A Review of Research on Application of Digital Teaching Platforms in College English Teaching

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Abstract: The emergence of digital teaching platforms (DTPs) offers a transformative opportunity for university English language instruction. This review systematically analyzes the application modes, effects, and strategies of DTPs in this context, drawing insights from current literature. The findings reveal that DTPs can be effectively integrated into various aspects of college English teaching, leading to significant improvements in learning outcomes. We explore future research directions for in-depth research into resource development, personalization of learning activities, and seamless integration of DTP with other teaching methods.

Keywords: digital teaching platforms; college English teaching; application modes;

1.Introduction

National policy directives in recent years emphasize education informatization, advocating for the vigorous promotion of digital transformation in educational settings. The Action Plan for the National Education Digitization Strategy (2021-2035) explicitly proposes the construction of a new type of educational infrastructure and a high-quality education support system. Similarly, the Strategic Plan for Digitization of Higher Education (2021-2025) calls for the establishment of a new ecology of intelligent education and a high-quality digital education system. Opinions on Promoting the Reform and Development of Foreign Language Teaching in Colleges and Universities in the New Era highlight the need for "vigorously promoting the integration and innovation of information technology and foreign language teaching".

This educational reform orientation aligns with the rise of DTPs, which provide novel opportunities to enhance college English teaching. DTPs offer a plethora of advantages, including:

Rich Teaching Resources: DTPs provide a vast repository of teaching resources, encompassing courseware, practice exercises, test questions, audio and video materials, catering to diverse student learning needs.

Convenient Teaching Tools: DTPs equip educators with an array of teaching tools, such as online teaching platforms, assessment tools, and faculty management tools, streamlining teaching efficiency.

Intelligent Teaching Evaluation: DTPs leverage big data and artificial intelligence (AI) to analyze student learning data, providing teachers with valuable insights to inform teaching decisions and enhance teaching effectiveness.

2.Literature Review

(1).Foreign Studies

A substantial body of research from international scholars explores the construction of university English teaching models centered on DTPs. These studies primarily focus on the following aspects:

Impact of DTPs on College English Teaching: Benson and Cross (2015) investigated the impact of DTPs on university English language teaching, revealing their ability to provide a multifaceted support system for both teachers and students, ultimately leading to improved learning outcomes . Traxler (2018) explored the future trends in digital education, emphasizing the significant impact DTPs will have on university teaching and learning .

Construction and Application of DTP-based Teaching Models: Li and Chapelle (2016) conducted a meta-analysis on the application of DTPs in university English language teaching. Their findings suggest that DTPs effectively enhance students' listening, reading, writing, and speaking skills. Smith and Ragan (2015) reviewed research on the use of DTPs in university English language teaching, highlighting their ability to provide diverse support mechanisms, including furnishing teaching resources, facilitating interaction and collaboration, and assessing student learning outcomes .

(2).Domestic Studies

In recent years, Chinese scholars have actively investigated the application of DTPs in college English teaching, yielding a wealth of fruitful results. Here, we present a selection of representative research findings:

Construction of DTP-based Teaching Models: Liu and Zhang (2022) offer a comprehensive overview of research on constructing English teaching models in Chinese universities using DTPs. They identify key themes in this research field, including the integration of teaching resources, the design of teaching activities, and the development of teaching evaluation systems. The authors also discuss challenges and future research directions.

Research on DTP Application: Wang, Li, and Li (2023) focus on the application of DTPs in college English teaching, exploring the various types of platforms available and the diverse ways they can be utilized to enhance teaching and learning. They provide practical examples of DTP use in university English classrooms. Wang Wenjing (2019) proposed a university English listening and speaking teaching

model based on a DTP, which leverages speech recognition, speech synthesis, and other functionalities offered by the platform to achieve real-time assessment and personalized tutoring of students' listening and speaking abilities.

3.Research Methods

This review employed a literature research approach. We reviewed relevant domestic and international literature to gain a comprehensive understanding of the concept, characteristics, and types of DTPs. We analyzed the current state of application, research findings, and development trends of DTPs in college English teaching. We summarized the experiences and strategies for the application of DTPs in this context.

4.Findings

(1).Application Modes of DTPs in College English Teaching

DTPs have facilitated the emergence of diverse teaching modes in college English instruction, each with its unique advantages and applications:

Blended Learning Mode: Blended Learning combines traditional classroom teaching with online learning, leveraging the strengths of both approaches to achieve complementary benefits . In Blended Learning, students typically engage in pre-study activities before class using the DTP, interact and discuss with the teacher during class, and complete practice or review assignments after class.

Flipped Classroom Teaching Mode: The Flipped Classroom inverts the traditional teaching model, where students learn foundational knowledge through videos and readings before class, and then engage in in-depth discussions, practice, and application activities under the teacher's guidance during class.

Micro-teaching Mode: Micro-teaching, also known as micro-course teaching mode, is a short video teaching approach based on the Internet. It condenses a complete teaching activity into a micro-video, typically ranging from 5 to 15 minutes in length, with a maximum duration of 30 minutes. Micro-teaching videos can cover all aspects of teaching, including knowledge explanation, skills demonstration, case analysis, Q&A, and more.

Project-based Teaching Mode: Project-based Learning is a student-centered teaching mode in which students complete project tasks through independent inquiry and cooperative learning . In this mode, DTPs provide students with project materials, communication tools, and collaboration platforms.

Large-scale Personalized Learning: Personalized Learning at Scale (PLS) is an educational paradigm that aims to provide each student with a personalized learning experience, leveraging data and technology. It blends the strengths of traditional teaching and personalized learning, using data analytics and AI technologies to provide students with personalized learning paths, learning content, and learning support.

(2).Impact of DTPs on College English Teaching

The integration of DTPs into college English teaching has yielded a range of positive impacts:

Improved Classroom Teaching Efficiency: DTPs empower teachers with rich teaching resources, convenient teaching tools, and intelligent teaching evaluation, enhancing the efficiency of class preparation, teaching, and post-class management. For instance, teachers can preset teaching activities through the DTP and present teaching content and activities on the electronic whiteboard, making classroom teaching more vivid and engaging.

Enhanced Student Learning: DTPs provide students with personalized learning resources and learning paths tailored to their individual needs. Students can independently choose the learning content and learning progress through the DTP and receive personalized learning guidance and feedback. Additionally, DTPs offer a wealth of practice questions and test questions to help students consolidate their learning and improve their performance.

Cultivated Student Independent Learning Ability: DTPs foster an environment and conditions conducive to independent learning, promoting the development of students' self-directed learning skills. Students can access learning resources independently through the DTP, manage their learning time and progress, and complete learning tasks autonomously. Moreover, DTPs provide a rich learning and communication platform, facilitating interaction among teachers and classmates, and promoting deeper and broader learning experiences.

Promoted Teaching Reform and Innovation: DTPs introduce novel approaches and methods for reforming and innovating college English teaching. For example, teachers can utilize DTPs to implement new teaching modes, such as blended learning and flipped classroom teaching. They can also develop new teaching resources, such as micro-lessons and catechism classes, leveraging the capabilities of these platforms.

(3).Application Strategies of DTPs in College English Teaching

Select and Develop Teaching Resources: DTPs provide a vast array of teaching resources, including courseware, practice exercises, test questions, audio and video materials. Teachers should carefully select and develop teaching resources that align with the teaching objectives and the chosen application mode. Additionally, teachers can also create their own teaching resources based on the DTP's functionalities, such as recording micro-lessons or designing interactive exercises.

Design Teaching Activities: DTPs facilitate the design of diverse and engaging teaching activities that cater to different learning styles and preferences. Teachers should carefully design teaching activities that incorporate the use of DTPs, ensuring that they are closely aligned

with the teaching objectives and the selected application mode. For instance, in a blended learning mode, teachers can use the DTP to deliver pre-class learning materials, organize online discussions, and provide post-class feedback.

Evaluate Teaching Effectiveness: Regular evaluation of the effectiveness of DTP application is crucial for optimizing teaching practices and improving student learning outcomes. Teachers can utilize the data analytics and feedback mechanisms provided by DTPs to track student learning progress, identify areas for improvement, and refine teaching strategies. Additionally, teachers can also collect feedback from students through surveys or interviews to gain insights into their perceptions of the effectiveness of DTP integration.

Provide Teacher Professional Development: Teachers' proficiency in using DTPs is essential for their effective integration into college English teaching. Institutions should provide regular professional development opportunities for teachers, such as workshops and training courses, to enhance their understanding and skills in using DTPs. Additionally, teachers can also engage in self-learning and peer learning to continuously improve their DTP-related competencies.

5.Conclusion

DTPs have revolutionized college English teaching by providing a plethora of opportunities to enhance teaching effectiveness and improve student learning outcomes. By adopting appropriate application modes, selecting and developing suitable teaching resources, designing engaging teaching activities, evaluating teaching effectiveness, providing teacher professional development, and promoting student-centered learning, educators can fully leverage the potential of DTPs to transform college English instruction.

6.Future Research Directions

As the field of DTP-integrated college English teaching continues to evolve, several promising research directions warrant further exploration:

Targeted Resource Development: Investigate the development of targeted teaching resources tailored to specific student needs and learning styles, leveraging the capabilities of DTPs to personalize learning experiences.

Individualization of Learning Activities: Explore the design and implementation of individualized learning activities that adapt to students' learning progress and performance, utilizing DTPs to provide differentiated instruction and support.

Seamless Integration with Other Pedagogical Approaches: Investigate the seamless integration of DTPs with other pedagogical approaches, such as project-based learning and cooperative learning, to create a holistic and effective learning environment.

By delving into these research directions, educators can further refine the application of DTPs in college English teaching, maximizing their impact on student learning and achievement.

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