Research on Adaptability of College English Teaching and Learning Based on Multimedia Technology Environment

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Abstract: Multimedia technology is mainly based on computer-based multimedia classrooms, language labs, network classrooms, autonomous learning centers and campus networks. They will jointly build one of the important environments for future college English teaching and learning. However, since the implementation of multimedia technology, the degree of adaptation of college teachers and students to their English teaching and learning has not been widely and accurately understood. This has brought difficulties to understand the current situation of teaching, to develop follow-up curriculum planning, and to improve teaching quality. This paper takes 100 first-line college English teachers and 500 full-time non-English major undergraduates who offer college English courses as the research object. Through the online electronic questionnaire survey, their adaptability of college English teaching and learning in the multimedia technology environment were studied through the network electronic questionnaire survey. The survey results show that more than 30% of first-line English teachers and more than 20% of undergraduates have different levels of "inadaptability" in multimedia learning and teaching. The reason why teachers' "inadaptability" is mainly "multimedia devices" It is difficult to master, and the reason why college students are "incompatible" is that "the learning resources are too rich and it is difficult to concentrate." The paper discusses the results of the survey in detail and proposes corresponding suggestions and improvement measures.

1. Introduction

Multimedia has the characteristics of integration, interactivity and control. Teachers don't have to stick to blackboard chalk in the teaching process, and learners don't have to rely on rigid textbooks. They use multimedia-assisted teaching and learning to get more and more English learners' concerns [1]. In recent years, the whole language, task-based teaching, information structure theory and constructivist learning theory proposed in the field of language education advocate that language learning should be carried out in natural, real and complete language scenarios, so that computer multimedia technology is applied to the teaching of college English. Among them, it integrates sound, text, picture and image. In English teaching, it is popular among students because of its teaching flexibility, content richness and novelty. Through the use of multimedia technology, students' enthusiasm for learning can be fully mobilized, so that the teaching effect of college English teaching can be achieved with half the effort [2]. The application of multimedia technology to teaching brings new ways of learning and teaching methods, which requires students and teachers to pay the cost of adapting to multimedia technology. Adapting teachers and students to the information technology teaching environment is a difficulty in integrating multimedia technology and curriculum from theory to practice. Teaching management departments and teachers must make full estimates of this, so as to smoothly pass the adaptation period and promote the integration of multimedia technology and curriculum has been effectively applied and developed in practical teaching. The predecessors also studied, explored or analyzed the adaptability of college English teaching and learning in the multimedia environment [3,4], but the problems are often concentrated on teachers. The teaching or the single aspect of the student's learning, but did not comprehensively
study the two aspects of college English teaching and learning. Although some predecessors' research involves two aspects of teaching and learning, the research time is still several years or even ten years ago. This paper takes 100 first-line college English teachers and 500 full-time non-English major undergraduates who offer college English courses as the research object. Through the online electronic questionnaire survey, their adaptability of college English teaching and learning in the multimedia technology environment were studied through the network electronic questionnaire survey. The research results of this paper lay the foundation for understanding the current situation of college English teaching, formulating follow-up curriculum planning, and improving teaching quality.

2. Study Methodology

This paper mainly uses questionnaires and mathematical statistics to analyze and study the adaptability of college English teaching and learning in the multimedia technology environment. The questionnaires are designed in two forms, which are for online English teachers and full-time undergraduate students. Teachers and students can fill out and submit questionnaires through mobile devices, iPads, computers and other terminal devices. The questionnaire content for teachers mainly involves teachers' ability to master the operation and use of current multimedia hardware and software; whether the role of teachers can be changed from purely imparting language knowledge to design teaching; whether teachers can fully utilize multimedia creation Situation, provide facts, present process, show examples, let students use a variety of senses to observe, perceive, analyze, compare, deduct and summarize, and gradually complete the tasks of guiding and guiding; whether the leading role of teachers can focus on inspiring and guiding and improve the subjectivity of students, stimulate the inner desires and requirements of learning, help students to achieve the transition from passive acceptance to active exploration; whether teachers can make students feel the joy of learning, the more they learn, the more they enjoy, and the more they enjoy it, thus changing the phenomenon of less, slower, worse, more expensive, and tired of learning and abandoning school[5]. The content of the questionnaire for students mainly relates to the adaptability of students to the learning resources provided by multimedia; the adaptability of students to multimedia carriers; the ability level of students to master multimedia technology; the students' novel and distinctive English in the network environment. The attitude, the interest expressed and the self-achievement achieved by the teaching model; the difficulty of students adapting to the network English teaching materials and using the network independent learning center; the learning atmosphere of the students in the online classroom environment, the learning environment of the autonomous learning center The integrated English resource environment and the enthusiasm of the network learning system. In order to ensure the representativeness of the survey sample, 100 first-line college English teachers and 500 full-time non-English major undergraduate students who offered college English classes were selected as the survey subjects. 75 female teachers, accounting for 75% of the total number of teachers interviewed; 25 male teachers, accounting for 25% of the total number of teachers interviewed; 20 teachers aged 30-40, 40-50 years old teachers 50 people, 30 teachers aged 50-60, accounted for 20%, 50% and 30% of the total number of teachers interviewed. There are 250 male and female students, each accounting for 50% of the total number of students surveyed; 300 in the first year of the university and 200 in the second grade, accounting for 60% and 40% of the total number of students surveyed respectively. There are 400 students in science and engineering and 100 in liberal arts, each accounting for 80% and 20% of the total number of students. The detailed survey object information statistics are shown in Table 1.
3. Survey Results and Analysis

After obtaining the feedback results of the questionnaire survey, this paper uses the method of mathematical statistics to analyze the survey results in detail. The results show that about 35% of first-line college English teachers have different levels of “inadaptability” in multimedia-based English teaching; male teachers account for about 40%, female teachers account for about 60%; in these “inadaptability”, about 10% of the state is “extremely inadaptable” and about 30% is “generally inadaptable”, and about 60% is “slightly inadaptable”; In the case of “inadaptability”, about 60% of the reason is “multimedia devices are difficult to master”, about 30% of the reason is “multimedia technology environment is difficult to convey their own teaching ideas”, and about 10% of the reason is “multimedia technology environment can not bring substantial improvement in the quality of English teaching.” The survey results of teachers are shown in Figure 1.

![Figure 1. Teacher's survey results](image)

(a) Proportion of “adaptability” and “inadaptability” among teachers; (b) Proportion of male and female among “inadaptable” teachers; (c) Proportion of different type of “inadaptability”; (d) Proportion of different reasons of “inadaptability”; Reason 1: “multimedia devices are difficult to master”; Reason 2: “multimedia technology environment is difficult to convey their own teaching ideas”; Reason 3: “multimedia technology environment can not bring substantial improvement in the quality of English teaching”

The results show that about 25% of full-time non-English major undergraduate students who have offered college English classes have different levels of “inadaptability” in multimedia learning. Among them, male students account for about 55%. Students accounted for 45%; college first-year students accounted for 60%, university second-year students accounted for 40%; science and engineering students accounted for about 65%, liberal arts students accounted for about 35%; in these "inadaptability" state, about 5% are “extremely inadaptable”, about 55% are “generally

### Table 1 Survey object information table

<table>
<thead>
<tr>
<th>Group</th>
<th>People number</th>
<th>Gender</th>
<th>Age group</th>
<th>Grade</th>
<th>Major type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>30-40</td>
<td>Freshman</td>
<td>Science and engineering</td>
</tr>
<tr>
<td>Teachers</td>
<td>100</td>
<td>75</td>
<td>40-50</td>
<td>Sophomore</td>
<td>Humanities and Arts</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>Male</td>
<td>50-60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>500</td>
<td>250</td>
<td>—</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td></td>
<td>250</td>
<td></td>
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<td>200</td>
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<td></td>
<td>—</td>
<td>400</td>
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<td></td>
<td>—</td>
<td></td>
<td>—</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
“inadaptable”, and about 40% are “slightly inadaptable”; In the case of “inadaptability”, about 70% of the reason is “multimedia environment learning resources are too rich and difficult to concentrate”, about 20% of the reason is "English learning in multimedia environments wastes a lot of time", and 10% of the reason is “multimedia technology environment can not bring substantial improvement in English learning quality.” The survey results of students are shown in Figure 2.

![Figure 2. Student's survey results](image)

(a) Proportion of “adaptability” and “inadaptability” among students; (b) Proportion of male and female among “inadaptable” students; (c) Proportion of freshmen and sophomore among “inadaptable” students; (d) Proportion of different major type among “inadaptable” students; (e) Proportion of different type of “inadaptability”; (f) Proportion of different reasons of “inadaptability”; Reason 1: “multimedia environment learning resources are too rich and difficult to concentrate”; Reason 2: “English learning in multimedia environments wastes a lot of time”; Reason 3: “multimedia technology environment can not bring substantial improvement in English learning quality”

Comparing the statistical results of this survey with the previous studies [1-5], it is found that with the advancement of time and the advancement of information technology, teachers and students in the multimedia technology environment The adaptability of college English teaching and learning has been significantly improved compared with previous years, especially in students; this shows that as more and more teachers and students are gradually accepting and integrating English teaching and learning in multimedia mode learning; a new generation of young students is
more likely to integrate and adapt to English learning in a multimedia technology environment because of the early exposure to electronic information devices; on the other hand, with the gradual replacement of new teachers and teachers, there will be more and more Teachers adapt to the English teaching of multimedia.

In the current frontline college English teacher echelon, most of the teachers have adapted to the multimedia teaching of English. They realized their own teaching planning in the multimedia classroom, integrated their own teaching ideas and achieved better teaching results. Among the few “inadaptable” teachers, the proportion of women is slightly higher than that of men, and the proportion of “extremely inadaptable” groups is very low. From the perspective of “inadaptability”, the older teachers who are not familiar with multimedia technology are the proportion of the “inadaptability” group is higher.

Among the undergraduate students who are full-time non-English majors who offer college English classes at present, most of the students have adapted to the English learning in the multimedia environment. They have completed the learning tasks, experienced the multi-sensory learning experience and improved academic achievement in the multimedia classroom. Among the few students who are “inadaptability”, the proportion of male students is slightly higher than that of female students. The lower grade students are higher than the upper grade students and the science and engineering students are higher than the liberal arts students. The “extremely inadaptability” group is also very low. From the perspective of “inadaptability”, it should be that individual study habits lead to some students not adapting to the English learning environment of multimedia technology environment.

4. Conclusions

With the combination of sound, text, graphics, the multimedia technology has become one of the important environments for future English teaching and learning because of its flexibility, content richness and novelty in college English teaching and learning. This paper takes 100 first-line college English teachers and 500 full-time non-English major undergraduates who offer college English courses as the research object. Through the online electronic questionnaire survey, their adaptability of college English teaching and learning in the multimedia technology environment were studied through the network electronic questionnaire survey. The survey results show that about 35% of first-line English teachers and about 25% of full-time non-English major undergraduates who offer college English classes have different levels of “inadaptability” in multimedia learning and teaching. Among the few “inadaptable” teachers, the proportion of women is slightly higher than that of men, and the proportion of “extremely inadaptable” groups is very low; those who are not familiar with multimedia technology are more likely to be in the “inadaptability” group; Among the students who are “inadaptable”, the proportion of male students is slightly higher than that of female students. The lower grade students are higher than the upper grade students and the science and engineering students are higher than the liberal arts students. The “extremely inadaptable” group also has a low proportion. It should be that individual study habits lead to some students not adapting to English learning in the multimedia technology environment.

References


