



A Study on the Ways to Improve English Listening and Speaking Abilities of College Students in a Multimodal Environment

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Abstract. This study aims to explore the ways to improve the English listening and speaking abilities of college students in a multimodal environment. By combining various teaching methods such as multimedia teaching, online interactive platforms, and actual scene simulations, this study analyzes the effects of these methods on improving students' English listening and speaking abilities. The research results indicate that multimodal teaching methods can effectively stimulate students' interest in learning, improve their language practice ability, and thereby enhance their English listening and speaking skills. This study has positive reference value for optimizing the teaching mode of college English listening and speaking and improving teaching quality.

Keywords: Multimodal environment, college students, English listening and speaking abilities, multimedia teaching

1 Introduction

In today's world where globalization is accelerating and information technology is developing rapidly, the listening and speaking abilities of students who use English as their main international communication language are becoming increasingly important. However, the traditional English teaching model usually only focuses on learning grammar, vocabulary, and other aspects, neglecting listening and speaking abilities, which greatly hinders students' English communication^[1]. Multimodal teaching, as an innovative teaching strategy, opens up new avenues for enhancing students' English listening and speaking skills by integrating various teaching tools and resources. Therefore, this article aims to explore effective methods to enhance the English listening and speaking abilities of college students in a multimodal environment, in order to provide reference and inspiration for the reform of college English listening and speaking teaching^[2].

2 Multimodal Theory and the Connotation of Multimodal Patterns

The concept of multimodality was first proposed by Western countries, and later formed a theoretical system suitable for teaching various disciplines through the research and exploration of relevant scholars and experts. Especially in the field of language teaching, its application is more common and the application effect is very ideal^[3]. The foundation of multimodal theory is the relationship between thinking and language, which not only covers the theory of language system function, but also involves the latest research results in the fields of conversation analysis, image analysis, and cognitive science. It emphasizes the implementation of teaching activities through PPT and videos to deepen students' understanding and memory of language. With the increasing emphasis and research on multimodal theory in the Western education field, corresponding teaching methods have also shown diversified development. After the introduction of multimodal theory into China, China has focused its research efforts on various forms of expression such as images, videos, and sound. Language teaching is no longer limited to the teaching content of language itself, but has begun to pay attention to the integration of language teaching with other fields^[4]. And through the analysis and comparison of single modality and multimodal, the feasibility of promoting multimodal teaching in the field of education in China was verified once again. At present, multimodal teaching has been promoted in the education systems of major universities in China, and has been applied in the fields of discourse analysis, language teaching, and reading, writing, listening, and speaking, achieving very ideal application results. At the same time, the promotion and application of multimodal models provide new ideas for teachers in major universities in China to innovate their teaching models. In the actual teaching process of English majors, teachers can create a realistic English communication environment for students through sound, images, and videos, so that students can better grasp the cultural background of the English, effectively improve their comprehensive literacy and English language ability. In English listening teaching, the application of multimodal modes can not only help students learn English vocabulary and grammar, deepen their memory of English vocabulary and grammar, but also significantly improve their comprehension ability of English listening materials based on English culture^[5].

3 Integrating Multimedia Teaching Resources

In today's rapidly developing information technology, the impact of multimedia teaching resources on college English teaching is becoming increasingly significant. A multimodal environment emphasizes information diversity and strong interactivity, providing broad space for improving the English listening and speaking abilities of college students. In this situation, the integration of multimedia teaching resources becomes very important, and the integration of multimedia teaching resources is conducive to enrich teaching content and forms^[6]. The traditional English teaching model is usually limited to textbooks and teacher explanations. Introducing multimedia

teaching resources can provide students with richer and more vivid learning materials [7].

For example, when teaching students, incorporating English original sound films, documentaries, news broadcasts, and other audiovisual materials can make them feel the charm of English in a real background, enhance their listening and speaking abilities, and the integration of multimedia teaching resources is conducive to promoting students' interest and initiative in learning. Multimedia teaching resources have diverse forms and strong interactivity, which can stimulate students' interest and curiosity in learning. By integrating game-teaching, role-playing, and online interactive teaching methods, students can engage in English learning in a relaxed and enjoyable atmosphere, enhancing their learning effectiveness. In addition, integrating multimedia teaching resources is also beneficial for cultivating students' self-learning ability and cross-cultural communication ability. By integrating online learning resources and platforms, students can engage in self-directed and collaborative learning anytime and anywhere, thereby improving their English listening and speaking abilities and strengthening their cross-cultural communication awareness and abilities [8].

The central problem, however, remains the same. Which is, the problem of how to use the applications to provide students with stimulating experience by delivering information for better understanding of concepts. While it is important to develop various applications for effective teaching delivery, each of these applications has its own focus area, peculiarities, target age, merits and demerits. Thus, the taxonomy and component synthesis for the development of the multimedia application need to be extensively investigated as these would affect the teaching delivery, learning and wider applicability. Some of the multimedia solutions have been deployed, tested and recorded significant success, while some did not record marginal success.

In summary, integrating multimedia teaching resources is one of the most important means to enhance the English listening and speaking abilities of college students in a multimodal environment. By integrating diverse teaching resources, students can create a more vivid and interesting learning atmosphere, which is beneficial for improving their English listening and speaking abilities [9].

4 Building a Network Interactive Platform

Today, with the rapid development and popularization of information technology, online interactive platforms have become one of the most important means to enhance the English listening and speaking abilities of college students. Especially in multimodal environments, online interactive platforms can provide diverse learning resources, realistic language environments, and timely interactive feedback, helping college students effectively improve their English listening and speaking abilities.

For instance, building a network interactive platform should pay attention to rich and diverse resources. The platform should integrate various English learning materials, such as listening materials, oral practice, film and television clips, and cultural background information, to meet the learning requirements of various students. Meanwhile, resources should be presented in various forms such as graphics, audio,

video, etc., to stimulate students' interest in learning and improve their learning enthusiasm. Afterwards, the online interactive platform should provide a realistic language environment. By simulating real communication scenarios, students can engage in role-playing and dialogue exercises on the platform, which can help them adapt well to the real communication environment and enhance their oral expression and listening comprehension abilities. In addition, the platform can invite foreign teachers or native speakers to participate in interactive activities, providing students with more realistic language input and feedback^[10]. In addition, the online interactive platform requires real-time interactive feedback, allowing students to communicate in real time and interact with other students or teachers to exchange learning experiences and insights. At the same time, the platform can use an intelligent evaluation system to automatically score and provide feedback on students' oral and listening skills, which is beneficial for students to identify shortcomings and improve in a timely manner. In addition, building a network interactive platform also needs to consider its usability, security, etc. The platform should be designed with simple and clear interfaces and operating procedures to facilitate students to quickly get started. At the moment, the platform should take effective security measures to ensure the security of students' personal information and privacy. Teachers should provide diversified guidance and guidance, and use online platforms to provide students with a good oral expression stage^[8].

5 Application of Practical Scenario Simulation

In today's world where globalization is accelerating and information technology is developing rapidly, English listening and speaking skills have become one of the essential abilities that college students must possess. However, traditional English teaching usually only focuses on explaining grammar, vocabulary, and other aspects, while ignoring the importance of simulating real-life scenarios for the development of listening and speaking abilities. Therefore, in a multimodal environment, using real-life scenario simulation to improve college students' English listening and speaking abilities is of great significance. Practical scenario simulation helps students deepen their understanding and exploration of practical language applications^[9]. By combining the classroom environment with real-life scenarios, simulating the real language environment, students can immerse themselves in the atmosphere of communication in English, and thus have a deeper understanding of language practical applications. This simulation scenario method is conducive to stimulating students' interest in learning, improving their learning enthusiasm and participation.

For example, in the class, teachers can design simulated scenarios such as shopping in malls, airport pick-up, and business negotiations based on teaching objectives' and students' needs. Through role-playing, dialogue exercises, and impromptu speeches, students can engage in authentic English communication in simulation. Meanwhile, teachers can also utilize modern information technologies such as virtual reality and online interactive platforms to create more realistic and vivid simulation environments for students. However, it should be recognized that the application in practical scenario

simulation still requires careful design and effective guidance from teachers^[11]. During the teaching process, teachers need to comprehensively understand the language level and needs of students, and design simulation and tasks that are suitable for their current situation. At the same time, teachers should also provide timely feedback and guidance to students, help them solve various problems in learning in a timely way, guide correct oral expression methods, and use network technology to allow students to organize learning resources according to their own learning needs, and carry out practical practice activities to help students correct mistakes and improve their expression ability.

Evaluation entails assessing whether a multimedia programme fulfils the purposes set including being useful for its target audience. Kennedy and Judd make the point that developers of multimedia tools have expectations about the way they will be used which could be functional (focused on the interface) or educational (involving the learning designs, processes and outcomes). It is important to note that there are different methods used in the evaluation of multimedia and most evaluations entail experiments, comparisons and surveys. The primary goal is to balance assessment validity with efficiency of the evaluation process.

Survey research has two common key features – questionnaires (or interviews) and sampling, and is ideally suited for collecting data from a population that is too large to observe directly and is economical in terms of researcher time, cost and effort when compared to experimental research. However, survey research is subject to biases from the questionnaire design and sampling including non-response, social desirability and recall and may not allow researchers to have an in-depth understanding of the underlying reasons for respondent behavior.

Generally, comparison studies follow the format of comparing outcome from an experimental group using the multimedia being evaluated against a control group. This method has been criticized for having inadequate treatment definition, not specifying all treatment dimensions and failure to measure treatment implementation, among others.

Faced with the subjective nature of surveys and the limitations from comparison studies, eye tracking and other student behavior such as emotional response, provides information not consciously controlled by the student or researcher and is used as an objective data gathering technique. Eye tracking research is a multi-disciplinary field that tracks eye movements in response to visual stimuli. Data from eye-tracking allows researchers to validate empirically and objectively, how learners comprehend the multimedia content, the attention of the learner while analyzing the multimedia content, and the cognitive demand of the content. Eye tracking is quite interesting as it provides a useful source of information in the case of children. This is because gathering information using the traditional techniques is more difficult especially when it involves children's interests and preferences.

Earlier attempts at analyzing student behavior while engaging with online material included analyzing student access computer logs, and the frequency of participation and duration of participation. The multimedia demonstrated that the conventional method of manually analyzing student behavior is gradually becoming less effective compared to online classroom visual tracking. They found that the online classroom visual tracking behavior can be divided into several components: selection,

presentation, mapping, analysis and collection, as well as the analysis from students' facial expression.

6 Conclusion

In summary, multimodal teaching environments and methods provide a new way to enhance the English listening and speaking abilities of college students. By establishing a multimodal teaching environment, promoting multimodal teaching methods, and evaluating teaching effectiveness, measures can effectively promote the improvement of students' English listening and speaking abilities, and lay a solid foundation for future international exchanges.

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