Application of Digital Education in Academic English Listening and Speaking: A PBL-Based Approach to Enhancing Cross-Cultural Communication Skills

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Abstract

With the rapid advancement of digital technology, the era of digital intelligence presents both unprecedented opportunities and challenges for foreign language education. This study focuses on the innovation and practice of university-level English teaching in the digital age, using the "Academic English Listening and Speaking" course at Hangzhou City University as a case study. The research explores the reform paths and effectiveness of teaching models, with a particular emphasis on integrating digital tools and Project-Based Learning (PBL) to enhance cross-cultural communication skills. By analyzing the existing teaching model, designing innovative strategies, implementing practical teaching methods, and evaluating the outcomes, this study aims to offer new perspectives and approaches for university English education. The results indicate that the new model effectively improves students' English listening and speaking skills and enhances teachers' digital teaching competencies. The findings provide valuable insights for the development of academic English courses at Chinese universities.

Key words: Digital education; Project-Based Learning (PBL); Cross-cultural communication

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1. INTRODUCTION

1.1 Research Background

With the rapid advancement of information technology, we are now living in an era profoundly influenced by digital intelligence technologies, often referred to as the "digital age." In this context, the integration of information technology with education has become a pivotal trend in educational reform and development. Particularly in university-level English education, which plays a crucial role in fostering students' academic communication abilities and cross-cultural understanding, the need for innovation in teaching methods is more pressing than ever. Traditional English listening and speaking teaching models are no longer sufficient to meet the evolving educational demands of the digital age. There is an urgent need to innovate these teaching models to adapt to the developments brought about by digital intelligence. The integration of digital tools and technologies not only enriches teaching methods but also improves teaching efficiency, offering new opportunities and challenges for academic English listening and speaking instruction.

1.2 Research Purpose

This study aims to explore the innovative paths for English teaching models in the digital age, specifically focusing on the "Academic English Listening and Speaking" course at the university level. The research will assess the effectiveness of the integration of digital tools and Project-Based Learning (PBL) in enhancing students' language proficiency and cross-cultural communication skills. Specifically, this study will focus on the following aspects: firstly, it will analyze the current state of the "Academic English Listening and Speaking" curriculum,

identifying existing challenges and limitations; secondly, it will investigate how digital technologies can be effectively integrated into the teaching process and propose an innovative teaching model; lastly, through empirical research, it will evaluate the practical outcomes of this new model in improving students' English listening and speaking abilities, as well as enhancing teachers' digital teaching competencies. By conducting this research, we aim to provide valuable insights and practical suggestions for the development of English education in Chinese universities.

1.3 Research Methodology

To comprehensively examine the innovation and practical application of university English teaching models in the digital age, this study employs a mixed-method approach. First, a literature review will be conducted to summarize the existing research on second language listening and speaking instruction, as well as the integration of digital technologies in language education, providing a theoretical foundation for the study. Second, Hangzhou City University will be selected as a case study. Data will be collected through on-site visits, surveys, and interviews with both teachers and students to understand the current teaching practices and challenges. Finally, based on the collected data, a combination of quantitative and qualitative analysis will be used to explore innovative teaching strategies and evaluate the effectiveness of the new model in practice. Through this multi-faceted approach, this research seeks to develop a scientifically sound and practically meaningful teaching model for the university's English courses, which can serve as a reference for broader applications in higher education.

2. LITERATURE REVIEW

2.1 Current State of "Academic English Listening and Speaking" Instruction

As a key component of university-level English education, the "Academic English Listening and Speaking" course has received significant attention regarding its development and effectiveness. Globally, with the acceleration of globalization, academic English has become an essential tool for international academic communication. Universities worldwide prioritize academic English instruction, emphasizing the development of students' academic listening and speaking skills as well as critical thinking. However, existing studies highlight several challenges, such as uneven distribution of teaching resources, limited teaching methods, and an inadequate evaluation system.

In China, although the teaching of "Academic English Listening and Speaking" has made some progress, it still faces numerous challenges. Firstly, there is a need for an updated teaching philosophy, as many educators continue to rely on traditional methods that fail to address students' real-world academic communication needs. Secondly, there is a shortage of teaching resources, especially digital resources, creating a significant gap compared to international counterparts. Furthermore, students' academic English proficiency levels vary widely, making it difficult for instructors to cater to individual needs effectively. Lastly, the evaluation system often focuses more on written exams and neglects students' practical language use and communication abilities.

(Chen, 2023; Kim, 2019) have pointed out the need for more interactive and immersive learning methods to address these challenges. The integration of Project-Based Learning (PBL) has been shown to enhance students' ability to apply academic English in real-world situations, promoting not only language skills but also cross-cultural communication competencies.

2.2 Theoretical Foundations of Teaching Model Innovation

The theoretical foundations for teaching model innovation in the context of academic English listening and speaking primarily stem from educational theories, with constructivism and blended learning being particularly relevant.

Constructivist theory posits that learning is an active process in which learners build knowledge through social interaction and situational experiences. In the context of academic English listening and speaking instruction, constructivism emphasizes a student-centered approach where teachers create authentic or near-authentic academic communication scenarios for students to engage in. This fosters the development of academic listening and speaking skills through interaction and collaboration. Furthermore, constructivism advocates for cooperative learning and problem-based learning (PBL), both of which provide solid theoretical support for the innovation of academic English teaching methods. In this approach, students work together to solve real-world academic problems, which enhances their language skills and intercultural competencies (Chen, 2023; Kim, 2019).

Blended learning theory focuses on the integration of traditional face-to-face teaching with online learning to leverage the strengths of both methods. In academic English listening and speaking instruction, the blended learning model effectively combines online and offline resources to optimize teaching outcomes. For example, digital platforms can provide a wealth of audiovisual resources, while in-person classes can facilitate direct discussion and feedback. This blend of methods not only enhances resource availability but also allows for more flexible and dynamic teaching practices.

As Awadh & Lally (2024) highlight, the integration of digital tools in teaching, especially in PBL environments, provides a platform for more dynamic, learner-driven experiences, improving both language proficiency

and cross-cultural communication skills. By fostering collaboration among students from different cultural backgrounds, PBL can enhance students' intercultural communicative competence, as demonstrated in studies by Mi Kyong Kim (2019) and Wang & Yang (2024), who observed that PBL is an effective tool for building intercultural knowledge and improving communicative skills in English language learners.

Together, constructivism and blended learning theory provide a robust theoretical foundation for innovating the teaching model of "Academic English Listening and Speaking." In practice, teachers can integrate these theories into their teaching strategies, exploring new models that address the challenges of the digital age while enhancing students' academic communication skills. These innovations can better meet the evolving needs of students and equip them with the skills necessary to succeed in a globalized, interconnected world.

3. ANALYSIS OF THE CURRENT TEACHING MODEL OF "ACADEMIC ENGLISH LISTENING AND SPEAKING" AT HANGZHOU CITY UNIVERSITY

3.1 Overview of the Teaching Model

At Hangzhou City University, the traditional teaching model for the "Academic English Listening and Speaking" course primarily relies on classroom lectures, supplemented by audiovisual materials and speaking practice. The typical teaching process follows these steps:

Introduction to Basic Concepts: The instructor introduces the fundamental concepts and skills of academic English, providing students with a theoretical foundation.

Academic Videos and Seminars: Academic lecture or seminar videos are played to help students learn the language features used in academic communication.

Listening Comprehension and Speaking Practice: The teacher leads listening comprehension exercises and speaking imitation practice to enhance students' listening and speaking abilities.

Group Discussions and Role-play: Finally, students engage in group discussions or role-play activities to apply their knowledge in real-life academic situations.

Although this model has had some success in improving students' academic English listening and speaking skills, its one-dimensional nature and lack of interactive elements have increasingly revealed limitations. As Chen (2023) points out, traditional teaching methods often fail to engage students fully and do not address the needs of modern learners, particularly in terms of enhancing cross-cultural communication skills. Kim (2019) further argues that PBL offers a more

effective approach by encouraging active participation and collaboration, which fosters deeper language learning and intercultural understanding.

3.2 Teaching Resources and Environment

Hangzhou City University has made some strides in providing resources for teaching academic English listening and speaking. The university is equipped with multimedia classrooms that include essential audiovisual equipment such as projectors, sound systems, and computer labs. Additionally, the university has purchased access to several online academic English resource databases for use by both instructors and students. The institution also fosters a learning environment conducive to academic English by organizing regular English corner events and encouraging student participation in academic lectures and seminars.

However, despite these investments in teaching resources and environment, several challenges remain:

Slow Update of Audiovisual Resources: The available audiovisual materials are updated at a slower pace, making it difficult to keep up with the latest developments in academic English. According to Awadh and Lally (2024), the lack of continuous access to updated digital resources can hinder the ability of both students and teachers to engage with current academic trends effectively.

Limited Utilization of Online Resources: The utilization of online resources is still limited, with some teachers and students not fully engaging with these resources for teaching and learning purposes. Dong (2024) emphasizes that leveraging digital tools in education not only expands access to information but also supports more personalized learning experiences, which are vital in today's globalized academic environment.

Lack of Authentic Academic Communication Scenarios: The internationalization of the learning environment is insufficient, and there is a lack of authentic academic communication scenarios that could help students gain real-world exposure. Mi Kyong Kim (2019) highlights that cross-cultural learning opportunities can be significantly enhanced through PBL, where students collaborate with peers from different cultural backgrounds to solve academic problems, thus improving their language and communication skills.

3.3 Issues and Challenges

Through a thorough analysis of the "Academic English Listening and Speaking" teaching model at Hangzhou City University, several key issues and challenges have been identified:

Limited Teaching Methods: The traditional model relies heavily on lectures, lacking sufficient opportunities for interaction and practical application. This results in limited student engagement and creativity, which hinders active learning.

Outdated Content: Some teaching content is disconnected from the current needs of academic communication, making it difficult to meet students' practical academic English needs in a globalized context. This gap calls for more contemporary and contextually relevant content.

Inadequate Evaluation System: The current evaluation system is primarily focused on written tests and listening comprehension, neglecting the assessment of students' speaking abilities and practical communication skills. As a result, the evaluation process does not provide a holistic picture of students' overall language competence.

Limited Professional Development for Teachers: Some instructors lack sufficient training in both academic English teaching and the application of digital tools in their instruction. This limitation affects the overall quality of teaching and students' learning experiences.

Low Student Engagement: Due to the traditional and somewhat monotonous nature of the current teaching model, some students show a lack of interest and engagement in the academic English listening and speaking course, resulting in lower participation rates.

To address these issues and challenges, it is clear that a new teaching model needs to be explored in order to better meet the demands of the digital age and improve the effectiveness of academic English instruction. This will require comprehensive innovation and reform in teaching methods, content, evaluation systems, and professional development for both teachers and students.

4. STRATEGIES AND PRACTICES FOR TEACHING MODEL INNOVATION

4.1 Concepts and Principles of Innovative Teaching Models

The concept of innovative teaching models should be grounded in developing students' comprehensive academic English application abilities to meet the demands of global academic communication. The main concepts and principles for this innovation are as follows:

Student-Centered Approach	This principle starts with "respecting students' central role in learning," gradually progressing to "meeting students' individualized learning needs" and "enhancing student motivation and engagement."
Competency-Oriented Approach	The curve of this approach begins with "improving academic English listening and speaking abilities" and "practical application skills," then moves toward "cultivating well-rounded development."
Technology-Enhanced Learning	This final principle starts with "leveraging modern digital technologies" and evolves into "integrating diverse resources" and "improving teaching efficiency and quality."

4.2 Specific Measures for Teaching Model Innovation

In the context of the digital age, the innovation and practice of university English teaching are crucial. To achieve this, we propose the following specific measures:

Curricular Innovation: The first step in curricular innovation is updating teaching resources by introducing the latest academic English audiovisual materials to ensure alignment with academic frontiers. Additionally, integrating interdisciplinary knowledge enhances students' academic literacy and prepares them to meet the diverse demands of modern academic communication.

Innovative Teaching Methods: Blended learning has emerged as a leading approach in academic English teaching. This model combines the advantages of both online and offline teaching, utilizing online platforms to offer a wide variety of learning resources and interaction opportunities, while offline classrooms focus on in-depth discussions and hands-on practice. Furthermore, situational simulation teaching creates authentic academic communication scenarios, such as simulating international conferences or academic debates, which effectively enhances students' real-world application of academic English.
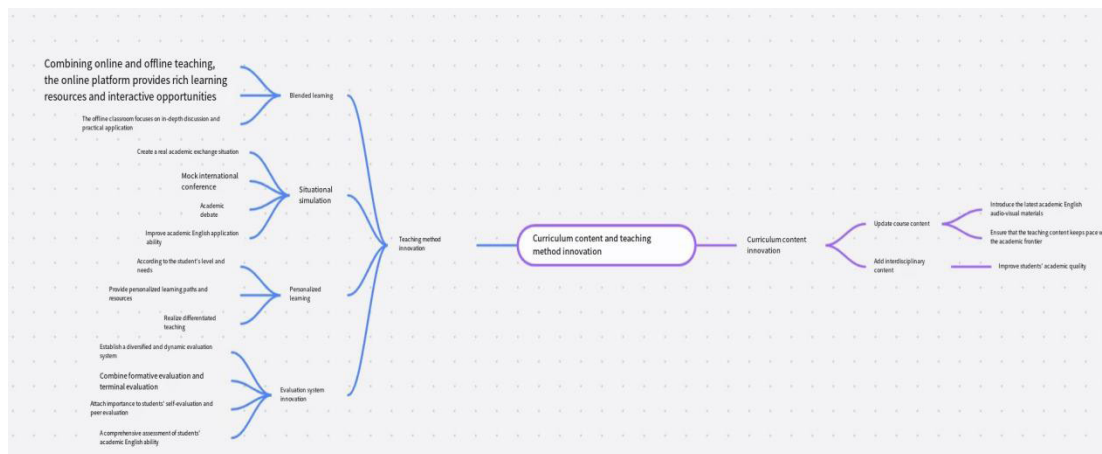

Diagram 1
Innovative Teaching Model for "Academic English Listening and Speaking"

Personalized Learning Strategies: Implementing customized learning paths and resources based on students' proficiency levels and individual needs helps achieve differentiated learning. This personalized approach ensures that each student receives the appropriate support for their academic growth.

Reform of the Evaluation System: Reforming the evaluation system is another crucial element of teaching model innovation. A diversified, dynamic evaluation mechanism should be established, combining both formative and summative assessments. Emphasizing self-assessment and peer evaluation ensures a more comprehensive assessment of students' academic English proficiency. These innovations not only improve teaching effectiveness but also offer students a richer, more efficient learning experience.

4.3 Classroom Design for "Academic English Listening and Speaking"

The successful implementation of the new teaching model requires thorough preparation. The following steps outline the process of transitioning to this innovative model:

Teacher Training: Initially, teachers underwent training on the new teaching model and the use of digital technologies to ensure they are proficient with the necessary tools and software. This training serves as the foundation for effective teaching.

Curriculum Design: A new curriculum was designed to reflect the innovative teaching model, including an outline with online self-study modules, offline interactive components, and evaluation criteria. The goal was to create a systematic teaching framework.

Teaching Activities: The online component involves students independently studying academic English audiovisual materials via the platform provided by the university and completing related exercises. In the offline classroom, teachers lead discussions, situational simulations, and other interactive activities to reinforce and expand on the online content.

Evaluation and Feedback: Formative assessment methods were employed to collect regular feedback from both students and instructors. This allows for timely adjustments to teaching strategies and ensures the ongoing improvement of teaching quality and effectiveness.

While the implementation of the new teaching model was largely successful, some challenges emerged:

Technical Barriers: Some students faced issues with unstable internet connections or unfamiliarity with the online platform, which hindered their ability to fully engage with the course.

Student Adaptation: Some students, accustomed to traditional teaching methods, struggled to adapt to the self-directed learning approach, highlighting the need for transitional support.

Teacher Role Transition: As teachers shifted from traditional knowledge transmitters to facilitators and guides, they had to redefine their roles and adjust their teaching strategies. This transition required ongoing professional development and support.

These challenges can be addressed through continuous technical support, student adaptation training, and further professional development for teachers. By addressing these issues, we can lay the foundation for the successful widespread adoption of the new teaching model.
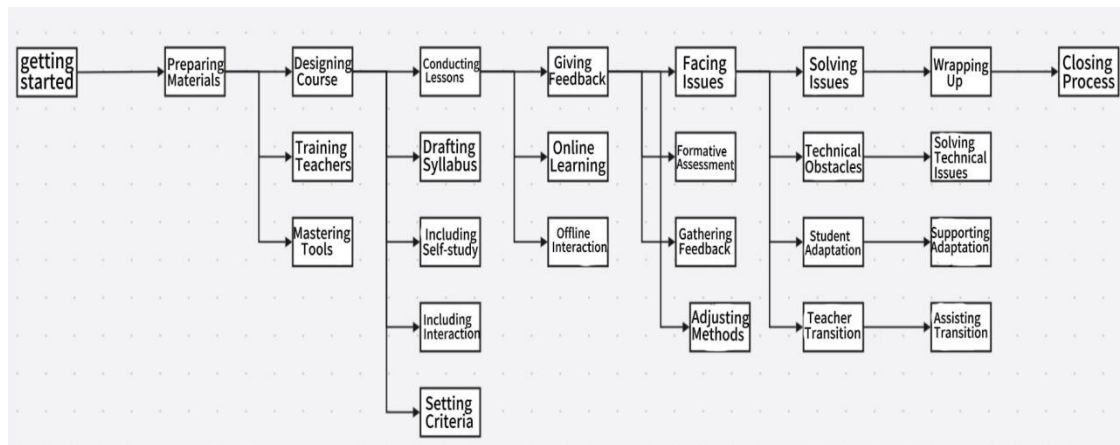

Diagram 2
Classroom Design Process for "Academic English Listening and Speaking"

Through this design process, we have gained a deeper understanding of teaching model innovation. Based on the challenges identified, solutions such as enhanced technical support, student adaptation programs, and targeted teacher training have been proposed, ensuring a solid foundation for the future implementation of this teaching model.

5. CONCLUSION

With the rapid development of digital intelligence technologies, the digital age presents unprecedented opportunities for the innovation of university English teaching models. This study, using the "Academic English Listening and Speaking" course at Hangzhou

City University as a case study, explores the innovation and practice of university-level English teaching in the digital age. The updating of course content and the integration of interdisciplinary knowledge have brought the teaching material closer to the forefront of academic trends, thus enhancing students' academic literacy. The implementation of innovative teaching methods, such as blended learning, situational simulations, and personalized learning strategies, has effectively improved students' academic English listening and speaking skills, as well as their practical application abilities. The establishment of a diversified, dynamic evaluation system has provided a comprehensive assessment of students' academic English competence, promoting their overall development.

Looking ahead, looking ahead, there is a need to further optimize teaching models to enhance teaching effectiveness and offer more valuable insights for the development of university English education in China. We hope that more universities and educators will engage in research and practice to innovate teaching models in academic English instruction, collectively advancing the development of university English education. In the context of the digital age, the innovation and practice of university English teaching models will continue to evolve, contributing to the cultivation of more internationally competitive and well-rounded talents.

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