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Chinese Language Education: Bibliometric Mapping of Literature on Teaching, Learning, and Textbook Compilation

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Abstract
There has been a significant growth in the field of Chinese language education, which has necessitated to examine the current state of key research contributions of the Chinese language in teaching methodologies, learning processes, and textbook development. This bibliometric study maps literature on Chinese language teaching, learning, and textbook compilation using metadata extracted from 4,647 journal articles indexed in the Web of Science database for the period 1975-2024. Making use of bibliometric procedures, this study collected the available literature in terms of growth trajectory, productivity, and social, intellectual, and conceptual structures of the field over the past 49 years. The findings reveal that five research themes have dominated during the study period, viz., Teaching Chinese Practices and Methodology, Sociocultural Aspects of Chinese Language Learning, Cognitive Aspects of Chinese Language Acquisition, Chinese Language Policy and Planning, and Chinese Language Learning. These research areas, primarily interdisciplinary in nature, represent the convergence of fields of Education, Linguistics, Psychology, and Asian Studies. Research in these fields has shown steady growth in recent decades, particularly since 2015. The researchers belonged to diverse geographical backgrounds, with China and the USA as leading contributors, it is hoped these findings will contribute to the further development and reconceptualization of the research subject and open up perspectives for identifying new directions and methodological approaches in the study of Chinese language teaching and learning in academic environments. Future research is recommended to be expanded by including alternative databases (Scopus, ERIC), integrating regional sources from Asian countries (CNKI), and applying mixed research methods to identify common trends and unique characteristics in the field of Chinese language teaching.

Keywords: Teaching Chinese, Chinese Language Learning, Textbook Compilation, Chinese Language, Bibliometric Review, Vosviewer.

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Introduction

In the context of globalization and China's growing influence (Liu, Zhao, & Wang, 2018; Liu, 2024), Kazakhstan's education system is actively integrating Chinese language learning as one of the country's key development priorities at the present stage. During the state visit of Chinese President Xi Jinping in summer 2024, Kazakhstan's Minister of Science and Higher Education S. Nurbek announced that special departments would be established at universities to teach Chinese, and Chinese would be taught as a second foreign language. The effort to integrate the Chinese language into Kazakhstan's educational system has been attempted for long and it has gone through several key stages (Khafizova, 2023). It started as early as the 8th-13th centuries, when representatives of local tribes studied the language to translate Buddhist texts, through the era of Kazakh statehood in the 18th century under Khan Ablai, who used Chinese for diplomatic purposes, to the tsarist and early Soviet periods with translator training in Irkutsk.

However, in the current era, the systematic development of Chinese studies in Kazakhstan began in 1977-1989 with the emergence of Oriental studies at Al-Farabi Kazakh National University under the leadership of Professor Khafizova, who laid the foundation for teaching Chinese along with Arabic and Persian. The second stage (1989-1992) was marked by the beginning of systematic teaching thanks to pioneers Madi Nursedov, Li Yuan (Khan), and Amantai Togayev, who created the first educational and methodological base in co-authorship with A. Anipina, R. Dosymbekova, and A. Gulijian. The period of 1992-2002 was characterized by the internationalization of teaching through the involvement of specialists from Xinjiang, including the significant contribution of Duken Masimukhan, who created a Chinese Kazakh dictionary. The modern period (from 2002 to the present) is marked by the institutionalization of Chinese studies through the establishment of a network of Confucius Institutes (Wang & Adamson, 2015; Yu et al., 2024) at the country's leading universities (L.N. Gumilyov ENU, Al-Farabi KazNU, Zhubanov AGU, KarSTU, and Ablai Khan UIR&WL); the development of Chinese studies programs (M. Narikbayev University, Kusainova Asian Institute of Humanities); the opening of branches of Hong Kong City University at Satbayev NTU and Beijing Language and Culture University at IUA demonstrates the deepening of international cooperation through the implementation of distance learning technologies (Li et al., 2025; Liu, 2024; Ren, 2025; Zhang & Yi, 2024).

However, in the context of developing local teaching materials for Chinese language instruction (Everson & Xiao, 2009; Lei & Qin, 2022; Tsung & Cruickshank, 2010) in Kazakhstan, there are several serious issues requiring a comprehensive research approach. Current teaching materials used in Kazakhstan's educational institutions often represent direct borrowings from Chinese sources or adaptations of international textbooks, which do not take into account the specifics of Kazakhstan's educational environment and the peculiarities of Chinese language perception by Kazakh and Russian language speakers. Existing textbooks do not reflect current realities of Kazakh Chinese relations, lack relevant examples from bilateral economic and cultural cooperation, which reduces the practical value of learning. Methodological materials often do not consider modern trends in foreign language teaching methodology and do not integrate digital educational technologies.

Additionally, there is no systematic approach to developing teaching materials that consider different levels of language proficiency and learners' professional specialization. There is also a deficit of authentic texts and dialogues reflecting real interaction situations between representatives of Kazakhstan and China. Existing textbooks insufficiently address language interference phenomena that arise when studying multiple languages simultaneously, which is characteristic of Kazakhstan's educational context. There is a further shortage of specialized materials for developing business communication skills in Chinese, considering the specifics of Kazakhstan's business context. Another problem is the lack of unified standards and quality assessment criteria for local Chinese language teaching materials, which complicates their development and implementation in the educational process. Existing textbooks often do not provide sufficient practice in developing all types of speech activities and do not offer an effective system for monitoring material acquisition (Bi, 2023; Hsiang et al., 2023).

In the context of active integration of the Chinese language into Kazakhstan's educational system and existing problems with teaching materials, a need was felt to conduct a bibliometric analysis of scientific publications. Keeping in view this objective, the study addressed the following research question: *What are the patterns of growth in publications, author productivity, and the social, intellectual, and conceptual structure of scientific literature in the field of Chinese language teaching, learning, and textbook development over the past five decades, and how can these patterns inform the development of methodologically sound Chinese language textbooks for Kazakhstan's educational system?* To find out answers to this question, the study took a bibliometric approach to map literature over the past 49 years using metadata extracted from three Web of Science (WoS) indices: Science Citation Index Expanded (SCI-Expanded), Social Sciences Citation Index (SSCI), and Arts & Humanities Citation Index (A&HCI) on the domain areas of Teaching Chinese, Chinese Language Learning, Textbook Compilation, Chinese textbook compilation, and Chinese Language.

The purpose of this survey was to systematize accumulated global experience and develop a scientifically grounded methodology for creating textbooks that consider language interference and the needs of various learner categories and determine the most effective approaches to solving identified problems for

Kazakhstan's educational context. The study also examined the trajectory of growth, productivity, social, intellectual, and conceptual development of the research subject.

Literature Review

Approaches to Chinese Language Education

Over the past few decades, the field of Chinese language education has undergone significant growth and transformation, driven by China's expanding global influence and the increasing worldwide interest in learning Chinese (Gong, Lyu, & Gao, 2018; Ma et al., 2017). Studies have been carried out which are evidence of the key research contributions in teaching methodologies, learning processes, and textbook development for Chinese language education. A sort of bibliometric analyses is an essential tool for systematically mapping the research landscape in Chinese language education (Gong, Gao, & Lyu, 2020; Gong et al., 2018; Ma et al., 2017). For instance, Gong et al. (2018) conducted a comprehensive bibliometric study on teaching Chinese as a second or foreign language (TCSL/TCFL), both within and outside mainland China. Their findings reveal distinct research trajectories and thematic priorities across different geographic regions, highlighting significant variations in methodological approaches and research foci between Chinese and international scholars.

These differences reflect diverse pedagogical traditions and institutional contexts (Gong et al., 2018). Building on this work, Ma et al. (2017) systematically reviewed literature from 2005 to 2015, identifying a growing emphasis on empirical research and learner-centered pedagogies during this period. Their study underscores a gradual shift from predominantly theoretical to more evidence-based approaches in the field. More recently, Gong et al. (2020) focused on teaching Chinese to non- Chinese learners in mainland China between 2014 and 2018, documenting evolving research priorities in response to changing learner demographics and educational environments.

Teaching Methodologies

Prior literature reflects a wide range of approaches to Chinese language teaching methodology (Everson & Xiao, 2009; He, 2004). Everson & Xiao (2009) provide a comprehensive overview of theories and applications for teaching Chinese as a foreign language, addressing critical aspects such as pronunciation, character instruction, cultural integration, and assessment practices. Their work serves as a foundational framework for understanding the pedagogical complexities unique to Chinese language instruction. He (2004) explores the application of conversation analysis (CA) in the Chinese language classroom, demonstrating how this methodological approach can illuminate classroom interaction dynamics and enhance second language acquisition in Chinese-specific contexts.

Technological Innovations in Chinese Language Education

Technological advancements have significantly transformed teaching methodologies in recent years (Li et al., 2025; Liu et al., 2024; Ren, 2025). Liu (2024) conducted a systematic review of WeChat's application in teaching Chinese as a foreign language, highlighting the potential of social media platforms to enhance language learning experiences. Similarly, Li et al. (2025) investigate e-learning virtual interaction in Chinese language teaching using multimedia systems based on video object tracking algorithms, while Ren (2025) explores immersive e-learning modes through big data recommendation algorithms. These studies collectively illustrate the growing integration of advanced technologies into Chinese language pedagogy and their potential to address persistent challenges in language acquisition.

Institutional Frameworks and Global Contexts

Research on institutional frameworks for Chinese language education constitutes another significant strand in the literature (Curdt-Christiansen, 2009; Starr, 2009; Wang & Adamson, 2015; Yu et al., 2024). Starr (2009) examines the establishment and operation of Confucius Institutes in Europe, analyzing their role in promoting Chinese language education and cultural diplomacy. Wang & Adamson (2015) offer a comparative analysis of perceptions of Confucius Institutes in China and the USA, highlighting contrasting interpretations of these institutions' purposes and impacts. Yu et al. (2024) provide a longitudinal case study of the Confucius Institute at Nnamdi Azikiwe University in Nigeria from 2008 to 2023, assessing both achievements and challenges in implementing Chinese language programs in the African context. Their research underscores the importance of adapting teaching approaches to local educational contexts and cultural realities. Additionally, Curdt-Christiansen (2009) investigates family language policy among Chinese immigrant families in Quebec, emphasizing how language planning extends beyond institutional settings into family and community domains.

Textbook Development and Pedagogical Resources

The development and pedagogical use of Chinese language textbooks represent a critical area of research (Hsiang et al., 2023; Tsung & Cruickshank, 2010; Zhang & Yi, 2024). Hsiang et al. (2023) explore

teachers' beliefs and practices in textbook selection and use when teaching Chinese as a second language, emphasizing the importance of aligning textbook content with pedagogical objectives and learner needs. Zhang & Yi (2024) propose a theoretical model for intelligent elementary Chinese vocabulary teaching, which has significant implications for textbook design and digital learning resource development, particularly for structuring vocabulary acquisition in digital formats. Tsung & Cruickshank (2010) provide valuable insights into the challenges of developing appropriate textbooks for diverse learning environments worldwide, stressing the need for culturally responsive materials that acknowledge varying contexts of Chinese language education.

Emerging Trends and Future Directions

Emerging trends in Chinese language education research include the increasing integration of digital technologies and artificial intelligence (Li et al., 2025; Liu et al., 2018; Ren, 2025), the globalization of Chinese language learning beyond traditional contexts (Khafizova, 2023; Yu et al., 2024), and the growing adoption of interdisciplinary approaches that integrate insights from linguistics, psychology, education, and technology (Lei & Qin, 2022). Methodological diversification, from predominantly theoretical to increasingly empirical and mixed-methods research approaches, is also evident (Ma et al., 2017). As global interest in Chinese language learning continues to grow, research in this domain is likely to further diversify, addressing emerging challenges in teaching approaches, textbook development, and institutional frameworks for Chinese language education worldwide.

Research Methodology

The study employed a bibliometric approach to map literature over the past 49 years using metadata extracted from three Web of Science (WoS) indices: Science Citation Index Expanded (SCI-Expanded), Social Sciences Citation Index (SSCI), and Arts & Humanities Citation Index (A&HCI) on Teaching Chinese, Chinese Language Learning, Textbook Compilation, Chinese textbook compilation, and Chinese Language. The selection of the WoS database for this study was influenced by several factors.

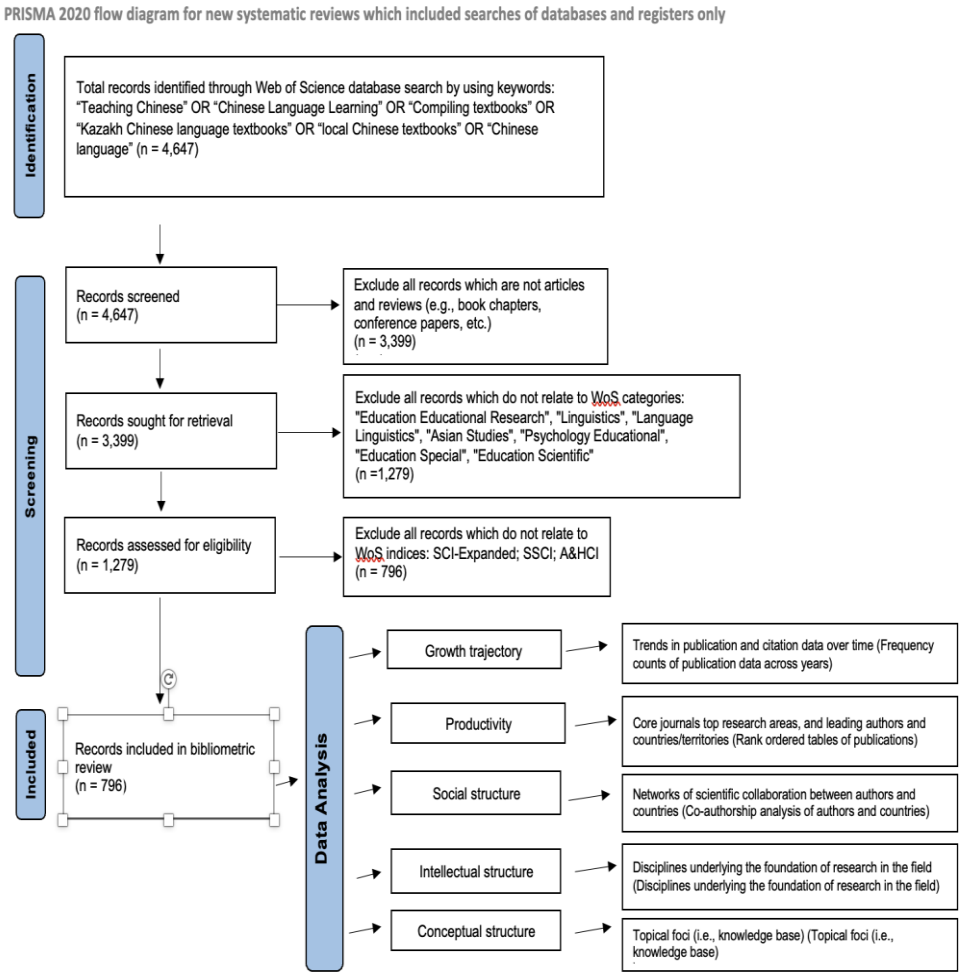

Figure 1: *Methodological Framework, (PRISMA).*

First, WoS remains the standard and is most widely used for bibliometric analysis (Meho & Yang, 2007). Second, WoS is an interdisciplinary database that includes publications related to various research fields and disciplines, published in more than 20,000 journals (Mc-Veigh, 2009). Third, while other databases may provide broader coverage, WoS includes publication and citation information dating back to 1900. For instance, Scopus contains complete citation information only from 1996 (Li et al., 2010). Moreover, Google Scholar provides results with inconsistent accuracy in terms of citations, and citation analysis in PubMed is unavailable (Falagas et al., 2008). Fourth, WoS has demonstrated higher accuracy in its journal classification system compared to the Scopus database (Wang & Waltman, 2016).

Therefore, the choice of WoS as the data source for this study was justified by its broad coverage, long history, data accuracy, and classification reliability, making it an optimal tool for conducting a comprehensive bibliometric analysis of the subject of research. The PRISMA methodological approach used in this study is presented in Figure 1 and is discussed in more detail in the following paragraphs.

Search Strategy: Research Design

Within this study, a comprehensive search strategy was employed to create a representative corpus of documents related to the research problem. The process of identifying relevant publications was carried out in several stages, starting from defining key terms and ending with filtering results based on predetermined criteria. The first stage began on October 13, 2024, and involved formulating basic key concepts: "Teaching Chinese", "Chinese Language Learning", "Compiling textbooks", "Kazakh Chinese language textbooks", "local Chinese textbooks", "Chinese language". To maximize coverage of relevant publications, the logical operator OR was used between keywords, which increased the number of potentially relevant documents to n=4,647. The time range of the study covered the period from 1975 to 2024, inclusive, without any language restrictions. After applying the criterion "Articles and article reviews", books, book chapters, and conference materials were excluded, the total number of identified publications amounted to n=3,399.

Selection Criteria

The subsequent selection criterion was based on Web of Science categories "Education Educational Research", "Linguistics", "Language Linguistics", "Asian Studies", "Psychology Educational", "Education Special", "Education Scientific Disciplines", which resulted in the identification of 1,279 publications. The application of criteria based on WoS domains (Social Sciences Citation Index (SSCI), Science Citation Index Expanded (SCI-Expanded), and Arts & Humanities Citation Index (A&HCI)) yielded the final dataset for bibliometric analysis – n=796. For each publication, the following metadata was extracted: article title, publication year, journal, number of citations, author names, affiliations and countries, abstracts, author keywords, and reference lists.

Data Analysis Procedures

The literature corpus was analyzed using a bibliometric approach to obtain a comprehensive picture of the evolution and current state of the research subject. Frequency indicators of publications and citations were calculated by year, and ranked tables were compiled reflecting the productivity of the field in terms of key journals, research directions, leading scholars, and countries.The bibliometric analysis was conducted using VOSViewer software, which enables the visualization and construction of bibliometric maps (Hernández-Torrano et al., 2020). In VOSViewer, units of analysis are represented by nodes, the size of which reflects their significance, while their position indicates the degree of similarity with other nodes. Lines between nodes indicate relationships, and their thickness represents the strength of these connections. The color of a node denotes its affiliation with a particular cluster.

The process of constructing bibliometric maps in VOSViewer comprises three stages: normalization of differences between nodes, construction of a two-dimensional map, and grouping of nodes into clusters (van Eck et al., 2010). To examine the social structure of research, a co-authorship analysis was performed at the level of authors and countries/territories. The intellectual structure of the field was investigated through a co-citation analysis of journals, where clusters of frequently co-cited journals were interpreted as the foundational disciplines of the research subject. The conceptual structure of the field was elucidated through an analysis of co-occurrences of author keywords. In this study, clusters of co-occurring keywords represent the thematic field addressed in the literature over the past 49 years.

Results and Discussion

Growth Trajectory: Evolution of Publications and Citations in the Field

WoS demonstrates significant evolution in research on Chinese language teaching and teaching materials development during 1976-2024 Figure 2; Tables 1-2. A total of 796 papers were published, receiving 10,696 citations. The average number of citations per publication is 13.44, and the H-index reached 47, indicating high quality and demand for research. The total number of citing articles is 8,485, with the number of citations without self-citations reaching 9,962, and citing articles without self-citations - 8,182. These indicators, especially the high

proportion of citations without self-citations (93% of the total), indicate substantial recognition of these studies in the scientific community and their significant contribution to the development of Chinese language teaching. The study "Invisible and visible language planning: ideological factors in the family language policy of Chinese immigrant families in Quebec" (Curdt-Christiansen, 2009) accumulated the highest number of 313 citations; however, within our research, the following publications were of particular interest.

Table 1: *Publications With High Wos Citation Levels.*

Article title	Publication data	Citation count	Note
Chinese Language Education in Europe: the Confucius Institutes	Starr, D, 2009, European Journal of Education	119 citations	The role of Confucius Institutes in spreading the Chinese language in Europe is examined. The goals, working methods, and influence of these institutions on European education are investigated. Special attention is paid to how Confucius Institutes are integrated into the existing educational system of European countries.
Teaching Chinese as a second or foreign language to non - Chinese learners in mainland China (2014-2018)	Gong, Y, Gao, XS, Lyu, BN, 2020	92 citations	The study analyzes current trends in teaching Chinese language to foreigners directly in China. Teaching methods, challenges and successes in education, as well as the adaptation of curricula to the needs of different student groups are examined.
Research on Teaching Chinese as a Second or Foreign Language in and Outside Mainland China: A Bibliometric Analysis	Gong, Ji Liu, RN, Gao, XS, 2018, Asia-Pacific Education Researcher	87 citations	A bibliometric study analyzing publications on teaching Chinese as a foreign language. The teaching experience within China and abroad is compared, identifying the main research directions and trends in the development of teaching methods.
CA for SLA: Arguments from the Chinese language classroom	He, AW, 2004, Modern Language Journal	75 citations	A Conversation Analysis (CA) study examining the process of Chinese Second Language Acquisition (SLA). The study investigates the characteristics of classroom interaction and their impact on learning effectiveness.
The teaching of Chinese as a second or foreign language: a systematic review of the literature 2005-2015	Ma, XH, Gong, Y(-L), Xiang, YQ, 2017, Journal of Multilingual and Multicultural Development	74 citations	A systematic literature review covering a ten-year period, examining various aspects of teaching Chinese as a foreign language. The study analyzes main research topics, methodological approaches, and research findings in this field.

In the initial period (1976-1990), minimal research activity was observed with 0-5 papers published annually See Figure 2. The mid-1990s were marked by a gradual increase to 5-10 publications per year. A significant acceleration occurred after 2010, when the number of publications increased from approximately 25 to more than 70 works annually. Citation metrics (blue line) show exponential growth from 2015, reaching a peak in 2021-2022. Recent years (2020-2024) are characterized by the highest publication activity - 70-90 works annually. The maximum impact on the scientific community is observed in the period 2021-2022, indicating the transformation of Chinese language teaching and learning materials development from a highly specialized field into a full-fledged academic discipline with growing scientific recognition and influence.

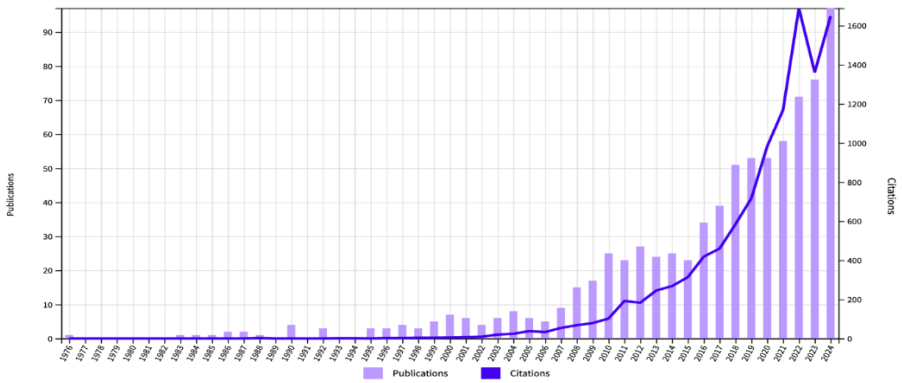

Figure 2: *Growth of Research on.*

Table 2: *WOS Data Analysis.*

Criteria	Data	Records	% of 796
Leading researchers	Xu W	16	2.010%
	Chung KKH	13	1.633%
	Lai C	13	1.633%
	Gong Y	11	1.382%
	Lau KL	10	1.256%
Affiliations	University of Hong Kong	75	9.422%
	Chinese University of Hong Kong	50	6.281%
	Education University of Hong Kong EdUHK	46	5.779%
	Nanyang Technological University	33	4.146%
	National Institute of Education NIE Singapore	24	3.015%
Publication Titles	Journal of Multilingual and Multicultural Development	35	4.397%
	System	29	3.643%
	Journal of Chinese Linguistics	26	3.266%
	Computer Assisted Language Learning	21	2.638%
	Foreign Language Annals Modern Language Journal	19	2.387%
Publishers	Taylor & Francis	235	29.523%
	Elsevier	95	11.935%
	Springer Nature	85	10.678%
	Wiley	81	10.176%
	Sage	38	4.774%
Web of Science Index	Social Sciences Citation Index (SSCI)	711	89.322%
	Arts & Humanities Citation Index (A&HCI)	394	49.497%
	Science Citation Index Expanded (SCI-EXPANDED)	46	5.779%
Research Areas	Linguistics	438	55.025%
	Education Educational Research	421	52.889%
	Language Linguistics	316	39.698%
	Asian Studies	88	11.055%
	Psychology Educational	67	8.417%
Open Access	All Open Access	156	19.598%
	Gold-Hybrid	74	9.296%
	Gold	21	2.638%
Countries/Regions	China	408	51.256%
	USA	181	22.739%
	Taiwan	65	8.166%
	Australia	64	8.040%
	England	48	6.030%
Sustainable Development Goals	Quality Education (SDG 04)	475	59.673%
	Good Health and Well Being (SDG 03)	36	4.523%
	Reduced Inequality (SDG 10)	10	1.256%
Languages	English	766	96.231%
	Chinese	11	1.382%
	German	8	1.005%
	Spanish	5	0.628%
	French	4	0.503%

Extended data analysis See Table 2 on the topic of teaching Chinese language and educational materials development shows that the leading researchers in this field are Xu W (16 publications, 2.010%), Chung KKH and Lai C (13 publications each, 1.633%). The dominant thematic areas are Linguistics (438) and Education Educational Research (421), as reflected in the Social Sciences Citation Index (SSCI) with 711 citations and Arts & Humanities Citation Index (A&HCI) with 394 citations. Among academic institutions, the University of Hong Kong (75), Chinese University of Hong Kong (50), and Education University of Hong Kong (46) maintain leadership positions, demonstrating the significant concentration of research expertise in the region. Publication activity is predominantly represented in Taylor & Francis (235), Elsevier (95), and Springer Nature (85) journals, with the Journal of Multilingual and Multicultural Development (35) and System (29) are found to be the leading venues for academic discourse.

In the research areas, Linguistics (55.025%), and Educational Research (52.889%) directions prevail, with significant contribution from Linguistics (39.698%). A notable portion of publications is in open access (156), with Gold-Hybrid (74) and Gold (21) access models being represented. Geographically, research is concentrated in China (408) and USA (181), with China demonstrating clear dominance in the field. In the

context of sustainable development goals, the research makes the greatest contribution to Quality Education (SDG 04) with 475 publications, accounting for 59.673% of the total research output.

Productivity Trajectory: Leading Author, Countries/Territories and Collaboration

Based on the bibliometric analysis of collaboration links visualized through VOSviewer Figure 3, we can confirm the presence of a clearly structured network of scientific interaction in the field of Chinese language research and teaching methodology. The author McBride Catherine occupies a central position in the identified network, demonstrating the maximum degree of collaborative intensity and acting as a key mediator between different research clusters. The structure of collaboration links clearly shows a hierarchical organization of scientific interaction. The most intensive collaboration is observed between two authors, McBride Catherine and Chung Kevin Kien Hoa, which is visualized through the saturation of the red cluster and direct connection between the researchers. This interaction indicates the presence of sustainable scientific partnership and alignment of research interests See Figure 3.

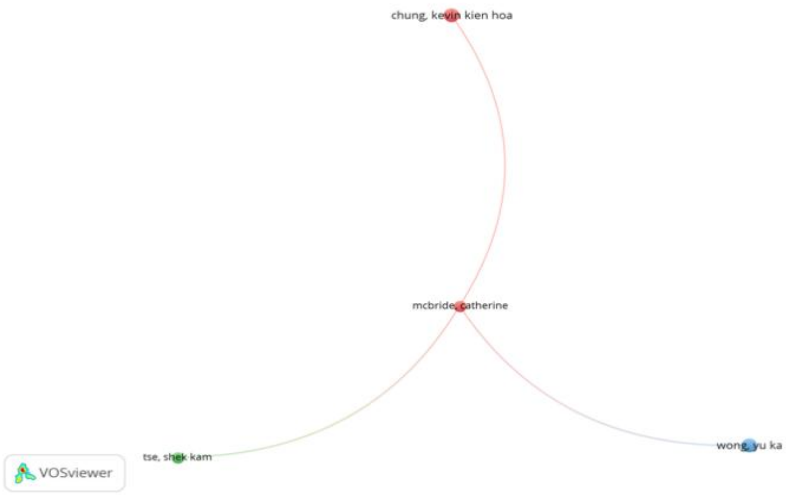

Figure 3: *Leading Authors (n=4).*

Author Tse Shek Kam occupies an intermediate position in the network, whose connection with the central node is characterized by a gradient transition from red to green spectrum, which can be interpreted as an indicator of methodological convergence of different research approaches. Author Wong Yu Ka occupies a peripheral position, whose connection with the main research group is visualized through the blue spectrum, which may indicate relative autonomy of the research trajectory while maintaining integration into the common scientific space. The revealed structure of collaboration links demonstrates a balanced distribution of scientific influence and interaction, where the central researcher acts as an integrator of various methodological and conceptual approaches in Chinese language studies. This configuration of the scientific network facilitates effective transfer of knowledge and methodological innovations between different research groups.

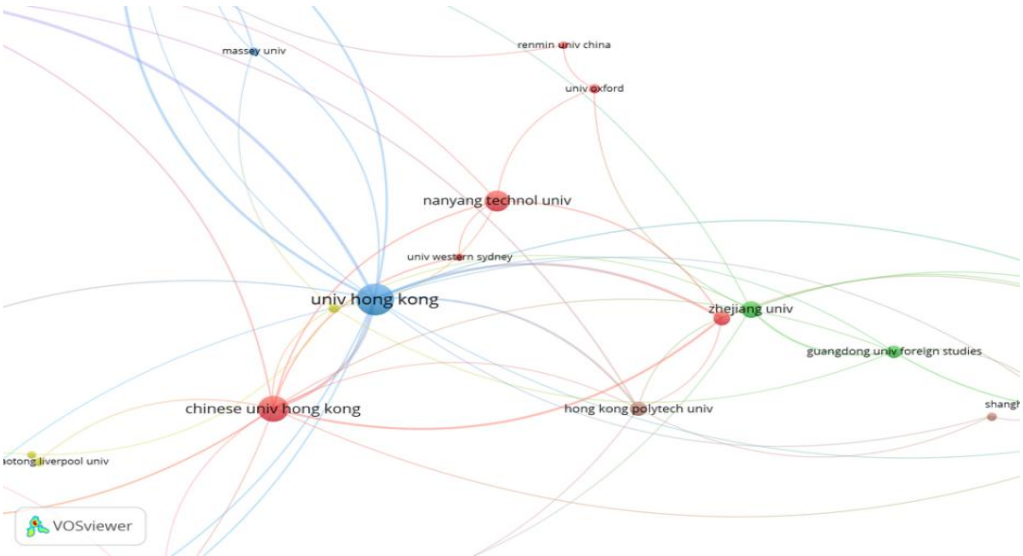

Figure 4: *Collaboration of universities (n=38).*

A bibliometric analysis of scientific collaborations in Chinese language teaching revealed nine interconnected clusters of institutional cooperation (n=38) Figure 4. The red cluster, represented by the University of Hong Kong, demonstrates the maximum density of scientific interactions and serves as a key coordination center for international research. The blue cluster, represented by the Chinese University of Hong Kong, is characterized by high intensity of regional collaborations, forming a significant research hub in the Asian region. The green cluster, where Nanyang Technological University prevails, reflects the Singaporean school of research with a developed network of international collaborations. The purple cluster, led by Hong Kong Polytechnic University, focuses on technical aspects of research, maintaining stable connections with regional partners. The yellow cluster, represented by Zhejiang University, demonstrates significant influence of mainland China in the research network. The orange cluster, represented by the University of Oxford, reflects the European vector of research with a focus on interaction with leading Asian universities. The brown cluster, led by the University of Western Sydney, characterizes the Australian direction of research with emphasis on Asia-Pacific collaborations. The light blue cluster is dominated by Guangdong University of Foreign Studies, specializing in linguistic research. The gray cluster, represented by Xi'an Jiaotong-Liverpool University, demonstrates the effectiveness of the Chinese British model of scientific cooperation.

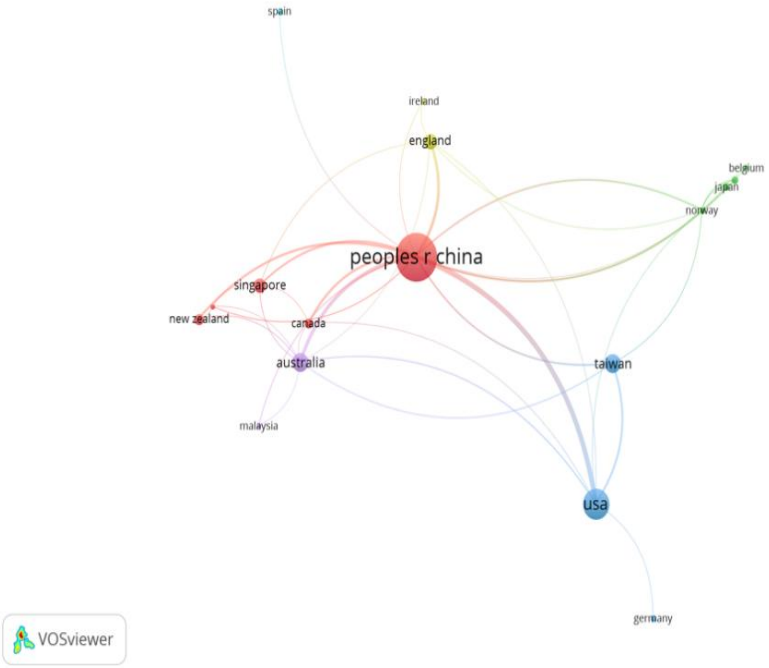

Figure 5: *Countries/Territories (n=17).*

Figure 5 demonstrates the bibliometric analysis of international scientific collaborations in Chinese language research revealed the following structure of geographical distribution of research activity. The red cluster, where the Peoples Republic of China occupies the central position, demonstrates the most intensive scientific interactions with Asia-Pacific countries, including Singapore, New Zealand, and Australia. A high density of connections with Canada is characteristic, indicating active North American direction of cooperation. The blue cluster, dominated by the USA, reflects the significant role of American research institutions in the global scientific network, with particularly strong ties to Taiwan and Germany. The yellow cluster, represented by England and Ireland, characterizes the European direction of research, demonstrating stable scientific connections with mainland China. The green cluster includes Belgium, Japan, and Norway, forming an additional vector of international cooperation with emphasis on research development in countries with advanced scientific infrastructure.

The network visualization analysis demonstrates China's central position in the global research network, confirmed by the node size and number of outgoing connections. The high density of inter-cluster connections indicates intensive internationalization of Chinese language research, with the formation of stable regional research hubs in North America, Europe, and the Asia-Pacific region.

Intellectual Structure: Disciplines Underlying the Foundations of the Field

The intellectual structure of the map demonstrates knowledge dissemination channels (through scientific journals, research centers) in the field of Chinese language teaching and learning Figure 6.

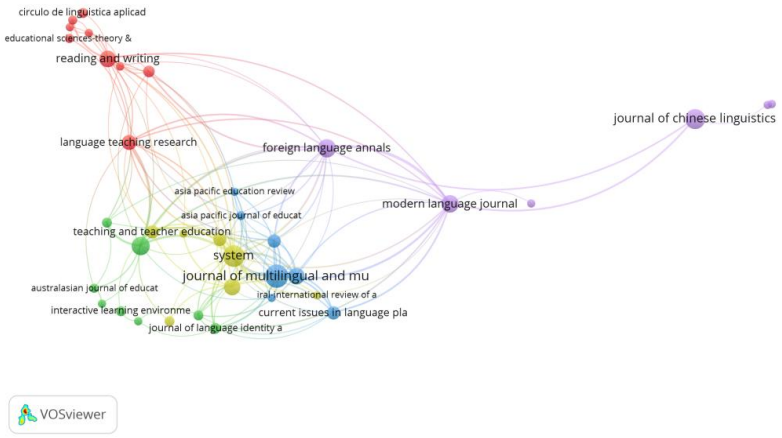

Figure 6: *Intellectual Structure.*

The red cluster is represented by a group of nodes related to basic aspects of language learning: "circulo de linguistica aplicad", "educational sciences theory", "reading and writing" and "language teaching research", forming a fundamental methodological and theoretical base. The green cluster is concentrated around pedagogical education, where "teaching and teacher education" serves as the central node. It is adjoined by "interactive learning environment" and "australasian journal of education", indicating a connection with innovative teaching methods and regional educational research. The yellow cluster is grouped around the "journal of multilingual and multilingual studies", including Asia-Pacific educational publications. The cluster reflects regional specifics and multilingual aspects of research. The purple cluster unites specialized linguistic publications: "Journal of Chinese Linguistics", "Modern Language Journal" and "Foreign Language Annals", representing a specialized field of Chinese and linguistic studies. The light blue node "System" occupies a central position in the visualization, acting as a connecting element between different clusters, indicating a systematic approach to integrating various aspects in Chinese language teaching.

The cluster structure demonstrates the complex nature of the field, where different directions - from theoretical linguistics to practical pedagogy - interact and complement each other, forming an integrated system of scientific knowledge in Chinese language teaching.

Conceptual Structure: Topical Foci Addressed in the Literature Over the Last 49 Years

Bibliometric analysis of scientific literature in Chinese language teaching revealed five interconnected thematic research clusters Figure 7.

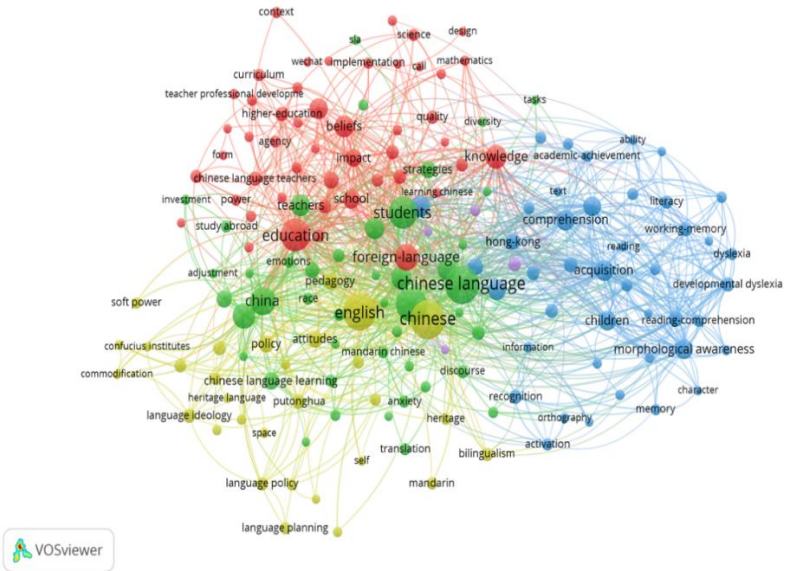

Figure 7: *Conceptual Structure.*

The red cluster, represented by key terms "curriculum", "teacher professional development", "higher education", "impact", is dominated by research on the effectiveness of Chinese language teaching pedagogical practices. The main focus is on studying methodological approaches and their correlation with the quality of the educational process. The green cluster, including terms "China", "pedagogy", "attitudes", "foreign language", reflects the sociocultural research paradigm. This direction is dominated by analysis of sociocultural context's influence on Chinese language acquisition, with particular emphasis on learners' personal attitudes and aspects of intercultural communication. The light blue cluster, represented by terms "literacy", "working memory", "comprehension", "dyslexia", concentrates on research of cognitive mechanisms in Chinese language acquisition. Research on language literacy formation processes and specifics of cognitive information processing are dominant. The yellow cluster, characterized by terms "language ideology", "language policy", "language planning", "Confucius institutes", focuses on institutional aspects of Chinese language teaching. Research in this cluster concentrates on analysis of language policy and strategic planning. The purple cluster, including terms "mandarin Chinese", "putonghua", "learning Chinese", "heritage", demonstrates concentration on specific aspects of Chinese language acquisition and determinants of learning effectiveness.

The conducted bibliometric analysis revealed a high degree of integration between research directions, which is reflected in significant density of network connections between clusters and indicates the interdisciplinary nature of modern research in Chinese language teaching and acquisition.

Conclusion

The purpose of this research was to provide new insights into the development and current state of research on Teaching Chinese, Chinese Language Learning, Textbook Compilation, Chinese textbook compilation, and Chinese Language by comparing and visually representing literature on this topic over the past 49 years. The study also examined the trajectory of growth, productivity, social, intellectual, and conceptual development of the research subject. The study revealed significant evolution in Chinese language teaching and learning materials development, confirmed by the analysis of 796 scientific works that received 10,696 citations. The average citation rate per publication was 13.44, and the H-index reached 47, indicating high quality and demand for research in this field. Bibliometric analysis demonstrated the formation of five main thematic research directions: effectiveness of pedagogical practices, sociocultural aspects of teaching, cognitive mechanisms of language acquisition, institutional aspects, and specifics of Chinese language acquisition. Research related to the integration of modern technologies into the educational process and development of innovative teaching methods has gained particular importance.

Analysis of international collaborations revealed the dominant role of Hong Kong and mainland China universities in the research network, with the formation of stable regional cooperation clusters in North America, Europe, and the Asia-Pacific region. The high density of inter-cluster connections indicates intensive scientific cooperation and the interdisciplinary nature of modern research. In the context of Chinese language teaching development in Kazakhstan, the research results provide an important theoretical and methodological basis for improving the system of educational and methodological support. The development of localized learning materials that consider the specifics of Kazakhstan's educational environment and peculiarities of language interference in simultaneous study of several languages becomes particularly relevant.

The identified trends indicate the need to develop international cooperation in research and learning materials development, with special focus on integrating modern educational technologies and considering regional specifics. The results of bibliometric analysis can serve as a basis for determining priority directions in developing Chinese language teaching methodology and learning materials in Kazakhstan, contributing to improving education quality and competitiveness of Kazakhstan graduates in the international labor market. Thus, the conducted research not only systematizes accumulated global experience in Chinese language teaching but also creates a foundation for further development of this direction in the context of Kazakhstan education, facilitating more effective integration of Chinese language into the country's educational system.

The present study faced several methodological limitations. First, the exclusive use of the Web of Science database as the sole source of bibliometric data limits the comprehensiveness of the review, as a number of relevant publications on Chinese language teaching may be indexed in other scientific databases. Second, there is incomplete coverage of non-English publications, which is particularly significant for Chinese-language literature in this field. Third, the study does not include gray literature, such as reports, conference materials, dissertations, and educational guidelines, which may contain valuable practical information about Chinese language teaching.

To overcome the identified limitations, it is recommended to: 1) expand data sources by additionally including materials from alternative international databases, such as Scopus and ERIC; 2) integrate publications from regional databases, for example CNKI, especially from China, Japan, Korea, and other Asian countries where Chinese language teaching has long-standing traditions; 3) include analysis of gray literature and open educational resources; 4) apply mixed research methods that combine bibliometric analysis with qualitative approaches to identify common trends and unique characteristics in the field of Chinese language teaching.

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