Liu and Zhang,
Applied Language Sciences, 2025, *1*, 250103
https://doi.org/10.6553/ALS.250103

INNOVATION IN PRACTICE Open Access

From Language Practice to Global Perspective: A GenAI-Supported Model United Nations Course for Developing Intercultural Competence in Primary EFL Learners

Xiaolong Liu[1] and Danyang Zhang[1]*

*Correspondence:
danyangzhang@szu.edu.cn

[1]Shenzhen University, China

Check for updates

Abstract

With the integration of generative Artificial Intelligence (GenAI) into education, exploring its role in enhancing students' intercultural competence within language teaching has become a critical research focus. This study employs a qualitative research method to investigate the impact of a GenAI intervention on 38 primary school students (aged 10-12) enrolled in a Model United Nations (MUN) course at a public primary school in Southeast China. Over the course of six weeks, GenAI was integrated into information collection, document editing, and English oral practice, where all materials were exclusively in English. Qualitative data from student reflection journals (RJs) and assignment outputs were analyzed. Results indicate that GenAI-based MUN intervention significantly improved students' cultural knowledge, skills and attitudes. However, challenges such as potential over-reliance on GenAI and uneven skill development were identified. This study provides practical insights for optimizing GenAI-based teaching methods to foster students' intercultural competence in primary English language education.

Keywords: GenAI intervention, English teaching, intercultural competence, Model United Nations course, primary education

© The Author(s) 2025. Open Access This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by-nc-nd/4.0/.

GloDAL Global Digital Applied Linguistics Association

1. Research Context

The school where the intervention took place is located in a technologically advanced area in Southern China, and prioritizes the integration of digital tools into curriculum design to foster students' holistic development. In this research, to address the gap between traditional English teaching, which tends to prioritize linguistic accuracy at the expense of intercultural application, and the imperatives of global citizenship education, this study designed a Model United Nations (MUN) course as an intervention. Originating from the United States in the early 20th century, MUN has evolved into a globally prevalent academic activity, implemented in primary, secondary, and higher education institutions across over 100 countries to foster intercultural communication, critical thinking, and global competence (Kartal, 2020; Nfor, 2023). In China, MUN has experienced remarkable development since its introduction in the 1990s. It has expanded rapidly from elite universities to K-12 schools nationwide, becoming an influential supplementary educational program that aligns with the country's growing emphasis on internationalized talent cultivation (Pan & Lo, 2018).

Aligned with the Sustainable Development Goals (SDGs) of the United Nations (UN), the course centered on the core issue of "How to solve food insecurity", a topic that inherently requires intercultural understanding of regional differences in food systems, resource distribution, and policymaking. This six-week course met once a week for 90 minutes, consisting of two 40-minute sessions with a ten-minute break in between. The teaching language was a 60/40 split between English and Chinese, striking a balance between linguistic immersion and support for comprehension for primary school students. The curriculum structure progressed from foundational knowledge (e.g., UN mechanisms and MUN procedures) to practical skills (e.g., document writing, public speaking and negotiation), with GenAI embedded throughout to scaffold learning.

As for the participants, 38 students (16 boys and 22 girls) aged 10-12 years came from Grades 4 to 6. All of them were selected based on an in-school English proficiency test, with their oral and writing abilities ranked above average (most achieving an "A+" in the English final exam from the previous semester). The students' key motivational factor was to improve their English performance to graduate and enter a better junior high school, which drove relatively high engagement. However, before the course, most students lacked experience in intercultural communication. They could use English for basic conversations but struggled to analyze global issues from diverse national perspectives or collaborate with peers representing different cultural backgrounds. In this case, the MUN intervention emphasizes cultural awareness, comparison and collaboration, which requires strong intercultural competence, and it is closely linked to English learning achievement (Ailauova et al., 2024; Chen, 2015; He et al., 2022; Przytuła et al., 2024). Therefore, given the demand for the MUN course, GenAI-based activities were adopted to simultaneously promote their intercultural competence and English learning outcome.

2. Rationale for Innovation

2.1 Theoretical and Conceptual Rationale: GenAI and Intercultural Competence in English Education

The integration of GenAI into education has rapidly transformed teaching and learning paradigms (Li & Chan, 2024). Within EFL contexts, GenAI serves as a versatile tool for enhancing instructional methods, personalizing learning experiences, and fostering advanced language competencies (Chiu et al., 2023; Zhang et al., 2024). Concurrently, intercultural competence, which comprises knowledge, skills, and attitudes (KSA), is recognized as a malleable construct that can be developed through intentional pedagogical design, particularly in language education (Aggarwal & Wu, 2021; Lonner, 2013). However, EFL learners often lack authentic opportunities for intercultural engagement, highlighting the need for instructional models that bridge language learning with real-world cultural exchange.

MUN offers a structured platform for simulating intercultural dialogue and global issue negotiation, aligning well with the goals of global citizenship education (Kartal, 2020; Nfor, 2023). While prior studies suggest a positive correlation between MUN participation and intercultural competence (Chen, 2015; He et al., 2022), few have explored how GenAI can be systematically integrated to enhance such outcomes, especially for young learners in primary EFL settings. This study addresses this gap by proposing a GenAI-supported MUN intervention that simultaneously advances intercultural competence and English language proficiency.

2.2 Practical Rationale: Addressing Gaps in Traditional English Teaching in China

Traditional English education in China often prioritizes linguistic accuracy over intercultural application, resulting in limited exposure to authentic cultural content and insufficient opportunities for interactive, context-based practice (Pan & Lo, 2018). Textbooks tend to present stereotypical cultural snapshots rather than complex global issues, while teachers face challenges in providing individualized feedback on intercultural development due to heterogeneous student abilities.

GenAI offers promising avenues to overcome these limitations. By providing access to diverse cultural resources, facilitating simulated intercultural interactions, and delivering real-time adaptive feedback, GenAI can help create a more dynamic and personalized learning environment (Lee et al., 2026; Wang & Wang, 2024). Nevertheless, empirical studies investigating GenAI's role in fostering intercultural competence among primary school students remain scarce. This study, therefore, seeks to examine the effectiveness of a GenAI-enhanced MUN course in promoting intercultural competence in a Chinese primary EFL context, while also identifying potential challenges, such as over-reliance on AI and uneven skill development across grade levels.

3. Description of the Innovation

3.1 Research Design

This research adopted a stage-specific GenAI intervention model, aligning GenAI tools (e.g., Doubao, Kimi, and Deepseek) with the course's progressive learning objectives (See Table 1). During class, students worked with their partners to do a role-play as diplomats from eleven developed countries (i.e. Australia, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Israel, United Kingdom, United States) and eight developing countries (i.e. Bangladesh, Chile, China, Greece, India, Russia, South Africa,

Thailand) to have an in-depth discussion on the issue of "How to solve the food insecurity" in the committee of Food and Agriculture Organization (FAO) and adhered to the established procedures. The goal of this class is to propose a resolution that secures the consent of more than two-thirds of the countries. Specifically, GenAI serves as a multifaceted pedagogical tool to deconstruct abstract global topics, synthesize country-specific contextual knowledge, and provide targeted feedback to the required tasks (e.g., position papers, speeches and draft resolutions) and simulate intercultural negotiation scenarios, aligning with three dimensions of intercultural competence (i.e., cultural knowledge, skills and attitudes).

Table 1. The GenAI-supported teaching design in the MUN course

Course Stage	Course Objectives	GenAI-based MUN intervention Design	Target intercultural competence Dimension
1. Topic Introduction	Understand food insecurity subtopics	GenAI deconstructs the topic into 3 subtopics (food waste, environment, and regional conflicts) and provides background data. Students chat with GenAI to create mind maps.	Cultural knowledge (recognizing global diversity in food security issues)
2. Background Guide Reading	Summarize the background guide from a national perspective	GenAI helps students outline key points of the sample background guide and polish the document.	Cultural skills (analyzing how a country's context shapes its food security challenges)
3. Position Paper Writing	Draft position papers aligned with national interests	GenAI analyzes Japan's position paper sample, suggests culturally appropriate arguments, and corrects language errors.	Cultural knowledge (aligning arguments with a country's cultural and political norms)
4. Opening Speech Practice	Deliver 90-second speeches on national positions	GenAI acts as a "speech instructor", giving feedback on tone, body language, and cultural sensitivity, and students record videos with GenAI support.	Cultural skills (presenting arguments in a culturally respectful manner)
5. Negotiation & Draft Resolution	Collaborate to revise draft resolutions	Students (divided into developed/ developing country blocks) use GenAI to modify resolution samples, covering international cooperation and economic aid.	Cultural attitudes (negotiating with peers representing different countries)
6. Resolution Presentation & Voting	Defend resolutions and reach consensus	GenAI evaluates draft resolutions, and students present revised versions and vote.	Cultural attitudes (reaching intercultural consensus)

3.2 Data Analysis Method and Ethical Issues

To answer the research question, qualitative data from reflection journals (RJs) and assignments were collected and deconstructed through MAXQDA 2020 using thematic

analysis. As this study's participants were between 10 and 12 years old, we asked the target school's president, students, and their parents for permission before the class intervention. Participants were assured of their right to withdraw from the study if they felt discomfort or dissatisfaction with any aspect of the study. Additionally, all collected data were stored on the first author's computer and secured with a password. As the administrator, the first author oversaw the entire data collection process, monitored participants' responses, and closed the survey when needed. Additionally, participants were informed that the research would not disrupt their lives or studies.

4. Results and Discussion

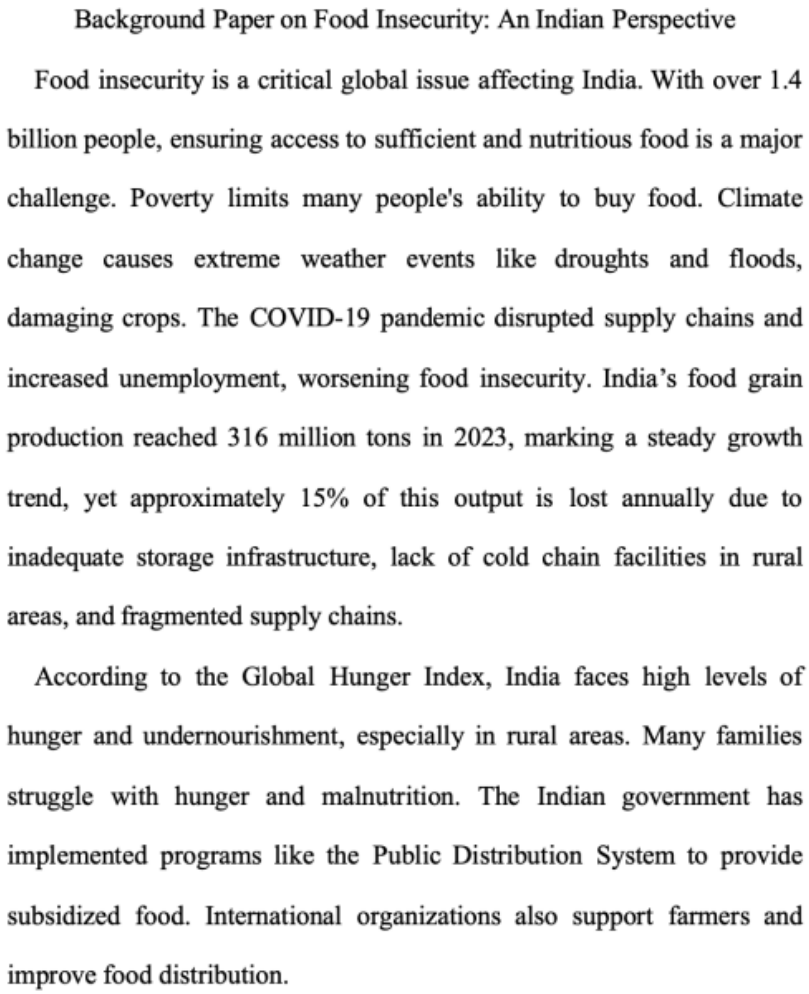
4.1 Students' Intercultural Competence Development

4.1.1 Deepening Cultural Knowledge through Contextualized Understanding

Students' responses to RJs highlighted how GenAI enhanced their understanding of the cultural diversity in the context of food insecurity. For example, one student representing Bangladesh claimed that GenAI told her that the country's food insecurity is due to floods and other specific factors (e.g., a large rural population and low economic growth). However, she believed all countries faced the same food problems as China had before. Another student representing Finland noted that GenAI showed her Finland's food self-sufficiency rate and explained that its cold climate makes it challenging to grow crops. This helped her understand why Finland supports international agricultural technology cooperation, a concept she had not previously considered. Besides, the Russian representative declared that GenAI had systematically presented the unique interplay of Russia's vast geographic span, variable climate zones, and its role as a major grain exporter alongside localized food access challenges in remote areas. Previously, she had equated food insecurity with insufficient production. These examples illustrate that GenAI enabled students to deconstruct complex global issues by accessing country-specific data, thereby overcoming simplistic cultural assumptions and fostering more nuanced cultural knowledge (Chen, 2015; Kundu & Bej, 2025).

4.1.2 Enhancing Cultural Skills: From Generic Statements to Culturally Informed

Students' assignment outputs further reflected progress in cultural skills, particularly in conducting culturally situated analysis and engaging in respectful dialogue. Position papers exhibited a marked shift from generic statements toward evidence-based, context-sensitive arguments. For instance, the Indian delegate's paper (Figure 1) included precise data on grain production and detailed explanations of post-harvest losses linked to infrastructure gaps, which shows a clear move beyond stereotypical portrayals of developing countries (Nfor, 2023; Przytuła et al., 2024).



Background Paper on Food Insecurity: An Indian Perspective

Food insecurity is a critical global issue affecting India. With over 1.4 billion people, ensuring access to sufficient and nutritious food is a major challenge. Poverty limits many people's ability to buy food. Climate change causes extreme weather events like droughts and floods, damaging crops. The COVID-19 pandemic disrupted supply chains and increased unemployment, worsening food insecurity. India's food grain production reached 316 million tons in 2023, marking a steady growth trend, yet approximately 15% of this output is lost annually due to inadequate storage infrastructure, lack of cold chain facilities in rural areas, and fragmented supply chains.

According to the Global Hunger Index, India faces high levels of hunger and undernourishment, especially in rural areas. Many families struggle with hunger and malnutrition. The Indian government has implemented programs like the Public Distribution System to provide subsidized food. International organizations also support farmers and improve food distribution.

Figure 1. The Position Paper of India

Speech videos also reflected a noticeable shift toward improved cultural skills. Students representing developed countries no longer approach food security issues with a superficial mind. Instead, they actively acknowledged the structural and resource constraints that shape the circumstances of developing nations. For example, the US representative's speech (Figure 2) emphasized that they recognized providing financial aid alone is not enough for countries like India to solve unique barriers (e.g., land fragmentation and limited rural electrification). Thus, they supported targeted partnerships that combine financial assistance with knowledge transfer, such as sharing cold chain technology tailored to India's rural landscapes, to address the root causes of food waste (Kartal, 2020; Aggarwal & Wu, 2021). This kind of contextualized support, rather than blanket policy proposals, emerged directly from GenAI-supported research into the cultural, economic, and geographic specificities of each country.



Figure 2. Speech from delegates of the US

4.1.3 Fostering Positive Cultural Attitudes: From Conflict to Collaborative Negotiation

Perhaps the most notable development was observed in students' cultural attitudes, particularly during negotiation and consensus-building activities. A representative case involved delegates from the United Kingdom and India, who initially held opposing views on conditional food aid (Figure 3). The UK team advocated conditional aid contingent on policy reforms, whereas the Indian team argued that such conditions overlooked historical inequities and national sovereignty. Instead of reaching an impasse, the group turned to GenAI to research successful food aid partnerships between developed and developing nations that balance accountability and autonomy. They researched collaborative models such as the Canada-Kenya partnership, which balances technical support with local autonomy. The students moved from entrenched positions toward a mutually acceptable draft resolution. As a result, the UK team softened their stance on conditionality, while the Indian team acknowledged the value of transparency mechanisms. Therefore, GenAI's ability to present neutral, evidence-based examples, free of cultural bias or ideological leanings, helped students move past entrenched perspectives and focus on shared goals (Chiu, 2023).

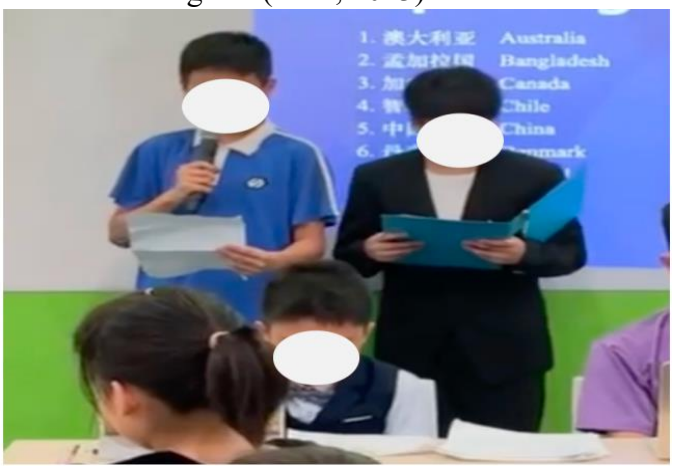


Figure 3. The debate between the UK and India

4.2 Potential Challenges embedded in GenAI

4.2.1 Over-Reliance on GenAI and Diminished Critical Engagement

Despite overall positive outcomes, a subset of students exhibited over-dependence on GenAI-generated content. In their RJs, some admitted to copying GenAI drafts without critically evaluating whether the content aligned with their assigned country's actual stance. For example, one student wrote that GenAI's draft looked convincing, so he did not consider whether it really matched my country's position. This suggests that without structured guidance, GenAI may inadvertently discourage deep cognitive engagement and original analysis, which becomes a concern noted in recent literature on new media literacy and GenAI literacy in education (Liu & Zhang, 2025; Zhang & Wu, 2023; Zhang, Wen et al., 2025; Zhang, Wu et al., 2025).

4.2.2 Uneven Skill Development Across Grade Levels

The study also revealed disparities in intercultural skill development between younger (fourth-grade) and older (fifth- and sixth-grade) participants. While sixth graders produced relatively detailed, country-specific analyses and proposed context-aware solutions (e.g., "Thailand can promote organic farming to reduce chemical use"), fourth graders tended to list generic issues (e.g., "food waste") without deeper contextualization. This divergence underscores the need for differentiated GenAI scaffolding and age-appropriate task design to ensure equitable learning progress (Lee et al., 2026).

4.2.3 The Role of Teacher Mediation and Prompt Guidance

The challenges outlined above highlight the crucial role of teacher mediation in GenAI-enhanced learning environments. Educators must not only integrate GenAI as a tool but also instruct students on how to use it responsibly. For instance, by encouraging them to draft initial ideas independently before using GenAI for refinement. Additionally, explicit training in prompt engineering could help students ask more targeted questions, thereby enhancing the relevance and depth of GenAI outputs while fostering critical digital literacy (Zhang et al., 2025a).

4.2.4 Limitations of GenAI in Representing Cultural Nuance

Although GenAI provided ample factual data, some students noted that the GenAI occasionally generated content that lacked cultural depth or inadvertently echoed Western-centric perspectives. This aligns with ongoing critiques of GenAI's training data biases and its limited ability to fully capture localized, non-Western viewpoints (Chiu, 2023). Future implementations should therefore combine GenAI with curated human resources, such as interviews, documentaries, or texts from local authors, to ensure a more balanced and culturally authentic learning experience.

5. Concluding Remarks

This study demonstrates that GenAI-based MUN intervention in primary English MUN courses can effectively enhance students' intercultural competence. Qualitative data revealed more comprehensive cultural knowledge, improved cultural skills and more positive cultural attitudes. However, challenges such as over-reliance on GenAI, uneven skill development, and inadequate capture of cultural nuances highlight the need for differentiated scaffolding and teacher mediation. Educators and parents need to teach students to complete assignments independently at first, then use GenAI to revise, and

finally work collaboratively with partners to submit the final work. Guidance on GenAI prompts should be provided to help students ask targeted questions to develop their GenAI literacy (Zhang et al., 2025a).

Although the findings provide valuable insights, this study has several limitations. Firstly, the sample size was relatively small (38 primary students), limiting the generalizability of the results to broader populations. Second, the intervention duration was six weeks, which may not capture long-term changes in students' intercultural competence. Future research should focus on assessing the long-term impact and developing more culturally nuanced GenAI tools, ensuring that GenAI serves as a powerful ally in preparing students for an increasingly interconnected world. Overall, GenAI has the potential to transform primary English teaching, moving beyond linguistic accuracy to foster global citizens who can communicate effectively across cultures.

References

Aggarwal, R., & Wu, Y. (2021). Cross-cultural competence development for business students. *Journal of Teaching in International Business, 32*(2), 103–108. https://doi.org/10.1080/08975930.2021.1987021

Ailauova, Z., Doğan, Y., & Batdı, V. (2024). Effectiveness of developing intercultural competence of pre-service teachers: a mixed-meta method research. *Educational Research and Evaluation, 29*(7–8), 422–451. https://doi.org/10.1080/13803611.2024.2359534

Chen, Y. L. (2015). Examining factors in cross-cultural competence development in Taiwan college students. *The Asia-Pacific Education Researcher, 24*(2), 329-340. https://doi.org/10.1007/s40299-014-0183-4

Chiu, T. K. F., Moorhouse, B. L., Chai, C. S., & Ismailov, M. (2023a). Teacher support and student motivation to learn with Artificial Intelligence (AI) chatbot. *Interactive Learning Environments*, 1–17. https://doi.org/10.1080/10494820.2023.2172044

Chiu, T. K. F. (2023b). The impact of Generative AI (GenAI) on practices, policies and research direction in education: a case of ChatGPT and Midjourney. *Interactive Learning Environments*, 1–17. https://doi.org/10.1080/10494820.2023.2253861

He, S., Yang, L., Leung, G., Zhou, Q., Tong, R., & Uchikoshi, Y. (2022). Language proficiency and competence: upper elementary students in a Dual-Language Bilingual Education program. *Journal of Multilingual and Multicultural Development, 43*(6), 502–517. https://doi.org/10.1080/01434632.2021.1987443

Kartal, M. (2020). Facilitating Deep Learning and Professional Skills Attainment in the Classroom: The Value of a Model United Nations Course. *Journal of Political Science Education, 17*(sup1), 148–168. https://doi.org/10.1080/15512169.2020.1854771

Kundu, A., & Bej, T. (2025). Transforming EFL teaching with AI: A systematic review of empirical studies. *International Journal of Artificial Intelligence in Education, 32*(1), 3-37, https://doi.org/10.1007/s40593-025-00470-0

Lee, S. M., Ahn, T. Y., & Wu, J. G. (2026). Self-regulated speaking with AI-empowered NPCs in VR. *Educational Technology & Society, 29*(2), 84–99. https://doi.org/10.30191/ETS.202604_29(2).RP05

Li, Q., & Chan, K. K. (2024). Test takers' attitudes of using exam-oriented mobile application as a tool to adapt in a high-stakes speaking test. *Education and Information Technologies, 29*(1), 219–237. https://doi.org/10.1007/s10639-023-12297-0

Liu, X., & Zhang, D. (2025). Learning critically and confidently: A correlation study of the new media literacy and English learning self-efficacy of junior high school students. *International Journal of TESOL Studies, 7*(1), 88-104. https://doi.org/10.58304/ijts.20250106

Lonner, W. (2013). Cultural competence. In K. Keith (Ed.), *The Encyclopedia of Cross-cultural Psychology*. New York: Wiley.https://doi.org/10.1002/9781118339893.wbeccp124

Nfor, S. (2023). Model United Nations: a thematic analysis of Japanese EFL students' reflections on intercultural communicative competence. *Language Learning in Higher Education, 13*(2), 353-370. https://doi.org/10.1515/cercles-2023-2031

Pan, S.-Y., & Lo, J.T.Y. (2018). *Higher Education and China's Global Rise: A Neo-tributary Perspective (1st ed.)*. Routledge. https://doi.org/10.4324/9781315564012

Przytuła, S., Barzykowski, K., Tracz-Krupa, K., Cassar, V., & Said, E. (2024). Developing intercultural competence of students through short-term international mobility programme. *International Journal of Training and Development*, 28, 169–188. https://doi.org/10.1111/ijtd.12315

Wang, X., & Wang, S. (2024). Exploring Chinese EFL learners' engagement with large language models: A self-determination theory perspective. *Learning and Motivation, 87*, 102014. https://doi.org/10.1016/j.lmot.2024.102014

Zhang, D., Wen, L., & Wu, J. G. (2025). Structured or semi-structured? The use of reflection journals in postgraduates' generative artificial intelligence literacy development in an L2 academic writing context. *European Journal of Education, 60*(3), e70189. https://doi.org/10.1111/ejed.70189

Zhang, D., Wu, J. G., & Fu, Z. (2024). From shy to fly: Facilitating EFL learners' willingness to communicate with an AI chatbot and an intelligent tutoring system. *System, 127*, 103501. https://doi.org/10.1016/j.system.2024.103501

Zhang, D., & Wu, Y. (2023). Becoming smart "digital natives": Cultivating Chinese English majors' new media literacy via Journalism English reading and listening. *Journal of China Computer-Assisted Language Learning, 3*(2), 263-286. https://doi.org/10.1515/jccall-2022-0029

Zhang, D., Wu, Y., & Wu, J. G. (2025). Exploring language learners' new media literacy: instrument development and validation. *Innovation in Language Learning and Teaching*, 1-18. https://doi.org/10.1080/17501229.2025.2473597

Author bio

Xiaolong Liu is an Postgraduate Student and the Chairman of the Student Union at the College of International Studies, Shenzhen University. He obtained his BA in English Teaching from Shenzhen University and was recommended to continue to earn his MA in Foreign Language and Literature. Xiaolong has presented his newest research paper in three high-level conferences held by Fudan University, Beijing Foreign Studies University, Sun Yat-sen University and Huazhong University of Science and Technology respectively and won wide recognition. He has published his work in *International Journal of TESOL Studies* (SCOPUS indexed). His research interests include technology-enhanced language learning, teacher development and teaching English to high school students.
E-mail: 393186359@qq.com
ORCID: 0009-0000-3266-1928

Danyang Zhang is an Associate Professor and Associate Dean at the College of International Studies, Shenzhen University. She obtained her PhD in Education from the University of Cambridge and holds two master's degrees from the Institute of Education, University College London. Danyang has published her work in numerous SSCI journals, including *System, Applied Linguistics, Computer Assisted Language Learning, and Language Teaching Research*. She currently serves as a journal reviewer for *ReCALL, Language Learning & Technology, Virtual Reality, and Interactive Learning Environments*. Her research interests include second language vocabulary acquisition, technology-enhanced language learning, and teacher development.
E-mail: danyangzhang@szu.edu.cn
ORCID: 0000-0003-2514-9488