

Article

A Systematic Review of Chinese as a Second or Foreign Language Teaching and Learning Resources Outside Greater China in 2005-2025

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Abstract

Chinese language learning and teaching have attracted significant attention in recent years, with teaching and learning resources becoming a popular area of research. This systematic review aims to identify teaching and learning resources used outside the Greater China region and examine how research trends concerning these resources have evolved since 2005. Data extracted from the 74 included studies identified a variety of resources, ranging from paper-based textbooks to digital resources such as e-dictionaries, social networks, and artificial intelligence. This review highlights three main tendencies in the study of Chinese as a second or foreign language (CSL/CFL) teaching and learning resources: the ongoing focus on both paper-based and digital resources, an increasing attention to student-active approaches, and a growing awareness of cultural elements in CSL/CFL education. However, some gaps have also been noted, such as a lack of research on CSL/CFL teaching and learning resources in certain parts of the world and the simultaneous use of multiple proficiency scales.

Keywords

Chinese as a second or foreign language, teaching and learning resources, systematic review

1 Background

In recent years, research on learning and teaching Chinese as a second language (CSL) or a foreign language (CFL) has surged due to its strategic and economic importance (Chan et al., 2022; Gong et al., 2018). Existing reviews have examined the development of CSL/CFL research from different perspectives, including general trends in CSL/CFL teaching and learning (Ma et al., 2017), scoping reviews of CFL research (Chan et al., 2022), CSL/CFL learner identity (Li & Li, 2020), and reviews of pedagogical studies in specific contexts such as the United States (Zhang, 2021). Although teaching and learning resources have been repeatedly investigated, potentially as a hindering factor for teaching and learning activities by scholars in different parts of the world, such as in the USA (Liao et al., 2017; Yue, 2017), and the UK (Tinsley & Board, 2014; Zhang & Li, 2010, 2019) etc., no review has specifically synthesised research on CSL/CFL teaching and learning resources across international contexts. The

need is further heightened by the emergence of new language learning and teaching resources, such as Generative Artificial Intelligence (GenAI), which have become integral to these learning and teaching processes (Law, 2024).

Additionally, the recurrence of similar research topics across different studies, as will be shown in later sections, suggests that the existing literature on CSL/CFL teaching and learning resources lacks a comprehensive synthesis. As a result, it is difficult for researchers to obtain a clear overview of what has already been investigated and to avoid unnecessary duplication. In such cases, a systematic review is particularly useful, as it provides a more transparent and structured synthesis of available evidence than traditional narrative reviews, and helps to identify both well-researched areas and aspects that require further investigation (Egger et al., 2001).

This review examines peer-reviewed publications and book chapters on any materials and resources used to enhance the teaching and learning of CSL/CFL in the past 20 years (2005-2025) outside the Greater China region, which encompasses mainland China, Hong Kong SAR, Macau SAR, and Taiwan (Harding, 1993). The teaching and learning of Chinese in these settings differ significantly from contexts within Greater China, where Chinese is widely used in society and educational systems. Outside Greater China, teaching practices, learning goals, and resource development are shaped by different educational policies, learner needs, and sociocultural environments (Ke & Li, 2011; Moloney & Xu, 2015). Limiting the scope to outside Greater China allows the review to focus on the development of CSL/CFL teaching and learning resources designed for international learners and avoids overrepresenting studies conducted in Chinese-speaking regions, which may not be directly comparable.

The questions that guide this review are:

- (1) What resources for teaching and learning CFL/CSL have been applied?
- (2) What are the major strands that have emerged in research concerning teaching and learning CFL/CSL resources?
- (3) Whether and how trends in resources for teaching and learning CFL/CSL research have changed?

2 Method

To ensure transparency and methodological rigour, this systematic review was conducted in strict accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement (Page et al., 2021). The selection process followed a four-stage process: identification of records through database searches, screening of titles and abstracts, assessment of full-text articles for eligibility, and final inclusion of studies for qualitative synthesis. By employing the PRISMA framework, this study minimises potential selection bias and provides a clear, reproducible audit trail of how the final evidence base was established.

2.1 Identification

To identify studies for inclusion in this review, three main databases were searched: EBSCOhost (Education Resource Information Centre [ERIC] and British Education Index [BEI] for educational issues), ProQuest (Linguistics and Language Behaviour Abstracts [LLBA] for topics related to linguistics and second language acquisition), and Web of Science (to ensure broad interdisciplinary coverage). These databases are well-suited for evidence synthesis in systematic reviews, as they meet all necessary performance requirements (Gusenbauer & Haddaway, 2020).

Two points shall be clarified here. The first point concerns the term ‘Chinese’ itself. In the Anglosphere, references to teaching and learning ‘Chinese’ generally concerns ‘Mandarin’ Chinese (Chan et al., 2022) or Putonghua. However, in linguistics, it includes a variety of forms, not only Mandarin

but several others (Gil, 2011). For the purposes of this review, the focus is mainly on the learning and teaching of ‘standard’ Mandarin Chinese, but it does not ignore other Chinese varieties or their speakers. Additionally, there are two main scripts used for writing Chinese: ‘simplified’ and ‘traditional’ (McBride, 2015). Spoken Mandarin is often associated with simplified Chinese characters, making it the primary concern for many Chinese learners worldwide (Chan et al., 2022). However, it is important to acknowledge that traditional Chinese characters are still used in regions such as Hong Kong, Macau, and Taiwan (Wei & Li, 2019). To accommodate these variations, the more inclusive term ‘Chinese’ is adopted, enabling the review to encompass research on the learning and teaching of any Chinese language variety and the scripts linked to these varieties.

Secondly, both ‘Chinese as a Second Language’ (CSL) and ‘Chinese as a Foreign Language’ (CFL) were adopted as search terms to ensure maximum bibliographic coverage. Conceptually, a Second Language (L2) typically refers to learning a language within a community where it is spoken as a medium of daily communication (e.g., an international student studying in China), whereas a Foreign Language (FL) refers to learning in a context where the target language is not the primary language of the surrounding society (e.g., a student learning Chinese in the UK) (Ellis, 1994). Despite this theoretical distinction, scholars frequently use the terms interchangeably in empirical literature. As noted by Wood (2017), ‘Second Language Acquisition’ (SLA) has evolved into an umbrella term that encompasses all non-native language learning regardless of the socio-linguistic environment. Furthermore, terminology often reflects regional academic preferences, with North American researchers favouring ‘CSL’ while European contexts often lean toward ‘CFL.’ Therefore, excluding either term would lead to significant publication bias and the omission of relevant studies that share identical cognitive and pedagogical foundations.

The search terms in each group were entered into the databases, and the results yielded from each search were combined using ‘AND’ to create the final search result. The search terms demonstrated in the table below produced a database of 11,868 articles, with 1,361 from ERIC, 238 from BEI, 1,299 from LLBA and 8,970 from WoS. Together with four articles acquired through reference searches, a total of 11,872 citations were identified.

Figure 1

Search Strings (Group 1-3, inclusion)

Group	Search Terms
1	Chinese language OR Mandarin OR CFL OR CSL OR Putonghua OR “Chinese as a foreign language” OR “Chinese as a second language.”
2	Teach* OR learn* OR instruct* OR educat* OR pedagog* OR TCSL OR “teaching Chinese as a second language” OR TCFL OR “teaching Chinese as a foreign language” OR “international Chinese language education” OR ICLE OR “teaching Chinese to Speakers of Other Languages” OR TCSOL.
3	Resource* OR material* OR textbook*

2.2 Screening

Based on the purpose and questions, to be included in this review, studies must have been (a) published after 2004 (screened with databases’ built-in filters); (b) published in a peer-reviewed journal or as a book chapter (screened with databases’ built-in filters); (c) concerned with Chinese as a second or foreign language (d) empirical research with clear indications of being conducted outside Greater China, or general CSL/CFL textbook analyses, or context-free theoretical studies that have significant implications for Chinese language education and can likely be generalised beyond Greater China; (e) focused on analysis of a specific pedagogical resource or developing a new resource of any kind.

To clarify, context-free theoretical studies with a high likelihood of generalisation beyond Greater China mean the research outcomes should be readily applicable there. In this sense, one paper discussing the establishment of a Chinese song database for TCFL (Teaching Chinese as a foreign language) purposes (Zhang et al., 2020) was excluded because copyright issues are likely to be a major barrier to promoting these tools outside Greater China. According to these criteria, studies that were either (a) concerned with Chinese as a heritage language or first language, or (b) conducted in Greater China or unlikely to be generalised outside Greater China were excluded. The following Boolean search terms were used to narrow down the existing database:

Figure 2

Search Strings (Group 4-5, exclusion)

Group	Search Terms
4	China OR Hong Kong OR Macau OR Macao OR Taiwan OR “Mainland China”
5	“Heritage language” OR “native language” OR “mother tongue” OR “first language” OR “native speaker”

2.3 Eligibility and inclusion

The citations were first imported into EndNote, where duplicates were removed, resulting in 1,426 unique entries for further eligibility confirmation based on titles and abstracts. After this step, 1,164 items were excluded as they focused on issues irrelevant to this systematic review, such as Chinese students’ learning-abroad experiences, teaching other languages (e.g., English, Russian) to Chinese students overseas, overseas Chinese language teachers’ well-being, or teaching Chinese to Chinese citizens. Therefore, 262 articles appeared eligible for full-text assessment. However, 188 of the remaining studies were then excluded because they were conducted in the Greater China region, lacked a clear indication of location, or had research outcomes that could be problematic to apply outside of this region. Finally, 74 entries, including peer-reviewed journal articles and book chapters, have been included in this review. Figure 3 illustrates the paper selection process:

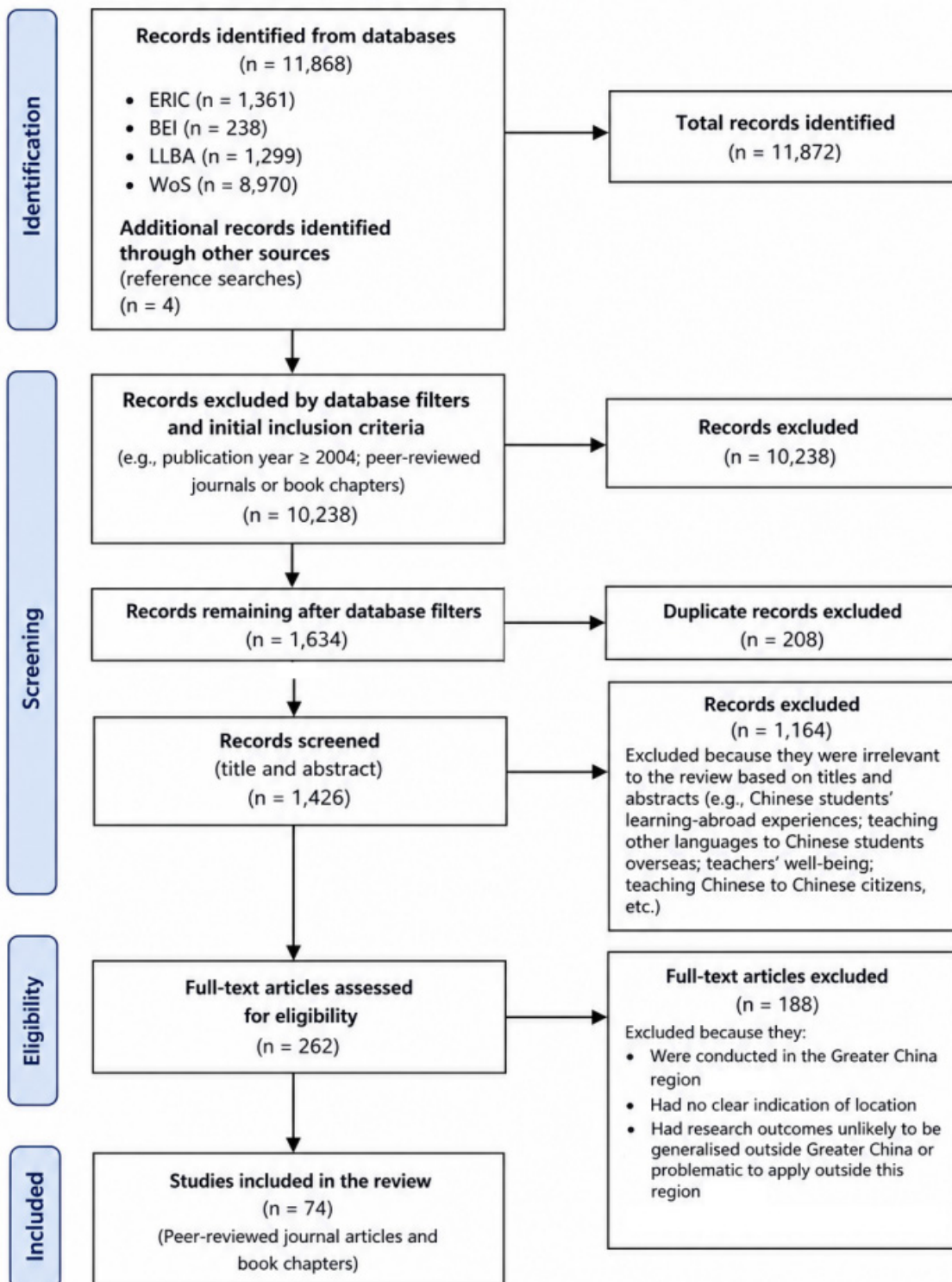
3 Findings

Although this systematic review aimed to examine studies dating back to 2005, it appears that research specifically on teaching or learning CSL/CFL resources and materials outside Greater China began to surge from around 2012 onwards. Of the 74 included studies, 56 were published in English, 14 in Chinese, one in Italian, one in Korean, one in French, and one in Spanish. All non-English papers have titles and abstracts in their original languages as well as in English. To categorise the studies by type, 46 are empirical, and 28 are theoretical. There is a relatively equal distribution of research designs across the empirical inquiries, with 18 following qualitative approaches, 13 applying quantitative methods, and 15 using mixed methods. Research has predominantly focused on resources for university students, with 15 studies centred on this group. In contrast, only four studies have investigated resources for primary school students, who are the second largest group of participants in these studies. In terms of geographic locations, the research studies were conducted in various countries, with four in Australia, three in Indonesia, eight in South Korea, four in Singapore, and eight in the USA. Other research settings included the Czech Republic, Italy, France, the UK, Spain, Uzbekistan and Sri Lanka. This indicates a relatively balanced distribution of research interests in this field across both the global North and South.

It can be seen that various pedagogical resources have been applied or proposed in teaching or learning CSL/CFL outside Greater China since 2005, from traditional paperback textbooks (Kim,

2012, 2015; Ma & Wu, 2018) to digitalised resources, such as pop-up dictionaries (Wang, 2014), social networks (Tong et al., 2024), websites with videos (Cui, 2022; Shei et al., 2012; Tan et al., 2022), specialised learning-assistance systems (Hu & Jia, 2022; Shih & Hsieh, 2016) and Artificial Intelligence (AI) (Fung et al., 2023; Jin et al., 2025; Lian et al., 2024; Wang, 2024). These resources and materials also revealed two research strands: one, teaching and learning CSL/CFL with information technologies and two, CSL/CFL textbook development and improvement.

Figure 3

Systematic Review Procedures

3.1 Teaching and learning CSL/CFL with information technologies

Various scholars have extensively researched the integration and effectiveness of information technologies in language education. Among the 74 included citations, 57 addressed the issue of teaching and learning CSL/CFL using information technologies from different perspectives, particularly computer-assisted language learning (CALL) and mobile-assisted learning. Given the broad scope of CALL, this review further categorises this research strand into multimedia resources, specialised systems or corpora, and artificial intelligence (AI). Most of the studies within this strand follow a pattern of proposing a new digitalised system, testing with a group of participants, evaluating the test results and then offering advice for future studies.

3.1.1 CALL-multimedia resources

With 11 of 57 citations, teaching and learning CSL/CFL through multimedia is one of the most commonly discussed issues. Class designs using traditional multimedia resources like videos and webpages are discussed in studies by scholars, including Hsin (2015), Wang et al. (2021), Tan et al. (2022) and Cui (2022). Wang (2014), He & Huang (2014), and Li & Tong (2019) all designed contrastive analyses to validate the effectiveness of different learning resources: respectively, pop-up dictionaries, animated etymology and e-flashcards. After comparing the test results of two groups of participants, He and Huang (2014) and Li and Tong (2019) demonstrated that using animated etymology or e-flashcards is more effective for learning Chinese characters and words than their paper-based counterparts. At the same time, Wang (2014) concluded that pop-up dictionaries can facilitate meaning construction but may not alter students' reading strategies or enhance their reading comprehension retention. She suggested adopting a combination of using and not using the pop-up dictionary in the reading process.

3.1.2 CALL-specialised systems and corpora

As early as 2012, Shei and Hsieh (2012) presented their design for an intelligent system that could connect levels of sound, syllables, and words as nodes and connections, aimed at UK GCSE students. Shih and Hsieh (2016) then presented a system that can build a language resource by automatically outlining the grammatical relationships between words in an untagged corpus, utilising dependency parsing. Building specialised corpora for teaching and learning CSL/CFL purposes outside Greater China is a relatively new theme. In their work, Goh, Lin, and Zhao (2019) examined two corpora created in Singapore to assist curriculum developers in designing Chinese language courses and teachers with lesson preparation and learning assessments. Nie and Rovira-Esteva (2025) examined existing Chinese corpora and provided examples of how they can be applied to teaching CSL/CFL; Xu & Park (2021) discussed the necessity and value of building spoken Chinese corpora for Korean Chinese learners; while Juan (2023) discussed using a specialised corpus of Chinese requests in the Czech Republic to ensure the authenticity and effectiveness of teaching materials. In Wang's work (2024), a practical approach combining corpus and AI is evident. He investigated the creation and use of a Chinese Audio-Visual Corpus (CVC), which gathers visual language resources from native Chinese speakers in their everyday activities. This corpus aims to connect textbook information, ontological knowledge, and video material data, ultimately offering learners contextualised teaching resources.

3.1.3 CALL-AI

With the swift advancement of AI technologies, their integration with Chinese language learning and teaching has also gained significant attention in the field. Many scholars have noted the potential of AI to choose learning and teaching materials tailored to the needs of both learners and teachers. This observation has been highlighted in the works of Zhang (2023), Lee (2024), Lin (2025), Teng (2024),

Li et al. (2025), Ren (2025), and Wang and Ge (2025), although diverse benchmarks, programming languages and algorithms are used in their research. Other applications or proposed uses of AI include: a) utilising AI as a language partner (Lian et al., 2024); b) developing a text correction tool (Feng et al., 2024); c) creating a reading comprehension question generator (Fung et al., 2023); and d) implementing a learner emotion detector, which can assist teachers in determining whether the teaching materials they have selected are well received by students (Jin et al., 2025).

3.1.4 Mobile-assisted learning

Another popular issue is mobile-assisted learning. Worthy of notice are two studies were conducted by Han (2019) and Hu & Jia (2022), concerned, respectively, with creating a seamless learning environment using a mobile app and a smart classroom system. Han (2019) created a novel mobile app that enabled students to learn Chinese language and culture through a virtual tour of traditional Suzhou gardens, along with external resources linked to the app. However, the app's effectiveness was only hastily tested in an in-class role-play, and no detailed analysis was provided, thus undermining the credibility of the assumptions made in the subsequent discussion. On the other hand, Hu & Jia (2022) designed an innovative classroom system which incorporated voice recognition systems and cloud computing. This system makes it easy for teachers to collect authentic linguistic resources and create an immersive learning environment in the classroom. Furthermore, by using cloud computing services, students can access course materials and complete exercises on their mobile devices. Other studies of mobile-assisted learning issues included the general impact of e-technologies on teaching and learning CSL/CFL (McLaren & Bettinson, 2015), teaching and learning CSL/CFL with social networks such as WeChat (Tong et al., 2024) and mobile dictionaries (Cohen & Wang, 2019; Wang, 2014). Cohen and Wang's (2019) study is worth mentioning for its distinctive research method: one of the two authors, Cohen, served as both the researcher and the research subject. He documented his strategies for learning Chinese by maintaining a blog and videotaping himself, which provided insights into how he utilised e-dictionaries as a learning resource.

3.2 Traditional CSL/CFL textbook development and improvement

Although digitalisation has significantly affected teaching and learning of CSL/CFL nowadays, many scholars still work with paper-based textbooks. However, this does not mean that there are no crossovers between paper-based textbooks and digital tools. For instance, Kubler (2018) explored how a textbook should be developed in conjunction with digital technology more generally. With the development of digital technologies, particularly Big Data, ways of analysing textbooks have also been changing. In this systematic review, 17 studies researched traditional paper-based CSL/CFL textbooks, published worldwide, from various perspectives, including emerging angles such as decolonising and queer theories. It should be noted that although these points are discussed separately here, they can be interconnected. I will demonstrate in the following section that some works can fit into different categories simultaneously.

3.2.1 Teaching Chinese grammar

Four studies addressing the issue of teaching Chinese grammar are included in this review, and all were contrastive studies. Kim (2012) compared two popular Chinese grammar textbooks in Korea: one compiled by Chinese scholars and the other by Korean professionals specialising in Chinese. By comparing the selected grammar points and their arrangement in the textbook series, Kim claimed that the textbook written by Chinese scholars was constrained by TCFL guidelines issued by the Centre for Language Education and Cooperation (also known as Hanban) and failed to account for the real

situations of Korean learners. Ma & Wu (2018) and Liu (2020) focused on specific grammar points in textbooks. Ma & Wu (2018) compared three textbooks used in the USA on teaching “guo” (过), an aspectual particle in Chinese, while Liu (2020) compared four textbooks used in Korea on teaching “de” (得), a structural particle marking the complement of degree, widely used in Chinese regarding its frequency and contexts appeared in texts. Both publications described drawbacks in the analysed textbooks, and Liu (2020) also highlighted the significance of developing country-specific textbooks, an issue I shall address later. Woo (2022) focused on the use of the Chinese adverb “dou” (都) by comparing its presentation in a textbook with examples from a corpus of authentic language usage. The goal of this comparison was to identify any discrepancies between the two sources and to enhance the teaching of this grammatical point.

3.2.2 Content selection

The authenticity and complexity of textbook content, along with the rationale for its selection, have become popular topics examined under this theme. Among the seven studies on textbook content selection, Kim (2015) compared the linguistic elements used in six Chinese language textbooks in Korea. Three of these textbooks were authored by Chinese scholars, and three by Korean linguists. Mao (2013) did desk research on how task-based exercises in Chinese language textbooks are designed. However, this study seems unconvincing because the data the researcher used were from a 2006 study, making it highly likely to be outdated. Following the methods used by Woo (2022), Shen, Niu, and Liu (2025) examined the authenticity of textbooks by comparing them to a corpus of authentic Chinese expressions. Wang (2022), on the other hand, explored content selection principles by interviewing four known textbook writers in the USA and revealed the common doctrines of these specialists when compiling textbooks, which included first identifying the audience, then deciding the topics for each lesson and then structuring the specific contents based on real-life needs and standard word lists. Content analysis also illustrates a convergence between traditional textbooks, information technology, and emerging theoretical perspectives. Ji (2022) assessed the readability of the text by employing natural language processing and a database management system to analyse textbook features, using a statistical machine learning algorithm.

In terms of new theoretical angles, Arden (2024) explored queer representation in Chinese language textbooks used in England and concluded that there is no explicit or implicit representation of queer individuals or families in these textbooks. Yasasri (2024) analysed how culture, instructional language, and socio-cultural divisions are depicted in the CSL textbooks utilised in Sri Lanka from a decolonising perspective, and advocated for the inclusion of multicultural elements and the elimination of ideological and dominant practices from these educational resources.

3.2.3 Textbook localisation

Localisation or country-specific is a sub-topic underpinning several studies mentioned previously. The studies of Kim (2012), Liu (2020), and Xu & Park (2021) focused on Chinese textbook localisation in Korea, while four other studies considered this issue in different countries. Chen & Guan (2013), for example, discussed teaching Chinese characters in countries that have a tradition of using them, including Korea, Japan, and Vietnam. Nevertheless, they claimed that the character textbooks in use are difficult for learners to understand and that many teachers lack practical experience. Yan (2015) chose to explore the issue of Chinese textbook localisation by analysing the Korean version of *Modern Chinese*, a textbook officially approved by Hanban and the Confucius Institute. While the study offers valuable insights, some of its causal explanations are not fully substantiated. For instance, the lack of situational authenticity in some dialogues is attributed to the translation of a global textbook. However, no comparison with other language versions or editorial information is provided to confirm this assumption

(Yan, 2015). The author also links the limited localisation of the textbook to the small number of Korean scholars involved in the compilation process, although no data are presented to establish this connection. Another two studies examined Chinese textbooks in Southeast Asia. Fong, DeWitt, and Leng (2018) examined the cultural and intercultural elements in Chinese textbooks used in 19 Malaysian higher education institutions, focusing on a sample of seven different textbooks. They argued that most of the sampled textbooks contained a low percentage of intercultural elements. Ying, Mursitama, and Novianti (2018) aimed to determine what is important to Indonesian international relations students when studying Chinese, based on their opinions and the topics they believe should be covered in the textbook.

4 Discussions

4.1 Whether and how trends in materials and resources for teaching and learning CFL/CSL research have changed?

The previous section revealed two long-standing strands in research into teaching and learning CSL/CFL resource research outside Greater China: teaching and learning CSL/CFL with information technologies and CSL/CFL textbook development and improvement. To some extent, the recent studies reviewed here may be considered to be repurposing an existing concept to create the appearance of novelty or innovation. This can be briefly illustrated by the history of teaching and learning CSL/CFL with information technology. Ever since Cheng (1973), commonly recognised as the originator of CALL in this field (Wu, 2016), technology-enhanced learning has been widely researched. However, although the settings have been changed, the types of resources being studied remain much the same. For instance, in his study, Cheng (1973) helped CSL/CFL teachers create and utilise e-flashcards to teach Chinese pronunciation and characters using a central computer system at an American university. Since then, e-flashcards have remained a popular tool in teaching and learning CSL/CFL both domestically in China and internationally, appearing in significant portions of the reports by Hsu & Gao (2002) and Bourgerie (2003), and continuing to be researched even as of 2019 (Li & Tong). As with e-flashcards, the construction of specialised CSL/CFL learning systems also faces the problem of homogenisation. This can be seen in the two included studies from Shei et al. (2012) and Shih & Hsieh (2016) in this review. Both groups of researchers proposed building a Chinese-language system that can automatically extract linguistic elements and help learners better understand the special collocations between Chinese verbs and nouns, based on analyses of word dependencies. However, the functions of Shih & Hsieh's system are somewhat incorporated in the Linkit system built by Shei et al. (2012), as the latter can further break down the linguistic elements to lexical and phonological levels and can even link a chosen element to internet resources that give students more insight, allowing students to distinguish confusing linguistic elements and swiftly expand their knowledge base. These trends persist today, as we have entered the era of AI and Big Data. This is demonstrated by seven studies, published around the same time, all of which focused on personalised learning content selection, as mentioned in the previous section. This kind of "coincidence" indicates a risk that newer studies may duplicate prior efforts or simply keep up with trends, highlighting the necessity for professionals to communicate with one another in the teaching and learning of the CSL/CFL field (Wu, 2016).

In addition to the long-established focus on information technologies, another tendency observed in these pedagogical resource studies is an increased emphasis on giving learners greater control over their learning process. Several studies published in the 2020s reported that the use of particular teaching or learning resources allowed students to practise more independently, access materials more flexibly, or manage their own learning outside the classroom. Studies in this category can be further divided into two types: one concerns the resources that allow students to take the lead in class (Cui, 2022; Han, 2019; Wong et al., 2012), and the other, the resources enabling students to learn outside the classroom (Hu & Jia, 2022; Li et al., 2022; Lian et al., 2024; Tan et al., 2022; Wang, 2024; Yang, 2021). Moreover,

two studies explored the possibility of turning students into developers of pedagogical resources using mobile applications (Han, 2019; Wong et al., 2012). However, the effectiveness of using some of the proposed pedagogical resources in this trend should be further explored. For instance, although Cui (2022) asked students' opinions on her flipped learning design with talk show videos via a survey, the questions focused on changes in students' motivation and attitudes toward this new teaching method, rather than on how their language proficiency was improved. Similarly, although Han (2019) tested the mobile application she designed through a role-play in class, neither the detailed criteria for her assessment nor the post-assessment analysis were provided.

Culture has long been recognised as a crucial part of language education, and the ability to understand another culture is seen as an indicator to judge the effectiveness of language education (García, 2009). In the studies included in this review, cultural elements are frequently discussed in relation to CSL/CFL teaching and learning resources, suggesting a growing focus on this aspect in recent research. Several scholars emphasise the importance of integrating elements of Chinese culture into CSL/CFL teaching through textbooks, digital resources, and classroom activities. For instance, the study by Fong et al. (2018) investigated cultural elements in seven Chinese textbooks used in Malaysia from both the perspectives of knowledge culture and communicative culture. The studies by Tan et al. (2022) and Wang (2022) also put cultural elements in a vital position when organising teaching materials. Not only teachers but also students have realised the necessity of becoming familiar with Chinese culture. When investigating students' opinions on textbook development in Indonesia, Ying et al. (2018) revealed that over 90% of the participants acknowledged the importance of learning about Chinese culture while acquiring the language.

However, a closer examination of these findings suggests that the notion of "culture" in these studies is implicitly treated as relatively stable, bounded, and associated with Chinese national or ethnic groupings, which aligns with what Holliday (1999) defines as "large cultures", in contrast to "small cultures" that emerge through dynamic social interactions. Holliday's theory offers a perspective for reinterpreting two studies included in this review, suggesting a shift in how culture is conceptualised in CSL/CFL resource research. Yasasri (2024) examined local cultural elements in CSL/CFL textbooks from a socio-cultural and decolonising perspective, highlighting how global textbooks may marginalise local cultures and promote particular ideological positions, such as one-directional adaptation to the target culture. Similarly, Arden (2024) explored the representation of queer identities in Chinese language textbooks used in England and found that these materials largely present heteronormative family structures and lack representation of diverse identities. While these studies did not explicitly adopt Holliday's framework, they can be interpreted as moving towards an understanding of culture that aligns more closely with the notion of "small cultures" by foregrounding diversity, power relations, and underrepresented social groups. Taken together, these findings indicate that CSL/CFL resource research is shifting from merely including cultural knowledge towards critically examining how culture is constructed and represented. This change has significant implications for future resource development, as it requires resources that better capture the diversity and complexity of cultural identities.

4.2 Implications for future studies

Although CSL/CFL teaching and learning resources have been researched from multiple perspectives, some issues remain unresolved. Firstly, as mentioned, the effectiveness of newly proposed pedagogical resources and of integrating cultural elements into them in CSL/CFL teaching and learning warrants further careful examination. Secondly, regarding the locations where the studies are conducted, it seems that there has been a lack of teaching and learning on research into CSL/CFL resources in some parts of the world, such as South America and Africa, although this may reflect the fact that the review was conducted in English and identified mainly English language studies. Thirdly, regarding participants in empirical studies, future studies may consider involving more language teachers and learners from other age groups, rather than focusing principally on university students.

An emerging issue concerns different criteria applied to teaching Chinese, assessing students' learning achievements, or making teaching materials. A noteworthy study by Hong et al. (2020) examined the reliability and validity of five Chinese language textbooks labelled with the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR). Three of these are published in China, one in Germany, and one in France. The researchers noticed that even within a single textbook series, there was a mismatch between the vocabulary and CEFR levels. Meanwhile, different textbooks labelled with the same CEFR level exhibited significantly different levels of linguistic knowledge. A wider review of studies conducted in different regions similarly reveals the different standards deployed: HSK standards are preferred in Korea (Ji, 2022; Kim, 2015; Mao, 2013; Yan, 2015), American Council of Teaching Foreign Languages (ACTFL) standards are used in the USA (Wang, 2022) and CEFR is applied in the European Union (EU) (Hong et al., 2020). Despite this context of inconsistent standards, some scholars persist in trying to introduce new systems of criteria for assessing TCFL resources (e.g., Cai, 2021). Research examining the ontology or theory underpinning these different criteria may benefit the future development of teaching and learning CSL/CFL resources.

Another possible direction for future research is the further exploration of the localisation of Chinese textbooks. Although this issue has been addressed in some studies in this review (Chen & Guan, 2013; Kim, 2012, 2015; Yan, 2015), and local scholars have usually been consulted, the teaching context has not been fully considered. Textbook localisation can be extremely difficult, especially when teaching in a highly international environment, such as a university classroom in the UK or the USA. The diversity of students' cultural and ethnic backgrounds in such a context indicates that a textbook designed to fit the needs of 'native' English speakers cannot suit them all. In some ways, the study settings included in this review can all be considered overly idealised, as they presume learners share an identical cultural and linguistic background, thereby simplifying the issues. In light of this, textbook contextualisation rather than localisation may be a better focus for future studies. Intriguingly, although scholars have made significant efforts to address this issue, particularly in Korea, inconsistencies in logic and a lack of support from theory and recent research findings persist across these studies. For instance, as I mentioned in the previous part, while comparing the two popular textbooks used in Korea, Kim (2012) showed an initial preference towards the Korean-made textbook, paving the way for his argument that textbook localisation is essential. Although he made some valid points, there is no convincing justification for choosing between the two textbooks. Another example is the study by Yan (2015), which attributed problems in textbook localisation primarily to translation. However, the analysis also raised concerns about the textbook illustrations, which do not appear to be directly linked to translation processes. This mismatch between the stated causal explanation and the issues discussed suggests that the argument is not fully coherent, thereby weakening the validity of the conclusions.

Another trend worth noticing is the growing attention of the praxis of Chinese and languages that were under-researched before, for instance, Laotian (C. Tang et al., 2024), Mongolian (Ren et al., 2023), Vietnamese (Huang et al., 2023; Ngo et al., 2022; Wen et al., 2023) and Urdu (Ullah et al., 2022). This could mean a shifting global landscape in TCFL from countries that traditionally have a large group of CSL learners to countries where learning Chinese has become a new trend due to the closer economic ties through international organisations, such as the Association of Southeast Asian Nations (ASEAN) and the Shanghai Cooperation Organisation, and China's global initiatives, primarily, the Belt and Road Initiative.

A final important issue to consider is the rise of AI. During the screening process, a dozen studies on AI and Chinese from various perspectives were identified. These studies cover topics such as neural or AI translation (Lu, 2025; Mai & Yuan, 2024; Martos et al., 2025; G. Tang et al., 2024), automatic text analysis or correction (Li et al., 2024), the use of Generative AI as a learning tool (Sun et al., 2024), and text or voice recognition (Qian et al., 2019; Wu et al., 2022). Although these studies were excluded from this review because their research contexts were in Greater China or they lacked direct implications for CSL/CFL teaching and learning, this does not diminish their potential value as resources for future CSL/CFL teaching and learning.

5 Conclusions

5.1 Summary

This systematic review analysed 74 papers selected from four databases on teaching and learning of CSL/CFL resources used outside the Greater China region from 2005 to 2025. A wide range of studies has been reviewed, concerning paper-based textbooks, mobile applications, multimedia, specialised systems and corpora, and AIs. The research reflected a long-standing trend in the field of improving textbooks and incorporating information technologies. Recent contributions (from around 2020 onwards) show two emerging tendencies in this field: increased attention to learner autonomy and greater emphasis on cultural elements in CSL/CFL teaching and learning resources. However, there are gaps in the field. Future studies in some parts of the world are still urgently needed, and questions of contextualisation, the simultaneous use of multiple proficiency scales, and the applications of newly developed digital tools are viable directions for future research.

5.2 Limitations

Firstly, the findings are based on a selected range of research papers included in the review that met the inclusion criteria. I conducted the literature search using three major databases, but I may have missed some relevant research. In addition, all screening and eligibility assessments were conducted by a single reviewer. Although I revisited uncertain cases and iteratively applied the criteria to enhance reliability, the absence of multiple reviewers may introduce selection bias. Secondly, to avoid language bias and ensure the coverage of relevant literature, papers published in languages other than English and Chinese have been included. However, due to language constraints, only the titles and abstracts of these studies could be examined, and a detailed analysis of their full texts was not conducted. As a result, these studies were used mainly for screening and descriptive purposes, which may have limited the depth of the synthesis and the interpretation of findings. Thirdly, papers that were not published in peer-reviewed journals or as book chapters are not presented here. In addition, as demonstrated in this review, most studies exploring the effectiveness of using a new pedagogical resource reported positive outcomes, except for Wang (2014). This is most likely due to publication bias, which involves the more frequent reporting and dissemination of statistically significant outcomes over null results, potentially reducing the number of papers I might have drawn from (Dwan et al., 2008).

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2005-2025 年大中华区以外地区汉语作为第二语言或外语的教学与学习资源系统综述

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摘要

近年来, 汉语教学与学习备受关注, 相关教学资源已成为一个热门的研究领域。本系统综述旨在梳理大中华地区以外使用的汉语教学与学习资源, 并探讨自 2005 年以来关于这些资源的研究趋势如何演变。从纳入的 74 项研究中提取的数据表明, 所涉及的资源种类繁多: 从纸质教科书到电子词典、社交网络和人工智能等数字资源。本综述突出了汉语作为第二语言或外语 (CSL/CFL) 教学与学习资源研究中的三大主要趋势: 持续关注纸质和数字资源、日益重视以学生为主导的教学方法、以及对 CSL/CFL 教育中文化要素的认识日益加深。然而, 本文也发现了一些不足之处, 例如某些地区缺乏关于 CSL/CFL 教学与学习资源的具体研究, 以及同时使用多种能力量表的情况。

关键词

汉语作为第二语言或外语, 教学与学习资源, 系统综述

田腾腾, 英国思克莱德大学教育学院的在读教育学博士 (EdD) 研究生。他的研究主要关注英语母语者在非中文语境下学习汉语作为第二语言或外语的情况, 以及将汉语作为传承语言的学习。他特别关注与学习者身份建构及其学习策略相关的研究。