

CiteSpace-Based Bibliometric Analysis of Cross-Cultural Oral Communication Research in China

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Received: 24 November 2025; **Revised:** 18 December 2025

Accepted: 25 December 2025; **Published:** 31 December 2025

To link to this article: <https://doi.org/10.37134/ajatel.vol15.2.10.2025>

Abstract

Against the backdrop of globalization and educational internationalization, cross-cultural oral communication (COC) has become a core competency for intercultural interactions, yet its assessment practices remain fragmented and under-systematized in China, lacking standardized frameworks and rigorous empirical validation. To address this gap and map research hotspots and assessment practice trends, this study employed CiteSpace 6.3.R1 to conduct bibliometric analyses on 302 relevant publications retrieved from the CNKI database (2000–2025). Core findings reveal that key research hotspots include oral communication teaching, communicative competence, rubrics, intercultural communicative competence (ICC), industry-education integration, and smart classroom applications. Assessment practices have evolved from single linguistic skill testing to multidimensional evaluation integrating culture, strategy, and technology, with core research clustering around instructional assessment models, pragmatic competence rubrics, and technology-integrated performance assessment. Notably, current research is dominated by conceptual studies, with insufficient empirical validation of standardized rubrics and inadequate attention to affective dimensions. This study systematically visualizes the intellectual structure of China's COC research, enriches the theoretical link between COC and assessment discourse, provides actionable guidance for standardized and culturally sensitive assessment design, and lays a foundation for advancing empirical research on COC assessment instruments.

Keywords: *Cross-Cultural Oral Communication, Assessment Practices, Bibliometric Analysis, Intercultural Communicative Competence, Oral Communication Teaching, Smart Classroom*

INTRODUCTION

Against the backdrop of deepening globalization and the progressive internationalization of higher education, cross-cultural oral communication (COC) has emerged as a pivotal competency for individuals engaging in transnational academic collaboration, intercultural business negotiations, and cross-border social interactions (Spencer-Oatey & Franklin, 2009). As a core component of the language teaching and learning ecosystem, assessment serves not only as a diagnostic tool for measuring COC proficiency but also as a formative driver that shapes instructional design and promotes the continuous improvement of teaching effectiveness (McNamara, 2019; Kasper & Ross, 2013). The urgency of advancing COC research is increasingly salient in the Chinese context: with the exponential growth of international exchanges involving Chinese learners, there is an imperative demand for psychometrically sound, culturally responsive, and contextually appropriate assessment instruments to accurately gauge learners' authentic COC performance. However, existing COC assessment practices in China remain fragmented, characterized by a lack of systematic theoretical scaffolding and rigorous empirical validation, which severely constrains the scientificity and fairness of assessment outcomes.

Despite the accumulating body of literature on COC, critical gaps persist in the current research landscape, underscoring the necessity of systematic inquiry. From the perspective of research content, the majority of existing studies have centered on the exploration of instructional approaches such as task-based language teaching and immersive cross-cultural learning, as well as the construction of COC cultivation pathways, while empirical and theoretical research on COC assessment—including the development of multidimensional assessment frameworks, the validation of assessment rubrics, and the integration of educational technology in assessment practices—remains relatively underdeveloped. Methodologically, the extant literature is predominantly dominated by qualitative descriptive analyses and conceptual discussions, with a paucity of quantitative and mixed-methods research that can provide objective, generalizable evidence for assessment practice (Song & Xiao, 2011). For instance, Sun (2015) theoretically articulated the significance of integrating cultural awareness into COC teaching but failed to incorporate quantitative measurement of assessment effectiveness; Song and Xiao (2011) proposed an experiential teaching model for COC enhancement yet lacked psychometric validation of the accompanying assessment tools. Most notably, there is a dearth of systematic bibliometric analyses that can comprehensively map the intellectual structure of COC research, identify evolutionary trends, and unpack latent research gaps—an oversight that hinders the field's theoretical advancement and practical innovation (Van Eck & Waltman, 2014).

Bibliometric analysis, as a quantitative research method grounded in informetric and statistics, has been widely recognized for its efficacy in synthesizing the developmental trajectory of a research field, identifying core knowledge clusters, and predicting emerging research frontiers. Within the domain of language assessment, bibliometric approaches have been successfully applied to investigate global research trends in second language writing assessment, pragmatic competence assessment, and automated language assessment, yielding valuable insights for theoretical construction and practical application. However, such systematic quantitative synthesis has not yet been extended to the field of COC assessment research in China. Existing review studies on Chinese COC research are primarily qualitative syntheses based on researchers' subjective judgments, which are inherently limited in their ability to comprehensively and objectively reflect the overall research landscape, knowledge structure, and evolutionary dynamics of the field particularly the distribution characteristics and developmental trends of assessment-focused research.

The conceptualization of COC as a multidimensional, context-dependent competency is rooted in Hymes' (1972) seminal communicative competence theory, which posits that effective communication entails not only the mastery of linguistic rules but also the ability to deploy language appropriately in specific sociocultural contexts—a theoretical perspective that lays the foundation for comprehensive COC assessment (Canale & Swain, 1980). Subsequent theoretical advancements, such as Spencer-Oatey and Franklin's (2009) multidisciplinary approach to intercultural interaction, have further elaborated the multidimensional nature of COC, encompassing linguistic, sociocultural, pragmatic, and affective dimensions. These theoretical frameworks emphasize that COC assessment must move beyond the measurement of linguistic proficiency alone to encompass the evaluation of sociocultural awareness, pragmatic appropriateness, and intercultural adaptability. Nevertheless, current COC assessment research in China has not fully integrated these international theoretical advancements, resulting in a disconnect between theoretical exploration and practical application—a gap that further accentuates the urgency of conducting systematic research to align Chinese COC assessment practice with international academic standards.

Against this theoretical and practical backdrop, the present study employs CiteSpace-based bibliometric methods to conduct a systematic quantitative analysis of COC-related research in China from 2000 to 2025. By examining the evolutionary trends, core knowledge clusters, and latent research gaps of COC research, this study aims to address the existing deficit of quantitative synthesis in the field, clarify the direction for the construction of standardized, culturally responsive COC assessment systems, and provide theoretical and practical support for improving the quality of COC teaching and assessment. Theoretically, this study contributes to the enrichment of the knowledge structure of COC assessment research by constructing a systematic overview of the field's developmental trajectory, thereby strengthening the connection between Chinese COC research and international language assessment discourse. Practically, the findings of this study can inform the design of psychometrically sound COC assessment instruments and the development of

technology-integrated assessment strategies, providing actionable guidance for educators and assessment developers. Academically, this study paves the way for subsequent empirical research on COC assessment, facilitating the standardization and scientificization of COC assessment practice.

To address the aforementioned gap, this study systematically maps the research landscape of COC in China with a central focus on assessment-related issues. The specific research objectives explicitly incorporate the assessment dimension within teaching and learning processes: to clarify how COC studies in China address assessment strategies, oral testing, rubrics, and assessment models; to explore the evolutionary trends of COC research across different developmental phases with consistent division; to identify existing research gaps related to assessment practices; and to propose concrete implications for instructional and assessment design.

To achieve these objectives, the following research questions are formulated: What are the core themes and trends of COC research in China from 2000 to 2025? How have assessment practices in China evolved across different developmental phases, and what factors drive these changes? What are the underlying reasons for the limited number of COC studies, and what methodological tendencies exist in current assessment-related studies? How can core COC competencies be translated into standardized assessment indicators to enhance the validity and reliability of COC assessment?

METHODS

The study selects the period 2000–2025 as the research time frame for three key reasons. First, the year 2000 marks the beginning of China's rapid integration into globalization, with the Ministry of Education emphasizing intercultural competence in foreign language teaching syllabuses, laying the foundation for COC research. Second, this 25-year period covers critical policy shifts such as the reform of English teaching evaluation systems in 2007 and 2020 that have directly influenced assessment practices in COC education. Third, the time span allows for the identification of long-term evolutionary trends in assessment research, from initial exploration to technology-integrated innovation, providing a comprehensive view of the field's development.

To explore the evolution of research themes and trends in Chinese academic journals on COC with a focus on assessment, this study employs CiteSpace 6.3.R1 data visualization software to construct a scientific knowledge map of relevant literature.

CiteSpace 6.3.R1 is a widely used bibliometric analysis software developed by Professor Chaomei Chen at Drexel University in the United States. This Java-based software enables extraction of literature data from databases such as CNKI, and through methods like co-word analysis, it reveals the structure, patterns, and distribution of knowledge systems. In this study, it was used to conduct keyword co-occurrence, clustering, and time span analysis, which are advanced bibliometric analyses to clarify the structural landscape of the COC research field.

1. Data Source and Search Strategy

The data for this study were retrieved from the China National Knowledge Infrastructure (CNKI) database, the most comprehensive academic database for Chinese-language research in education and humanities as presented in Table 1. After retrieval, 302 were retained for the final analysis.

Table 1 Data acquisition standards

Search keywords	Time range	Document types	Inclusion criteria
"cross-cultural communication" AND "assessment" OR "oral testing" OR "rubrics" OR "performance assessment" OR "formative assessment" OR "summative assessment"	2000–2025	Journal articles (excluding conference abstracts, book reviews, master's theses, doctoral dissertations, editorial notes and less authoritative documents such as undergraduate theses)	Studies focusing on COC in educational contexts (primary, secondary, and higher education) with related discussion of assessment-related issues.

2. Data Processing and Term-cleaning

The valid documents were exported from CNKI in RefWorks format, converted to plain text files, and imported into CiteSpace. Term-cleaning was performed to standardize synonyms to ensure data accuracy. The specific values of parameter settings also enhanced the accuracy of data analysis as shown in Table 2 and Table 3.

Table 2 Term-cleaning

Term-cleaning 1	Term-cleaning 2	Term-cleaning 3
"intercultural communication competence" and "cross-cultural communicative competence" were unified as "intercultural communicative competence (ICC)"	"evaluation" and "assessment" were retained as distinct terms based on their precise usage—"assessment" for the process of measuring outcomes, "evaluation" for the interpretation of assessment results	"teaching strategy" and "teaching method" were standardized to "teaching strategies" for consistency

Table 3 Parameter Settings

Time slicing	Year Per Slice	Term Source	Node type	Strength	Scope	Selection Criteria: g-index	Pruning	Visualization
From 2000 JAN To 2025 AUG.	1	Title; Abstract; Author Keywords (DE); Keywords Plus (ID)	Keyword (to identify core themes and assessment-related terms)	Cosine	Within Slices	The selection uses a modified g-index in each slice: $g^2 \leq \frac{k \sum_{i \leq g} c_i}{Z^+}, k \in Z^+$ To induce more or fewer nodes, increase or decrease the scale factor $k = 20$	Pruning sliced networks	Show Merged Network

3. Analytical Methods

In this study, researchers mainly adopted the following four bibliometric analysis methods (Table 4).

Table 4 Analytical methods

Annual publication volume analysis	Keyword co-occurrence network analysis	Centrality analysis of high-frequency keywords	Time zone spectrum analysis
To statistically analyze the annual number of COC-related publications, clarify the overall evolution trend of research intensity in the field, and divide the developmental phases of COC assessment research based on the variation characteristics of publication volume.	To identify the co-occurrence frequency and connection strength between assessment-related terms and visualize the network structure formed by high-frequency keywords, revealing the internal correlation between different research themes.	To measure the importance of high-frequency keywords (nodes) in the research network, with centrality > 0.1 indicating core terms that play a foundational connecting role among different research themes, thereby identifying the core focus of the field.	To clarify the dynamic changes of research hotspots in different developmental phases and identify the emerging trends and evolutionary logic of COC assessment research.

RESEARCH FINDINGS AND DATA ANALYSIS

1. Annual Publication Volume

Statistical analysis of annual publication volume can reveal the overall evolution of research intensity within a specific knowledge domain. Based on this, researchers utilized CiteSpace 6.3.R1 software to conduct a visualization analysis of literature published between 2000 and 2024 (excluding 2025, as publication volumes for the second half of 2025 remain unavailable). This yielded corresponding statistical results for publication counts, with specific data presented in Figure 1.

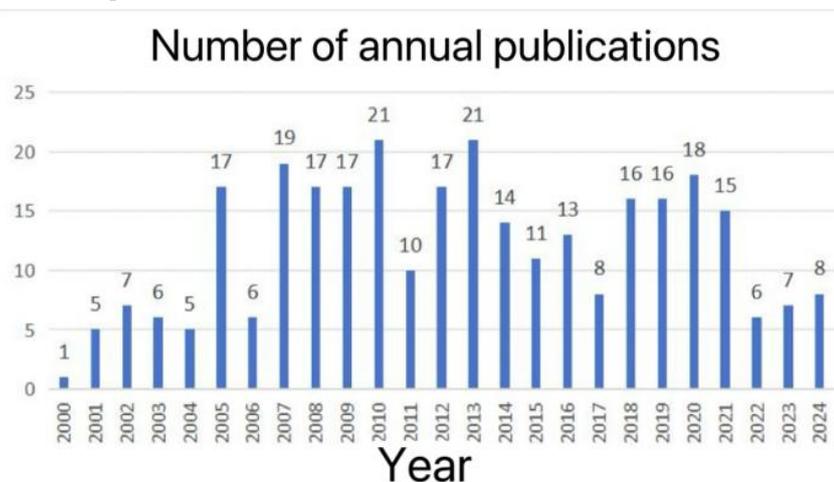
As shown in Figure 1, the number of academic journal articles related to cross-cultural oral communication in China has generally increased between 2000 and 2024 and can be divided into three phases: the initial development phase (2000 – 2010), a fluctuating phase (2011 – 2021), and a transitional phase (2022 – 2024).

During the initial development phase from 2000 to 2010, annual publications showed a gradual upward trend. In 2000, only one authoritative paper was published in China, indicating that research on cross-cultural oral communication was in its infancy.

Subsequently, the number of publications began to increase significantly in 2005, reaching a peak in 2010 with minor fluctuations. Most journals published during this phase focused on oral teaching. This phase reflects assessment practices that focused primarily on summative oral proficiency testing aligned with Chinese national examinations.

The fluctuating phase from 2011 to 2021 exhibited significant variations in publication volume. Although the number plummeted to ten papers in certain years such as 2011—a distinct trough within the period—overall output remained at a relatively high level. The related reason is that toward the end of this phase, multiple Chinese provinces released comprehensive college entrance examination reform plans. The Ministry of Education's General Office issued the "Guidelines for Subject Selection Requirements in Undergraduate Admissions (3+1+2 college entrance examination Model)." Against the backdrop of the new college entrance examination reforms, the assessment criteria for oral English teaching shifted from merely focusing on test scores to emphasizing the cultivation of cross-cultural competence. Changes in educational strategies profoundly influenced research topics in academic journals.

Figure 1 Chinese annual publication trend chart (2000—2024)



During the transitional phase from 2022 to 2024, the volume of publications related to cross-cultural oral communication decreased compared to the 2010–2021 period, yet still exhibited a year-on-year upward trend. The reduction in publication volume over the past three years does not signify diminished importance of cross-cultural oral communication research, but rather indicates that the field has entered a transitional phase. After reviewing recent CNKI literature, researchers found that compared to the developmental phase of 2000–2009, recent publications tend to focus on more specific domains. For instance, Li (2023) analyzed the English translation of hotel catering service terminology from a cross-cultural perspective based on a review of the textbook "Comprehensive Examples of English Oral Communication in Catering Services." Similarly, a substantial body of research published in CNKI has investigated the development of college students' cross-cultural oral communication competencies within the "Smart Classroom" pedagogical framework, addressing pedagogical content, methodological approaches, and skill acquisition processes. This shift in research topics is closely tied to the introduction of relevant policies and technological advancements. In 2023, Chinese National Development and Reform Commission and other departments jointly issued the Implementation Plan for the Vocational Education Industry-Education Integration Empowerment and Enhancement Action (2023–2025). Concepts such as "industry-education integration," "work-study combination," and "industry-academia collaboration" have become pivotal themes in contemporary Chinese educational development. Concurrently, technological advancements have fostered deep integration between information technology and oral communication. Against this backdrop, emerging phenomena like digital communication have become focal points in cross-cultural oral communication studies. The combination of spoken language with specific fields or information technology has become a new assessment criterion for the teaching and cultivation of cross-cultural oral communication skills.

Each phase reflects the evolution of assessment practices: Initial development phase focuses on summative oral proficiency testing aligned with Chinese national examinations; the fluctuating period shifts to formative assessment and pragmatic competence rubrics driven by educational reforms; the transition phase emphasizes ICC evaluation and technology-enhanced assessment, responding to advanced educational technologies and international assessment discourse.

2. Keyword Co-occurrence

Network Analysis Keyword co-occurrence maps can visualize high-frequency keywords in a research field and their interconnections, revealing hotspots in related studies. In this study, researchers utilized CiteSpace 6.3.R1 software to generate a keyword co-occurrence network for Chinese studies in this field from 2000 to 2025, as shown in Figure 2.

As shown in Figure 2, the keyword nodes "oral teaching," "communicative competence," "college English," "English teaching," "communicative strategies," "cultural differences,"

methods and models to optimize oral instruction. By integrating technologies like intelligent 5G, researchers seek teaching innovation and reform. Additionally, keywords like “teaching strategies” and “countermeasures” indicate that research prioritizes addressing existing challenges in oral instruction—such as insufficient cultural integration and students' difficulties in oral output—to chart pathways for pedagogical improvement. The second category involves applied expansion. Keywords like “business English” and “tourism English” reflect how intercultural oral communication research, under the new paradigm of “industry-education integration,” is continuously reforming teaching models and extending oral instruction into specific professional domains.

3. Centrality Analysis of High-frequency Keywords

During the bibliometric analysis, the researchers derived the centrality of high-frequency keywords chart from CiteSpace 6.3.R1 software, as shown in Figure 3. Keywords with centrality > 0.1 indicating core terms, which serve a foundational connecting role across different research themes.

Combined with Figure 2 and Figure 3, researchers have identified a profound transition in China’s intercultural oral communication assessment standards: from a "language-skill-centric" paradigm to a "language-culture synergy" framework. This shift has driven a systematic reconstruction of assessment standards, manifesting in three key dimensions.

Figure 3 Centrality of high-frequency keywords chart

Visible	Count	Centrality	Year	Keywords
✓	105	0.95	2001	Oral English Instruction
✓	31	0.20	2000	Social Skills
✓	24	0.08	2003	College English
✓	19	0.12	2002	English Speaking
✓	15	0.10	2005	Teaching
✓	13	0.06	2002	Cross-cultural
✓	12	0.08	2002	Spoken language
✓	11	0.02	2005	Cultivate
✓	11	0.03	2003	Culture
✓	10	0.06	2008	English teaching
✓	10	0.03	2004	Cultural differences
✓	9	0.06	2005	English
✓	9	0.08	2000	Communication strategies
✓	8	0.05	2010	Countermeasures
✓	7	0.00	2006	Business English
✓	7	0.05	2012	Ability Development
✓	6	0.02	2005	Pragmatic ability
✓	6	0.01	2005	Teaching model
✓	5	0.00	2007	Strategy
✓	5	0.00	2010	The problem
✓	5	0.05	2006	Oral communication
✓	5	0.02	2004	Language
✓	5	0.02	2002	Pragmatic error
✓	5	0.00	2009	Teaching strategies
✓	4	0.02	2008	Chinese spoken language
✓	4	0.00	2003	Teaching methods
✓	4	0.00	2004	Foreign language teaching
✓	4	0.01	2000	Context
✓	4	0.01	2009	Reform
✓	3	0.00	2009	Ability
✓	3	0.01	2008	Current situation
✓	3	0.00	2003	Social error
✓	3	0.02	2008	Vocational College English
✓	3	0.04	2014	Travel English
✓	3	0.02	2009	Vocational college
✓	3	0.00	2005	Input
✓	3	0.00	2007	Social interaction
✓	3	0.00	2013	Strategy Research
✓	3	0.01	2019	Teaching reform
✓	3	0.03	2013	International student
✓	3	0.01	2005	Pragmatic awareness

Assessment dimensions have expanded from single-language skills to a multidimensional framework of "Language + Culture + Strategy." Early research argued that English instruction should extend beyond the five core skills (listening, speaking, reading, writing, translation) to include "cultural competence"—a perspective that initially broke the limitation of "form-over-substance" in traditional oral assessment, embedding a prototype of "cultural cognition" into evaluation criteria such as assessing learners' understanding of cultural symbols behind language. By 2020, subsequent studies had refined the assessment dimensions into a three-dimensional structure ("language application + cultural adaptation + communication strategy") in vocational tourism English instruction: the language dimension retains focus on accuracy and fluency; the cultural dimension emphasizes sensitivity to context-specific cultural differences such as adapting to Sino-foreign hotel service etiquette or tourist communication norms; the strategy dimension adds evaluation of "intercultural conflict resolution" such as using English to explain Chinese dietary cultural differences to resolve tourist misunderstandings. This transition positions culture not as a supplement to language, but as a core pillar of intercultural oral communication competence, alongside language and strategy.

Thus, assessment scenarios have shifted from decontextualized language testing to contextualized practice in real-world or vocational settings. Early studies highlighting cultural competence often centered on cultural knowledge transmission in "multimedia teaching environments," with assessment scenarios limited to in-class cultural discussions that were detached from authentic intercultural interactions and evaluation focused on memorization and expression of cultural knowledge. In contrast, more recent scholarship has anchored assessment scenarios in vocational practice such as international tourist reception, tourism dispute mediation, and local culture interpretation to align with the Belt and Road Initiative's tourism industry demands. Evaluation criteria have correspondingly shifted from "ability to articulate cultural knowledge" to "ability to flexibly apply cultural knowledge to achieve communicative goals in professional contexts."

In addition, assessment orientation has transitioned from summative scoring to formative plus developmental evaluation. Intercultural oral assessment in earlier eras, influenced by traditional language testing, relied on summative scoring that focused on mastery of specific cultural content without tracking competence development. Recent research has demonstrated a shift toward formative and developmental evaluation: in vocational tourism English instruction, assessment is not a one-time test but a continuous process tracking via "in-class simulated communication records," "internship observation logs," and "tourist feedback collection."

4. Keyword Time Zone Spectrum Analysis

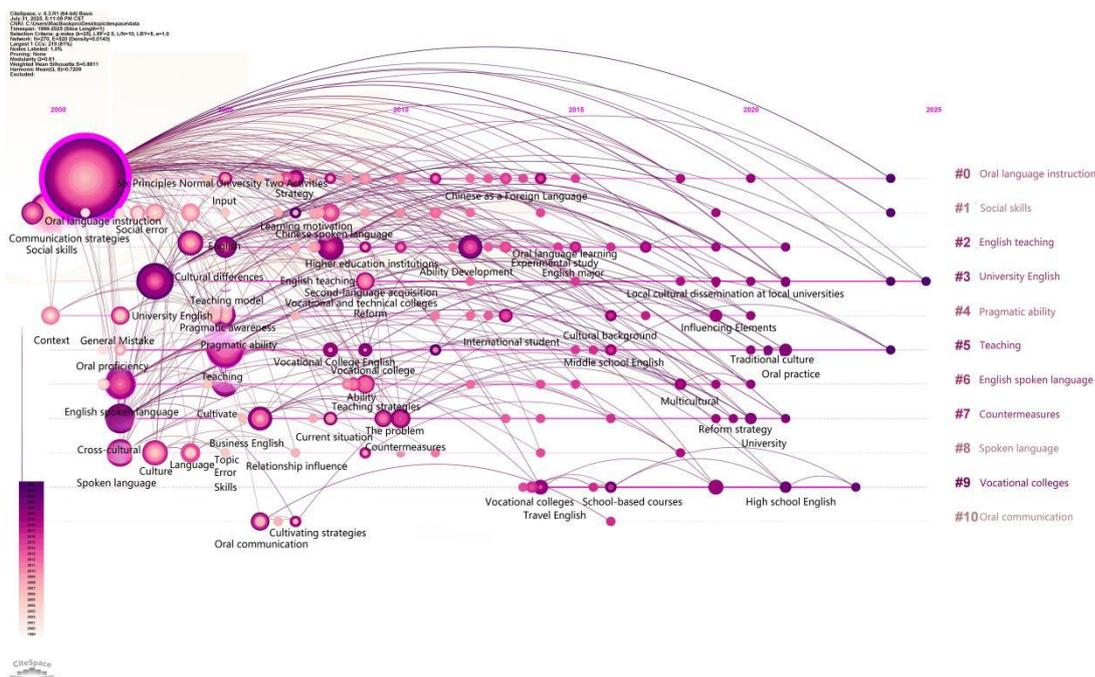
Keyword time-zone maps reveal the emergence of core keywords within a research field, illuminating developmental trends across different research themes. To delve deeper into the evolution and future trajectory of key points in Chinese cross-cultural oral communication studies, researchers utilized CiteSpace 6.3.R1 visualization software to analyze keywords from 302 publications, which yielded a keyword time-zone map spanning over the past twenty-five years in this field, with results presented in Figure 4.

As shown in Figure 4, research on cross-cultural oral communication in China over the past twenty-five years has exhibited varying research directions and emphases across different time periods, demonstrating a trend of continuously expanding topics and deepening research. Based on the generated keyword time-zone map and relevant literature reviewed, researchers have divided the field's research from 2000 to 2025 into the following five phases, each spanning five-year intervals.

Between 2000 and 2005, research primarily focused on foundational concepts, with key terms such as "oral teaching," "communicative competence," and "communicative strategies" dominating the field. The large and interconnected nodes suggest that early studies concentrated on establishing theoretical underpinnings. During this stage, scholars emphasized the cultivation of communicative competence and the application of instructional strategies in oral teaching. These studies laid the theoretical foundation for subsequent research on cross-cultural oral communication and helped shape the initial conceptual framework of the field.

The period from 2005 to 2010 marked a gradual expansion into pedagogical contexts. Keywords including "University English," "English Teaching," and "Pragmatic Competence" indicate a shift toward instructional applications and competence development within formal education settings. Research during this phase increasingly emphasized the cultivation of pragmatic competence in the teaching process, reflecting a transition from theoretical exploration to pedagogical practice. Scholars also began linking specific teaching stages with different dimensions of communicative competence, enabling more focused and context-based investigations.

Between 2010 and 2015, research attention moved toward instructional innovation and domain-specific applications. Prominent keywords such as “capacity building,” “teaching models,”



and “business English” suggest that cross-cultural oral communication studies were expanding into specialized fields, including business, tourism, and cultural communication. This shift highlights an increasing emphasis on practical application and context-sensitive teaching strategies. For example, Song and Xiao (2011) identified limited experiential engagement among higher vocational college students in English oral instruction. Drawing on experiential learning philosophy and experiential teaching models, they proposed strategies aimed at enhancing students’ cross-cultural communicative competence.

Figure 4 Keyword time zone spectrum map

From 2015 to 2020, research began to incorporate stronger cultural and technological perspectives. The emergence of keywords such as “cultural differences,” “multimedia,” and “oral training” reflects a growing recognition of the role of cultural awareness in cross-cultural communication. At the same time, multimedia technologies were increasingly adopted to support oral communication training. These developments indicate that technological advancement and cultural considerations have become key drivers shaping research directions, broadening both methodological approaches and analytical perspectives. Recent developments between 2020 and 2025 reveal further diversification of research contexts. Keywords such as “vocational colleges” and “high school English” indicate that research is extending beyond university-level instruction to include other educational stages. This trend suggests a growing interest in addressing the communicative needs of diverse learner groups. The continued prominence of “strategy”-related keywords also reflects a stronger emphasis on solving practical instructional challenges. Future research is expected to integrate technological innovations, particularly AI-assisted instruction and immersive learning environments. Within the Chinese context, scholars have begun exploring immersive learning approaches supported by 5G technology to enhance vocational college students’ cross-cultural English oral communication competence, highlighting the evolving intersection of technology, pedagogy, and intercultural communication.

DISCUSSION

1. Critical Analysis of Assessment-Related Research Gaps

After bibliometric analysis, researchers examined the underlying reasons for the limited number of studies on COC assessment and the methodological tendencies in current research. The limited number of COC assessment studies stems from two key factors. First, the complexity of measuring intangible constructs such as cultural awareness, empathy, and pragmatic competence makes empirical research challenging. These constructs are multifaceted and context-dependent, requiring sophisticated assessment tools and large-scale data collection (Dervin, 2016). Second, China's educational assessment system is currently in the initial stage of transitioning from a single, examination-oriented testing model to a comprehensive competency-focused evaluation framework. This transitional phase inherently shapes the development of COC assessment research. Historically, educational assessment in China has long centered on standardized tests emphasizing linguistic knowledge such as grammar and vocabulary and basic oral fluency, with well-established evaluation mechanisms and mature research paradigms for these traditional dimensions (Cheng & Curtis, 2010). In contrast, the assessment of comprehensive COC competencies encompassing sociocultural awareness, pragmatic appropriateness, and intercultural adaptability is a relatively new focus that lacks fully developed theoretical frameworks and systematic operational guidelines (Jin & Fan, 2011). Additionally, the integration of COC assessment into existing educational evaluation systems faces practical challenges, such as aligning with curriculum objectives, adapting to diverse teaching contexts, and training educators to implement competency-based assessment. These transitional characteristics mean that large-scale empirical validation of COC assessment instruments is not yet the primary focus; instead, the field is prioritizing foundational work such as constructing assessment frameworks, designing preliminary rubrics, and testing feasibility in specific contexts. This gradual progression is consistent with the general law of educational assessment reform, reflecting a pragmatic approach to balancing tradition and innovation while laying groundwork for future standardized and evidence-based COC assessment practices.

Critical analysis of the assessment-focused subset reveals a clear dominance of conceptual studies over empirical research. Conceptual studies primarily propose assessment frameworks, discuss rubric design principles, or argue for the importance of assessment, while empirical studies focus on validating rubrics, testing assessment models, or evaluating assessment outcomes. This imbalance undermines the reliability and validity of existing assessment tools, as conceptual frameworks lack empirical testing to confirm their practical applicability. The overreliance on conceptual research also hinders the standardization of COC assessment, making it difficult to compare learning outcomes across different contexts. This methodological tendency reflects a broader issue in language assessment research where theoretical frameworks often outpace empirical validation, particularly in contexts where assessment innovation is still emerging.

The identified gaps have significant implications for the development of valid and reliable COC assessment instruments. The lack of empirical validation means that current rubrics and assessment models may not accurately measure the intended constructs, leading to invalid assessment outcomes (Isaacs & Thomson, 2013). The limited standardization of rubrics makes it difficult to ensure consistency in assessment practices, reducing the credibility of COC assessment results. Additionally, the neglect of affective dimensions in assessment frameworks results in incomplete evaluation of learners' actual COC ability, as these dimensions are critical for effective cross-cultural interaction (Sercu, 2004).

2. Implications for Instructional and Assessment Design

Researchers link the bibliometric findings to concrete implications for instructional and assessment design, translating major themes into practical assessment strategies for COC courses. Based on the bibliometric findings, core COC themes including oral communication, cultural awareness, and pragmatic strategies can be translated into specific assessment indicators to guide rubric design. The linguistic dimension encompasses vocabulary accuracy, grammatical correctness, pronunciation

clarity, and fluency, which can be assessed through oral presentations, dialogues, and speech analytics with automated scoring for fluency and accuracy. The pragmatic dimension includes appropriateness of speech acts such as greetings and requests, turn-taking skills, and adherence to cultural communication conventions, which can be assessed through role-plays and authentic interaction tasks with rubrics focusing on communicative appropriateness. The cultural awareness dimension involves recognition of cultural differences, respect for other cultures, and ability to adjust communication strategies, which can be assessed through case analysis, reflective essays, and cross-cultural documentary presentations. The affective dimension comprises empathy, tolerance of ambiguity, and willingness to engage in cross-cultural interaction which can be assessed through self-reports, peer evaluations, and reflective journals (Byram, 2021).

Authentic tasks aligned with real-world cross-cultural communication scenarios should be integrated into assessment practices, with standardized rubrics to ensure consistency. Interactive tasks such as cross-cultural video conferences with international students, simulated business negotiations, and intercultural conflict resolution exercises should be evaluated using rubrics that assess communication effectiveness, cultural sensitivity, and problem-solving ability. Performance tasks including oral presentations on cultural topics and cross-cultural community service projects should be assessed through rubrics that evaluate content accuracy, linguistic proficiency, and cultural awareness. Reflective tasks such as learning portfolios documenting cross-cultural interaction experiences, reflective journals on cultural awareness development, and peer feedback on communication effectiveness should be evaluated using rubrics that focus on reflection depth and self-awareness of cultural biases.

Educators play a key role in implementing effective COC assessment and therefore require targeted training to address the identified gaps. First, they need training on rubric design and validation, including techniques for defining clear criteria and measuring intangible competencies such as cultural awareness and empathy (Llurda, 2005). Second, workshops should be provided on technology-integrated assessment tools such as automated scoring software and speech analytics platforms to enhance assessment efficiency and objectivity. Third, professional development programs should focus on cultural sensitivity in assessment, helping teachers avoid cultural bias and design inclusive assessment tasks that reflect diverse cultural perspectives (Kumaravadivelu, 2003).

Previous research on cross-cultural oral communication (COC) assessment has predominantly focused on discrete linguistic measures, often neglecting the integrated nature of communicative competence. For instance, Western studies have traditionally emphasized pragmatic appropriateness and linguistic accuracy through controlled role-plays and standardized oral proficiency interviews (OPIs), yet these approaches frequently treat cultural awareness as a peripheral construct rather than a core competency. While some European frameworks (e.g. Byram's 2021 intercultural communicative competence model) have advanced holistic assessment, they remain largely theoretical with limited empirical validation in technology-enhanced environments. The present framework advances this scholarship by systematically operationalizing four integrated dimensions—linguistic, pragmatic, cultural awareness, and notably, the under-theorized affective domain—through a multi-method assessment architecture. Unlike conventional reliance on single instruments, this research innovates by embedding authentic, technology-augmented tasks (cross-cultural video conferences, automated speech analytics) validated through standardized rubrics, thereby addressing the ecological validity gap identified in earlier work. Furthermore, while international scholarship acknowledges cultural bias in assessment design (Kumaravadivelu, 2003), it offers limited prescriptive models for teacher capacity-building. This study couples its assessment framework with professional development protocols, thereby contributing to significant advancement in praxis-oriented COC assessment research.

STUDY LIMITATIONS

This study has several limitations that should be acknowledged. The analysis relies solely on the CNKI database, which may exclude English-language publications on COC assessment in China and therefore limit the generalizability of the findings. Future research should incorporate international databases

such as Scopus and Web of Science to include both Chinese- and English-language studies. In addition, the geographical scope of this study is limited to China, which prevents cross-cultural comparisons with international research on COC assessment. Future studies should therefore expand the geographical coverage to enable comparative analyses of assessment practices across different educational contexts.

The analysis primarily focuses on keyword-based bibliometric techniques without incorporating co-citation analysis, which could provide deeper insights into the intellectual structure of the field, particularly the influence of key assessment theories on COC research. Future research should therefore include co-citation analysis to better understand the theoretical foundations of COC assessment studies. Although a dedicated subset analysis was conducted, the distinction between teaching-focused and assessment-focused studies may still include research that only addresses assessment peripherally. Future studies should apply stricter inclusion criteria and conduct more targeted analyses of assessment-focused subfields to ensure greater relevance and precision in the selected literature.

CONCLUSION

This study systematically maps the landscape of China's COC research with a focus on assessment practices through bibliometric methods. The key research trends and hotspots indicate that COC research has gradually shifted from basic oral teaching exploration to a focus on pragmatic competence cultivation, industry-education integration, and technology-enhanced assessment, with assessment practices evolving toward multidimensional, scenario-based, and developmental evaluation. Core themes cluster around instructional assessment models, pragmatic competence rubrics, and technology-integrated performance assessment, while research primarily targets college students and applies to higher education contexts. However, the field still faces challenges such as the dominance of conceptual research over empirical validation, lack of standardized rubrics, and insufficient attention to affective dimensions in assessment frameworks.

These findings hold important implications for teaching and assessment practice. There is an urgent need to standardize COC assessment rubrics through large-scale empirical testing to ensure reliability and consistency across contexts. Assessment frameworks should integrate linguistic, sociocultural, and affective dimensions, with an emphasis on designing culturally sensitive tools and authentic tasks aligned with real-world communicative needs. Additionally, targeted teacher training is essential to enhance educators' capabilities in rubric design, technology-integrated assessment, and cultural sensitivity in evaluation, bridging the gap between theoretical research and practical application.

Future research should prioritize the empirical development and validation of COC assessment instruments and models. This includes conducting large-scale studies to validate multidimensional assessment frameworks, developing tailored assessment tools for diverse learner groups (such as vocational students and high schoolers) and professional contexts, and exploring the application of advanced technologies like artificial intelligence and virtual reality to improve assessment efficiency and validity. Expanding data sources to international databases for cross-cultural comparative analyses will also help align Chinese COC assessment research with international academic standards and promote the scientificization and standardization of the field.

ACKNOWLEDGEMENT

The author would like to thank the National Social Science Fund of China (NSSF) Project. I am also grateful to the respected professors and dear friends at Zhejiang Normal University for their support of this research.

FUNDING

This work is supported by the National Social Science Fund of China (NSSFC) Project "Construction of an Automated Speaking Assessment Model for International Chinese Language Education" (Grant No.: 25BYY143).

DATA AVAILABILITY STATEMENT

Data will be made available on request.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DECLARATION OF GENERATIVE AI

In the declaration of generative AI and AI-assisted technologies in the writing process during the preparation of this manuscript, the author(s) utilized ChatGPT and Kimi to assist with grammar refinement. Following the use of this AI-assisted tool, the author(s) thoroughly reviewed and edited the content to ensure accuracy and clarity and assume full responsibility for the integrity and quality of the final publication.

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