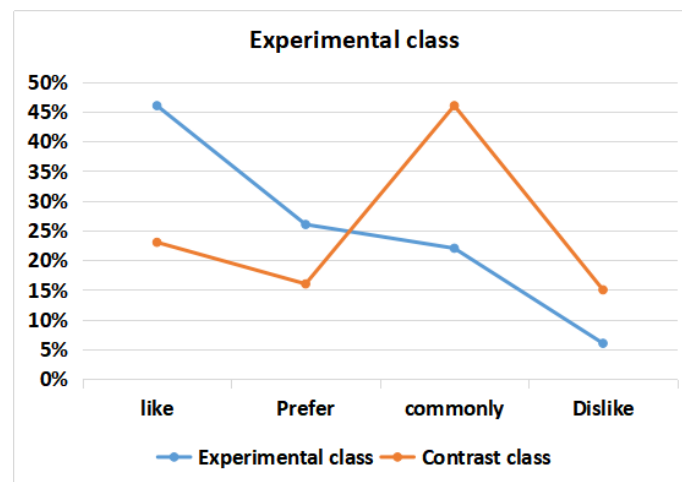


Figure 5: The results of student satisfaction survey

Figure 5 shows that learners' attitudes towards foreign languages are more positive. 46% of the students in the experimental class indicated that they liked learning foreign languages very much. 26% of the students showed that they liked learning foreign languages, while only 6% of the students showed that they did not like learning foreign languages. It can be seen from the picture that 22% of the students have a general attitude towards foreign languages, while 46% of the students in the control class have a general attitude. The attitude of the control class is not as positive as that of the experimental class. The results of the experiment are shown in Figure 6.

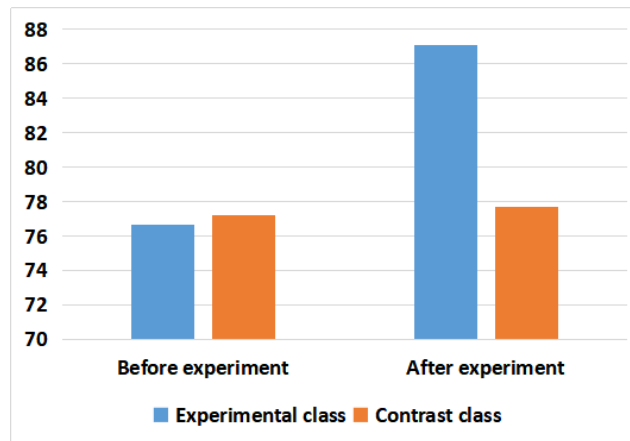


Figure 6: Comparison of academic achievements

After the experiment, there is a significant gap between the results. The results of the comparison chart reflect several main problems: first, students prefer foreign language as a subject, and compromise in multimedia teaching should be combined; second, in the current students' foreign language learning experience, almost all students are satisfied with the audiovisual effects of multimedia-assisted teaching courses. However, for multimedia courses, some students do not preview the course; third, students generally respond that multimedia teaching can cultivate students' interests in learning, focus easily, multimedia presentation of rich content, image, vivid, can expand knowledge, can save teachers' blackboard time.

5. Discussion

The design and development of foreign language teaching courseware should follow the principles of pedagogy and methodology, science and art. That's why you should comply with the requirements. 1. Course materials should be adapted to the structure of hypermedia. Hypermedia is a variant of hypertext, with a clear emphasis on multimedia. They enriched the course. At present, hypermedia system itself is one of them through the combination of media and hypertext, becoming an ideal knowledge structure and a kind of management. It's also easy to use. According to the actual situation, teachers are free to choose the course content again lane. 2. The course subsystem with text message contains a large amount of written text message information, which is an important source of knowledge for students. That's why you have to pay attention to the following points when designing: (1) Written content should be concise and concise, and expressed in bullet marks. The centre of gravity must be prominent. Some of the written material you don't have wants to be omitted because definitions, data and charts can be provided in another form. They will miss out after reading. (2) Written materials should be introduced step by step. With the development of courses, teachers can also gradually change the content on the screen to prove that students can easily concentrate on the introduction. Teachers can sometimes record various animations and add sound to attract students. (3) The type, size and shape of the font should be suitable for the screen. These works should be as large and obvious as possible. By the way, core lines, conclusions and summaries of different types, sizes, shapes and colors are marked. (4) The font color should match the background color. The principle is clearly readable. That's good. If you look at the screen for a long time, you'll feel less tired. Usually, fonts choose bright colors. On the contrary, the background is cloudy. 3. Some voices, music and other sounds should be added to the course materials. The human voice is suitable for a person's model pronunciation or something difficult to explain. Music and other people add loudly, teachers can better express the content. This is to attract and pay attention to students. If calm background music is playing, it can relax the pressure of teaching atmosphere, which is in line with students' reasoning. The design of music and sound should pay attention to the following points: (1) The rhythm of music should be consistent with the content of the course. When the focus content can send soothing and slow music effects to strengthen the course materials, while choosing fast music during the transition period is. (2) No extra music or sound is required. Too many voices become unfriendly, interfering and negatively affecting. (3) Background music should be calm, but not too enthusiastic. Otherwise, you can let students not focus on the content of the course. (4) To control background music easily, you can use switches or menus to do so. Teachers turn on or switch music as needed. 4. Design of graphics, images, animation and video. When graphics, pictures, animation and video take up a larger share of training

materials and good share of development, less use, better results. On the contrary, they can also play a negative role.

6. Conclusion

With the deepening of reforms, there are more theoretical studies on multimedia-assisted foreign language teaching than empirical studies. The strongest evidence for the adoption of multimedia-assisted foreign language teaching tends to be empirical studies. This paper broadens the research level and makes a comparative study of teaching presentation and coexistence in College English teaching. According to the characteristics of the multimedia foreign language teaching method implemented in the experiment, the new strategies of the multimedia foreign language teaching method in practice are summarized. The following is a summary of the study.

(1) Foreign language teaching is a multimedia-assisted teaching method that focuses on communicative methods and supplements grammar translation methods, listening and speaking methods, and task-based teaching methods. With the multimedia-assisted foreign language teaching method, teachers can flexibly arrange teaching activities according to specific teaching goals and lesson plans.

(2) The multimedia-assisted foreign language teaching method should follow the principle of teaching students in accordance with their aptitude and local conditions, and should also follow the principle of creating momentum according to the text and guiding the situation according to circumstances. Multimedia multidirectional teaching resources flexibly change the information transmission media, namely textbooks and supplementary books. According to the students' learning conditions, the teacher-oriented questions, tips and explanations can help students find the correct way of thinking in English learning.

In the process of improving students' foreign language to activate classroom atmosphere, teachers should integrate multimedia platform into foreign language teaching activities and design. The multimedia-assisted foreign language teaching method proposed in this article is a preliminary theoretical attempt to integrate and reform the above three foreign language teaching methods. It is not yet mature and needs to be tested many times in actual foreign language teaching.

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