



Experimental Data Analysis of College English Teaching based on Computer Multimedia Technology

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Abstract. In practical English teaching, the level of multimedia application of teachers is uneven, and it is not completely clear about the integration meaning, integration methods, and integration strategies of multimedia and curriculum teaching. There are also many problems that need to be solved urgently in teaching. This paper uses English translation for the application of computer multimedia-assisted teaching, and uses multimedia resources, online translation software, and online English translation tests to fully mobilize students' interest in learning. The use of multimedia-assisted teaching resources is to create a real English learning environment for students, focusing on strengthening the training of college English translation, so that students really feel the standard English translation and grammar knowledge. This provides a reference for the construction of English teaching network. Practice has proved that the application of task-based language teaching method in English multimedia translation classroom teaching has significant advantages. It combines the advantages of modern multimedia technology and task-based language teaching method. It integrates multimedia courseware, teachers and students through a series of tasks, forming a dynamic teaching model. It is advisable to optimize college English multimedia classroom teaching and improve students' language awareness and ability.

Keywords: English translation teaching, task-based translation teaching method, multimedia classroom, computer multimedia technology.

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1 INTRODUCTION

College English classrooms based on computer multimedia technology integrate text, pictures, sound, animation and video Eskelinen, Juha et al [1]. Vivid and intuitive computer multimedia technology elements break through the key points of teaching, and have the human-computer interaction that traditional teaching does not have. It can change from abstract to intuitive, from static to dynamic, and appropriately create a realistic teaching environment so that students are infected by specific situations and atmospheres, and actively participate in class thinking and discussion [2-4]. By mobilizing the initiative of students, they are in the best state of learning. The

large amount of classroom information in English translation teaching uses computer multimedia technology to improve personal learning efficiency and classroom teaching efficiency.

Computer-assisted teaching is from United States, and its related research results are second to none in the world Christina Guenther et al [5,6]. Relevant scholars have divided computer-aided English teaching into two stages: the first stage is structuralist computer-aided teaching; the second stage is communicative computer-aided English teaching [7-9]. With the advent of the "information superhighway" era, teachers have widely used multimedia technology to assist English teaching, and students have also used multimedia technology to obtain learning resources and conduct autonomous learning [10]. Through the use of computers to develop a speech classroom, language teaching and learning training, computer and other auxiliary teaching resources are gradually used in language practice exercises Lucinea Marcelino Villela [11]. Relevant scholars believe that the information-assisted English teaching model based on information technology has been basically mature, and college English teaching led by multimedia-assisted teaching has become the main practice of modern universities [12-14].

This article uses the theory of constructivism, psychology, and pedagogy as the theoretical basis to analyze the connotation and advantages of the integration of multimedia technology and English teaching. Two classes of English teaching were selected to investigate, analyze and sort out various problems in the application of current multimedia technology in English teaching, and put forward the necessity of effective integration of multimedia technology and English teaching. The control class is mainly traditional teaching, and still uses the previous teaching methods and teaching methods. The experimental class adopts the "multimedia technology and English teaching integration method. According to different English classrooms, different English teaching methods, and different English teaching skill goals, different multimedia integration methods are matched. The role of teachers and students in the integration of multimedia technology and English teaching is renewed.

2 COMPUTER-ASSISTED MULTIMEDIA-ASSISTED TEACHING OF ENGLISH TRANSLATION

2.1 Definition of Related Theories and Concepts

1) Humanistic education theory

Humanistic learning theory believes that teaching activities should be student-centered. Learners are individuals with thoughts, abilities, and needs. Learning is the composition of students' active meaning construction. Teachers are only promoters of teaching activities. The purpose of education is to achieve meaningful experience learning, and ultimately to promote the personal growth of learners, in order to cultivate people who are intellectually and emotionally integrated. In the teaching process, teachers should not be the center of indoctrination, but students should be the center of students' interests.

In the design of English-assisted instructional resources, attention is paid to students 'hobbies, which is in line with students' psychological development and cognitive levels.

2) Constructivist teaching theory

Learning is centered on the learner and actively constructs its internal psychological representation through the interaction between the learner and the external environment. Constructivism believes that the learning process includes two parts, one is the reorganization and reconstruction of the original knowledge, and the other is the meaning construction of the newly acquired knowledge. The teacher plays the role of guide and organizer in the teaching process, and helps the teacher reorganize and transform knowledge among students. Constructivism emphasizes that learners should actively build new learning situations based on the original knowledge and experience and cognitive characteristics, and actively make meaningful understanding of new knowledge through cooperation and communication. In the teacher-student relationship, constructivism regards teachers as the guides of learning, and emphasizes the teacher-student relationship of "teacher-led, student-centered". Facilitators and helpers enable students to understand new knowledge and promote their meaningful construction.

With the support of constructivist theory, using multimedia and other resources to assist college foreign language teaching can improve college English teaching efficiency.

3) Developmental evaluation theory

Developmental evaluation theory specifically refers to the discontinuous evaluation of traditional teaching, which only focuses on results. Multimedia teaching pays more attention to students' participation in teaching. Therefore, it is a developmental evaluation that tends to focus on students' teaching process. Developmental evaluation theory originates from formative teaching evaluation theory, runs through the teaching process, and ends with promoting the development of evaluation objects. Different from formative teaching evaluation, developmental evaluation theory is no longer confined to improving the level of teaching work.

The evaluation of students' English learning effects follows developmental evaluation theory, pays attention to students' participation in teaching activities, and integrates teaching evaluation throughout teaching activities. The developmental evaluation of college English emphasizes respect for the personality of students, emphasizes taking students as the center, focusing on improving work, and improving the teaching process in the implementation of teaching activities.

4) Definition of teaching resources

In a broad sense, teaching resources refer to all the elements that can be used by the learners in the education process, including human, material, financial, and educational information that support teaching, support teaching, and so on. In a narrow sense, teaching resources mainly include teaching materials, teaching environments, and teaching support systems. Generally speaking, teaching resources are various conditions that can be used to ensure the effective development of teaching activities, including pictures, teaching materials, courseware, film and television, and cases, as well as teaching aids, blackboards, multimedia, teachers, and so on.

5) Definition of auxiliary teaching resources

Auxiliary teaching resources mainly refer to teaching resources that can assist teaching activities, such as multimedia electronic classrooms, micro-teaching classrooms, and teaching resources for various video and animation displays. Assisted teaching resources have promoted the reform of education, expanded subject knowledge, strengthened skills training, and inspired and promoted the learner's thinking. Its function not only affects its own value, but also directly affects the education process. In the process of education, we must accurately understand and grasp the function of auxiliary teaching resources, so that it can play the greatest effect. Teachers are no longer limited to chalk and blackboards, and multimedia technology has provided more interactive, intuitive, vivid, virtual and realistic teaching.

2.2 Application of Multimedia-assisted Teaching Resources for English Translation

Teachers use computer networks to download some background knowledge materials related to the translation of texts, and show them to students in the form of videos, animations, etc., to fully mobilize the visual and auditory sensory systems of students. They stimulate students' interest in English translation in a real language and cultural environment, build scaffolds for translating texts, lay the foundation for students to enter the learning environment, and guide students to perform translation exercises step by step. In addition, some translation software is becoming more mature, such as Google translation software, Lingo, etc. Students use this translation software to perform autonomous translation exercises. Whether it is vocabulary, phrases or long difficult sentences, they can find the correct translation form in this translation software, eliminating the tediousness of looking up dictionaries, and making translation learning more efficient. The usage ratio of various multimedia-assisted teaching resources for English translation is shown in Figure 1. It can be seen from Figure 1 that the proportion of multimedia courseware is the largest.

2.3 The process of Teachers Using Multimedia-Assisted Teaching Resources for Translation Teaching

They use multimedia technology to make translated texts into courseware to show to students, and slowly enter the English translation scene. The teacher tells the students translation skills, encourages students to discuss in groups, and tries to translate English texts by themselves. When

students encounter unfamiliar vocabulary or grammar knowledge, they can use the translation assistance software to query. Finally, the teacher analyzes and summarizes the translation results, and forms a complete and correct English translation after discussion and repeated revisions by the teacher and students.

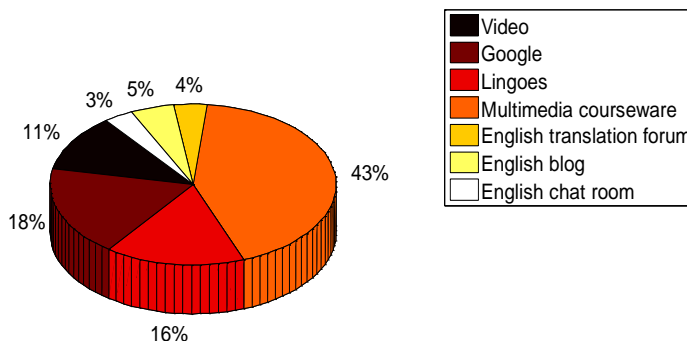


Figure 1: Proportion of multimedia assisted teaching resources for English translation.

With the assistance of the multimedia network for translation exercises, you can obtain translation materials and resource sharing on the network. The Internet also provides a perfect space-time communication platform for each learner, free from the constraints of time and region, and they learn and communicate with other translation learners through forums, blogs, E-mail, chat rooms, etc. The "Trinity" model structure of English translation teaching is shown in Figure 2.

2.4 Evaluation of Teaching Effect

Traditional teaching evaluation uses mid-term or final exams to evaluate teaching effects. The evaluation methods are relatively single and cannot fully reflect students' learning scores and learning effects.

The evaluation content includes the student's learning method, learning process and learning effect. The evaluation method should include self-evaluation and other evaluation. For example, before teachers use multimedia-assisted teaching resources to teach English translation lessons, teachers can speak professional-level test questions and post them on the webpage for students to download exercises, conduct pre-teaching tests, and understand students' actual English translation level. This formative evaluation mainly includes observation, questions, discussions, exercises, assignments and quizzes. They implement final assessments at the end of the staged teaching or the entire teaching plan, and also use the form of tests to determine the impact of multimedia-assisted college English teaching resources on students' scores and teaching effects, and provide guidance on whether to use such auxiliary teaching resources in the future and how to improve them.

Of course, in the entire evaluation process, the evaluator must maintain an objective mentality, evaluate the learner's learning results in a timely manner, and follow the guiding and holistic teaching evaluation principles.

2.5 Integrated Strategies of Multimedia Technology and Senior High School English Teaching

1) Principle of integration

(1) Principles of teaching based on talent

There will be some differences between people. Each teacher's teaching methods are different. Each student's learning habits are different. The learning focus of each subject is different. The differences in learning can be seen everywhere. Learning effects, we must make an analysis of the

differences in various places, according to the specific teaching practice, choose the appropriate teaching method, so as to achieve the desired results.

The specific learning situation of each student is different. Teachers cannot treat all students with the same teaching method and cannot ignore the individual differences of each student. At the same time, teachers must pay attention to the teaching process to the difference of each new knowledge point, which teaching method can be used to enable students to simply understand this knowledge content, these need to take time to consider.

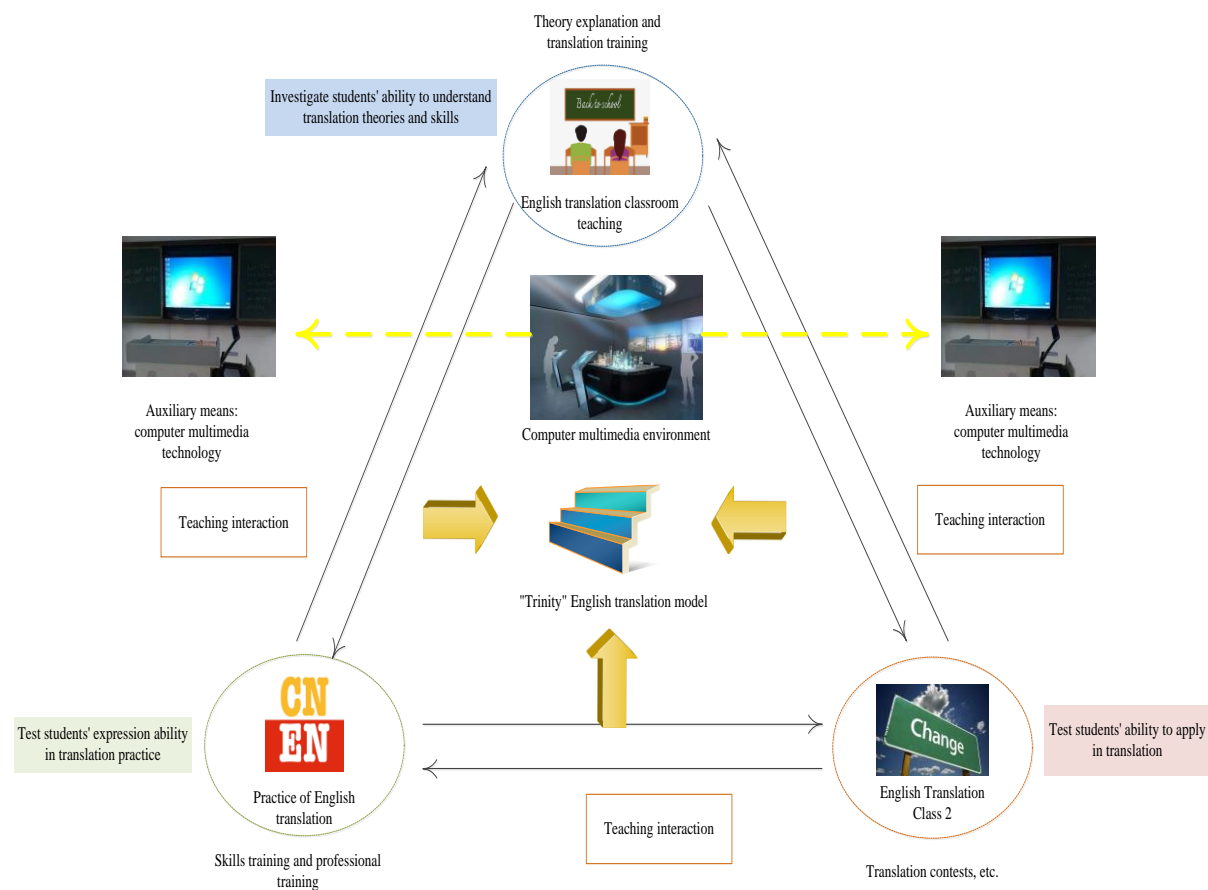


Figure 2: The "Trinity" model framework for English translation teaching.

The choice of some courses is also closely related to the teaching results of teachers. Under the premise of integrated multimedia teaching, teachers must coordinate which knowledge content is suitable for which teaching mode, make a reasonable allocation of resources, achieve a rational allocation of resources, and do not waste resources. Through reasonable coordination, the advantages of multimedia integrated teaching can be brought into full play, focusing on the effective combination of multimedia integrated teaching and traditional teaching methods, and highlighting the good effect of teaching methods on teaching results.

Different course contents and knowledge points need to be matched with different teaching concepts and teaching methods. We all know that each teaching method has its merits. The key is that its implementation needs to be correct. The choice of multimedia integrated teaching and traditional teaching methods depends on the specific teaching situation, and cannot be chosen blindly, otherwise it will have the opposite effect. Realizing the combination of multimedia integrated teaching and traditional teaching methods is the basis for good teaching results.

(2) Principle of complementary advantages

For the majority of students, multimedia integrated teaching and traditional teacher teaching have certain merits. At the same time, there are some problems with their two teaching methods. Under the previous teaching method, the teacher's unique teaching method and lecture level can be greatly exerted; and under the current multimedia integrated teaching method, various forms of multimedia technology and massive network resources have great appeal. From the perspective of maximizing the level of teaching, we need to combine the unique teaching abilities of teachers with modern advanced multimedia resources, while ensuring the teacher's guidance in the classroom, and maximizing the students' learning. They coordinate the use of multimedia to integrate the teaching mode and traditional teaching methods, forming a good situation where the two advantages are complementary.

(3) Principle of Moderation

We need to master a moderate amount of original shellfish. The original intention of teachers to use multimedia integrated teaching is to broaden the knowledge of students and improve their learning level through modern advanced information technology; teachers must supplement and update relevant knowledge during the implementation of specific courses. The content of the courseware seen by the students is the most accurate. In the classroom using multimedia, in addition to preparing the relevant content of the courseware in advance, the teacher should also briefly explain those contents so that the students can fully understand those points of knowledge. Multimedia integrated teaching is the result of the rapid development of modern information technology. Through it, we can convert a single knowledge content into various forms, which greatly facilitates the teaching work of teachers and students. However, many teachers do not make proper use of this resource. Some teachers regard multimedia teaching as a substitute for their own work. The daily lessons are in a state of continuously playing slide shows, giving up their own activities in the entire classroom. leading position. There is no active atmosphere for learning. Being in this state of study for a long time will obliterate the students' enthusiasm for learning, lose their interest in learning, and gradually leave the relationship between teachers and students. Therefore, in the specific teaching situation, we must choose the appropriate teaching method based on the teaching reality, and we must also pay attention to abiding by the principle of moderation, and we must not abuse the multimedia integrated teaching method.

2) Role positioning of teachers in a multimedia environment

In the entire teaching process, teachers are in the guiding position of teaching, and teachers have an important role that cannot be ignored. A large number of scientific studies have shown that a good teaching relationship between teachers and students is very conducive to the implementation of teaching work. English, as a language discipline, has its unique characteristics. English listening, speaking, reading, and writing are all important parts of English learning. As a highly practical and practical subject, English learning needs a good learning atmosphere, and an active teaching environment can strengthen students' learning efficiency. Good communication between teachers and students can help students' knowledge and thinking diverge. In such a dynamic course, if the teacher simply chooses a fixed multimedia courseware to play the slide show, it will stifle the vitality and anger of the entire classroom and suppress the students' enthusiasm for learning. The entire lesson is constantly changing slides, the communication between the teacher and the student is omitted, the discussion between the classmates is simplified, and the entire classroom, including the teacher and the student, serves as a backdrop for the multimedia courseware. This has caused the adverse effects of putting the cart before the horse and putting the cart before the horse. Therefore, in a good classroom, teachers should arrange teaching methods in a timely manner to ensure the status of students as subjects of learning. All other means are tools to assist them in better learning.

The multimedia integrated teaching mode is only a tool for the convenience of teachers' teaching. We cannot over-amplify its role, let alone ignore the leading role of teachers in the entire teaching activities. Some people may have misunderstood this concept and believe that the emergence of multimedia integrated teaching marks the disappearance of traditional teaching methods. After that, the teacher's main task is to make multimedia courseware and play the multimedia courseware in the classroom. In fact, this idea is very wrong. Although some teachers

did use the integrated multimedia teaching method in this way, their dominance in the classroom cannot be ignored, and it is impossible to disappear. The course that is only conducted through multimedia integrated teaching is incomplete, and the implementation effect of the course is very low. In such a course, students' enthusiasm for learning will gradually decline, and students' grasp of knowledge content will also be very limited.

3 THE EFFECT AND DISCUSSION OF TASK-BASED TRANSLATION TEACHING IN ENGLISH MULTIMEDIA TEACHING

3.1 Experimental Form

In final exam, the college English teaching department will give unified questions. The students' final answers will be reviewed by computer and the final score will be reported by computer. The test has reliable reliability. The purpose of conducting a comparative survey of final exam scores is to use a quantitative method to test whether the task-based teaching method will affect students' regular learning, whether it will affect the learning and mastery of skills other than English translation skills, and whether it will eventually affect students' Ending score.

3.2 English Test Score Analysis

The effect of task-based language teaching on students' English scores under multimedia conditions is shown in Figure 3. As can be seen from Figure 3, the average scores of the experimental class and the control class are very close.

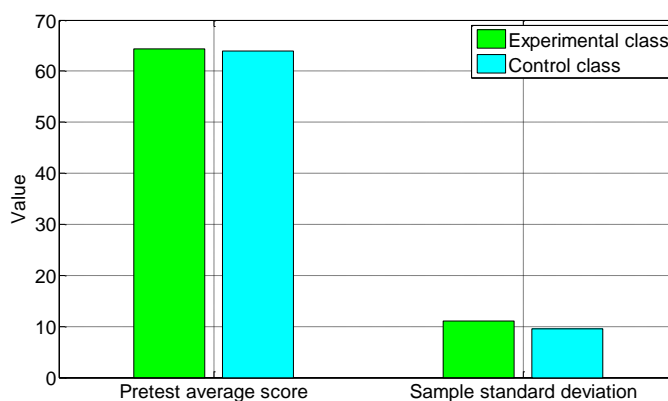


Figure 3: Pretest results of the experimental class and the control class.

The post-test scores of the experimental group and the control group were significantly different, as shown in Figure 4. The comparison of the average scores of the final exams in the experimental class and the control class is shown in Figure 5. The impact of teaching on students in different grades is shown in Table 1.

The comparison of the scores of the pre-test control class and the experimental class is shown in Figure 6. The comparison of the scores of the post-test control class and the experimental class is shown in Figure 7. Table 2 shows the standard deviations of the pre-test scores and post-test scores of the experimental class and control class.

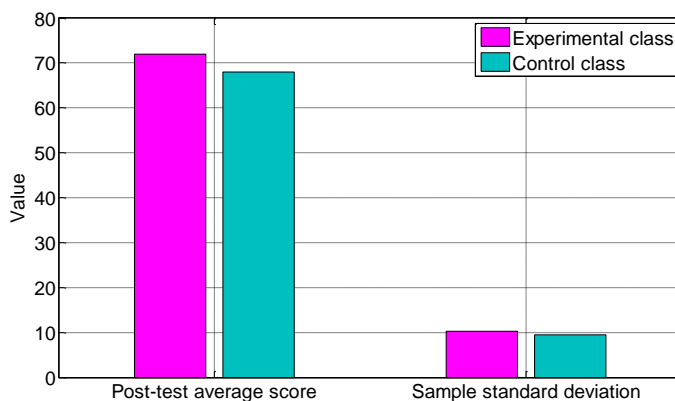


Figure 4: Test results of the experimental class and the control class.

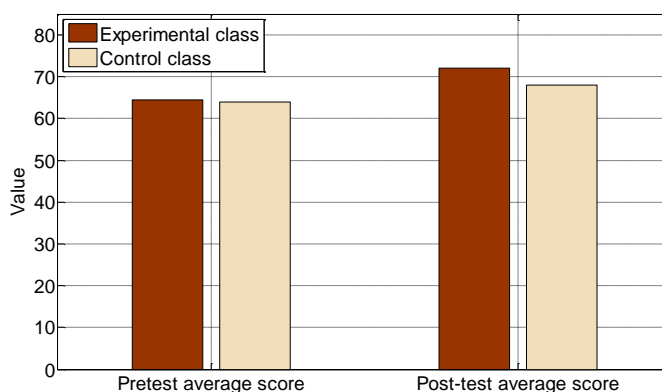


Figure 5: Comparison of the average scores of the final exams in the experimental class and the control class.

Class	Student level	Pretest average score	Post-test average score
Experimental class	Good	78.5	83.5
	General	65.3	78.2
	Not good	60.2	69.1
Control class	Good	76.1	79.2
	General	67.8	70.8
	Not good	59.1	63.5

Table 1: Statistical description of student scores in different grades.

3.3 Research Analysis

In the classroom under multimedia conditions, teachers must organize, apply, produce, and process teaching information before class. In the classroom, they should be competent in operating, controlling teaching information, coordinating the relationship between the media and between teachers and students, doing a good job of questioning and actively eliminating disadvantages such as students' distraction or excessive dependence on multimedia. In fact, teachers play various roles such as controller, organizer, coordinator, and mentor. They let students participate in teaching activities autonomously and actively, getting the corresponding satisfaction, maximizing the intrinsic motivation of learning.

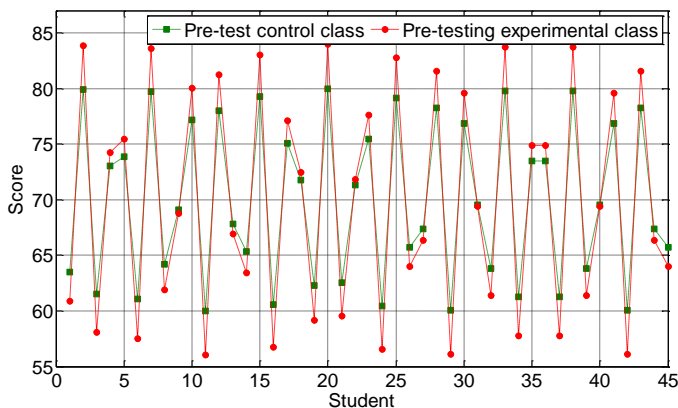


Figure 6: Comparison of scores of pretest control class and experimental class.

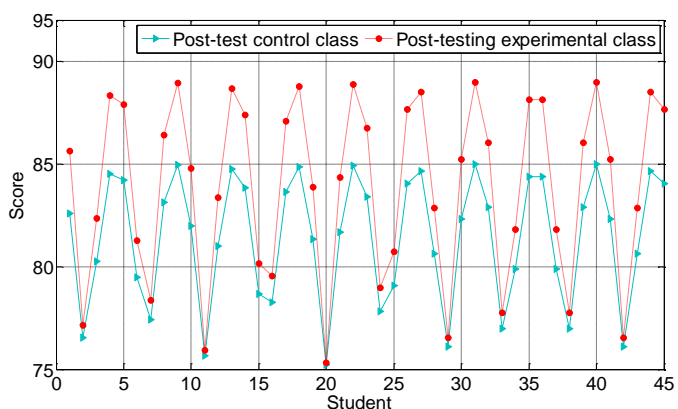


Figure 7: Comparison of scores of post-test control class and experimental class.

Class	Student level	Pretest standard deviation	Post test standard deviation
Experimental class	Good	5.2	4.1
	General	2.8	3.4
	Not good	5.7	6.0
Control class	Good	6.1	7.3
	General	2.6	6.7
	Not good	4.2	4.5

Table 2: Standard deviation of pretest scores and standard deviation of posttest scores in experimental and control classes.

They exercise their cognitive ability, develop students "problem awareness" and critical thinking, improve students' autonomous learning ability, and provide conditions and opportunities for the development of English translation skills. The task-based language classroom under the multimedia condition avoids the multimedia courseware occupying the activity space.

The multimedia condition provides students with various forms and opportunities of real-world stimulation and output, and creates a learning environment that enables them to conquer difficulties, achieve success, and gain benefits. In this teaching mode, students transform the knowledge and skills acquired through completing tasks into real-life applications. Students try to use the language they have learned to solve task problems, overcome difficulties, and develop the ability to interact with people.

In the multimedia task-based teaching classroom, teachers use various forms of cooperation to develop the potential of student interaction, establish real interpersonal communication, and form a teaching situation where teachers and students interact harmoniously, making the classroom atmosphere warm and orderly. Students will not be tired of learning because of facing cold classes for a long time. The strengthened teacher-student interaction also allows students to communicate with their teachers normally.

4 CONCLUSION

In the application of multimedia-assisted English translation teaching resources, teachers use computer networks to download some background knowledge materials related to translated texts, fully mobilize students' learning interests, and build scaffolds for translated texts. They use multimedia technology to make translated texts into courseware to show to students, and slowly enter the English translation scene under the guidance of teachers. The teacher talks about the translation skills to the students, encourages the students to try to translate the English texts by themselves, and finally completes and corrects the English translation results after discussion and repeated revision. It combines the advantages of modern multimedia technology and task-based language teaching methods, and organically links multimedia courseware, teachers, and students through a series of tasks to interact and form a dynamic teaching model. Practice has proved that the task-based teaching method under multimedia conditions is advisable in optimizing college English multimedia teaching and improving students' language consciousness and ability, but if it is widely implemented, it requires the joint efforts and support of teachers, students and schools.

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