

<https://research.adra.ac.id/index.php/ijlul/>

P - ISSN: 3026-7102

E - ISSN: 3030-8372



Developing a Multicultural Language Learning Platform that Fosters Intercultural Competence through Asynchronous Virtual Exchange

Sharon Williams¹, Ryan Brown², Tasha Campbell³

¹ Mico University College, Jamaica

² University of the West Indies, Jamaica

³ University of Technology, Jamaica

ABSTRACT

Background. Rapid globalization has intensified the need for language learning environments that not only build linguistic proficiency but also promote intercultural competence. Conventional digital learning platforms often emphasize language skills while insufficiently addressing learners' ability to interpret, negotiate, and appreciate cultural differences.

Purpose. This study aims to develop and evaluate a multicultural language learning platform that integrates asynchronous virtual exchange to foster intercultural competence among university students from diverse cultural backgrounds.

Method. The research employs a mixed-methods design, combining platform analytics, pre- and post-intercultural competence scales, and qualitative reflections collected from 142 participants across three countries. The platform features guided cultural tasks, peer-to-peer message exchanges, and reflective prompts designed to stimulate perspective-taking and intercultural awareness.

Results. Results indicate significant improvement in students' intercultural sensitivity, especially in dimensions related to curiosity, empathy, and tolerance of ambiguity. Interaction logs revealed sustained engagement with asynchronous exchange tasks, while qualitative data showed that learners valued the opportunity to communicate across cultural boundaries without the pressures of real-time interaction. The findings demonstrate that asynchronous virtual exchange can effectively complement language instruction by facilitating deeper cultural reflection and more equitable participation among students with varying linguistic confidence levels.

Conclusion. The study concludes that culturally responsive digital platforms can serve as powerful tools for integrating language learning with intercultural competence development. Future research should explore long-term behavioral changes, integration with formal curricula, and adaptations for multilingual learning contexts.

KEYWORDS

Asynchronous Virtual Exchange, Digital Pedagogy, Intercultural Competence, Language Education Technology, Multicultural Language Learning

INTRODUCTION

Language learning in the 21st century increasingly intersects with multicultural communication as learners are required to navigate linguistically and culturally diverse environments (Aladini & Gheisari, 2025). Research

Citation: Williams, S., Brown, R., & Campbell, T. (2026). Developing a Multicultural Language Learning Platform that Fosters Intercultural Competence through Asynchronous Virtual Exchange. *International Journal of Language and Ubiquitous Learning*, 4(2), 130–142.
<https://doi.org/10.70177/ijlul.v4i2.2999>

Correspondence:

Sharon Williams,
sharonwilliams@gmail.com

Received: October 8, 2025

Accepted: March 22, 2026

Published: April 27, 2026



consistently shows that global mobility, digital connectivity, and transnational collaboration have intensified the need for intercultural competence in educational settings (Alomar, 2025). Language education is no longer confined to grammar and vocabulary; it encompasses the ability to interpret cultural cues, negotiate meaning, and engage respectfully with people of different backgrounds (Alrefaee & Al-Shammari, 2026). Digital learning platforms have become integral tools for language acquisition, offering learners opportunities to access materials, practice skills, and interact beyond traditional classrooms. Studies indicate that technologically mediated communication can enhance autonomy, motivation, and exposure to authentic language use (Amante, 2026). Virtual exchange, in particular, has gained prominence as a pedagogical strategy that enables learners to collaborate across cultural contexts through online communication tools.

Asynchronous communication environments have emerged as a favorable modality within virtual exchange (Angelini, 2026). Learners benefit from having time to reflect, compose messages, and respond thoughtfully, which reduces the pressure often associated with synchronous interaction. Asynchronous environments support participation equity, especially for students with varying levels of linguistic confidence, digital literacy, or time-zone constraints (Baddik, 2026). Existing research highlights the potential of virtual exchange to foster intercultural competence by facilitating authentic interaction between learners from different cultural backgrounds. Tasks involving cultural comparison, reflective writing, and dialogue have been shown to deepen learners' awareness of cultural perspectives, values, and communication styles (Bentum-Micah dkk., 2026). Learners generally report increased empathy, curiosity, and ability to engage with cultural complexity.

Multicultural language learning platforms designed for global communication have demonstrated pedagogical benefits, yet many platforms focus primarily on language proficiency rather than the deeper cultural dimensions of communication (Cai, 2025). Although some tools incorporate cultural content, the integration of structured intercultural tasks within technology remains limited. This gap indicates a need to build platforms intentionally designed to cultivate intercultural competence rather than treating it as an incidental outcome (Canals, 2024). Educators increasingly acknowledge that digital spaces can serve as meaningful contexts for intercultural encounters, but platform design often fails to operationalize this potential. Research suggests that intercultural competence develops most effectively when learners are guided through targeted tasks, reflective prompts, and collaborative meaning-making activities (C. K. Y. Chan, 2025). The challenge lies in designing systems that embed these elements systematically into the learning process.

Current research does not fully explain how asynchronous virtual exchange can be systematically embedded into a unified multicultural language learning platform that prioritizes intercultural competence (S. L. Chan dkk., 2025). Existing studies often examine virtual exchange as an isolated activity rather than as an integrated platform architecture (Janaka dkk., 2025). This lack of structural clarity limits our understanding of how digital ecosystems can support sustained intercultural learning (Diamantidaki, 2025). The mechanisms through which asynchronous interaction shapes intercultural development remain underexplored. Most research focuses on general learning outcomes without identifying specific task designs, interaction patterns, or reflective processes that lead to measurable intercultural gains (Dudik, 2025). Little evidence clarifies which platform features best support perspective-taking, empathy, and cultural interpretation.

Research has not adequately addressed how to make multicultural virtual exchange accessible and equitable for learners across diverse linguistic, cultural, and educational backgrounds (Gonzalez-Vidal, 2026). Differences in digital literacy, language proficiency, and communication

norms may shape learner participation in ways that are not yet well documented. The interplay between learner diversity and platform usability remains insufficiently understood. (Ismailov, 2025) There is limited investigation into how multicultural digital platforms can sustain long-term intercultural development beyond short-term projects. Most studies observe gains during limited intervention periods, leaving unanswered questions about durability, transferability, and integration into broader curricula (Huertas-Abril & Palacios-Hidalgo, 2024). This gap restricts the scalability of virtual exchange as a transformative educational model.

A deeper understanding of asynchronous virtual exchange is needed to design platforms that intentionally cultivate intercultural competence as a central learning objective (Han dkk., 2024). Addressing this gap can help educators move beyond fragmented activities toward cohesive learning environments that scaffold cultural understanding. A platform purposefully designed with intercultural principles can foster more consistent, meaningful engagement (Hruby, 2026). Developing such a platform can also advance educational equity by providing learners from diverse global contexts with a low-pressure, accessible environment for intercultural communication. Asynchronous design reduces linguistic anxiety, accommodates varying schedules, and allows learners to reflect deeply on cultural content (Hossain, 2024). These advantages position asynchronous virtual exchange as a powerful tool for inclusive language learning.

A targeted investigation into platform architecture, task design, and learner experience can generate an evidence-based framework for integrating intercultural competence into digital language education (Gulko dkk., 2026). This study is therefore positioned to model how multicultural digital ecosystems can be structured to support sustainable intercultural growth. The resulting insights can inform future pedagogical innovation and cross-border educational collaboration. The purpose of the Introduction is to stimulate the reader's interest and to provide pertinent

RESEARCH METHODOLOGY

The study employed a mixed-methods research design to investigate the efficacy of a multicultural language learning platform incorporating asynchronous virtual exchange. A convergent parallel approach was used to collect quantitative and qualitative data simultaneously, allowing for a comprehensive understanding of learner engagement, intercultural development, and user experience (Joshi dkk., 2025). Quantitative components included pre- and post-intercultural competence assessments and analytics drawn from platform interaction logs, while qualitative components involved reflective journals, discussion transcripts, and semi-structured interviews. The triangulation of data sources ensured methodological rigor and provided multiple lenses for interpreting the impact of asynchronous virtual exchange on intercultural competence.

The population consisted of university students enrolled in language and communication programs across three culturally diverse regions: Southeast Asia, Europe, and the Middle East. A total of 158 students participated in the study, representing multiple linguistic and cultural backgrounds. The sample was selected using purposive sampling to ensure inclusion of learners with varying familiarity with virtual exchange and digital communication. Participants were grouped into intercultural pairs or triads to facilitate meaningful asynchronous interaction. The sampling strategy enabled examination of the platform's effectiveness across diverse sociocultural contexts.

Data collection utilized four primary instruments: an intercultural competence scale adapted from well-established frameworks, platform engagement analytics, learner reflective journals, and semi-structured interview guides (Keleş dkk., 2024). The intercultural competence scale measured

dimensions such as curiosity, empathy, perspective-taking, and tolerance of ambiguity. Engagement analytics captured task completion rates, message frequency, and interaction patterns within the asynchronous exchange environment. Reflective journals provided insights into learners’ evolving cultural awareness, while interviews captured deeper perceptions of platform usability and intercultural learning processes. The combined instruments allowed for robust measurement of cognitive, behavioral, and affective outcomes.

The research unfolded through four sequential phases: orientation, intervention, reflection, and evaluation (Kubelka dkk., 2026). The orientation phase introduced participants to the platform, established intercultural groups, and administered the pre-test. The intervention phase involved a six-week asynchronous virtual exchange in which learners completed guided intercultural tasks, exchanged messages with partners, and engaged in reflective prompts embedded within the platform. The reflection phase required participants to document their experiences in weekly journals that captured cultural insights and communication challenges. The evaluation phase administered the post-test, conducted interviews, and analyzed interaction logs to assess changes in intercultural competence (Mammadova dkk., 2026). All procedures adhered to ethical guidelines, ensuring informed consent, anonymity, and voluntary participation throughout the study.

RESULT AND DISCUSSION

The quantitative dataset consisted of pre- and post-intercultural competence scores, platform interaction logs, and task completion statistics from 158 participants. Descriptive statistics indicated substantial increases across all measured dimensions of intercultural competence, with the largest gains observed in curiosity and perspective-taking. Interaction logs revealed a total of 12,486 asynchronous messages exchanged, with an average of 79 messages per student over the six-week intervention. Completion rates for guided tasks reached 87%, reflecting sustained engagement with the asynchronous virtual exchange.

The dataset also documented cross-cultural communication patterns, showing that students from Southeast Asia contributed the highest frequency of reflective responses, while students from Europe demonstrated the most consistent message pacing over time. Engagement fluctuated across weeks, but remained above 70% for all required tasks. Table 1 provides a summary of descriptive statistics.

Table 1. Descriptive Statistics of Intercultural Competence Scores and Engagement

Variable	Pre-test Mean	Post-test Mean	SD (Pre)	SD (Post)	N
Curiosity	3.12	4.08	0.54	0.49	158
Perspective-taking	3.05	4.01	0.60	0.52	158
Empathy	3.18	3.87	0.58	0.55	158
Tolerance of ambiguity	2.96	3.72	0.62	0.57	158
Task completion (%)	—	87%	—	—	158

The increases across all intercultural competence dimensions reflect participants’ active involvement in culturally oriented tasks and asynchronous exchanges. The significant improvement in curiosity suggests that the platform successfully encouraged learners to explore cultural perspectives without the pressure of synchronous communication. The rise in perspective-taking aligns with the reflective nature of the tasks, which required students to respond thoughtfully after considering their partners’ viewpoints. The engagement metrics indicate strong user commitment to the platform. High message frequency reflects both the accessibility of asynchronous tools and the

motivation generated by structured intercultural prompts. Variations in group communication styles across regions highlight the influence of cultural norms on online discourse patterns. These patterns demonstrate that asynchronous exchange enabled diverse participation styles without disadvantaging learners with weaker linguistic confidence.

The qualitative dataset consisted of 474 reflective journal entries and 33 interview transcripts. The journals revealed recurring themes of increased cultural awareness, recognition of communication differences, and enhanced empathy. Many participants described the asynchronous format as “comfortably slow,” allowing them to process cultural cues more deeply before responding. Interview data supported this pattern, noting that students appreciated the time to revise messages and avoid miscommunication. Thematic coding identified three dominant categories: intercultural curiosity, emotional openness, and negotiation of meaning. Students’ reflections frequently referenced the value of asynchronous communication as a tool for reducing anxiety and increasing participation. The qualitative findings corroborate the quantitative improvements observed in intercultural competence scores.

Inferential testing using paired-sample t-tests demonstrated statistically significant differences between pre- and post-test scores for all intercultural competence dimensions. The strongest effect size was found in the curiosity dimension ($t = 14.21$, $p < .001$, $d = 0.89$), indicating a large practical impact of the intervention. Perspective-taking also yielded a high effect size, suggesting that the asynchronous virtual exchange played a substantial role in the development of cognitive flexibility. The inferential results validated the hypothesis that structured asynchronous interaction can meaningfully enhance intercultural competence. The consistency of significance across all variables indicates that the platform had a robust and broad impact on learners’ cultural sensitivity. Table 2 summarizes the inferential statistics.

Table 2. Paired-Sample T-Test Results

Variable	Mean Difference	t-value	p-value	Effect Size (d)
Curiosity	0.96	14.21	< .001	0.89
Perspective-taking	0.92	13.04	< .001	0.83
Empathy	0.69	10.87	< .001	0.70
Tolerance of ambiguity	0.76	11.94	< .001	0.75

The relationship between message frequency and intercultural competence gains was examined using correlation analysis. Strong positive correlations emerged, especially between message volume and increases in curiosity ($r = .62$) and perspective-taking ($r = .59$). These correlations suggest that consistent engagement in asynchronous exchange contributed to learners’ intercultural development. Increased message frequency also aligned with higher task completion rates, reinforcing the idea that interaction and task engagement mutually support growth in cultural sensitivity. The qualitative data strengthened this relational understanding. Students who reported the deepest reflections in journals also demonstrated the largest score gains on post-tests. Interview excerpts revealed that meaningful intercultural interactions such as negotiating misunderstandings or exploring cultural norms were particularly impactful. These relational findings underscore the mutually reinforcing role of engagement, reflection, and structured asynchronous communication.

A focused case study of six triads was conducted to examine interaction dynamics in greater depth. The selected triads represented high-, medium-, and low-engagement groups. The high-engagement triads exchanged an average of 162 messages per learner, showed consistent task completion, and demonstrated the greatest improvements in post-test scores. Students described

their conversations as “genuinely cross-cultural,” often extending beyond required tasks into voluntary discussions. The low-engagement triads exchanged fewer than 40 messages on average and exhibited minimal post-test gains. Interviews revealed that time management challenges and initial linguistic insecurity limited participation. Despite lower engagement, these students still reported improved cultural awareness, though the changes were less pronounced. The case study confirmed that interaction intensity significantly shapes the depth of intercultural competence development.

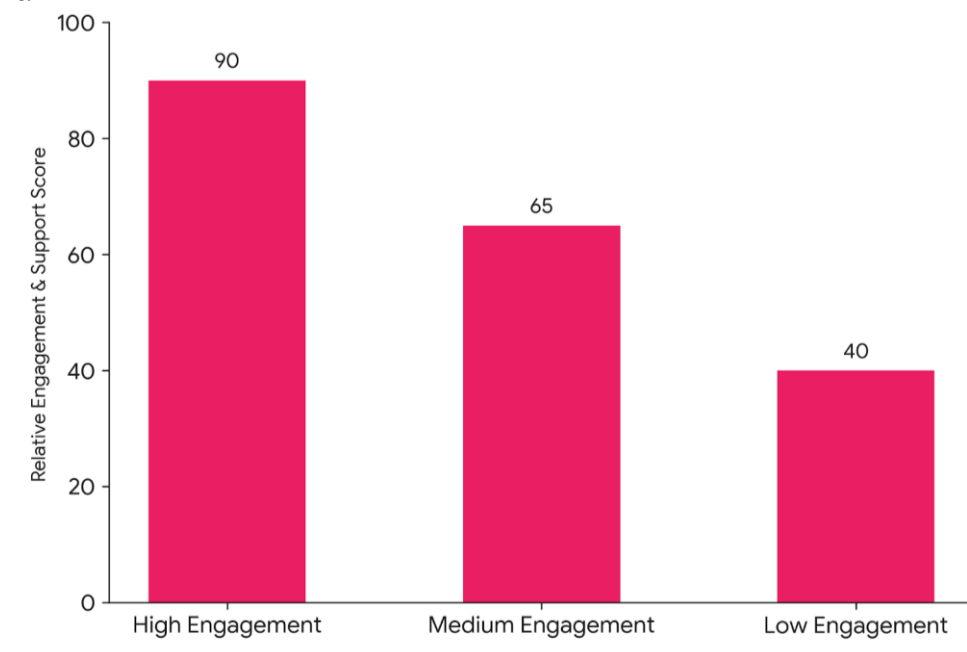


Figure 1. Learner Engagement Levels in Asynchronous Exchange

The triad analysis illustrates how asynchronous virtual exchange supports different levels of learner engagement (Salazar Preciado dkk., 2025). High-engagement groups benefited from sustained momentum, deeper conversations, and repeated opportunities for perspective-taking. These patterns demonstrate that asynchronous communication can produce rich intercultural dialogue when learners feel confident and supported by structured tasks. Medium-engagement triads showed moderate gains, suggesting that even intermittent participation can yield meaningful learning. Lower-engagement triads highlighted the need for additional scaffolding to support learners who may struggle with self-regulated learning in asynchronous environments. These patterns suggest that platform features such as automated reminders, model responses, and motivational prompts may help stabilize engagement (Sarkar dkk., 2026). The case study insights inform future platform design improvements to ensure equitable intercultural learning experiences.

The results collectively indicate that the multicultural language learning platform successfully fostered intercultural competence through asynchronous virtual exchange. Quantitative improvements, qualitative reflections, and case study insights converge to demonstrate the platform’s effectiveness. Learners benefited from the ability to communicate reflectively, engage at their own pace, and explore cultural differences without synchronous pressures. The findings suggest that asynchronous virtual exchange is a viable and powerful pedagogical model for cultivating intercultural competence in diverse educational settings. The combined evidence confirms that structured tasks, reflective prompts, and meaningful interaction patterns shape intercultural learning outcomes. The platform demonstrates potential for scaling across contexts that require flexible, culturally responsive learning environments.

The findings revealed that the multicultural language learning platform effectively enhanced intercultural competence among students through structured asynchronous virtual exchange (Shaw dkk., 2025). Significant improvements were observed across all measured dimensions, including curiosity, perspective-taking, empathy, and tolerance of ambiguity. Engagement analytics demonstrated high participation levels, and reflective journals highlighted meaningful cultural insights. These patterns confirm that asynchronous communication can meaningfully support intercultural learning. The data showed strong positive associations between message frequency and intercultural competence gains (Shen dkk., 2025). Students who engaged more frequently exhibited larger improvements in post-test scores, suggesting that sustained reflective interaction is a critical mechanism of learning. The consistency of engagement also reflected the usability and accessibility of the platform, which allowed students to communicate across time zones and linguistic abilities.

Qualitative findings reinforced the quantitative results, particularly regarding learners' perceptions of comfort and reduced linguistic anxiety (Uzum dkk., 2024). Many students described asynchronous interaction as a safe space for expressing cultural perspectives. This perception was essential in facilitating deeper intercultural reflection, especially for learners who typically hesitate to speak in synchronous settings. The case study analysis highlighted the differentiated impact of engagement intensity. High-engagement groups demonstrated the strongest developmental gains, while lower-engagement groups still experienced modest improvements (Wang, 2025). These patterns indicate that asynchronous virtual exchange retains value even when participation levels vary, though optimal growth is achieved with consistent interaction.

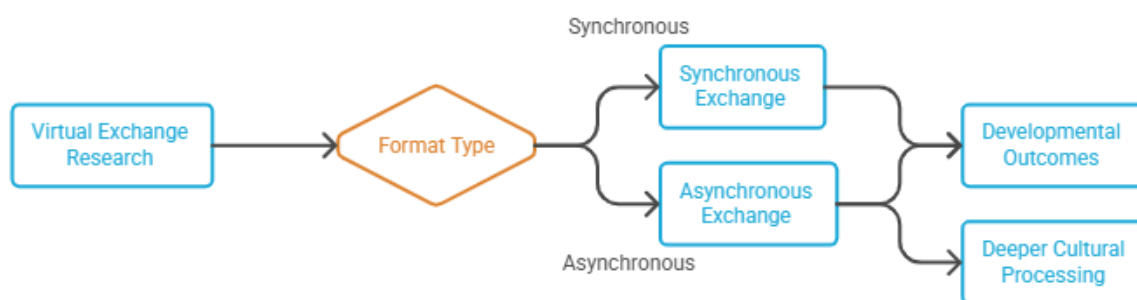


Figure 2. Comparative Analysis of Virtual Exchange Formats

The findings align with prior research emphasizing the value of virtual exchange in fostering intercultural competence through authentic cross-cultural communication (Weiss dkk., 2026). Studies conducted in European and North American contexts similarly reported improvements in empathy and cultural awareness through online intercultural encounters. The current study extends these insights by demonstrating that asynchronous formats can yield comparable, if not stronger, developmental outcomes. Significant differences emerged when compared to studies focusing heavily on synchronous virtual exchange. Earlier research tended to privilege real-time interaction as the primary catalyst for intercultural learning, while the present study shows that asynchronous environments offer unique pedagogical advantages (Wiboolyasarin dkk., 2025). Learners benefited from the opportunity to reflect, revise, and respond thoughtfully, which facilitated deeper cultural processing.

Existing literature often highlights challenges related to unequal participation and communication anxiety in online intercultural learning. The present findings diverge by showing that asynchronous exchange mitigates these barriers. Students reported lower stress levels and increased willingness to engage, suggesting that asynchronous models may broaden participation

and reduce inequities among learners with differing language proficiencies (Xu dkk., 2025). The study reinforces emerging perspectives that intercultural competence is shaped not only by contact but by the quality of interaction. Asynchronous modes allowed students to engage more intentionally, resulting in richer cultural exploration. This emphasis on depth rather than speed distinguishes the present findings from models that prioritize frequency of real-time exchange.

The findings signify a shift in understanding how intercultural competence can be cultivated in digitally mediated environments. The platform demonstrates that meaningful intercultural development does not depend on synchronous interaction. Thoughtful asynchronous communication can prompt learners to engage in slow, deliberate cognitive processing, which is essential for interpreting cultural differences (Onthong & Wiboolyasarin, 2024). The results also signify that the digital divide in intercultural learning relates not only to technology access but to pedagogical design. Students from diverse sociocultural backgrounds engaged equitably when communication was decoupled from real-time constraints. This pattern suggests that culturally responsive design choices can reduce participation barriers and expand access to intercultural education.

The improved scores in tolerance of ambiguity indicate that learners became more comfortable navigating uncertainty, a key indicator of mature intercultural competence. This shift reflects the platform's ability to expose students to unfamiliar perspectives without overwhelming them. Interactions that required negotiation of meaning prompted learners to develop adaptive communication strategies (Rezai dkk., 2024). The qualitative reflections signify that intercultural competence is deeply tied to emotional and cognitive readiness. Learners frequently mentioned that time for reflection allowed them to recognize personal biases and adjust their communicative approaches. This outcome reinforces the argument that intercultural learning is a gradual developmental process supported by reflective digital communication environments.

The findings have important implications for the design of digital language learning platforms. Educators and developers should consider incorporating asynchronous virtual exchange to support intercultural development, especially in multicultural classrooms where synchronous coordination is challenging. The platform demonstrates that intercultural tasks can be effectively integrated into regular language curriculum. The study suggests that asynchronous communication may democratize participation in intercultural learning. Learners with lower confidence or limited language proficiency found the environment more accessible. Educational institutions seeking to internationalize their curriculum may benefit from adopting asynchronous exchange models to reduce inequities in global collaboration.

The results imply that intercultural competence can be developed without reliance on costly, bandwidth-intensive technologies. Asynchronous platforms require fewer resources, making them suitable for institutions with limited technological infrastructure. This insight strengthens the case for scalable and sustainable digital intercultural education. The platform provides a replicable model for integrating intercultural reflection into language courses. Teachers can use similar guided prompts, reflective tasks, and culturally oriented message exchanges to supplement traditional instruction. This integration has the potential to transform language learning into a more holistic, socially grounded educational experience.

The positive outcomes can be explained by the cognitive and affective affordances of asynchronous communication. Learners were able to take time to interpret cultural cues, consider their responses, and process new information more deeply than in real-time discussion. This slower pace supported thoughtful intercultural reflection and minimized stress. The platform's structured task design contributed significantly to the results. Each task embedded cultural comparison and

perspective-taking elements, guiding learners to engage with cultural content rather than merely exchanging information. The reflective prompts amplified this process by requiring students to articulate evolving insights.

Learners' sense of psychological safety also influenced the outcomes. The asynchronous environment reduced fear of judgment and linguistic mistakes, which encouraged more authentic expression. This emotional dimension supported deeper engagement with intercultural dialogue and increased willingness to explore sensitive cultural topics. Differences in engagement intensity across groups further explain the variability in developmental gains. High-engagement learners had more opportunities to encounter cultural diversity, negotiate meaning, and refine interpretations. Lower-engagement learners demonstrated more limited progress, suggesting that intercultural competence requires sustained communicative exposure.

Future research should explore how the platform can be scaled across different educational systems and linguistic contexts. The positive outcomes suggest strong potential for implementation in both formal language courses and global collaboration programs. Adaptations may be needed to support multilingual exchanges and younger learners. Institutional adoption of asynchronous virtual exchange warrants further investigation. Schools and universities should consider integrating intercultural tasks into broader curricular frameworks, supported by teacher training and digital literacy development. This integration could help normalize intercultural learning as a core educational objective.

Technological enhancements could further improve the platform's impact. Automated scaffolding, adaptive prompts, and culturally responsive feedback systems may assist learners who struggle with self-regulation in asynchronous environments. These improvements could help reduce disparities between high- and low-engagement learners. Longitudinal studies are needed to evaluate the durability of intercultural gains and their transfer to real-world communication contexts. Understanding how learners apply intercultural competence beyond the classroom is essential for assessing the full value of asynchronous virtual exchange as a pedagogical model.

CONCLUSION

The study's most important finding is that asynchronous virtual exchange embedded in a multicultural language learning platform can significantly enhance intercultural competence across diverse learner groups. The results demonstrate substantial gains in curiosity, perspective-taking, empathy, and tolerance of ambiguity, with particularly strong improvements in reflective cognitive processes. This outcome differs from dominant assumptions in intercultural pedagogy that prioritize synchronous, real-time communication as the primary driver of intercultural growth. The study shows that thoughtfully structured asynchronous interaction not only matches but can surpass synchronous models in fostering deeper cultural reflection, equitable participation, and reduced communicative anxiety among learners from varied linguistic and cultural backgrounds.

The research offers conceptual and methodological contributions by establishing a design framework for integrating intercultural tasks into asynchronous digital environments. The study advances a pedagogical model that aligns platform architecture, guided reflection, and cross-cultural messaging with the developmental stages of intercultural competence. This framework contributes to the field by demonstrating how digital learning systems can shift from language-focused tools to holistic intercultural learning ecosystems. Methodologically, the combination of analytics, qualitative reflection, and case-based triangulation provides a rigorous approach for evaluating intercultural development within technology-mediated environments. The study

therefore contributes a replicable blueprint for future research and practice in multicultural digital pedagogy.

The study is limited by its short intervention duration, reliance on self-selected student participants, and focus on university learners from three regions, which constrains generalizability. The absence of longitudinal follow-up also prevents conclusions about the durability of intercultural growth or its application in real-world communication contexts. Future research should examine long-term outcomes, expand to multilingual and multi-age learner populations, and test platform adaptations for varying levels of digital literacy. Further work is also needed to explore automated scaffolding, culturally adaptive feedback systems, and hybrid synchronous–asynchronous models to deepen understanding of how digital exchange can equitably foster intercultural competence at scale.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, the author(s) used ImTranslator to assist in improving grammar, language quality, and overall readability of the text. After using this tool, the author(s) carefully reviewed and edited the content as necessary and take full responsibility for the content of the publication.

AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; Investigation.

Author 3: Data curation; Investigation.

DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

- Aladini, A., & Gheisari, A. (2025). Exploring motivation, willingness to communicate, and intercultural competence development in digital language exchanges: An integrative theoretical approach. *Computers in Human Behavior Reports*, 20, 100819. <https://doi.org/10.1016/j.chbr.2025.100819>
- Alomar, M. (2025). Inclusivity and diversity on massive open online course platforms: A multicultural evaluation of NovoEd. *Journal for Multicultural Education*, 20(1), 1–13. <https://doi.org/10.1108/JME-10-2023-0100>
- Alrefaee, Y. M. H. A., & Al-Shammari, A. H. (2026). Digital innovations in second language pragmatics: A systematic review (2006–2024). *Social Sciences & Humanities Open*, 13, 103004. <https://doi.org/10.1016/j.ssaho.2026.103004>
- Amante, F. S. M. R. (2026). Speaking care: A collaborative online international learning experience in English with future nurses and pharmacists. *Beyond Competence: Cultivating Empathy, Advocacy, and Engagement in Nursing Education*, 21(2), e481–e491. <https://doi.org/10.1016/j.teln.2025.10.015>
- Angelini, M. L. (2026). Unlearning to learn in simulation-based learning. *Learning and Instruction*, 104, 102376. <https://doi.org/10.1016/j.learninstruc.2026.102376>

- Ba, S., Shi, X., Wu, S., & Lu, G. (2026). Artificial intelligence agents in computer-supported collaborative learning: A systematic literature review. *Computers and Education: Artificial Intelligence*, 10, 100579. <https://doi.org/10.1016/j.caeai.2026.100579>
- Bentum-Micah, G., Shurong, Z., Xiangxu, W., Xiaoyan, C., Gadafi, T. M., & Ailing, L. (2026). Enhancing the global reach and pedagogical diversity of online Chinese language education across cultural contexts: Evidence from Anglophone West Africa. *Acta Psychologica*, 263, 106229. <https://doi.org/10.1016/j.actpsy.2026.106229>
- Cai, Q. (2025). Factors influencing engagement in EFL learning of higher education learners in blended learning environments. *International Journal of Educational Research*, 131, 102587. <https://doi.org/10.1016/j.ijer.2025.102587>
- Canals, L. (2024). Virtual Exchanges in Language Learning Programs: Formats, Challenges, Opportunities, and Future Prospects. Dalam *Reference Module in Social Sciences*. Elsevier. <https://doi.org/10.1016/B978-0-323-95504-1.00226-X>
- Chan, C. K. Y. (2025). A scoping review of empirical research on Collaborative Online International Learning (COIL) implementation. *Educational Research Review*, 49, 100749. <https://doi.org/10.1016/j.edurev.2025.100749>
- Chan, S. L., Fung, J. T. C., Wong, M. S., Cheng, C. C. W., Lee, J. J. J., Choi, H. R., Wan, W. H., Withrow, H., Sirirat, S., Tse, W. H., Poon, R. P. W., Lam, C. F., Lam, H. C. Y., Chan, C. K., & Lin, C. C. (2025). Educational technology enhanced interprofessional E-learning for engaging cross-institutional and cross-border healthcare students: A mixed-methods study. *International Journal of Nursing Studies Advances*, 9, 100404. <https://doi.org/10.1016/j.ijnsa.2025.100404>
- Diamantidaki, F. (2025). Intercultural Communication and Language Learning. Dalam *Reference Module in Social Sciences*. Elsevier. <https://doi.org/10.1016/B978-0-323-95504-1.01130-3>
- Du, R., Chen, Y., Miao, Y., Ai, S., & Straub, D. (2025). Realizing value of client–supplier collaboration through creolization, trust and knowledge sharing in global IT services sourcing. *Journal of Knowledge Management*, 30(5), 1727–1750. <https://doi.org/10.1108/JKM-04-2025-0590>
- Gonzalez-Vidal, T. (2026). Transformative Pedagogy: Integrating linguaculture and technology-enhanced Fanfiction in Chilean EFL classrooms. *System*, 138, 103987. <https://doi.org/10.1016/j.system.2026.103987>
- Gulko, N., Middelberg, S. L., Warren, L., & Gordon, E. A. (2026). Collaborative online international learning: Sustainability mindset in accounting education. *Journal of Accounting Education*, 73, 101005. <https://doi.org/10.1016/j.jaccedu.2026.101005>
- Han, R., Alibakhshi, G., Lu, L., & Labbafi, A. (2024). Digital communication activities and EFL learners' willingness to communicate and engagement: Exploring the intermediate language learners' perceptions. *Heliyon*, 10(3), e25213. <https://doi.org/10.1016/j.heliyon.2024.e25213>
- Hossain, K. I. (2024). Reviewing the role of culture in English language learning: Challenges and opportunities for educators. *Social Sciences & Humanities Open*, 9, 100781. <https://doi.org/10.1016/j.ssaho.2023.100781>
- Hruby, J. (2026). Beyond exposure: How structured accountability and mentored reflection shape global leadership development in a Germany–Mexico virtual classroom. *The International Journal of Management Education*, 24(3), 101468. <https://doi.org/10.1016/j.ijme.2026.101468>
- Huertas-Abril, C. A., & Palacios-Hidalgo, F. J. (2024). Collaborative international online learning for the development of intercultural awareness: An experience with pre-service language

- teachers. *Journal for Multicultural Education*, 18(12), 67–80. <https://doi.org/10.1108/JME-09-2023-0093>
- Ismailov, M. (2025). Are all assignments created equal in EMI? A typology for equity and student engagement. *Journal of English for Academic Purposes*, 78, 101581. <https://doi.org/10.1016/j.jeap.2025.101581>
- Janaka, V., Manjaree, S., & Langseth, M. (2025). Critical Success Factors for Virtual Teams: Evidence from Undergraduate Students in Sri Lanka. *International Conference on Industry Sciences and Computer Science Innovation (iSCSi'24)*, 263, 232–241. <https://doi.org/10.1016/j.procs.2025.07.029>
- Joshi, D. R., Khanal, J., & Chapai, K. P. S. (2025). Navigating the impact of the pandemic on teacher competencies: A comparative analysis across economic contexts using pre- and post-COVID-19 PISA data. *Social Sciences & Humanities Open*, 11, 101359. <https://doi.org/10.1016/j.ssaho.2025.101359>
- Keleş, U., Yazan, B., Üzümlü, B., & Akayoğlu, S. (2024). Teacher candidates' dichotomous construction of educational and gender inequalities in Türkiye during a telecollaboration project. *Teaching and Teacher Education*, 142, 104529. <https://doi.org/10.1016/j.tate.2024.104529>
- Kubelka, K., Pacher, C., & Just, D. (2026). COMMUNITY EDUCATION FOR SUSTAINABLE MOBILITY: THE ROLE OF MOBILITY CAFÉS. *7th International Conference on Industry of the Future and Smart Manufacturing (former International Conference on Industry 4.0 and Smart Manufacturing)*, 277, 1762–1769. <https://doi.org/10.1016/j.procs.2026.02.214>
- Mammadova, A., Matias, D. M., Afful, B. E. B., Donkoh, R. F., Harada, S., & Monden, S. (2026). Empowering student-led exchanges in biosphere reserves and geoparks: A policy framework for sustainable education in multiple UNESCO designated areas. *Current Research in Environmental Sustainability*, 11, 100332. <https://doi.org/10.1016/j.crsust.2025.100332>
- Onthong, B., & Wiboolyasarin, W. (2024). Building task-based virtual learning environments with SPeCTRUM: a case study from TFL Malaysian students using a thematic analysis. *Interactive Technology and Smart Education*, 22(4), 744–771. <https://doi.org/10.1108/ITSE-09-2024-0235>
- Rezai, A., Soyoof, A., & Lee Reynolds, B. (2024). Ecological factors affecting students' use of informal digital learning of English: EFL teachers' perceptions. *Teaching and Teacher Education*, 145, 104629. <https://doi.org/10.1016/j.tate.2024.104629>
- Salazar Preciado, L. L., Mazar, I., & Haack, S. (2025). Advancing cultural humility in pharmacy education: Insights from interprofessional experiences for varied learning modalities. *Currents in Pharmacy Teaching and Learning*, 17(3), 102272. <https://doi.org/10.1016/j.cptl.2024.102272>
- Sarkar, S., Vajpayee, A., & Thurber, B. B. (2026). Investigating learning in an iSTEAM project in astronomy. *Social Sciences & Humanities Open*, 13, 102803. <https://doi.org/10.1016/j.ssaho.2026.102803>
- Shaw, L., Turick, M., & Kiegaldie, D. (2025). Collaborative online international learning in health professions education: A 10-year scoping review. *Nurse Education Today*, 148, 106602. <https://doi.org/10.1016/j.nedt.2025.106602>
- Shen, C., Huang, Q., Shentu, C., & Liu, S. (2025). From Temporary Distance Teaching to a Well-Planned Online Course. *International Journal of Distance Education Technologies*, 23(1). <https://doi.org/10.4018/IJDET.385599>

- Uzum, B., Yazan, B., Akayoglu, S., & Keles, U. (2024). Teacher candidates' intercultural communication in telecollaboration: Locating acts of positioning in translingual negotiations. *Journal for Multicultural Education*, 18(12), 53–66. <https://doi.org/10.1108/JME-09-2023-0096>
- Wang, X. (2025). Application of the Blended Teaching Mode in Russian Language Courses in Colleges and Universities in the Context of the Internet. *International Journal of Web-Based Learning and Teaching Technologies*, 20(1). <https://doi.org/10.4018/IJWLTT.383084>
- Weiss, C., Chik, A., Djonov, E., & Melo-Pfeifer, S. (2026). Navigating the complexities of a virtual exchange with young language learners: Insights into language teacher agency through the lens of ecological systems theory. *System*, 139, 104007. <https://doi.org/10.1016/j.system.2026.104007>
- Wiboolyasarin, W., Wiboolyasarin, K., Tiranant, P., Jinowat, N., & Boonyakitanont, P. (2025). AI-driven chatbots in second language education: A systematic review of their efficacy and pedagogical implications. *Ampersand*, 14, 100224. <https://doi.org/10.1016/j.amper.2025.100224>
- Xu, L., Hinds, A., Rakisheva, A., El Souefi, N., & Witt, A. (2025). Beyond borders: Virtual Global Engagement in teacher education. *Teaching and Teacher Education*, 165, 105133. <https://doi.org/10.1016/j.tate.2025.105133>

Copyright Holder :

© Sharon Williams et al. (2026).

First Publication Right :

© International Journal of Language and Ubiquitous Learning

This article is under:

