
Background and Practical Path of Digital Transformation in College English Teaching

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Abstract: Digitalized English education in higher education institutions represents the new normal under the trend of educational digitalization. Integrating digital technologies into English teaching not only expands instructional resources and pedagogical approaches, but also significantly enhances students' self-directed learning capabilities and practical application skills. This approach serves as a critical pathway for cultivating core competencies, implementing the requirements of the "Education Informatization 2.0 Action Plan," and advancing in-depth reforms in English education. The study proposes that the core logic of digital transformation in university English education should shift from "technology integration" to "ecosystem restructuring." By analyzing the background of digital transformation from national strategic perspectives and technological advancements, this research establishes a new teaching framework. Practical pathways for promoting digital transformation are explored through dimensions such as educational resource development, innovative teaching methodologies, and improved evaluation systems. These insights aim to provide valuable references for enhancing English teaching effectiveness, cultivating high-quality English professionals, and fostering students' comprehensive development. This article delves into these topics with detailed discussions.

Keywords: College English; Digital Transformation; Background; Existing Issues; Practical Approaches

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1. Introduction

With the widespread application of digital technologies, the country clearly proposed the long-term goal of "building a digital China" in the 13th Five-Year Plan, which means that all sectors of society must develop digitalization. The education sector is no exception, and digital transformation is imperative, driven by strategic design and practical demands. Similarly, the requirement outlined in the "Implementation Plan for the Digital Education Strategy Action" to "promote the deep integration of digital technologies with teaching and learning, build a smart ecological education system, and comprehensively improve the quality and efficiency of teaching and learning" provides policy guidance and guarantees for the in-depth digital transformation of education. As a core course, the quality of college English directly affects the cultivation of high-quality talents. Digital reform in this field can effectively break through teaching challenges, shift teaching models from "knowledge infusion" to "competency development," and holds significant practical implications for promoting high-quality teaching and fostering students' all-round development.

2. Background of Digital Transformation in College English Teaching

2.1. National Strategy

With the application of digital technologies in the field of education, the digital transformation of education has become a routine trend and has been elevated to a strategically important position in national development. To further advance this digital transformation, the state has also made explicit provisions in various policy documents, providing clear policy guidance and implementation pathways. For instance, “China Education Modernization 2035” incorporates “accelerating educational reform in the information age” into its ten strategic task systems; the “Higher Education Digital Transformation Action Plan” requires universities to “promote digital reforms in curriculum and teaching, innovate teaching methods, and create high-quality educational resources”; the “College English Teaching Guidelines” explicitly state the need to “vigorously integrate the latest information technologies with curriculum teaching, leverage the significant role of modern information technologies in foreign language education, and actively create diverse teaching and learning environments.” Not only are there clear and specific policy details to guide and ensure digital transformation, but at the World Education Conference held in 2023, scholars from various countries also engaged in in-depth discussions on issues such as the development and utilization of digital learning resources and the enhancement of digital capabilities among teachers and students. This indicates that the digital transformation of college English teaching is no longer a choice made by individual institutions alone, but rather a global issue viewed from the perspective of national strategy and comprehensive development capabilities ^[1].

2.2. Technological Change

Observations of daily teaching practices reveal that the integration of diverse information technologies and equipment has become a fundamental learning habit for both educators and students. These innovations provide robust technical foundations for English language education, delivering not only enriched educational resources and expanded instructional content depth but also fundamentally transforming teaching methodologies. This evolution enables students to engage in self-directed learning through multiple channels while allowing teachers to implement precision teaching strategies. Practical applications include: utilizing online course platforms to aggregate educational materials; employing big data analytics to assess student performance for targeted lesson design; creating immersive virtual environments through AR/VR technology to enhance contextual understanding and oral practice; deploying cloud-based micro-lectures and AI-powered speech correction exercises via Yu Classroom platforms; and dynamically adjusting teaching priorities using word cloud tools during instruction ^[2]. The widespread adoption of digital technologies has not only created significant opportunities for college English education but also established essential prerequisites for digital transformation initiatives.

3. Challenges in Digital Transformation of College English Teaching

3.1. Lack of awareness regarding digital transformation

While higher education institutions possess robust technological and resource support for digital transformation, many faculty members remain constrained by traditional teaching paradigms, failing to fully grasp the essence and significance of this shift. The entrenched “teacher-centered lecture-student passive reception” mindset persists, reducing digital teaching to a simplistic instructional tool rather than recognizing its pivotal role in enhancing pedagogical outcomes and student learning experiences—as a catalyst for transforming teaching methodologies. Furthermore, institutional-level digital transformation initiatives often suffer from insufficient momentum, lacking systematic planning and funding commitments. This results in ineffective strategic frameworks and implementation plans that fail to provide meaningful guidance for educators.

3.2. Insufficient application of digital technologies

On one hand, some teachers overuse digital technologies, not only applying them excessively in classroom instruction but also prioritizing resource integration and utilization at the expense of analyzing teaching content, assessing student needs, and evaluating instructional methods. This results in incomplete implementation of teaching objectives and key learning points during lessons^[3]. On the other hand, many educators lack adequate information technology literacy, failing to effectively utilize digital teaching tools. Their application of digital technologies remains limited, with infrequent adoption of innovative models like flipped classrooms, project-based learning, and immersive learning experiences, thereby underutilizing the potential advantages of digital tools. Both extreme usage patterns demonstrate inappropriate and imbalanced application of digital technologies by teachers. Furthermore, educators fail to employ digital tools for comprehensive data monitoring and analysis of teaching processes and student learning behaviors, hindering the implementation of precision teaching and differentiated instruction, which ultimately impacts overall teaching efficiency and outcomes.

3.3. Insufficient development of digital resources

Observations of specific teaching activities reveal that digital resources have not been fully utilized or developed. Firstly, the absence of a standardized teaching resource system has led to fragmented regional development. Online digital resources lack broad applicability, with significant regional barriers and textbook limitations that hinder the dissemination and sharing of high-quality resources, as well as their practical application. For instance, virtual experiment platforms often produce simulations lacking authenticity and contextual discrepancies from real-world scenarios, requiring educators to invest substantial time and effort in organizing and filtering online materials^[4]. Additionally, some teachers develop incomplete digital resources, while certain online learning platforms contain materials that become unusable due to copyright issues or excessive duration. Fragmented courseware and videos often lack relevance and practical value, failing to provide effective resources for students' individualized development.

4. Practical Approaches to Digital Transformation in College English Teaching

4.1. Transformation of Teaching Philosophy

In the digital transformation of English teaching, schools and teachers must shift from traditional teaching concepts to embrace a digital education philosophy that prioritizes students and achieves deep integration of technology with teaching practices^[5].

First, schools should interpret policy documents on educational digital transformation. Guided by these documents, they should employ digital thinking to analyze resources, technologies, and potential challenges during the transition process—such as optimizing educational resource allocation, designing curriculum frameworks, and determining effective talent development approaches. Discussions should focus on these elements to propose actionable transformation plans and establish comprehensive digital talent cultivation systems. Concurrently, specialized teaching research teams should be formed to conduct in-depth studies on the theoretical foundations, core requirements, curriculum development strategies, educational resource innovation, and instructional model applications of digital transformation, ensuring its integration into mature teaching systems. Finally, institutions must implement student feedback mechanisms through surveys and learning data analytics to collect insights on digital teaching practices. This enables timely adjustments to teaching methodologies and content delivery, guaranteeing targeted and effective educational outcomes.

Secondly, educators should actively participate in institutional exchange seminars and thematic lectures to enhance policy communication, conceptual guidance, and the dissemination of advanced teaching practices. This enables a comprehensive understanding of digital transformation's essence and its significance for English language education reform and talent development. By leveraging insights from digital transformation frameworks and successful teaching case studies, teachers should adopt a holistic digital teaching mindset^[6], integrating digital concepts throughout the

instructional process to achieve fundamental pedagogical innovation. Furthermore, educators must cultivate a “educational facilitator” mindset that prioritizes student-centered learning. When implementing digital teaching methods, they should address the diverse needs of all learners while creating personalized, interactive, and inquiry-based learning environments. Through these efforts, digital technologies can fundamentally transform students’ learning habits and instructional approaches.

4.2. Development of Educational Resources

The development and utilization of educational resources constitute the cornerstone for implementing digital transformation in English language education. During this digital transition, both teachers and students should leverage digital technologies to collect knowledge-related materials (including images, videos, academic literature, and exercises) from various platforms. These resources are then organized into databases to assist educators in addressing instructional challenges and support students’ self-directed learning. Concurrently, the databases must be regularly updated and enriched based on evolving societal trends, shifting pedagogical requirements, and student feedback to ensure the timeliness and quality of educational resources.

First, teachers can collect high-quality knowledge-related resources from national smart education platforms and China’s university foreign language MOOC platforms, leveraging their authority and professional advantages, and then organically integrate them into the teaching system after analysis and organization. During this process, it is essential to establish standardized interfaces to ensure seamless integration of resources from different platforms^[7].

For instance, Unit 5 “Winning is not everything” in Volume 1 of the third edition of New Horizon College English textbook focuses on helping students grasp the essence of sportsmanship through the story of Cliff Yang. In developing digital resources, educators can create multi-layered resource modules, each corresponding to specific themes, allowing teachers and students to select relevant modules based on instructional objectives. The first tier comprises curriculum-related resources such as Cliff Yang’s competition videos, international news reports, and athlete interviews, which are integrated into analyzed teaching content to expand learning outcomes. AI-powered document analysis tools are utilized to extract key insights, facilitating students’ access to supplementary materials and deepening their textual understanding while cultivating academic reading literacy. The second tier focuses on core vocabulary, sentence patterns, and listening comprehension through AI-driven practice modules. These platforms collect diverse listening materials with varying speech speeds, accents, themes, and contexts, then employ AI-assisted speaking drills to provide one-on-one conversation exercises. The system also offers real-time diagnostic feedback and personalized improvement suggestions to address students’ oral proficiency challenges^[8].

Secondly, educators should develop and integrate tailored resources based on students’ professional backgrounds and learning levels, establishing a resource system that ensures “basic coverage, advanced specialization, and personalized options.” For instance, in Business English instruction for economics and management majors, instructors can utilize smart Business English platforms to customize educational materials according to individual needs. This includes general English resources such as tiered listening materials and CET-4/6 exam preparation materials, as well as specialized digital resources like foreign trade correspondence templates, cross-border e-commerce dialogues, business negotiation simulations, financial English terminology databases, and business email batch processing systems. Students can select appropriate resources tailored to their specific learning requirements.

4.3. Innovation in Teaching Methods

Teaching methods are a critical factor influencing teaching quality. In digital transformation education, teachers should innovate teaching approaches based on instructional content, students’ learning conditions, and needs, enabling digital technologies to be fully utilized in facilitating efficient learning and promoting high-quality educational development^[9].

First, educators should leverage digital technologies to build digital learning platforms, expanding students’ learning pathways and spaces to provide effective support for efficient and self-directed English acquisition. For instance, when

teaching Unit 1 “Toward a Brighter Future for All” from *New Horizon College English (3rd Edition: Reading and Writing Course)*, instructors can guide students to utilize digital learning tools such as the U Campus platform, mobile learning apps, and online collaboration platforms. Using the U Campus platform, teachers may pose the question: “What does an ideal university look like in your eyes?” Students can then analyze and discuss the topic online, submit their responses, and review peers’ perspectives.

Secondly, teachers should utilize digital technologies to design diverse teaching activities that deepen students’ understanding of knowledge and enhance their application skills^[10]. For instance, when teaching Unit 2 “College: The Ladder to Success?” from New Horizon College English Book 3 Volume 2, educators can implement the following instructional strategies: (1) Teachers may use platforms like Xuexi Tong or Yu Classroom to play digital videos featuring successful individuals from different life paths, posing the question “Does a college degree guarantee success?” to engage students in textual analysis. Subsequently, online vocabulary packages, sentence patterns, and data charts are distributed on the platform to facilitate self-directed pre-class preparation. (2) After learning, teachers can create a debate competition titled “Is College the Ladder to Success?” on Xuexi Tong or Yu Classroom platforms. Students may form groups based on their perspectives into three factions: affirmative, negative, and neutral. Each group conducts online discussions to clarify viewpoints while collecting supporting data and evidence^[11]. Teachers can provide real-time guidance during live sessions.

For example, in the teaching of U4 “Dance with Love?” from Volume 2 of New Horizon College English Third Edition, teachers can utilize digital technology to implement project-based learning. During this process: (1) Teachers post movie clips from “Dance Out My Life” and China dance duet video clips on Chaoxing Learning Platform/Yukang Classroom, then ask students to work in groups to input commands such as “Compare the body language and emotional expression in Western ballroom dancing and Chinese classical dancing” using AI tools like Kimi/Wenxin Yiyang, guiding students to obtain comparative reports in Chinese and English with AI tools to enhance critical thinking skills. Finally, create a “Digital Glossary” using short English videos to explain the meanings of “physical touch” and “personal space” in the context of dance. (2) Students are required to use digital tools such as Canva, Notion, and AI voice-over to complete the project “Digital Exhibition: Dance with Love” in groups. Each team will divide tasks as follows: Vlog members will use specialized tools to film “Citywalk with Love” at iconic landmarks in their cities, incorporating modern dance or gestures while delivering original English poetry recitations. Research members will employ data analysis tools to study syntactic structures in English lyrics of specific songs, comparing them with the Chinese translation principles of “faithfulness, expressiveness, and elegance.” Drama members will utilize AI-generated scripts to adapt Shakespearean love scenes, performing virtual enactments through digital avatar technology.

Beyond these classroom-based instructional innovations, it is essential to establish a systematic closed-loop optimization mechanism for digitally empowered teaching methods, to ensure that all technological applications consistently align with the core goal of cultivating students’ comprehensive English proficiency, cross-cultural communication competence, critical thinking and autonomous learning ability. Teachers should regularly participate in targeted training on emerging digital tools and outcome-oriented, student-centered pedagogical models, to continuously upgrade their ability to integrate technology with scientific teaching design and personalized guidance for diverse learners, fundamentally avoiding the harmful disconnect between superficial technical form and practical teaching substance. Meanwhile, teachers can rely on big data analytics embedded in various digital platforms to track students’ classroom participation, task completion quality, interactive performance and learning effectiveness changes in real time, dynamically adjusting the difficulty, rhythm and form of teaching activities to accurately meet the differentiated learning needs of students at different English levels. Additionally, building inter-university digital teaching communities can facilitate the free sharing of high-quality innovative teaching cases, promoting the sustainable iteration and standardized widespread application of advanced digital teaching methods in college English courses across higher education institutions nationwide.

5. Conclusion

In conclusion, the deep integration of digital technology with educational systems can effectively empower the construction of a new ecosystem for higher education teaching. The digital transformation of English teaching is not only an inherent requirement for university English instruction but also a proactive response to national strategic demands^[12]. Therefore, educators should prioritize digital transformation by driving innovation in teaching concepts, resources, and methodologies to advance the digitalization of English education, thereby fostering high-quality development in university English teaching for the new era.

Disclosure statement

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