



Teacher Role Transformation in Technology-Enhanced Chinese Language Education: A Study on Adaptation

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Abstract

This study examines the evolving roles and necessary adaptations of teachers in the field of Chinese language education within a technology-enhanced landscape. The deep integration of information technology into education, emblematic of our current era, serves as a primary catalyst for innovation and development in pedagogical models. For international Chinese language education, this transformation facilitates the optimized allocation of teaching resources, the creation of novel instructional approaches, and significant advancements in educational technology. Consequently, the traditional role of the Chinese language teacher is undergoing an inevitable and profound shift. The research begins by establishing a theoretical framework, analyzing the distinctions between conventional and contemporary teacher roles. It then reviews existing scholarship, both domestic and international, concerning teacher role transformation in technology-rich educational environments. Subsequently, the study addresses the specific context of Chinese language education. It outlines the current applications of enhancing technologies within this field and discusses the concomitant changes and challenges they present. Building upon this foundation, the study delves into the specific dimensions of role transformation for Chinese language educators within technology-enhanced environments. This shift necessitates a move from being mere knowledge transmitters to facilitators of learning, and from classroom managers to collaborative learning partners. Correspondingly, the research proposes adaptive strategies teachers should employ, such as cultivating digital literacy, embracing updated pedagogical philosophies, and mastering new instructional competencies. This research underscores the necessity and significance of teacher role transformation in technology-enhanced Chinese language education. It further clarifies the essential competencies and qualities required for educators to successfully navigate this change. The findings not only contribute to fostering inno-

vation and development in the field but also offer valuable insights for teachers seeking to enhance their professional expertise and adaptability in the new educational landscape.

Subject Areas

Language Education

Keywords

Technology-Enhanced, Chinese Language Education, Teacher Role

1. Introduction

With the advent of the digital age, the deep integration of information technology and education, often encapsulated by the concept of a technology-enhanced environment, has fundamentally reshaped pedagogical paradigms. This transformation is particularly consequential for the field of international Chinese language education, where it drives innovation in instructional models, optimization of resource allocation, and the adoption of advanced educational technologies. Within this evolving landscape, the traditional role of the Chinese language teacher is being challenged and redefined. The ability of educators to adapt their professional roles is no longer optional but a critical determinant of teaching efficacy and program success in the modern era.

Existing research has begun to explore the broad contours of teacher role evolution in technology-rich settings. However, a focused investigation into the specific manifestations and required adaptations for teachers within the context of Chinese language education remains under explored. This study aims to address this gap. It will critically examine the nature of the role transformation for Chinese language educators—analyzing shifts from knowledge authority to learning facilitator and from classroom manager to collaborative partner. Furthermore, it will propose a framework of strategic adaptations, encompassing the development of digital literacy, the evolution of pedagogical beliefs, and the acquisition of new instructional competencies.

By clarifying the imperatives and pathways for this professional evolution, this research seeks to contribute to the sustainable innovation of Chinese language education globally. It also intends to provide a pragmatic reference for educators aiming to navigate this transition successfully, thereby enhancing their professional resilience and effectiveness in a technology-enhanced world.

2. Research Methodology

This study employs a narrative literature review methodology combined with conceptual analysis to examine teacher role transformation in technology-enhanced Chinese language education. A purposive sampling strategy was applied to select

peer-reviewed journal articles and academic monographs from CNKI, Web of Science, and Google Scholar (2019-2025). Search terms included “technology-enhanced learning,” “Chinese language education,” “teacher role transformation,” “国际中文教育,” and “教师角色转变.” Inclusion criteria focused on: (1) technology integration in language education; (2) teacher professional development; (3) international Chinese language teaching contexts. The analysis proceeded through three stages: (1) descriptive mapping—systematic categorization of literature by research focus; (2) comparative analysis—identifying convergent trends in teacher role evolution across studies; (3) framework synthesis—constructing a structured model of adaptation strategies based on thematic integration of findings.

3. Analysis of the Current State of Chinese Language Education in a Technology-Enhanced Environment

3.1. The Extensive Application of Information Technology in Chinese Language Education

With the deepening integration characteristic of the technology-enhanced era, the application of information technology in Chinese language education has become increasingly widespread, driving unprecedented transformations within the field. Dai’s panoramic survey (2022) positions “Internet Plus” as an infrastructural upgrade that converts traditional Sinophone classrooms into low-cost, high-reach ecosystems. He catalogues four affordances—resource abundance, temporal flexibility, student-as-subject and cultural-export synergy [1]. This section analyzes the current landscape of Chinese language education under this paradigm, aiming to elucidate its primary characteristics, developmental trends, and the challenges it now confronts.

Within technology-enhanced contexts, various information technologies—such as cloud computing, big data, and artificial intelligence—are being extensively applied to Chinese language education. The adoption of these technologies has not only diversified instructional methods but also significantly enhanced teaching efficiency. For instance, online learning platforms enable students to study Chinese anytime and anywhere, breaking the temporal and spatial constraints of traditional classrooms. Furthermore, intelligent tutoring systems can provide personalized learning recommendations based on a student’s progress and interests, thereby increasing the relevance and effectiveness of the learning process.

3.2. Innovation and Transformation of Instructional Models

The instructional models in Chinese language education have undergone profound changes within technology-enhanced environments. Traditional face-to-face instruction is increasingly integrated with online teaching, giving rise to new blended learning models. These models retain the interactivity and immediacy of conventional classrooms while leveraging the flexibility and accessibility of online learning, thereby aligning Chinese language education more closely with the needs

of modern learners.

Furthermore, innovative pedagogical approaches such as the flipped classroom and Massive Open Online Courses (MOOCs) have gained widespread application in the field. These models emphasize student agency and autonomy, guiding learners to participate actively and engage in critical thinking, which enhances both learning outcomes and student motivation. Lü and Zhong's (2022) comprehensive review reveals a post-2020 surge in scaffolded Chinese-language-instruction studies delivered via MOOCs or flipped classrooms. These interventions uniformly adopt a "pre-class self-study → in-class interaction → post-class extension" architecture and report significant gains in learner autonomy and engagement [2]. Complementarily, Yang (2022) demonstrates that integrating micro-lectures, live-streaming and social-media apps into university curricula transforms students from passive "resource consumers" into active "resource producers," markedly enhancing their subjective position in the learning process [3].

3.3. Optimization and Sharing of Teaching Resources

In technology-enhanced contexts, teaching resources for Chinese language education have been significantly optimized and shared. On one hand, high-quality educational materials are disseminated and shared more broadly through online platforms, allowing a greater number of students to access excellent learning content. On the other hand, technologies such as big data and cloud computing enable precise analysis and optimized allocation of these resources, thereby improving the efficiency of their utilization. Embedding micro-videos in the app and requiring trainees to upload 5-min micro-lessons created a closed loop of watch-practice-peer review that tripled the number of teaching trials per semester" [4].

3.4. Challenges and Issues Confronted

Despite notable progress, Chinese language education within technology-enhanced environments faces several significant challenges. First, the proficiency in and widespread adoption of these new technologies require further development, as both teachers and students exhibit varying levels of readiness and capability in utilizing them effectively. Second, the regulatory and evaluative mechanisms for online instruction remain underdeveloped; ensuring the quality and effectiveness of virtual teaching is thus a pressing issue that demands resolution. Finally, concerns regarding data security and privacy protection necessitate adequate attention and robust measures.

In summary, while Chinese language education in technology-enhanced contexts demonstrates positive trends—including the extensive application of information technologies, the innovation of teaching models, and the optimization of shared resources—it is not without its challenges. Future efforts must delve deeper into these issues to formulate effective solutions and strategies, thereby facilitating the sustained and healthy development of Chinese language education in the digital era.

4. The Transformation of Teacher Roles in Chinese Language Education

Wang (2021), in his work *Multimedia and Corpus-Driven Research in Chinese Language Teaching*, particularly underscores that international Chinese language teachers should develop proficiency in multimedia-based instruction, enabling them to integrate multimedia technologies comprehensively and conduct teaching activities in a multidimensional manner [5]. Within technology-enhanced environments, the significant changes in instructional models, teaching resources, and learning modalities in Chinese language education inevitably necessitate a corresponding transformation in teacher roles. Teachers are no longer merely knowledge transmitters; they must now adopt more diversified roles within the new pedagogical landscape to meet the demands of the era and their students' needs.

4.1. From Knowledge Transmitter to Learning Facilitator

In traditional teaching models, teachers primarily served as knowledge transmitters, responsible for imparting information to students. However, in technology-enhanced contexts, students can access knowledge and information through multiple channels. Consequently, the teacher's role is evolving from a knowledge transmitter to that of a learning facilitator—a shift that demands not only new skills but also the pedagogical tact to respond dynamically to classroom situations after analyzing learner needs, a capability rooted in classroom leadership [6].

Simultaneously, teachers need to pay attention to students' learning interests and needs, providing personalized guidance and suggestions to stimulate their motivation and unlock their potential. Shen and Li (2023) demonstrate that gamified learning activities—such as competitive exercises on “Chinese character structure and pinyin”—can effectively foster active student engagement [7]. However, this technology-enabled guidance must be exercised with reflection. Wu (2025) cautions against the uncritical adoption of technological tools, warning of a “video-based inertia”—such as over-reliance on animated stroke-order demonstrations, which may reduce real-time teacher-student interaction, or the use of keyboard input that bypasses the handwriting process and undermines stroke memory [8]. Therefore, as learning facilitators, teachers must strike a balance between technology empowerment and technology reflection. They should skillfully use tools such as Twiddla online whiteboards and tone visualization animations to compensate for the informational gaps in online instruction, while remaining vigilant that technology does not erode the essence of language learning. The ultimate aim is to ensure that technology serves, rather than replaces, meaningful interaction between teachers and students.

4.2. From Classroom Manager to Learning Environment Architect

In traditional classrooms, teachers typically acted as classroom managers, responsible for maintaining order and discipline. In contrast, within technology-en-

hanced settings where students' learning environments and methods have changed, teachers must transition from managers to architects of the learning environment. As Liu (2025) emphasizes, technology-enhanced platforms in Chinese language education "alter the traditional classroom dynamic, reforming the teacher-centered, instructive model into an interactive, student-centered one." [9]

As an architect of the learning environment, the teacher must create a positive, open, and interactive atmosphere where students feel free to express themselves and communicate. Furthermore, teachers should utilize information technology tools to provide students with diverse learning resources and aids, helping them better accomplish learning tasks and solve problems.

4.3. From Teaching Executor to Teaching Researcher

In conventional teaching practice, teachers often functioned merely as teaching executors, following predetermined syllabi and textbooks. In the technology-enhanced era, however, teachers must continuously update their pedagogical concepts and methods to adapt to the new environment. Thus, they also need to evolve from teaching executors into teaching researchers.

As a teaching researcher, the teacher must stay abreast of the latest educational theories and instructional methods, engaging in continuous learning and exploration. This role demands a keen awareness of the unique challenges presented by the medium itself. For instance, while technology enables learning to transcend temporal and spatial boundaries, it may also diminish student motivation and lead to procrastination or fragmented study habits, as noted by Ren (2021) [10]. To address such pedagogical problems arising in the teaching process, the teaching researcher must propose effective, structured solutions. Bi (2025) offers a practical framework through the BOPPPS model, which systematically restructures the learning flow across three stages: pre-class, in-class, and post-class. In the pre-class stage, teachers can distribute tasks via intelligent platforms, allowing students to selectively learn vocabulary and grammar through instructional videos [11]. The in-class stage then utilizes platform-assisted functions for real-time feedback during participatory learning and post-testing. Finally, the post-class stage reinforces learning through summarized materials, interactive exercises, and AI-assisted grammar previews for upcoming lessons. This integrated three-stage process effectively counters the common issues of delay and fragmentation in online learning environments.

Additionally, teachers need to conduct in-depth analysis and research into problems arising during the teaching process, proposing effective solutions and improvement measures based on practical circumstances.

In summary, the transformation of teacher roles in Chinese language education within technology-enhanced environments is an inevitable trend. Teachers must adapt to this change by continuously enhancing their professional competence and skill sets to better fulfill their new roles and responsibilities. Concurrently, educational institutions and relevant authorities must provide necessary support and

training to help teachers successfully adapt to the new teaching environment and its developmental requirements.

5. Strategies for Adapting to Teacher Role Transformation

Given the inevitability of teacher role transformation within technology-enhanced environments for Chinese language education, teachers must adopt a series of effective strategies. This adaptation is essential to enhance their professional expertise and capabilities, enabling them to better fulfill their new roles and responsibilities. Zhang (2023) emphasizes that the cultivation of modern Chinese language teaching competence among university instructors within technology-enhanced contexts must rely on information-based and digital educational platforms to drive educational innovation [12]. By strengthening the accumulation of teaching experience and enhancing instructors' capacity for pedagogical exploration, the teaching competence of university-level Chinese language educators can be effectively reinforced.

5.1. Enhancing Digital Literacy and Technological Proficiency

With the widespread application of information technology, teachers must continuously enhance their digital literacy and technological proficiency. Firstly, teachers should actively learn and master the use of various technological tools. As noted by An (2019), mobile internet-based learning is characterized by “mobility of learning locations, flexibility of learning time, micro-nature of learning content, complexity of learning resources, autonomy of learning methods, and integration of learning technologies.” [13] In response to these features, Chinese language instructors should become proficient in utilizing intelligent platforms for Chinese language education, online learning platforms, and intelligent tutoring systems. As detailed by Li (2025), mainstream online teaching platforms currently include ClassIn, Zoom, DingTalk, and Tencent Meeting, which “can almost rival physical classrooms, offering features such as PPT display, teacher-student Q&A, classroom activities, and digital whiteboards, constituting a veritable transcendent digital classroom.” [14]

Secondly, teachers should also stay informed about the latest developments in information technology, understanding its potential applications and prospects within the field of education, thereby enabling ongoing innovation in their teaching methods and approaches.

5.2. Updating Pedagogical Philosophies to Embrace New Roles

The transformation of teacher roles necessitates a fundamental update in pedagogical philosophies to align with new professional identities. Cao (2020) observes a fundamental redefinition of the online Chinese language teacher's identity: transitioning from an authority of knowledge to a reconfigurer of shared knowledge resources and a curator of high-quality educational content, and from a knowledge importer to a personalized learning consultant and a facilitator of instructional

interaction. Each of these identity shifts, she argues, requires a high degree of teacher self-awareness and conscious professional repositioning [15]. Firstly, teachers must transition from being traditional knowledge transmitters to becoming learning facilitators, focusing on stimulating students' interest and initiative, and guiding them toward autonomous and collaborative learning. Secondly, they should shift from being classroom managers to serving as architects of the learning environment, prioritizing the cultivation of a positive, open, and interactive atmosphere to provide students with a supportive educational setting. Furthermore, teachers need to evolve from teaching executors into teaching researchers, emphasizing critical reflection on and continuous improvement of their instructional practices to consistently enhance teaching quality and outcomes.

5.3. Strengthening Team Collaboration and Sharing Instructional Resources

In technology-enhanced contexts, teachers need to strengthen team collaboration, sharing instructional resources and teaching experiences with peers. Through such collaboration, teachers can learn from and draw inspiration from one another, collectively elevating their pedagogical standards. Simultaneously, teamwork facilitates the optimal allocation and shared utilization of teaching resources, thereby increasing the efficiency of their use. Li (2025) argues for strengthening collaboration between universities and online Chinese language education platforms, promoting the integration of internet-based teaching resources with higher education institutions, and encouraging academics and experts to join online teaching teams. This engagement, she notes, serves a dual purpose: providing refined instructional guidance for online Chinese courses and identifying and nurturing future talent in international Chinese language education [16]. For instance, teachers can utilize shared resource libraries on intelligent platforms for Chinese language education to conduct collective lesson planning, which “saves time in determining supplementary topics beyond the core curriculum,” and engage in “peer teaching evaluations” to facilitate mutual learning.

5.4. Engaging in Professional Development to Enhance Expertise

To successfully adapt to the transformation of their roles, teachers must also actively participate in professional development programs and learning initiatives. By attending relevant training courses and seminars, teachers can acquire up-to-date educational theories and pedagogical methods, thereby enhancing their professional competence. Concurrently, such engagement provides opportunities for teachers to exchange insights and pedagogical experiences with their peers, fostering mutual growth and progress.

In summary, the adaptation to teacher role transformation is a multidimensional and multifaceted process. Teachers need to systematically advance their expertise and capabilities by enhancing their digital literacy, updating pedagogical philosophies, strengthening team collaboration, and engaging in continuous professional

development. Through these concerted efforts, they will be better equipped to navigate the new challenges and opportunities presented by technology-enhanced Chinese language education.

6. Conclusion and Future Prospects

Through an in-depth investigation into the transformation and adaptation of teacher roles within technology-enhanced Chinese language education, the following conclusions are drawn:

Firstly, the transformation of teacher roles is an inevitable trend in the development of Chinese language education in technology-enhanced environments. This imperative extends beyond the classroom, as the integration of technology reshapes the entire ecosystem of the field, presenting new opportunities and challenges for industry-academia collaboration and career development, thereby making the transformation of teaching models an urgent necessity [17]. This shift is manifested not only in the evolution from knowledge transmitter to learning facilitator and from classroom manager to architect of the learning environment, but also in the progression from teaching executor to teaching researcher. This transformation necessitates the continuous enhancement of teachers' professional expertise and competencies to adapt to the new instructional landscape and demands.

Secondly, to adapt to this role transformation, teachers must adopt a series of effective strategies. These include enhancing their digital literacy, updating pedagogical philosophies, strengthening team collaboration, and engaging in professional development. By implementing these strategies, teachers can better align with their new role definitions, improve teaching effectiveness, and foster the holistic development of their students.

However, it is also recognized that the process of role transformation and adaptation for teachers is long-term and complex, and it continues to face numerous challenges. These include, for example, how to further improve teachers' digital literacy and technological application skills, how to refine teacher training and evaluation mechanisms to better support professional growth, and how to construct more open and shared platforms for teaching resources.

Looking ahead, it is anticipated that teachers in Chinese language education will continue to deepen their role transformation and enhance their professional expertise within technology-enhanced environments. Concurrently, it is hoped that relevant administrative bodies and educational institutions will increase their support for teacher training and development, providing more opportunities for learning and professional exchange to facilitate teachers' growth. Furthermore, ongoing exploration of innovative instructional models and pedagogical methods is essential to meet the evolving demands of Chinese language education in the

new era, thereby promoting its sustained and healthy development.

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Conflicts of Interest

The author declares no conflicts of interest.

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