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AI-assisted Intercultural Communicative Competence Cultivation in College English Language Education in China: A Systematic Review

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ABSTRACT

Artificial intelligence (AI) is increasingly integrated into English language education, reshaping teaching design and intercultural communication (IC) practices. Intercultural communicative competence (ICC), an important goal of language education in the context of globalization, has consequently become an emerging area of AI-supported research. This systematic review examines research on AI-assisted ICC cultivation in college English language education in China from 2021 to 2026. Articles were retrieved from Google Scholar, Scopus, and CNKI and analyzed using systematic literature review and analysis. A total of 33 studies were included in the final review. The findings reveal four main areas: research situation, trends and methodological characteristics; theoretical connections between AI affordances and the dimensions of ICC; pedagogical applications of AI for ICC cultivation; major challenges, research gaps, future research directions and pedagogical implications. The review indicates that AI facilitates the development of ICC in various respects; however, research in this field still has limitations and faces numerous issues and challenges. This review synthesizes the current research landscape and the theoretical and pedagogical roles of AI in ICC cultivation, and identifies directions for developing more systematic and contextual AI-assisted approaches in college English language education in China.

KEYWORDS: Artificial Intelligence; Intercultural Communicative Competence; English Language Education; Systematic Review

Background

In recent years, AI has played an increasingly important role in English language education. A range of AI-powered tools, including intelligent tutoring systems, adaptive learning platforms, automated feedback systems, and chatbots, has been introduced into language classes. Supporting personalized learning and facilitating interaction, AI reshaped the way English is taught and learned. Meanwhile, ongoing digital transformation and globalization raised new expectations for English language education (Mihat and Wong, 2026). Because of this, higher education institutions are trying new ways to add intercultural education to English and other foreign language courses. In China, national initiatives such as *Opinions on Accelerating Educational Digitalization* (2025), *Opinions on Implementing the "AI+" Initiative* (2025), and *"Artificial Intelligence + Education" Action Plan* (2026) further emphasized the need for intelligent, interculturally oriented education that aligns with global communication demands.

ICC, as conceptualized by Byram (1997), refers to an individual's ability to communicate effectively and appropriately across cultural contexts. Foreign language communication is an indispensable part of IC. Effective IC builds harmonious relationships even when the participants involved hold diverse worldviews (Byram, 1997). Chen and Starosta's (1996) three dimensions - cognition, affect, and behavior - enable learners to interpret cultural meanings, negotiate differences, and engage in meaningful intercultural interactions. In recent years, ICC has been increasingly recognized as a core objective of foreign language education, and a lot of achievements have been made. However, ICC cultivation is still difficult, especially in large exam-oriented contexts such as China. In these contexts, authentic intercultural experiences are limited, and students have few chances for real IC.

AI offers new ways for teaching and learning. It can help solve many problems. AI-based applications can create IC situations. They can also analyze students' communication behaviors and give adaptive feedback. Students will demonstrate greater cultural awareness, empathy, and reflective understanding. Thanks to these functions, AI helps learners develop global views and flexible communication skills. Current research on AI-assisted ICC cultivation in China is scattered across different fields. They mainly emphasize separate aspects of AI-assisted language learning. Technology use, cultural learning, and communication outcomes are given importance. Comprehensive framework research integrating these elements is insufficient. The gap is commonly seen in many countries, where English is taught as a foreign language rather than used as a second language.

This review studied AI-assisted ICC cultivation in China published between 2021 and 2026. The theoretical connection between AI and ICC development is discussed. Synthesizing existing research findings and educational practices, the article identifies the main challenges and future research directions of this field. This review aims to offer valuable theoretical insights and practical guidance for researchers, educators, and other stakeholders in the field of IC. It shows how AI can be used effectively in intercultural teaching and learning in English language education, especially in the college context in China.

Research Questions

Accordingly, this systematic review addresses the following research questions:

RQ1: What are the main research trends and methodological characteristics of studies on AI-assisted ICC cultivation in college English language education in China from 2021 to 2026?

RQ2: What are the theoretical connections between AI affordances and the cognitive, affective, and behavioral dimensions of ICC?

RQ3: What pedagogical applications of AI have been reported to support ICC cultivation in Chinese college English language education?

RQ4: What are the major challenges, research gaps, and future research directions and pedagogical implications on AI-assisted ICC cultivation in Chinese college English language education?

Search Strategy

A systematic literature search was conducted in three databases: Scopus, Google Scholar, and CNKI. Google Scholar features wide-ranging literature coverage. Scopus includes abundant China-related studies. CNKI is the largest academic database in China. These three databases are suitably adopted. The searches were conducted in June 2026 to identify articles published between January 2021 and June 2026. The search period of 2021-2026 was selected for two reasons. Firstly, research on AI and AI-supported language education has developed rapidly in recent years, making a recent time window appropriate for capturing the current development of AI-assisted ICC research. Secondly, the period corresponds to the recent expansion of the continuous development of AI applications in language education.

The search strategy was adapted to the indexing characteristics of each database. In Scopus, the following Boolean combination was used: TITLE-ABS-KEY ((“artificial intelligence” OR “AI”) AND (“intercultural communicative competence” OR “intercultural competence” OR “intercultural communication” OR “intercultural teaching”) AND (“college English” OR “EFL” OR “English language education”) AND “China”). In Google Scholar, combinations of the following core terms were used because of the platform’s more limited Boolean search function: (“artificial intelligence” OR “AI”) AND (“intercultural communicative competence” OR “intercultural competence” OR “intercultural communication” OR “intercultural teaching”) AND (“college English” OR “EFL” OR “English language education”) AND “China”). In CNKI, equivalent Chinese and English combinations of terms were used, including 人工智能, artificial intelligence, AI, 跨文化交际能力, intercultural communicative competence, 跨文化能力, intercultural competence, 跨文化交际, intercultural communication, 跨文化, 大学英语, college English, 英语教学, 英语教育, English language education.

Systematic Review Research Design

A systematic literature review was conducted. This approach provides a structured process for identifying, selecting, and critically evaluating studies related to predefined research questions (Dewey & Drahota, 2016; Purssell & McCrae, 2020). Its systematic procedures contribute to the transparency and rigor of the review and support a more reliable synthesis of research on AI-supported ICC development in college English language education in China in a consistent and comprehensive way.

Article Selection Procedure

The literature selection process was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework (Sierra-Correa & Cantera Kintz, 2015). The framework provides a systematic and transparent approach to identifying studies, defining inclusion and exclusion criteria, and screening the literature. PRISMA method can also help to categorize the research according to specific time periods.

Four main steps of the PRISMA method:

i. Identification

Relevant literature was collected from three databases: Google Scholar, Scopus, and CNKI. All retrieved records were exported or manually recorded for subsequent screening. Duplicate records identified across databases were removed by comparing authors, titles, publication years, and publication information. The search yielded 66 articles in total. The duplicate records were in Google Scholar and Scopus, with no duplicate records between CNKI and the former two. A total of 63 articles were obtained.

ii. Screening

Retrieved records were first screened using predefined conditions and exclusion criteria (See Table 1). Of the 63 articles identified, 39 articles met the screening requirements and were selected for review. The screening criteria were as follows:

Table 1.
Criteria for acceptance and rejection

Criteria	Acceptance	Rejection
Document type	Peer-reviewed journal articles	Conference or seminar articles, review articles
Publication year	2021-2026	Earlier than 2021
Language	English or Chinese	Non-English and non-Chinese publications
Content	Studies related to AI applications in ICC cultivation	Studies unrelated to AI and ICC
Context	College English language education in China	Irrelevant contexts

iii. Eligibility

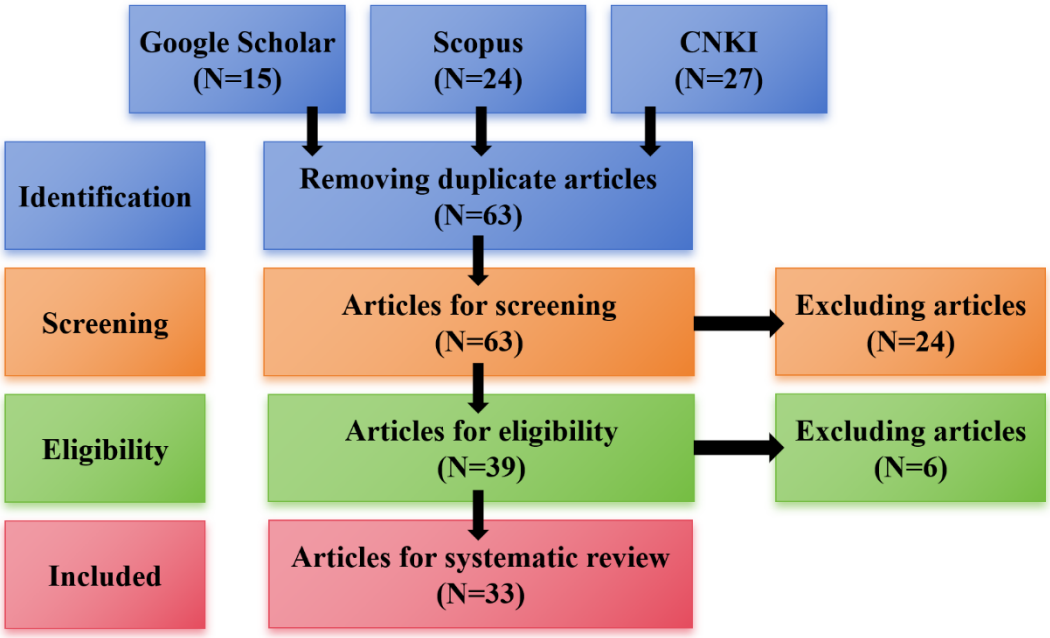
The remaining 39 articles then underwent a full-text review. A formal methodological quality appraisal framework was not applied in the review, based on the methodological heterogeneity of the included literature, which comprised theoretical, quantitative, qualitative, and mixed methods. Applying a single quality-assessment instrument across these different types of studies could result in an inappropriate or inconsistent evaluation. Instead, the review systematically organized and reported key methodological characteristics of each article, which were used to describe the methodological patterns of the existing literature and to identify findings, limitations and gaps in the current evidence base. 6 articles were excluded because

they contained too much irrelevant content, failed to meet the inclusion criteria, or lacked sufficient empirical or theoretical support. As a result, 33 articles were retained for final review.

iv. Included

Following the eligibility assessment, 33 articles were included in final review (see Figure 1). These articles covered different perspectives, including the current state of ICC among Chinese college students, AI applications in English language skills and college English language courses, and combining with policy documents issued by the Ministry of Education of China, and national development strategies related to AI and education. While showcasing the opportunities and positive impact of AI-assisted ICC cultivation and college English language education in China, these articles also highlight the existing challenges and problems, as well as the requirement and importance of a mature and effective ICC evaluation system. These articles constitute the sources for analyzing the role of AI in fostering ICC in English language education in China. The following figure delineates the sequential steps involved in conducting this systematic review study.

Figure 1.
PRISMA flow chart



The following sections (Table 2) detail and discuss the synthesis and critical analysis of the studies, findings, challenges, research gaps, and future direction in the field.

Table 2.
Summary of included articles

No.	Authors	AI	Methods	Findings	Limitations
1	Xie & Mai (2021)	No fixed AI applications	Quantitative	An improved cloud computing-based intercultural teaching system for MOOCs	Short-term intervention; No simulation practice
2	Jia (2022)	No fixed AI applications	Theoretical	Proposing the use of multimodal approaches to cultivate ICC and integrate it into ideological education	Advantages of technical tools only; No empirical research
3	Wu (2023)	AI translation tools: Youdao, Baidu, Google, etc.	Theoretical	Three strategies: small-group collaborative learning (communicative context); specialized translation training (comparative translations); autonomous learning	No empirical research
4	Li, H. Y. (2024)	No fixed AI applications	Theoretical	Four teaching methods: interactive teaching, case analysis, role-play communication simulations, and reflective critical thinking training	No empirical research
5	Zhang, G. L. (2024)	No fixed AI applications	Theoretical	Four ICC Cultivation Strategies: Optimizing teaching content, innovating teaching methods, refining the diversified assessment system, and enhancing teachers' intercultural teaching competence	No empirical research
6	Li, M. (2024)	No fixed AI applications	Theoretical	Four major components of ICC: verbal expression, cultural awareness, non-verbal communication, and cultural adaptation	Advantages of technical tools only; No empirical research
7	Zhang, X. X. (2024)	VR, NLP-based essay grading	Theoretical	Optimizing voice interaction technology, enriching cultural content, improving intelligent grading algorithms, and designing dynamic learning	Macro-framework only
8	Xia et al. (2024)	No fixed AI applications	Mixed methods	CILS (Cross-Cultural Intelligent Language Learning System)	Effectiveness varies significantly across regions; Reliance on mature commercial platforms
9	Chang (2025)	VR/AR, etc.	Theoretical	Reform of teaching models; Enhancement of ICC; Teachers' literacy in information technology & ICC needed	Theoretical conceptualization of the model only
10	Fan & Liu (2025)	Doubao, Ernie Bot, DeepSeek, Sora, VR	Theoretical	Teacher-Machine-Student Triadic Collaborative Teaching Model	No CQ (cultural intelligence) assessment tool; Macro-level
11	Huang (2025)	VR/AR, etc.	Theoretical	Four strategies: expanding cultural knowledge through multicultural materials; enhancing practical skills via virtual scenarios & role-playing; cultivating cultural sensitivity through AI-recommended strategies & self-reflection tasks; and engaging in intercultural comparative learning	The strategies are macro-level but lacks detailed operational plans for the classroom; No empirical research

12	Lin & Obdalova (2025)	ChatGPT, etc.	Mixed methods	TSTA (The Third Space Teaching) Approach; Three-dimensional teaching strategy: cognitive, affective, and behavioral	Limited sample representativeness; Self-reporting
13	Ma & Yang (2025)	VR; Kimi	Mixed methods	Intercultural understanding and communication abilities improved	Single college; Uneven accessibility of VR devices; Short-term intervention; Self-reporting
14	Wang (2025)	No fixed AI applications	Theoretical	Proposing a hierarchical, multimodal AI cultural resource repository; virtual communicative scenarios containing "cultural traps"; and emotion recognition to empathetic reflection	Emphasizing the advantages of AI but overlooking risks
15	Zhu, R. et al. (2025)	No fixed AI applications	Mixed methods	Limitations in oral communication; Over-reliance	Single college; Self-reporting; No control group
16	Zhu & Li (2025)	ChatGPT; DeepSeek	Theoretical	TAS (Teacher-AI-Student) triad model	No empirical research
17	Liu, C. (2026)	No fixed AI applications	Mixed methods	ICC of knowledge, consciousness, affective, and behavior dimensions enhanced	Single college; Conducted online
18	Liu, P. (2026)	No fixed AI applications	Mixed methods	Four modules of the AI-driven intercultural English teaching model: personalized instruction, intelligent resource recommendation, an immersive interactive platform, and AI-assisted assessment	Short-term intervention
19	Liu, Y. (2026)	No fixed AI applications	Theoretical	Current issues in ICC cultivation & AIGC-based solutions	Theoretical strategies only; No detailed operational plans
20	Kim et al. (2025)	ChatGPT-4	Qualitative	Generative AI optimizes writing process, improves writing quality and efficiency, and enhances emotional self-efficacy.	Single college; Limited sample; Single experiment
21	Liu (2025)	VR/AR, etc.	Theoretical	A Three-Dimensional Competence Profile: Linguistic Ability, Cultural Understanding, and Communicative Strategies	Teaching strategies concept only
22	Ai (2025)	VR, etc.	Theoretical	Three teaching strategies: leveraging AI to cultivate intercultural awareness; creating VR-based virtual simulation environments for task-based listening and speaking training; and utilizing data analysis to implement personalized intercultural listening and speaking instruction	Theoretical conception only; Macro-level
23	Tang (2025)	Spoken English Teaching System based on HCI (Human-Computer Interaction)	Mixed methods	The HCI system significantly improves learners' pronunciation, vocabulary, grammar, and oral fluency, resulting in high overall learner satisfaction.	No long-term longitudinal tracking; Limited open dialogue
24	Zhang, Z. (2025)	No fixed AI applications	Quantitative	Discourse analysis abilities & ICC enhanced theoretically	Quantitative Empirical Research on Algorithms only

25	Ye (2025)	Doubao	Qualitative	Human-machine symbiosis dual-teacher model	Small-scale case study
26	Ding (2026)	NLP (Natural Language Processing); VR/AR	Theoretical	Four pathways: AI resource library + personalized recommendations; VR/AR immersive scenarios; AI-driven intelligent group learning; AI-based multidimensional assessment system	Conceptual Outline of the Instructional Design Only
27	Liu, W. (2026)	DeepSeek, Qwen, etc.	Theoretical	A Human-Led, Machine-Assisted, and Synergistic GenAI Human-Machine Collaborative Teaching Framework; Associated risks: GenAI hallucinations, Western-centric cultural bias, and superficial cultural understanding	Instructional design case study only
28	He & Lv (2025)	No fixed AI applications	Mixed methods	Five dimensions interact: curriculum design, teachers, students, instructional resources, and teaching environment	Single college; Self-reporting; Short-term intervention
29	Shao (2025)	DeepSeek	Theoretical	Four reform pathways: updating teaching philosophies; establishing platforms for online and offline exchange; leveraging AI for sourcing materials, answering questions, delivering personalized recommendations, and grading assignments; and strengthening comparative cultural instruction	Theoretical conception only
30	Zhang, Z. Q. et.al. (2023)	No specific AI	Quantitative	Building practical platforms & leveraging digital capabilities	Self-reporting; Limited sample representativeness; Limited use of AI
31	Cui & Mahfoodh (2025)	No specific AI	Mixed methods	An intercultural framework for assessing sociopragmatic Competence in English language education	Theoretical outlook on AI applications only
32	Zhao (2026)	BERT-large (Bidirectional Encoder Representations from Transformers-large); 3D-CNN (3D Convolutional Neural Network)	Quantitative	Accuracy surpasses that of traditional questionnaires; Assessment time reduced; Consistency & cultural alignment improved	Model recognition performance degrades when cultural distance index is excessively high.
33	Lin (2025)	No fixed AI applications	Quantitative	Strategies for challenges in using AI: technical monitoring and emergency fault-response mechanisms; AI literacy training for teachers and students; students' independent thinking; cultural experts' review; real IC practices	Situation description only; No experimental teaching intervention

Findings and Discussion

This section shows findings and discussion. The following is a summary of characteristics of all included articles, including AI-related tools adopted, research methods, major findings, and limitations.

Research Trends and Methodological Characteristics of AI-assisted ICC Research in China

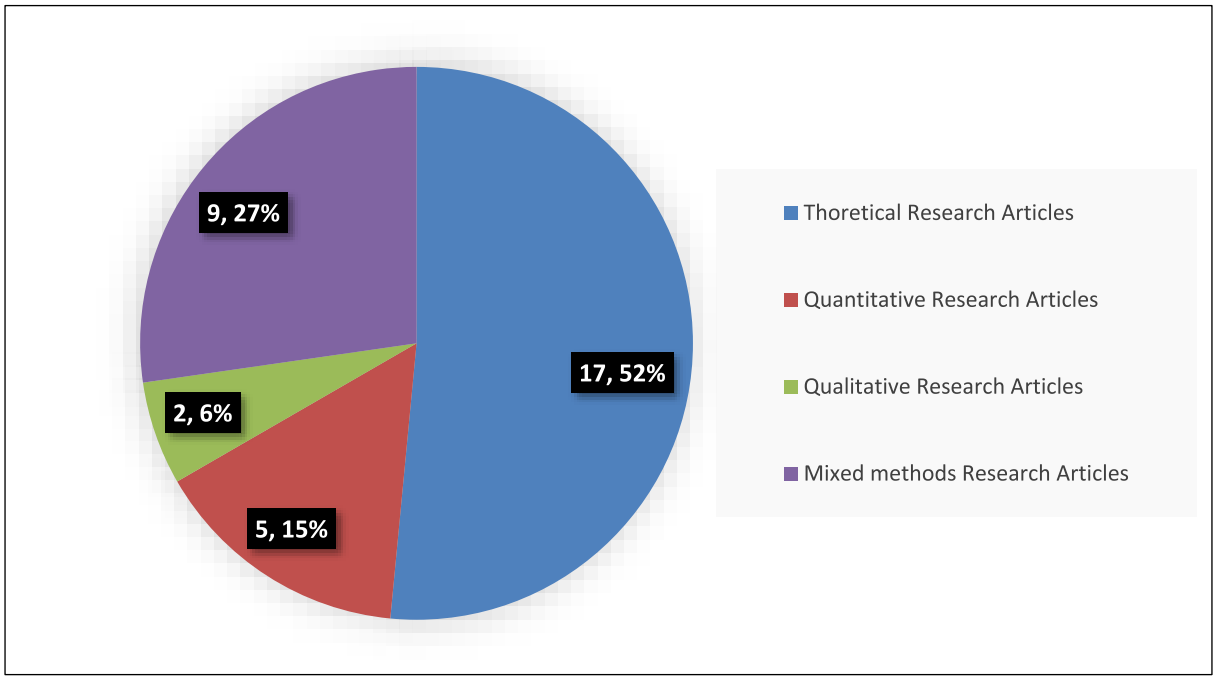
This section addresses RQ1 by examining the main research trends and methodological characteristics of studies on AI-assisted ICC cultivation in Chinese college English language education from 2021 to 2026.

From the perspective of the year of publication, the majority of studies were published between 2023 and 2025, with a noticeable peak in 2025. The number of articles in 2026 will also be considerable, and there is a trend of continuous increase. This trend reflects the growing academic interest in AI technologies and the potential for supporting intercultural-related competence development in English language teaching and learning in college education.

Over the past five years, research in college English language education and the cultivation of ICC has undergone significant changes, with many new factors emerging, which is due to the rapid development of AI technology. AI, as an intelligent agent with greater context awareness, multimodal capabilities, and communication functions, has become an important tool and research subject in education, especially in the field of language communication. Scholars are exploring how these AI tools can promote the cultivation of ICC in college English language education.

From the perspective of research methods, the research methods of these 33 articles can be divided into two categories: 17 theoretical research articles and 16 empirical research articles. Among the 19 empirical research articles, there are 5 quantitative research articles, 2 qualitative research articles, and 9 mixed-methods research articles.

Figure 2.
Research methods of the selected articles



On the whole, a large portion of scholars' (Xie et al., 2021; Jia, 2022; Wu, 2023; Li, H. Y., 2024; Zhang, 2024; Li, M., 2024; Zhang, 2024; Xia et al., 2024; Chang, 2025; Fan & Liu, 2025; Huang, 2025; Lin & Obdalova, 2025; Ma & Yang, 2025; Wang, 2025; Zhu, R. et al., 2025; Zhu & Li, 2025; Liu, C., 2026; Liu, P., 2026; Liu, Y., 2026) research logic is following: They demonstrate that ICC is of significant importance to individual and national development in today's global society, concluding that cultivating ICC is both necessary and crucial. They then present the situation, which is that the effectiveness of ICC cultivation in college English language education is currently less than ideal, facing numerous challenges. Next, comparing ICC cultivation with traditional college English language teaching, they point out some drawbacks of traditional ICC teaching methods, based on AI. Finally, they propose strategies for AI-assisted ICC cultivation in college English language teaching, concluding that AI does indeed promote ICC cultivation in college English language education in China, warranting further research.

The reviewed studies indicate that research on AI-assisted ICC cultivation in Chinese college English language education is expanding in both scope and methodological diversity. The literature includes empirical investigations using quantitative, qualitative, and mixed methods approaches. However, the methodological distribution also reveals that sustained empirical research is comparatively limited. Quantitative and qualitative studies provide evidence of learners' experiences and perceptions, but many studies rely on relatively short-term investigations or self-reported data, which limits the extent to which longer-term changes in ICC development can be established. Therefore, although the existing literature provides increasing evidence of the potential value of AI-assisted ICC cultivation, the current evidence base remains developing rather than conclusive. More longitudinal and methodologically diverse research is needed.

Pedagogical Applications of AI in ICC Cultivation

This section addresses RQ3 by identifying the main pedagogical applications of AI reported in the reviewed studies and examining how these applications have been incorporated into Chinese college English language education.

Many scholars (Wu, 2023; Kim et al., 2025; Liu, 2025; Ai, 2025; Tang, 2025; Zhang, Z., 2025; Ye, 2025; Ding, 2026) start with a specific basic English language skill, such as listening, speaking, reading, writing, and translating, to explore the role of AI in ICC cultivation in college English language teaching in China. Some scholars (Liu, W., 2026) have also taken specific English language-related courses or IC-related courses offered in college as examples to research the application of generative AI in college English language teaching. He and Lv (2025) define multimedia teaching materials, including AI, as a new type of foreign language teaching material that integrates printed materials, digital resources, and digital tools and can be used in ICC cultivation in English language education.

Some scholars have closely followed the guidance of policy documents on foreign language education development issued by the Ministry of Education of China to explore the AI-assisted cultivation of ICC in college English language teaching. For example, Lin and Obdalova (2025) followed the *Guidelines on College English Teaching* (2020), using a mixed research approach to explore effective strategies for improving ICC and emphasizing the balance of Western and Chinese cultural content. Ye (2025) highlighted the enormous potential of AI educational agents in empowering innovative teaching models for foreign language education within the context of the *"New Liberal Arts"*, if properly configured, AI agents can simultaneously improve teaching quality, expand educational access, and reduce costs, while preserving irreplaceable humanistic literacy such as empathy, cultural transmission, and ethical guidance.

Other scholars consider the national development strategy needs of China, such as the ongoing *"Belt and Road Initiative"* fostering international talents with excellent ICC (Shao, 2025). In addition to this, the 20th National Congress of the Communist Party of China's call to "tell China's story well and enhance the dissemination and influence of Chinese civilization" is exploring the establishment of AI practice platforms to cultivate intercultural foreign language talents from a national strategic perspective (Zhang, Z. Q. et.al., 2023).

Finally, and very importantly, is the research on the AI-assisted ICC assessment system (Zhang, 2024; Cui & Mahfoodh, 2025; Zhao, 2026). AI has brought innovation to ICC assessment, overcoming the shortcomings of traditional assessment effectively, such as single-dimensionality and strong subjectivity. An intelligent assessment system is based on deep learning, pre-trained models, and multi-task transfer learning to achieve multimodal and objective judgement. By integrating text, speech, video, and nonverbal behavior data, it comprehensively portrays learners' intercultural performance, integrating assessment of language competence with ICC.

A mature and effective ICC assessment system can significantly improve assessment consistency, real-time feedback speed, and the efficiency of cultivating intercultural sensitivity. Although limitations remain, such as deep cultural symbol decoding and adaptation to low-resource cultural scenarios, and research on AI-assisted English language learning and ICC assessment is also still in its early stages, the integration of AI and ICC assessment is driving

a shift in assessment models from knowledge-oriented to competence-oriented, and from single-test to multi-dimensional judgment, providing a crucial way for building a localized, contextualized, and scientific ICC assessment system (Cui & Mahfoodh, 2025; Zhao, 2026).

Recently, emerging trends indicate increasing interest in AI analysis for ICC assessment, affective computing in empathy training, and ethical-AI frameworks to solve cultural bias. The diversification of methodologies marks a shift toward evidence-based and interdisciplinary research, and at the same time, it also demands a more solid conceptual foundation and localized validation.

While a number of scholars have affirmed the role of AI in ICC cultivation in college English language teaching and the more possibilities, at the same time, they have also realized the rising challenges brought about by the use process of AI, as well as the problems that have already emerged and may arise in the future. Lin (2025) identified three dimensions of challenges: technological barriers, instructional challenges, and sociocultural obstacles, and proposed corresponding response strategies, enhancing technical stability and compatibility, empowering teachers and students through training and critical thinking, and promoting cultural accuracy and cross-cultural understanding. In a survey on AI-assisted academic writing, Kim et al. (2025) found that students using AI-assisted academic writing believed that while AI provides more information and assistance, it also concurrently has the following drawbacks: hallucinations, insufficient contextual comprehension, limited higher-level cognitive processing, inadequate human-centered awareness, weak sensitivity to cultural nuances in language, deficiencies in interpersonal communication skills, pedagogical competence and system interoperability, and a lack of explainability.

Taken together, AI has been applied to ICC cultivation in Chinese college English language education through increasingly diverse approaches, ranging from language skills and course-based instruction to AI agents, intercultural practice platforms, policy-oriented teaching, and AI-assisted assessment. These applications do not all contribute to ICC to the same extent. Some applications primarily enhance language learning efficiency, whereas others more directly engage learners with cultural differences, multiple perspectives, intercultural interaction, and communicative practice. This distinction is important because the presence of AI in an English learning activity does not necessarily mean that the activity is intercultural in nature. This diversification suggests a gradual shift from language-learning support toward more integrated intercultural learning and assessment. However, this development remains uneven. More explicitly intercultural applications, such as cultural comparison, intercultural practice, empathy training, and multidimensional ICC assessment, remain less developed and require stronger alignment with pedagogical objectives. AI-assisted ICC assessment also faces challenges related to cultural interpretation, low-resource cultural contexts, explainability, and cultural sensitivity. Overall, an emerging transition from tool-oriented applications toward more integrated AI-supported ICC pedagogy, with teacher mediation, critical use, cultural accuracy, and pedagogical design remain important factors.

Theoretical Connections between AI Affordances and the Dimensions of ICC

This section addresses RQ2 by explaining the theoretical connections between AI affordances identified in the reviewed studies and the cognitive, affective, and behavioral dimensions of ICC based on the above pedagogical applications of AI in ICC cultivation. The analysis further considers how different AI affordances may support ICC through specific learning and

interaction processes. Rather than assuming a direct or exclusive correspondence between a particular affordance and a single ICC dimension, the analysis identifies three prominent connections in the reviewed literature: cultural information and comparison with cognitive development, simulation and perspective-taking with affective development, and interaction and feedback with behavioral development. These connections provide a theoretical interpretation of how AI-supported pedagogical applications may contribute to different dimensions of ICC.

i. AI-supported Cultural Information and Cognitive ICC

One prominent connection identified in the reviewed studies is between AI-supported access to cultural information and the cognitive dimension of ICC. AI can provide learners with cultural information, explanations, and multiple perspectives, while also facilitating the comparison and interpretation of cultural meanings. These affordances may support learners in acquiring cultural knowledge, identifying similarities and differences between cultures, and developing a more nuanced understanding of both Chinese and foreign cultural contexts.

The connection can therefore be understood from AI-supported information access and cultural comparison, through cultural knowledge construction and interpretation, to cognitive ICC. In this process, AI functions primarily as a source of information and an interpretive resource, while the development of cognitive ICC depends on how learners engage with, compare, and interpret the cultural information provided. The affordance itself should therefore not be equated with cognitive ICC; rather, it creates conditions that may promote the development of cultural knowledge and understanding.

ii. AI-supported Simulation and Affective ICC

A second connection concerns the relationship between AI-supported simulation and the affective dimension of ICC. AI-based simulations and perspective-taking activities can expose learners to different cultural viewpoints and provide opportunities to engage with intercultural situations in relatively controlled learning environments. Such experiences may allow learners to consider perspectives different from their own, reflect on cultural differences, and engage with unfamiliar cultural practices with relatively lower communicative pressure.

These affordances can be conceptualized from AI-supported simulation and exposure to diverse perspectives, through intercultural experience and perspective-taking, to affective ICC. Through these processes, AI-supported learning may contribute to cultural awareness, openness, empathy, and willingness to engage with cultural differences. At the same time, simulation and perspective-taking are not limited to affective development, as they may also involve cultural knowledge and communicative practice.

iii. AI-supported Interaction and Behavioral ICC

A third connection is identified between AI-supported interaction and the behavioral dimension of ICC. AI-supported dialogue, role-play, interactive tasks, and immediate feedback can provide learners with opportunities to practice IC and respond to different communicative situations. Through repeated interaction, learners may apply cultural knowledge, experiment with different ways of expressing themselves, and adjust their communicative responses.

Immediate feedback can further provide information that helps learners identify and modify potentially inappropriate or ineffective communicative choices.

The relationship can be conceptualized from AI-supported interaction and feedback, through communicative practice and behavioral adjustment, to behavioral ICC. These affordances are particularly relevant to the behavioral dimension because they create opportunities for learners to move from knowing about cultural differences to responding to them in communication. In addition, behavioral practice may simultaneously draw on learners' cognitive understanding and affective dispositions, suggesting that behavioral ICC develops in interaction with the other two dimensions.

iv. Integrated Theoretical Connections

These studies suggest that AI affordances are theoretically connected to ICC through different but overlapping learning and interaction processes. Information access, cultural explanation, and comparison primarily support cultural knowledge construction and interpretation, which are closely related to cognitive ICC. Simulation, perspective-taking, and exposure to diverse viewpoints provide opportunities for intercultural experience and reflection, which are associated with affective ICC. Dialogue, role-play, practice, and feedback facilitate communicative practice and behavioral adjustment, which are closely related to behavioral ICC.

These connections are not fixed one-on-one relationships. AI affordances may simultaneously engage multiple dimensions of ICC. For example, an AI-supported intercultural simulation may require learners' cultural knowledge, consider alternative perspectives, and adjust their communicative behavior at the same time. Thus, the theoretical relationship between AI affordances and ICC can be understood as multidimensional and interconnected, with different affordances providing opportunities for cognitive, affective, and behavioral development through learning processes.

Overall, research published over the past five years suggests that AI in foreign language education has gradually moved beyond technological experimentation toward broader pedagogical and intercultural applications. Not merely serving as a technological tool, AI is increasingly used to support cultural understanding, intercultural awareness, and communication. Even so, several issues remain unresolved. Existing research has yet to provide a clear explanation of how different AI functions are theoretically connected to the cognitive, affective, and behavioral dimensions of ICC. Empirical evidence is also constrained by the limited use of longitudinal, class-based, and mixed-methods research designs, making it difficult to clarify how ICC develops through sustained AI-supported education. In addition, many reported teaching practices are presented as individual activities or isolated cases rather than as parts of coherent instructional frameworks, which limits their wider application in college English language education. These findings indicate the need for further research to clarify the relationship between AI functions and the different dimensions of ICC and to explore how existing AI-supported practices can be integrated into a more coherent instructional framework.

Localization also deserves greater attention. Although policy support and technological infrastructure for AI in college English language education in China have continued to improve, empirical evidence remains limited. Much of the existing research is descriptive in nature. *A Reference Framework for China's Intercultural Competence Teaching in Foreign*

Language Education (Shanghai International Studies University Intercultural Institute [SII], 2023) is outstanding research. It conducted research in China's local context and proposed a framework for ICC that can be leveraged and put into practice in greater depth. Therefore, future research has a long way to go to connect global AI innovation with China's goal of cultivating intercultural talent in the digital era, as China's *Guidelines on College English Teaching* (2020) proposed.

Challenges and Research Gaps

This section addresses RQ4 by synthesizing the main challenges and research gaps in AI-assisted ICC cultivation in college English language education in China. This can serve as a preparation for future research directions.

i. Theoretical Ambiguity and Fragmentation

A fundamental challenge lies in the theoretical ambiguity regarding the integration of AI functions and ICC dimensions. Existing research often borrows frameworks from general ICC frameworks or models without making clear and persuasive conceptual linkages between AI functions and ICC dimensions, and how AI can be in line with the cultivation of ICC in the process of English language teaching and learning. Few studies explicitly take full advantage of existing ICC models or frameworks, such as Chen & Starosta's (1996) three-dimensional ICC model, Byram's (1997) five-dimensional ICC model, Deardorff's (2006) ICC pyramid model, etc. Moreover, *A Reference Framework for China's Intercultural Competence Teaching in Foreign Language Education* (SII, 2023) remains underutilized in AI-related educational studies, perhaps because it was proposed not long ago, in spite of its cultural and contextual relevance. Fragmentation of theories hinders the cumulation of knowledge and establishment of a cultivation system. Future studies should aim to develop integrated frameworks that combine AI with intercultural education theories, clarifying how machine intelligence complements human beings' ICC growth.

ii. Overemphasis on Technology and Tool Functionality

Many current studies overemphasize the technological novelty of AI tools, intelligent chatbots, automatic feedback systems, translation engines, etc., while, to some extent, neglecting enough pedagogical principles that support effective ICC teaching and learning (Yu et al., 2024). This tendency toward "technological determinism" results in tool-driven rather than learning-driven application of AI. The teaching-oriented approach that should have focused on knowledge and abilities has been inadvertently neglected. When technology design outpaces pedagogical basic rationale, IC teaching and learning will become superficial or instrumentalized (Yang et al., 2024). Therefore, future research should focus on education-centered AI integration, exploring how AI technology can meaningfully support curiosity, empathy, reflection, perspective-taking, etc., which are the core components of ICC.

iii. Insufficient Empirical Evidences

The theoretical research and achievements on the cultivation of ICC in English language education are indeed abundant. Despite growing theoretical discussion, empirical research remains insufficient, particularly in non-Western contexts. Many studies depend on short-term interventions or self-reported surveys with small samples. Because of this, they provide limited

understanding of actual ICC development. There are still few longitudinal studies or large-scale projects that examine the long-term effects of AI-assisted ICC education on learners' ICC. At the same time, there is a lack of mixed-methods studies that can collect both measurable results and rich experiential data. To improve future research, researchers should combine quantitative and qualitative research methods, using triangulation analysis. Findings from such research are likely to provide a more complete understanding of AI-assisted ICC development in authentic educational settings.

iv. Lack of Reliable ICC Assessment System

Despite advances in AI-assisted language education, the assessment of ICC remains underdeveloped. Conventional assessment methods, examinations, and self-report questionnaires provide only a partial picture of learners' intercultural competence, which are often unable to capture its dynamic and context-dependent nature (Zhang, 2024; Zhao, 2026). Under these circumstances, intercultural empathy, adaptability, and communicative behavior are less assessed comprehensively. The existing assessment methods and frameworks also vary across different studies and practices. This has led to difficulties in establishing consistent and systematic assessment criteria. In recent research and applications, some advances have provided new opportunities to assess ICC using multiple sources of evidence, for example, natural language processing, emotion recognition, and multimodal discourse analysis. These technologies are indeed intended to support rather than replace human judgment. Anyway, the value in use still depends on a sound theoretical foundation, transparent assessment procedures, and careful consideration of ethical issues.

v. Teacher Preparation and Ethical Awareness

In reality, the effective use of AI in English language teaching relies more on teachers. Integrating AI appropriately into class practices to support ICC development certainly requires the leadership and guidance of teachers. Teachers need to change AI from a simple technological tool into an effective assistant for teaching and learning. However, many educators are not well-prepared for the application of AI (Zhao & Xiao, 2025). Many teachers lack sufficient AI literacy, resulting in inconsistent or just superficial integration of AI and ICC cultivation in English language teaching. In addition, ethical issues, such as data privacy, algorithmic bias, cultural representation, etc., often tend to be neglected. In the context of college education in China, where national educational strategies emphasize both digitized and intelligent education and mainstream value-oriented education, which requires that education should focus on both intercultural and local cultural aspects. Therefore, it is particularly critical for institutions to balance technological innovation with ethical and cultural considerations. Future studies should thus focus on the aspect of enhancing educators' technological competence, intercultural awareness and critical digital ethics.

vi. Limited Localization and Contextual Adaptation

Most AI-assisted ICC cultivation studies are grounded in Western educational contexts, frameworks and models and pay more attention to English-speaking cultures and global communication norms. What's more, other cultures around the world are always required to adapt and proactively align with Western culture. Apart from Chinese scholars themselves, few have discussed how AI can be adapted to align with Chinese learners, linguistic, cultural, and educational realities. As for the existing research on this topic in China, imported famous

pedagogical frameworks and models may not fully resonate with local classes' situations or national education targets of English language skills and ICC. Based on the above, future research should focus more on localization and contextualization, exploring how AI can innovate and promote IC learning rooted in the Chinese cultural context, communicative practices, and value orientation (Hu et al., 2024). Effective localization and contextualization will ensure cultural relevance of research while also contributing Chinese experiences to global academic research on ICC.

Future Research Directions and Pedagogical Implications

Considering the above challenges and research gaps, to overcome these challenges and fill these research gaps, five key points of future research directions and pedagogical implications are following to build a bridge among theoretical refinement, empirical rigorousness, and pedagogical innovation.

i. Developing an AI-assisted ICC Teaching Model

Developing a theory-grounded, reality-based, and pedagogy-coherent model of AI-assisted ICC cultivation is an essential step in improving ICC in college English language education in China (Liu, 2025; Yang et al., 2024). The model should specify how AI technologies can support and facilitate each dimension of ICC, for instance, cognitive understanding of cultural diversity, affective openness and empathy, and behavioral adaptability in IC-related practice. In China's college English language teaching context, a localized suitable AI-ICC model should align with the requirements of *Guidelines on College English Teaching* (2020) and national targets for cultivating IC talents with a world vision, international awareness and ICC, who are familiar with international rules and principles and proficient in international negotiations (Ministry of Education of the People's Republic of China, 2020).

ii. Developing an AI-supported ICC Assessment System

Precise assessment of ICC development is of vital importance. Therefore, a reliable and effective assessment system or mechanism is an important step in ICC cultivation, as well as clarifying how AI can facilitate ICC growth. Traditional static assessment is hard to grasp the dynamics and context-dependency of ICC, and cannot fully reflect the growth of learners in real intercultural interactions (Zhang et al., 2025; Zhang, G. L., 2024; Cui & Mahfoodh, 2025; Zhao, 2026). An effective data-driven ICC assessment system should combine two elements. AI-based analysis and human evaluation are both needed. AI can be used to identify behavioral patterns and detect changes in learners' performance. These performances may not be captured easily by traditional assessment methods. As for human evaluation, teachers' feedback and peer evaluation provide contextual information for interpreting some complex aspects of intercultural competence. Qualities such as cultural humility and empathy cannot be fully assessed through automated tools alone. Combining the two, AI-generated evidence with human judgment, can support a more balanced assessment of ICC. Learners with targeted feedback can develop for a better future.

iii. Promoting Mixed Methods Research Designs

AI-ICC studies involve multiple disciplines, including applied linguistics, educational technology, cultural studies, and cognitive science. Given this interdisciplinary nature, mixed

methods research is particularly useful for understanding the relationship between AI and the development of ICC (Guan, 2024; Gao et al., 2025; Fang et al., 2025). Quantitative data can measure changes in learners' ICC. Qualitative evidence provides insights into learners' experiences, perceptions, and challenges during AI-supported intercultural learning. Quasi-experimental designs can be used to assess changes in ICC-related outcomes, such as performance assessment, intercultural problem-solving ability, and patterns of AI-supported interaction. Case studies, ethnographic observation, semi-structured interviews, and reflective journals can be used to find changes in cultural awareness, attitudes toward cultural differences, and IC. These aspects are difficult to capture through quantitative data alone. Using both quantitative and qualitative approaches provides a broader understanding of how AI influences intercultural learning processes and outcomes. Future usage guidelines and application directions will also become clearer in mixed methods research process.

iv. Enhancing Teachers' AI Literacy and Professional Development

Future research on AI-assisted ICC development should give greater attention to the role of teachers. Teachers influence how AI is used in intercultural learning. They also guide class activities and support students throughout the learning process. Their decisions affect the way AI contributes to the development of ICC (Zhao & Xiao, 2025; Li & Pan, 2024). Being familiar with AI tools is only the first step. Teachers need the ability to connect AI with teaching objectives and intercultural learning activities. Adaptive learning platforms, intercultural simulation software, AI translation systems, etc., should be mastered proficiently before teaching. In-class practice, designing tasks that help students interpret cultural meanings in AI-generated content, recognize their own culture, and participate in IC through AI-supported contexts also requires teachers' assistance. Ethical awareness should be included in teacher development. AI use in intercultural education brings challenges related to algorithmic bias, data privacy, and overreliance on AI-generated information. Teachers need to balance the use of AI with human guidance. This balance allows students to develop creativity, independent judgment, and intercultural problem-solving skills. It also encourages thoughtful use of AI in the class and after class. This will support meaningful development of the integration of AI into ICC cultivation.

v. Localized and Contextualized Innovation in Chinese Context

Future research is expected to emphasize localization more. Adapting AI-assisted teaching to Chinese educational philosophies, class practices, and approaches is something that should be carried forward (Hu et al., 2024). AI-assisted education should take into account many features. Chinese students' learning styles, cultural orientations, and communication characteristics are all influenced by the Chinese cultural background. Connecting Chinese cultural narratives, social experiences, and locally relevant communication concepts into the AI-ICC process is also necessary. It can also make learning more relevant and meaningful (Zhang et al., 2023). Culturally based teaching and learning design will meet the needs of Chinese students better. In China, most Chinese students have limited opportunities for authentic IC influenced by exam-oriented education for a long time. Localized AI-ICC research may provide new ways and insights to face these challenges. In the increasingly close connections around the world, incorporating Chinese cultural perspectives into AI-supported platforms can encourage intercultural dialogue and introduce Chinese experiences. Through localized innovation, it can help learners improve their global competence while respecting cultural diversity. In the

context of college English language education in China, local educational needs, cultural contexts, and learners' experiences also call for more targeted educational innovations.

Conclusion

The article reviews research on AI-assisted ICC cultivation in college English language education in China from 2021-2026. These research articles generally demonstrate the application effects and trends of AI in language education and ICC cultivation. AI provides new opportunities and assistance, but also some instances of insufficient application, negative effects, and challenges. The overall situation is improving, and it is worth continuing to apply and study.

Three main conclusions were drawn. To start with, AI contributes to different dimensions of ICC. Cognitive understanding, affective openness, and behavioral interaction are three general dimensions. Further studies are needed. A deeper and better understanding of the AI-ICC connection may help design teaching models and assessment systems suitable for the context of college English language education in China. Next, effective teaching design is of importance. The cultivation of any ability and the demonstration of theoretical effects both depend on practice. Appropriate pedagogical practices boost AI support for ICC development better, which requires cooperation between educational institutions and teachers. In particular, teachers' AI literacy and professional competence are important in ensuring the effective use of AI in ICC teaching. Third, future research should use more diverse methods. The current lack of long-term studies and sufficient empirical evidence shows the need for more rigorous mixed-methods research. More empirical data and class practices will help researchers better understand how AI-assisted ICC develops and how it can be applied in language teaching contexts.

In addition, greater attention should be given to localized teaching frameworks. Strengthening cooperation among professional AI researchers, applied linguists, and IC scholars and bringing together expertise from various related fields will provide more up-to-date and comprehensive perspectives for developing AI-ICC models.

Overall, the development of AI-assisted IC needs to maintain a balance between technological innovation and humanities education. AI is not intended to replace intercultural learning or real interpersonal communication, but rather to expand and supplement learning and communication. AI serves as a medium connecting languages, cultures, and different social groups. More open, diverse, and interactive IC can follow. With the help of intelligent technologies, learners acquire more cultural knowledge and experiences, more opportunities for mutual understanding, and more ways for development. In China, cultivating students' global competence and enhancing their own cultural confidence are equally important. AI provides new development space for achieving these two goals. Applying AI to promote language education and ICC rationally and effectively, and conducting related theoretical and practical research further and more in-depth, remain important directions worthy of future attention.

References

Byram, M. (1997). *Teaching and Assessing Intercultural Communicative Competence*. Bristol: Multilingual Matters.

Byram, M. (2021). *Teaching and Assessing Intercultural Communicative Competence: Revisited*. Bristol, Blue Ridge Summit: Multilingual Matters.

Chang, H. (2025). Research on the innovation and practice of college English cross-cultural teaching model driven by smart technology. *Frontiers in Educational Research, 8*(1), 59-64. https://doi.org/10.25236/FER.2025.080110

Chen, G. M., & Starosta, W. J. (1996). Intercultural communication competence: A synthesis. *Communication Yearbook, 19*, 353-384.

Cui, H. L., & Mahfoodh, O. H. A. (2025). An intercultural framework for assessing sociopragmatic competence in English language education: Evidence from the Chinese EFL context. *International Journal of Applied Linguistics*. https://doi.org/10.1111/ijal.12800

Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education, 10*(3), 241-266. https://doi.org/10.1177/1028315306287002

Dewey, A., & Drahota, A. (2016). Introduction to systematic reviews. In A. Boland, M. Cherry, & R. Dickson (Eds.), *Doing a Systematic Review: A Student's Guide (2nd ed.)*. SAGE Publications.

Ding, J. (2026). Research on innovative practice of AI-enabled college English reading teaching to facilitate culturally diverse classrooms. *Ability and Wisdom,* (4).

Fan, H. Y., & Liu, F. (2025). Research on paths to cultivate cultural intelligence in university English teaching in the data-AI era. J*ournal of News Research, 16*(13), 122-126. https://doi.org/10.26918/j.xwyjdk.2025.13.028

Fang, F., Meng, Y., Tang, L., & Cui, Y. (2025). The impact of Informal Digital Learning of English (IDLE) on EFL learners' engagement: Mediating roles of flow, online self-efficacy, and behavioral intention. *Behavioral Sciences, 15*(7), 851. https://doi.org/10.3390/bs15070851

Gao, Y., Wang, X., & Reynolds, B. L. (2025). The mediating roles of resilience and flow in linking basic psychological needs to tertiary EFL learners' engagement in the informal digital learning of English: A mixed-methods study. *Behavioral Sciences, 15*(1), 85. https://doi.org/10.3390/bs15010085

Guan, L., Zhang, E. Y., & Gu, M. M. (2024). Examining generative AI-mediated informal digital learning of English practices with social cognitive theory: a mixed-methods study. *ReCALL, 37*(3), 1-17. https://doi:10.1017/S0958344024000259

He, J., & Lv, H. (2025). Analysis of factors influencing the use of new forms of foreign language textbooks from the perspective of sociocultural theory. *Frontiers in Education, 10*, 1670872. https://doi.org/10.3389/feduc.2025.1670872

Hu, H., Li, F., & Luo, Z. (2024). The evolution of China's English education policy and challenges in higher education: Analysis based on LDA and Word2Vec. *Frontiers in Education, 9*. https://doi.org/10.3389/feduc.2024.1385602

Huang, C. (2025). Research on strategies for cultivating intercultural communication competence in AI-assisted English teaching. *Advances in Educational Technology and Psychology, 9*, 101-107. https://doi.org/10.23977/aetp.2025.090113

Jia, H. H. (2022). Research on multimodal information-based college English teaching in the era of artificial intelligence. *Journal of Inner Mongolia University of Finance and Economics, 20*(1), 30-33. https://doi.org/10.13895/j.cnki.jimufe.2022.01.030

Kim, J., Yu, S., Detrick, R., & Li, N. (2025). Exploring students' perspectives on generative AI-assisted academic writing. *Education and Information Technologies, 30*(1), 1265-1300. https://doi.org/10.1007/s10639-024-12878-7

Li, H. Y. (2024). Strategies for cultivating intercultural communicative competence in language education. *Frontiers in Educational Research, 7*(4), 189-194. https://doi.org/10.25236/FER.2024.070432

Li, H., & Pan, L. (2024). Network of discourses: Resistance and negotiation within Chinese students' AI-assisted EFL writing. *International Journal of TESOL Studies, 6*(3), 128-145. https://doi.org/10.58304/ijts.20240309

Li, M. (2024). Research on the application of artificial intelligence in the cultivation of college English intercultural communication talents. *PR Magazine*, (8), 152–154. https://doi.org/10.16645/j.cnki.cn11-5281/c.2024.08.010

Lin, L. Y., & Obdalova, O. A. (2025). Strategies for overcoming the problems of intercultural communication in Chinese students' EFL teaching. *Vestnik Tomskogo gosudarstvennogo universiteta - Tomsk State University Journal, 518*, 183-191. DOI: 10.17223/15617793/518/21

Lin, X. (2025). Application challenges and strategies for artificial intelligence in college English cultural education. *Innovation Humanities and Social Sciences Research, 21*(4).

Liu, C. (2026). The Path of a Computer-Supported Collaborative Learning Approach Based on Data Mining Techniques to Promote Students' Intercultural Communication Competence in the English Language Discipline. *International Journal of Computer Information Systems and Industrial Management Applications, 18*, 21. https://doi.org/10.70917/ijcisim-2026-0374

Liu, J. (2025). Practice of college English listening and speaking teaching in the context of AI-enabled cross-cultural communication. *Literature and Art Development and Innovation, 2*(7). https://doi.org/10.12417/3029-2344.25.07.003

Liu, P. (2026). Innovation and practice of AI-based intercultural communication English teaching models in higher education under the context of smart education. *Modern English*, (02), 88-91.

Liu, W. (2026). Research on the application of generative artificial intelligence in college English teaching: Taking College Intercultural English Integrated Course 2 as an example. *Journal of Taiyuan Urban Vocational College*, (1), 69-72. https://doi.org/10.16227/j.cnki.tycs.2026.0008

Liu, Y. (2026). Research on the cultivation of college students' intercultural communication competence in the context of AIGC. *Policy & Scientific Consult*, (03), 288-292.

Ma, G., & Yang, X. (2025). Fostering intercultural competence through AI driven tools: A case study of linguistic and cultural adaptability in Chinese EFL education. *Digital Technologies Research and Applications, 4*(1), 158-169. https://doi.org/10.54963/dtra.v4i1.1131

Ministry of Education of the Peoples' Republic of China. (2020). *Guidelines on College English Teaching.* Higher Education Press.

Mihat, W., & Wong, W. L. (2026). Developing intercultural language materials by Freda Mishan and Tamas Kiss: edited by Anne Burns and Jill Hadfield, London, Routledge, 2024, 1st edition, 270 pp., $49.99 (paperback), ISBN 978-1-03-265137-8. *Asia Pacific Journal of Education*, *46*(5), 2177–2179. https://doi.org/10.1080/02188791.2025.2474368

Piaget, J. (1972). *The Principles of Genetic Epistemology*. New York: Basic Books.

Purssell, E., & McCrae, N. (2020). *How to Perform a Systematic Literature Review*. Springer.

Rong, A. (2025). The new connotation of cross-cultural communication competence and innovation of teaching models in the AI era: A case study of college English listening and speaking courses. *Journal of Higher Education Teaching, 2*(3), 229-232. https://doi.org/10.62517/jhet.202515335

Shao, X. (2025). Cultivation paths of students' intercultural communicative competence in college English teaching under the background of "the Belt and Road". *Overseas English*, (19), 110-112.

Tang, N. (2025). Enhancing oral English proficiency through human-computer interaction. *International Journal of Web-Based Learning and Teaching Technologies, 20*(1), 1-18. https://doi.org/10.4018/IJWLTT.377130

Vygotsky, L. S. (1997). The Collected Works of L. S. Vygotsky: Volume 4. *The History of the Development of Higher Mental Functions* (R. W. Rieber, Ed.; M. J. Hall, Trans.). Springer.

Wang, X. G. (2025). A practical study on the cultivation of students' intercultural communicative competence in AI-enabled college English courses. *Modern English*, (09), 73-75.

Wu, L. (2023). Research on the improvement of English intercultural communication competence from the perspective of artificial intelligence. *Journal of Liaoning Open University*, (2), 72-75.

Xia, Y., Shin, S.-Y., & Kim, J.-C. (2024). Cross-Cultural Intelligent Language Learning System (CILS): Leveraging AI to facilitate language learning strategies in cross-cultural communication. *Applied Sciences, 14*(13), 5651. https://doi.org/10.3390/app14135651

Xie, H. Y., Mai, Q., Anand, P., Cheung, S. K. S., Ho, C. C., & Din, S. (2021). College English cross-cultural teaching based on cloud computing MOOC platform and artificial intelligence. *Journal of Intelligent & Fuzzy Systems, 40*(4), 7335-7345. https://doi.org/10.3233/JIFS-189558

Yang, H. Z, Gao, C. & Shen, H. Z. (2024). Learner interaction with, and response to, AI-programmed automated writing evaluation feedback in EFL writing: An exploratory study. *Education and Information Technologies, 29*, 3837-3858.

Ye, H. (2025). Bridging technology and humanities: AI agents as drivers of innovation in foreign language teaching. *Asian Journal of Research in Education and Social Sciences, 7*(9), 69-81. https://doi.org/10.55057/ajress.2025.7.9.6

Yu, H., Guo, Y., Yang, H., Zhang, W., & Dong, Y. (2024). Can ChatGPT revolutionize language learning? Unveiling the power of AI in multilingual education through user insights and pedagogical impact. *European Journal of Education, 60*(1). https://doi.org/10.1111/ejed.12749

Zhang, G. L. (2024). The transformation of college English teaching concepts and the cultivation of intercultural communicative competence in the new era. *Journal of Interdisciplinary Insights, 2*(4), 29-32.

Shanghai International Studies University Intercultural Institute. (2023). *A Reference Framework for China's Intercultural Competence Teaching in Foreign Language Education*. Shanghai Foreign Language Education Press.

Zhang, X. X. (2024). Strategies for constructing intelligent educational learning system for college English based on artificial intelligence. *Modern English*, (24), 45-47.

Zhang, Z. (2025). Enhancing English listening comprehension via AI-based adaptive learning platforms incorporating speech-to-text and predictive analytics. *Systems and Soft Computing, 7*, 200418. https://doi.org/10.1016/j.sasc.2025.200418

Zhang, H., Wong, W. L., Lee, H. Y., & Mihat, W. (2025). Mapping intercultural trajectories: Chinese secondary school learners' standpoints on the cultivation of intercultural awareness in English education. *Intercultural Communication Education, 8*(2), Article 102847. https://doi.org/10.29140/ice.v8n2.102847

Zhang, Z. Q., Lu, J., Wang, Y. T., & Zhang, X. Y. (2023). A study on intercultural competence of English major students from the perspective of "telling Chinese stories in English". *Journal of Mudanjiang College of Education*, (12), 55-58, 123.

Zhao, A., & Xiao, Y. (2025). Understanding teacher identity construction through hybridity theory: A case study of a Chinese-Canadian teaching English in China. *Humanities and Social Sciences Communications, 12*(1), 1-12. DOI: 10.1057/s41599-024-04276-8

Zhao, Q. J. (2026). Research on the assessment system of English learners' intercultural communication competence based on deep learning. *Journal of Network and Innovative Computing, 14*, 1-15. https://doi.org/10.70917/jnic-2026-0001

Zhu, R., Su, N., & You, D. (2025). Exploring the impact of AI technology on the intercultural communication competence of Chinese university students. *International Journal of Academic Research in Progressive Education and Development, 14*(3), 2086-2098. https://ijarped.com/index.php/journal/article/view/3802

Zhu, Y., & Li, H. M. (2025). Enhancing college English education in China with AI: A Teacher-AI-Student triad model. *English Language Teaching, 18*(7), 15. https://doi.org/10.5539/elt.v18n7p15