



Teaching Chinese Characters: The Challenges and Strategies of Addressing the Unique Aspects of Chinese Characters and Exploring Effective Pedagogical Approaches

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Abstract

Background and Aim: Learning the Chinese language can be challenging but acquiring the characters is probably the most difficult. Teachers and students are likely to face various challenges in their journey to learn and master Chinese characters. This study examined the unique aspects of teaching Chinese characters and explored effective pedagogical approaches. The study also suggested specific pedagogical approaches that teachers can use in the classroom to make learning more effective.

Materials and Methods: Data was collected using a systematic review of previous articles. A total of 80 articles were obtained from various databases, including ERIC, ResearchGate, ScienceDirect, EBSCO, and JSTOR. The articles were reduced to 23 based on the inclusion criteria that were used to remove duplicate articles, irrelevant topics, and dates falling outside the 10 years. The PRISMA model helped in evaluating and removing articles that did not meet the inclusion criteria.

Results: Findings indicate that the main challenges involved in teaching Chinese characters include unique features of the characters taking longer to teach and master, tonal complexity, logographic language system, radical and phonetics complexity, difficulty in selecting pedagogical strategies, and student-related challenges.

Conclusion: The pedagogical approaches that teachers can use in the classrooms include the phenomenographic approach, traditional approach, innovative approach, character-centered approach, and meaning-centered approach. The study suggests a combination of phenomenographic and innovative strategies as the most effective pedagogical approaches.

Keywords: Chinese Characters; Logograph; Phenomenographic Approach; Traditional Approach; Tonal Complexity.

Introduction

Chinese characters are among the most ancient logographs still in use today. Various Chinese characters can be traced back to the Shang dynasty (1600 – 1050 BCE). However, teaching the logographs can be challenging even for the most experienced teachers (Gong et al., 2020). Some of the main challenges that make Chinese characters difficult to teach include unique (almost artistic) appearance, stroke order, tone-based phonetics, and lack of alphabet (Liu et al., 2023). Going by the traditional pedagogical approach, it may take many years for students to learn more than 5,000 common characters used in the Chinese language (Gong et al., 2020). While there are more than 50,000 characters in the Chinese language, most of them are not common. Students are required to learn between 2,000 and 3,500 characters to be fluent (Liu et al., 2023). College students can go up to 8,000 characters depending on the higher education curriculum.

This study is useful in guiding teachers about methods they can use in teaching Chinese characters. The study provides methods that make teaching the characters easier and adequately understood by the learners. The main objective of this study is to examine the unique aspects of teaching Chinese characters and explore effective pedagogical approaches. The other key objectives include examining challenges that educators may face when teaching Chinese characters to students at various stages of learning. The study also explores specific features that make Chinese characters unique from other languages or other traditional logographs. Inform from this study will guide teachers on the selection of Chinese character textbooks based on the learning stages and difficulty levels. Moreover, this study also suggested the most appropriate pedagogical approach that educators can use to teach Chinese characters in the classrooms.



Literature Review

Various pedagogical approaches have been developed to make teaching Chinese characters less cumbersome and more effective. Apart from the traditional approach, researchers have developed a phenomenographic approach, paper cutting, and other innovative approaches to make learning more enjoyable and memorable (Wei & Hua, 2019). However, most of these innovative pedagogical approaches have not received adequate to enhance awareness and adoption. Teachers still struggle to find the best methods they can use in the classroom to teach the characters. The purpose of this study is to address the unique aspects of teaching Chinese characters and explore effective pedagogical approaches. The study also guides teachers on the selection of Chinese character textbooks based on stages and difficulty levels.

The traditional approach to teaching Chinese characters has been popular among educators due to its previous outcomes on the students. The traditional approach is also preferred based on the cultural ties to the Chinese population (Cheng et al., 2020). Educators rely on methods that have been used for thousands of years to pass the Chinese characters from one generation to another. However, there have been various modern approaches that educators have developed to make teaching the characters easier and more transferrable to the next generations. According to Wei & Hua (2019), educators have been working on various approaches for years to make Chinese characters easier to learn among individuals from other cultural backgrounds around the world. Most of the modern methods have also focused on addressing negative perceptions surrounding the Chinese characters (Wang & East, 2020). This has helped in improving attitudes among learners and encouraging more students to join the Chinese language classes.

Gong et al. (2020) describe originality as the author's arguments based on evidence obtained from research. The purpose of research is to create new information and contribute to the growth of information literacy. The new data obtained from the field enable researchers to provide solutions to the problems affecting society. This study relied on a systematic review to extract evidence from the previous studies. The purpose is to consolidate evidence and move the educational discourse to the next level. By combining evidence from various articles, this study discussed challenges in teaching Chinese characters and approaches that can make teaching easier and more effective. The data provided in this study supports specific approaches that have been tested in various schools in China, Taiwan, and Hong Kong to determine their effectiveness.

Theoretical Framework

The thematic analysis involved both deductive and inductive thematic analysis. Inductive thematic analysis is where the findings of a study help in developing themes (Newman & Gough, 2020). The inductive analysis follows a narrative approach to identify the main ideas in the findings and use them to develop themes. Deductive analysis involves using pre-determined themes to determine where there is sufficient evidence on the topic (Newman & Gough, 2020). The deductive analysis also helps in narrowing the evidence to specific themes and arguments that the researcher wants to develop (Hennink & Kaiser, 2022). Both deductive and inductive analysis help in developing logical conclusions. The final step in the systematic review involves interpreting the findings to provide answers to the research questions. The graphical presentation of the PRISMA model is shown in the diagram below.

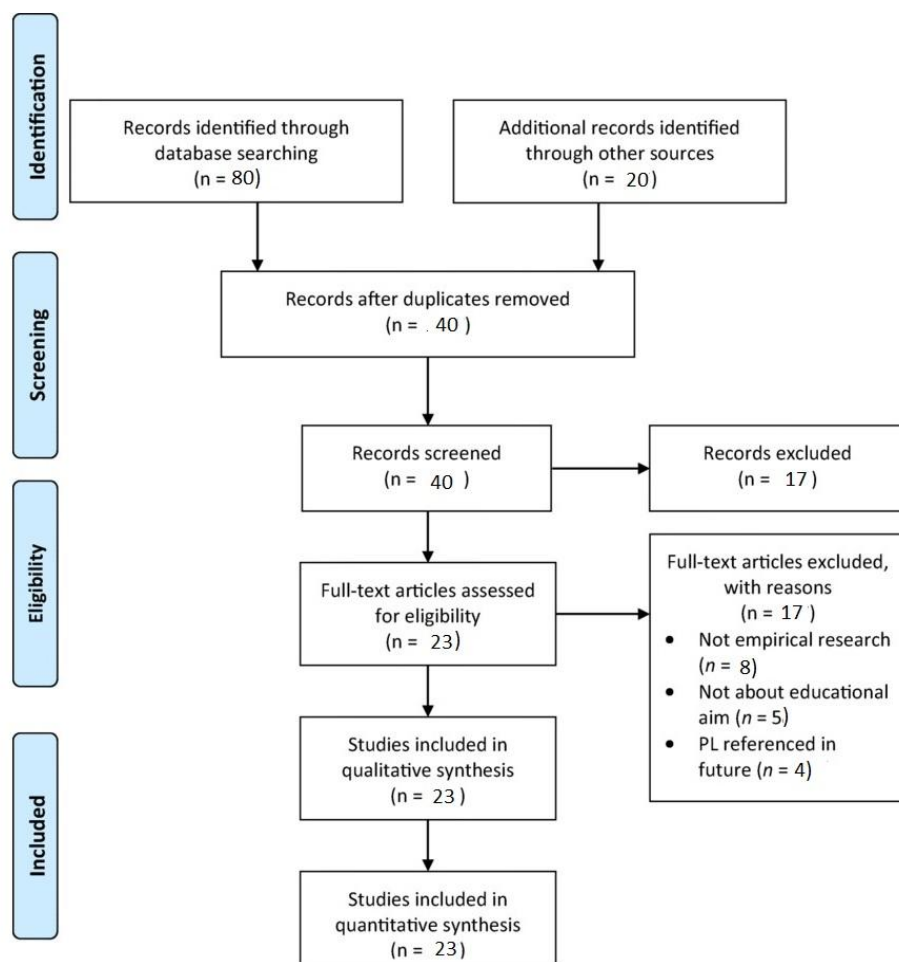


Figure 1 Theoretical Framework

Methodology

The research design that was selected for this study is a systematic review. According to Hennink & Kaiser (2022), systematic review enables researchers to find, select, and synthesize available evidence on the research topic. Systematic reviews enable researchers to weigh the available evidence and determine whether there is a need for more research to provide evidence to the unanswered questions. Inclusion and exclusion criteria must be chosen to identify appropriate articles for review (Newman & Gough, 2020). In this study, the inclusion criteria included relevance to the research questions, year of publication, primary research, and relevant findings. The study obtained articles from various databases, including ERIC, ResearchGate, ScienceDirect, EBSCO, and JSTOR.

The systematic review was conducted using the PRISMA model. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) model uses a checklist to enhance transparency in the systematic review (Hennink & Kaiser, 2022). The first step involved formulating research questions. The first question examined the challenges faced by teachers when teaching Chinese characters (*What challenges do teachers face when teaching Chinese characters?*). The second question examined the pedagogical approaches that educators can use to teach Chinese characters (*What are the most appropriate approaches for teaching Chinese characters?*). The formulated questions were used for obtaining articles.



A total of 80 articles were obtained from various databases for the two questions. The third step involved assessing the research quality and evidence (Newman & Gough, 2020). The articles were reduced further using the inclusion criteria to remain with only 20 for further analysis. The remaining articles were subjected to thematic analysis to summarize evidence.

Result

What challenges do teachers face when teaching Chinese characters?

The study found various challenges that may affect the teaching of Chinese characters. The findings regarding the challenges that educators may face when teaching the characters. For instance, Bao et al. (2021) describe unique features such as stroke order as one of the main challenges that teachers and students may face when teaching the characters. Character stroke order is the sequence of pen or brush strokes used when writing each Chinese character (Tao & Gao, 2022). Errors in stroke order can affect the character formation, meaning, and aesthetics. Bawa & Watson (2017) describe the difficulty in selecting the right pedagogical approach as one of the challenges that teachers may face when teaching Chinese characters. Choosing the wrong pedagogical approach can make the teaching process more complex and potentially harmful to the learners (Nel & Soezin, 2021). It is also difficult to ignore the impact of learner-related challenges on the overall outcomes. For instance, those who find the teaching methods less motivating may quit learning the Chinese language and all its characters (Kuo et al., 2014). Keeping the students engaged and focused on learning the characters can be a significant challenge for teachers.

What are the most appropriate approaches for teaching Chinese characters?

The pedagogical approaches are the teaching models that teachers can use in the classroom to overcome various challenges associated with teaching Chinese characters. Tse et al. (2007) describe the phenomenographic approach and its impact on student mastery of Chinese characters. Unlike the traditional approach, the phenomenographic model begins with the student's language before introducing the Chinese characters in contexts that are meaningful to the learners. Gong et al. (2020) describe the various innovative approaches that teachers can use in the classroom to make teaching Chinese characters less complex and more effective. The innovative strategies also begin with the student's language and may rely on other strategies such as paper cutting to enhance mastery and memorization. Bawa & Watson (2017) talk about character-centered and meaning-centered approaches to teaching Chinese characters. The meaning-centered approach focuses on the meaning of each character based on the phonetic component and the radicals (Yang et al., 2021).

Discussion

The uniqueness of the Chinese characters makes them different from any other language. According to Zhang & Roberts (2019), only Egyptian hieroglyphs and some old Sumerian texts may resemble the characters used in the Chinese language. The characters remain one of the most ancient logographs used in modern communication (Bao et al., 2021; Fan, 2020). The unique features include character stroke order, tone-based phonetics, lack of alphabet, character radicals, character variants, and lack of spacing. The stroke order refers to the way teachers hold the brush to create strokes in the most preferred order (Liu et al., 2023). An error in making the character strokes can change the meaning, intonation, and general aesthetics. Chinese characters were in ways that made them almost artistic in appearance (Xu & Stahl, 2023). Mastering each stroke and the intended meaning can take significant time to achieve.



Chinese is a tonal language where meaning depends on the speaker's intonation. The tonal complexity remains a significant challenge because there are at least five different tones that speakers need to get right (Wang & East, 2020). The five tones that students need to master include high level (first), rising (second), falling-rising (third), falling (fourth), and toneless (Bao et al., 2021). The tones differentiate the characters and help readers to pronounce them independently (Tao & Gao, 2022). However, without sufficient training, it may take teachers a very long time to master the tones and deliver them effectively in the classroom (Zhang & Roberts, 2019). Even students are more likely to face challenges in mastering each tone and how they apply to the characters (Yang et al., 2021). Teachers must understand how to put the right emphasis on each character to generate the desired sound and meaning.

The logographic characters are distinguishable using phonetic components and radicals. The radical component indicates meaning while the phonetic component indicates pronunciation (Bawa & Watson, 2017). However, a problem occurs when there is limited correspondence between the character and its pronunciation (Gong et al., 2020). The evolution of Chinese characters has created characters that are toneless or no longer pronounced using their radical and phonetic components (Bawa & Watson, 2017). Besides, there are characters with similar radicals and phonetics. In such a case, speakers can only create meaning through tonal variations (Wei & Hua, 2019). The radical and phonetic complexities make teaching Chinese characters difficult, confusing, and time-consuming. Unlike other languages with alphabets, it is difficult for students to master the characters due to radical or phonetic complications (Bao et al., 2021). It may take longer before students can produce the desired radicals or phonetics from their memories.

Another challenge that teachers are likely to face is the difficulty in choosing the right pedagogical approach to use in the classroom. Although there are various pedagogical approaches that teachers can select, each comes with its advantages and disadvantages (Nel & Soezin, 2021). For instance, the traditional pedagogical approach is highly preferred among teachers because it helps students master and memorize characters progressively (Xu & Stahl, 2023; Ésik, 2020). By repeatedly copying the characters until they can reproduce their form and pronunciation from memory, students are less likely to confuse characters even with potential radical or phonetic complications (Liu et al., 2023). However, students consider the traditional approach to be extremely boring and cumbersome (Zhang & Roberts, 2019). The innovative approaches may provide shortcuts but require students who can master the characters quickly to enable a progressive learning process. Teachers have to select the most appropriate pedagogical approach to achieve the desired outcomes (Yang et al., 2021). Moreover, teaching Chinese characters can also be difficult without sufficient materials and professional development. According to Li et al. (2022), teachers may require years of training and professional development to gain the skills needed to teach Chinese characters, especially to those who are learning Mandarin as an additional language.

Teachers should also be prepared to overcome learner-related challenges that may significantly hinder learning outcomes. The main student-related challenges include a lack of motivation, cultural perceptions, and an inability to see relevance and economic importance (Tao & Gao, 2022). Lack of motivation is a major issue that teachers may face when teaching Chinese characters. Those who are teaching Chinese as an additional language are more likely to face this challenge than those teaching Chinese native speakers. According to Wei & Hua (2019), the main factor that demotivates learners is the unique challenges associated with Chinese characters. For instance, phonetics and radical complexities are more likely to demotivate learners (Liu et al., 2023). It is also difficult for teachers to engage students who are demotivated or prefer learning other languages to the Chinese characters (Kuo et al., 2014). Negative cultural perceptions may also affect student attitudes towards Chinese characters.



One of the approaches that teachers can use to improve teaching is the phenomenographic approach. According to Cheng et al. (2021), the phenomenographic approach begins with teaching Chinese characters using the student's language. For instance, learning begins with developing sentences in the learner's native language. The next step involves introducing characters in contexts that are meaningful to the student. In most cases, teachers may create a simple sentence and then replace all the words with Chinese characters. Since a single character represents a word, it is easier for the teacher to replace English words with Chinese characters (Wang & East, 2020). This makes it easier for the students to understand the character, meaning, and correct pronunciation. Teachers then place characters into categories using their similarities and differences (Nel et al., 2021). Learners can then master the categorization and create their own set of characters using the same procedures. This approach is considered appropriate because it takes a shorter duration for students to learn the characters.

The traditional approach has significantly evolved to include some innovations aimed at shortening the learning process and engaging learners. The traditional approach encourages learners to copy and repeat the characters they have learned until they can reproduce them from their memory (Yang et al., 2021). This process is tedious and does not have specific timelines for completing a section of the characters (Wang & East, 2020). It may also differ from one student to another depending on the overall learning pace. However, the traditional approach is more likely to create stronger and less confusing mastery of the Chinese characters (Liu et al., 2023). Its major disadvantage is negative perceptions from students who consider it boring and cumbersome (Gao, 2020; Tse et al., 2007). Teachers can make the traditional approach more effective by incorporating innovative strategies, including paper cuttings to make the characters memorable and easier to reproduce.

Teachers can also use a character-centered or meaning-centered approach to teach the Chinese characters. This method considers the fact that each character should be understood in the context in which it has been used (Wei & Hua, 2019). Being that Chinese is a tonal language, the context matters in producing the right pronunciation and sound to minimize potential misunderstanding (Gong et al., 2020; Fan, 2020). The character-centered approach focuses on the structure of the character and repeats it until learners can reproduce it from their memories. The meaning-centered approach focuses on the phonetic and radical components of the character to help students understand the meaning of each character (Cheng et al., 2020). The radical component shows the meaning while the phonetic component shows the correct pronunciation. Teachers can combine the character and meaning-centered approaches to enhance understanding of the characters.

Tables and Figures

Table 1 Challenges associated with teaching the Chinese characters.

Sources	Synthesized Findings	Description
Tse et al., 2007; Gong et al., 2020; Liu et al., 2023.	Phenomenographic approach	Learning begins with the student's native language and characters are introduced and used in contexts that are meaningful to the learners (Tse et al., 2007).
Gong et al., 2020 ; Gong et al., 2020.	Traditional approach	Students "learn Chinese characters by repeatedly copying them until they can reproduce their form and pronunciation from memory" (Tse et al.,



Sources	Synthesized Findings	Description
		2007). It takes longer to master the characters and many students consider it to be boring.
Zhang & Roberts, 2019; Xu & Stahl, 2023; Ésik, 2020.	Innovative approach	Learning begins with the student's language, characters are introduced into meaningful contexts, and similarities and variations are explained (Zhang & Roberts, 2019). Teachers may also use other strategies such as paper cuttings to improve memory.
Zhang & Roberts, 2019; Wang & East, 2020.	Character-centered approach	Focuses on the characters until learners can reproduce them from their memories (Wang & East, 2020). Factors such as brush strokes are highly prioritized.
Wei & Hua, 2019; Yang et al., 2021.	Meaning-centered approach	Focuses on the meaning of each character based on the phonetic component and the radicals (Yang et al., 2021). Variations in the radicals and phonetics are examined to minimize the tonal complexities.

Table 2 Pedagogical approaches to teaching the Chinese characters

Sources	Synthesized Findings	Description
Tse et al., 2007; Gong et al., 2020; Liu et al., 2023.	Phenomenographic approach	Learning begins with the student's native language and characters are introduced and used in contexts that are meaningful to the learners (Tse et al., 2007).
Gong et al., 2020; Gong et al., 2020.	Traditional approach	Students "learn Chinese characters by repeatedly copying them until they can reproduce their form and pronunciation from memory" (Tse et al., 2007). It takes longer to master the characters and many students consider it to be boring.
Zhang & Roberts, 2019; Xu & Stahl, 2023; Ésik, 2020.	Innovative approach	Learning begins with the student's language, characters are introduced into meaningful contexts, and similarities and variations are explained (Zhang & Roberts, 2019). Teachers may also use other strategies such as paper cuttings to improve memory.
Zhang & Roberts, 2019; Wang & East, 2020.	Character-centered approach	Focuses on the characters until learners can reproduce them from their memories (Wang & East, 2020). Factors such as brush strokes are highly prioritized.
Wei & Hua, 2019; Yang et al., 2021.	Meaning-centered approach	Focuses on the meaning of each character based on the phonetic component and the radicals (Yang et al., 2021). Variations in the radicals and phonetics are examined to minimize the tonal complexities.



Conclusion

Teaching Chinese characters can be a daunting task based on their logographic features. Teachers may require significant training to gain the necessary skills needed to deliver effectively in the classrooms. This study examined the unique aspects of teaching Chinese characters and explored effective pedagogical approaches. The study found that teaching Chinese characters can take longer due to many factors, including challenges for those who are learning Chinese as a second language. Pedagogical methods that teachers can use to teach the characters include phenomenographic approach, traditional approach, innovative approach, character-centered approach, and meaning-centered approach. Teachers may choose a method that suits the classroom and the overall goals. Educators should also consult with their colleagues and language professionals to develop a more effective approach to teaching the characters.

Recommendations

This study recommends a combination of phenomenographic and innovative approaches to make teaching characters easier and more effective. The first step involves developing sentences in the student's first language (Tse et al., 2007). For instance, the teacher constructs sentences on the board using the English language or any language that students understand. The purpose of this approach is to ensure students begin from what they know before moving into areas where they have minimal information (Zhang & Li, 2016). The next step involves replacing the words with the Chinese characters. Teachers should pay close attention to the character stroke to enhance meaning and aesthetic appeal (Kuo et al., 2014). Apart from the character stroke, teachers should also ensure the phonetic and radical components are captured accurately.

The next step involves teaching learners how to categorize the characters based on their similarities and differences. For instance, teachers can use classifications such as simple and traditional characters to make classification more meaningful. According to Yang et al. (2021), teaching the characters should begin from the simple stages to more complex stages. Simple classification contains characters that learners can grasp quickly and reproduce to create the desired meaning. The complex categories can be classified further based on the difficulty level (Wei & Hua, 2019). The systematic or progressive approach enables teachers to evaluate the progress and adjust teaching strategies to enhance understanding.

Innovative strategies that teachers can use to enhance learning include paper cuttings, coloring, and clay works. Paper cutting is where students cut out the characters from cardboard materials or drawing papers to enhance understanding (Liu et al., 2023; Fan, 2020). Students should create paper cuttings based on the characters they have learned in the classroom to demonstrate their capacity to memorize the structure, meaning, and purpose. Students can also use paintings and clay modeling to create perfect characters. The teacher has to supervise the creative exercise and assist learners who cannot reproduce the correct shapes. The creative exercise should be encouraged to motivate learners and generate new ways of learning the characters.

Reference

- Bao, C., Zhang, L. J., & Dixon, H. R. (2021). Teacher engagement in language teaching: Investigating self-efficacy for teaching based on the project "Sino-Greece online Chinese language classrooms". *Frontiers in Psychology*, 12, 710736.
- Bawa, P., & Watson, S. L. (2017). A Phenomenological Study of Graduate Chinese Students' English Writing Challenges. *The Qualitative Report*, 22(3), 779-796. <https://doi.org/10.46743/2160-3715/2017.2750>



- Cheng, M., Everatt, J., Arrow, A., & Denston, A. (2020). Learning Chinese characters through shared reading. *4th Annual Conference of the Association for Reading and Writing in Asia (ARWA)*, Hong Kong.
- Cheng, M., Everatt, J., Arrow, A., & Denston, A. (2021). Progressive Character Reading: Chinese Literacy Instruction for Chinese Heritage Language Learners. *6th International Conference on Chinese as a Second Language Research (CASLAR)*, Washington, DC, United States.
- Ésik, S. (2020). Teaching Chinese characters to second language learners. *Researching and Teaching Chinese As a Foreign Language*, 3, 1-22.
- Fan, X. (2020). *Teaching Chinese Characters to Chinese as a Second Language Learning Beginners with a Modified Approach*. Doctoral dissertation, New Mexico State University.
- Gao, X. (2020). Australian students' perceptions of the challenges and strategies for learning Chinese characters in emergency online teaching. *International Journal of Chinese Language Teaching*, 1(1), 83-98.
- Gong, Y. F., Gao, X. A., & Lyu, B. (2020). Teaching Chinese as a second or foreign language to non-Chinese learners in mainland China (2014–2018). *Language Teaching*, 53(1), 44-62.
- Gong, Y., Lai, C., & Gao, X. (2020). The teaching and learning of Chinese as a second or foreign language: the current situation and future directions. *Frontiers of Education in China*, 15, 1-13.
- Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social science & medicine*, 292, 114523.
- Kuo, L. J., Li, Y., Sadoski, M., & Kim, T. J. (2014). Acquisition of Chinese characters: The effects of character properties and individual differences among learners. *Contemporary Educational Psychology*, 39(4), 287-300.
- Li, Y., Xiao, L., & Li, H. (2022). Self-teaching in Chinese: The roles of phonetic and semantic radicals in orthographic and vocabulary learning. *Journal of Research in Reading*, 45(1), 20-42.
- Liu, Y., Zhang, J., & Li, H. (2023). Use of partial information to learn to read Chinese characters in non-native Chinese learners. *Language Teaching Research*, 27(1), 168-180.
- Nel, N. M., & Soezin, K. R. O. G. (2021). Factors influencing the acquisition of Mandarin Chinese as a second additional language focusing on phonetics. *Participatory Educational Research*, 8(1), 1-27.
- Newman, M., Gough, D. (2020). Systematic Reviews in Educational Research: Methodology, Perspectives and Application. In: Zawacki-Richter, O., Kerres, M., Bedenlier, S., Bond, M., Buntins, K. (eds) *Systematic Reviews in Educational Research*. Springer VS, Wiesbaden. https://doi.org/10.1007/978-3-658-27602-7_1
- Tao, J., & Gao, X. A. (2022). Teaching and learning languages online: Challenges and responses. *System*, 107, 102819.
- Tse, S. K., Marton, F., Ki, W. W., & Loh, E. K. Y. (2007). An integrative perceptual approach for teaching Chinese characters. *Instructional Science*, 35, 375-406.
- Wang, D., & East, M. (2020). Constructing an emergency Chinese curriculum during the pandemic: A New Zealand experience. *International Journal of Chinese Language Teaching*, 1(1), 1-19.
- Wei, L., & Hua, Z. (2019). Transcribing: Playful subversion with Chinese characters. *International Journal of Multilingualism*, 16(2), 145-161.
- Xu, W., & Stahl, G. (2023). Teaching Chinese with Chinese characteristics: 'difficult knowledge, discomforting pedagogies and student engagement. *Pedagogy, Culture & Society*, 31(1), 57-73.
- Yang, G., Qianjiang, G., Michael, L., Chun, L., & Chuang, W. (2021). Developing literacy or focusing on interaction: New Zealand students' strategic efforts related to Chinese language learning during study abroad in China. *System*, 98, 102462.
- Zhang, H., & Roberts, L. (2019). The role of phonological awareness and phonetic radical awareness in acquiring Chinese literacy skills in learners of Chinese as a second language. *System*, 81, 163-178.
- Zhang, S. (2021). A systematic review of pedagogical research on teaching Chinese as a foreign language in the United States—from 1960 to 2020. *Chinese as a Second Language Research*, 10(2), 207-238.



Zhang, Y., & Li, R. (2016). The role of morphological awareness in the incidental learning of Chinese characters among CSL learners. *Language Awareness*, 25(3), 179-196.

