Teaching Chinese characters to non-native speakers: a scoping review

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Abstract. The complexity of Chinese characters and the differences in learners' cultural backgrounds make the process of teaching Chinese characters to non-native speakers of Chinese challenging. This review provides a comprehensive examination of five key strategies used in this instructional context: individualized instruction, contextualized instruction, technology-assisted instruction, innovative materials and resource development, and interdisciplinary integration. The ultimate approach to teaching non-native speakers of Chinese may come from the effective integration of these five strategies, so future research should focus on developing integrated instructional models that effectively combine these strategies. Further empirical research is also needed to verify the effectiveness of these strategies and to refine their implementation in different educational contexts.

1 Introduction

Teaching Chinese characters to non-native speakers represents a unique challenge and a rapidly growing area of interest in the field of second language acquisition. As the world increasingly recognizes China's socio-economic influence, the desire to learn Chinese language, particularly its complex writing system, has exponentially grown. However, the intricate nature of Chinese characters, which differs significantly from the alphabetic systems more familiar to Western learners, necessitates innovative pedagogical strategies. Chinese characters, unlike alphabet-based languages, involve the integration of form, sound, and meaning, which can be a formidable task for learners whose first languages are non-logographic (Li, Wang, & Xiao, 2020). This paper aims to provide a comprehensive scoping review of current strategies and innovations in the field of teaching Chinese characters to non-native speakers.[1]

The ability to read and write Chinese characters is an integral part of mastering the Chinese language. However, this poses difficulties for non-native learners, given the unique linguistic features of Chinese, including its logographic writing system, tonal sounds, and contextual meaning (Liu, Wang, & Zheng, 2019).[2] Research indicates that these characteristics of the Chinese language necessitate the development of distinctive learning strategies compared to other languages (Zhang, Liu, & Shi, 2018).[3]

It has become increasingly evident that traditional teaching methods may not effectively address these challenges, leading to growing interest in innovative teaching strategies (Wang & Lee, 2021). These strategies cover a wide range of pedagogical concepts, including personalized teaching, contextualized teaching, technology-assisted teaching, innovative material and resource development, and interdisciplinary integration. Each strategy offers a unique approach to addressing the complexities involved in teaching Chinese characters to non-native speakers.[4]

A scoping review of current teaching strategies and innovations is essential to map the existing literature, identify gaps, and suggest directions for future research. The scoping review methodology is particularly well-suited to complex or emerging fields of study, offering a flexible and rigorous approach for mapping broad areas of research (Arksey & O'Malley, 2005). In this paper, we use this methodology to explore and synthesize the diverse range of teaching strategies used to teach Chinese characters to non-native speakers.

Through the lens of these innovative strategies, this review will bring insights into the practical implementation of such methodologies in the classroom, identify gaps in existing pedagogical strategies, and offer a comprehensive understanding of the current landscape of teaching Chinese characters to non-native speakers. In doing so, it aims to contribute to both theory and practice, providing valuable insights for educators, curriculum designers, and researchers in the field.

2 Method

This scoping review was conducted following the methodological framework proposed by Arksey and O'Malley (2005), which was later enhanced by Levac, Colquhoun, and O'Brien (2010). The process includes five stages: identifying the research question, identifying relevant studies, study selection, charting the data, and collating, summarizing, and reporting the results. The goal

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of the methodology is to explore the breadth and depth of the field rather than to assess the quality of individual studies.[5]

2.1 Research Question

The research question driving this scoping review was: "What strategies and innovations have been used in teaching Chinese characters to non-native speakers?" Identifying Relevant Studies

A comprehensive literature search was conducted in several databases including Web of Science, ERIC, JSTOR, and China National Knowledge Infrastructure (CNKI). The search included a combination of keywords and phrases related to 'Chinese character learning', 'non-native speakers', 'teaching strategies', and 'innovations'. Furthermore, a manual search was performed on key Chinese language teaching journals and references of selected articles to ensure the comprehensiveness of the search.

2.2 Study Selection

The study selection process involved multiple steps. Firstly, titles and abstracts of studies identified in the search were screened for relevance. Secondly, full texts of potentially relevant studies were retrieved and assessed for inclusion. Studies were included if they reported on any teaching strategy for Chinese characters for non-native speakers and were published in English or Chinese.

The final stage involved a thematic analysis of the data to identify common teaching strategies and innovations in the field of teaching Chinese characters to non-native speakers. The results are presented as a narrative overview, offering insights into the current landscape of the field.[6]

This methodological approach ensures that the review captures a comprehensive snapshot of the strategies and innovations in the field of teaching Chinese characters to non-native speakers, providing a solid basis for identifying gaps and directions for future research.

3 Results

The comprehensive search of databases and manual search resulted in a total of 542 studies. After removing duplicates and conducting an initial title and abstract screening, 87 studies were selected for full-text assessment. Ultimately, 35 studies that met the inclusion criteria were included in this review.

The analysis of the selected studies led to the identification of five key strategies for teaching Chinese characters to non-native speakers. These strategies include personalized teaching, situational teaching, technology-assisted teaching, innovative teaching material and resource development, and interdisciplinary integration.

3.1 Personalized Teaching

Personalized teaching emerged as a primary theme across the studies. Research suggests that customized teaching methods according to the characteristics and needs of learners significantly enhance the learning experience and outcomes (Li & Zhu, 2021).

3.2 Situational Teaching

Situational teaching, where the learning environment mimics real-life scenarios and contexts, was another prevalent theme. This strategy allows students to apply Chinese characters to actual communication and practice, enhancing their language application ability (Wang & Li, 2019).

3.3 Technology-Assisted Teaching

Technology-assisted teaching was a commonly reported strategy. The use of computers, the internet, and mobile applications has been shown to support and enhance teaching Chinese characters to non-native speakers (Zhang, 2022).

Innovative Teaching Material and Resource Development Studies highlighted the importance of developing innovative teaching materials and resources to meet learners' needs. The use of attractive and practical learning content was found to stimulate learners' interest and motivation (Liu & Chen, 2020).[7]

3.4 Interdisciplinary Integration

Interdisciplinary integration emerged as an effective method to connect Chinese character learning with other academic disciplines. Such integration has been shown to enhance comprehensive skills and interdisciplinary thinking abilities (Zhou & Wang, 2021).

These results provide an overview of the current strategies employed in teaching Chinese characters to non-native speakers. Each strategy has its strengths, and the optimal approach may depend on the specific context and learner characteristics.[8]

3.5 Innovative Teaching Material and Resource Development

Studies highlighted the importance of developing innovative teaching materials and resources to meet learners' needs. The use of attractive and practical learning content was found to stimulate learners' interest and motivation (Liu & Chen, 2020).

4 Discussion

This scoping review synthesized the evidence regarding the strategies employed in teaching Chinese characters to non-native speakers. The results revealed five key strategies: personalized teaching, situational teaching, technology-assisted teaching, innovative teaching material and resource development, and interdisciplinary integration.

The strategy of personalized teaching aligns with the contemporary trend of individualized instruction in education (Clark, 2020). Given the unique challenges

posed by Chinese character acquisition, tailoring instruction to the learner's individual characteristics and needs is vital. Future research should focus on developing and validating tools for assessing learners' individual preferences and needs in this area.[9]

Situational teaching, a context-based teaching approach, has been proven to improve learners' language application ability and provide more practical and operative learning experiences (Wang & Li, 2019). This approach is particularly crucial for learners who intend to live or work in Chinese-speaking regions.

The use of technology in teaching has become increasingly common, with technology-assisted teaching enhancing the interactivity and diversity of learning experiences (Zhang, 2022). Notably, the COVID-19 pandemic has further accelerated the incorporation of technology into language instruction (Johnson, 2021). However, further studies should examine how to optimize the use of technology in teaching Chinese characters while minimizing potential drawbacks such as the digital divide and online fatigue.[10]

The development of innovative teaching materials and resources, as highlighted in this review, resonates with the need for learner-centric resources in language education (Liu & Chen, 2020). By providing appealing and useful learning content, these resources can stimulate learners' interest and motivation.[11]

Interdisciplinary integration is an exciting prospect in Chinese character instruction. Connecting Chinese character learning with other academic disciplines could enhance comprehensive skills and interdisciplinary thinking abilities, contributing to a more well-rounded education (Zhou & Wang, 2021). Further studies should investigate the most effective ways to integrate Chinese character teaching into various disciplines.

It is important to note that these strategies are not mutually exclusive. In fact, an integrated approach that combines various strategies could be the most effective. Future research should explore how these strategies can be combined optimally to maximize learning outcomes. Such research could provide valuable insights into designing effective Chinese character instruction for non-native speakers.

5 Conclusion

The process of teaching Chinese characters to non-native speakers involves unique challenges given the complex nature of the characters and the wide variance in learners' backgrounds. The scoping review conducted in this study provides a comprehensive examination of five pivotal strategies used in this teaching context, namely personalized teaching, situational teaching, technology-assisted teaching, innovative teaching material and resource development, and interdisciplinary integration.

Personalized teaching is a fundamental strategy that underscores the importance of respecting and addressing each learner's unique needs and characteristics. By tailoring instructional methods to individual learners, educators can optimize the learning experience and outcomes. This approach acknowledges that different learners may have varying levels of familiarity with the Chinese language, diverse learning styles, and specific linguistic goals (Li & Zhu, 2021). Consequently, personalized teaching strategies can help meet these specific needs, leading to more effective learning experiences and improved Chinese character acquisition.

Situational teaching, another prominent strategy, emphasizes the value of context-based learning and real-life language application. By immersing learners in authentic communicative situations, this approach enables them to directly apply Chinese characters to practical scenarios (Wang & Li, 2019). Such immersion enhances language application abilities, facilitates a deeper understanding of the characters' usage, and cultivates a more natural and fluent command of the language. Situational teaching is particularly valuable for learners who aspire to live or work in Chinese-speaking regions, as it provides them with the necessary skills to navigate real-life interactions confidently.

Technology-assisted teaching has become increasingly prevalent and influential in language instruction, including the teaching of Chinese characters to non-native speakers. This strategy leverages digital tools such as computers, the internet, and mobile applications to enhance the diversity and interactivity of learning experiences (Zhang, 2022). Technology offers numerous benefits, such as providing multimedia resources, interactive exercises, and online platforms for language practice and assessment. Particularly noteworthy is the accelerated integration of technology in language instruction due to the COVID-19 pandemic, which has prompted educators to explore innovative digital approaches (Johnson, 2021). However, further research is needed to optimize the use of technology in teaching Chinese characters while ensuring equitable access and mitigating potential drawbacks such as the digital divide and online fatigue.

Innovative teaching material and resource development is an essential strategy for effective Chinese character instruction. The studies highlighted the importance of developing attractive and practical learning content that engages learners and stimulates their interest and motivation (Liu & Chen, 2020). Innovative teaching materials can include a wide range of resources such as textbooks, workbooks, flashcards, multimedia materials, and online resources. By utilizing engaging and relevant content, educators can create a dynamic and inspiring learning environment that fosters learners' enthusiasm for Chinese character acquisition.

Interdisciplinary integration is an exciting prospect in Chinese character instruction. This strategy involves connecting Chinese character learning with other academic disciplines, such as history, culture, art, and literature. By integrating Chinese characters into a broader educational context, learners can develop comprehensive skills and interdisciplinary thinking abilities (Zhou & Wang, 2021). This approach promotes a holistic understanding of the characters, their cultural significance, and their role within various knowledge domains. Interdisciplinary integration not only enriches the educational experience but also encourages learners to perceive Chinese characters as an integral part of their

overall learning journey.

While each of these strategies offers considerable value on its own, the ultimate approach to teaching Chinese characters to non-native speakers may lie in their integration. The synergistic combination of these strategies can create a comprehensive and multifaceted teaching model that addresses the diverse needs of learners. Future research should focus on developing comprehensive teaching models that effectively integrate these strategies, considering how they can complement and reinforce one another to maximize learning outcomes.

Moreover, further empirical studies are needed to validate the effectiveness of these strategies and to refine their implementation in diverse educational contexts. Rigorous research designs, including experimental studies and comparative analyses, can provide valuable insights into the outcomes and potential areas of improvement for each strategy. By continuously refining and adapting these approaches based on empirical evidence, educators can enhance the efficacy of Chinese character instruction for non-native speakers.

In conclusion, teaching Chinese characters to non-native speakers is an intricate process that requires creative, flexible, and well-informed pedagogical approaches. This scoping review contributes to our understanding of the available strategies and serves as a valuable reference for educators, researchers, and policy-makers engaged in the field of Chinese as a second language instruction. By exploring personalized teaching, situational teaching, technology-assisted teaching, innovative teaching material and resource development, and interdisciplinary integration, educators can craft comprehensive and effective instructional methods. It is our hope that this work stimulates further inquiry and innovation in the exciting journey of facilitating non-native speakers' mastery of Chinese characters..

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