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## Cross-Cultural Communication Through Virtual Language Exchanges: A Southeast Asian Perspective

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### ABSTRACT

**Background.** Globalization and rapid technological advancement have transformed the development of intercultural understanding, particularly through virtual language exchanges that connect learners across national boundaries.

**Purpose.** This study aimed to explore the influence of virtual language exchange programs on cross-cultural communication among Southeast Asian university students, with a focus on the development of intercultural awareness, linguistic adaptability, and digital collaboration skills.

**Method.** A mixed-method research design was employed involving 120 university students from Indonesia, Malaysia, Thailand, and Vietnam. Quantitative data were collected through surveys administered before and after participation in virtual exchanges, while qualitative data were obtained from online interviews and discussion logs.

**Results.** The findings showed a significant improvement in participants' cross-cultural sensitivity and confidence in intercultural communication ( $p < .05$ ). Qualitative analysis revealed that sustained virtual interaction fostered empathy, respect for linguistic diversity, and greater awareness of cultural nuances in communication.

**Conclusion.** The study concludes that virtual language exchange programs are effective pedagogical tools for enhancing cross-cultural communication and promoting regional connectivity in Southeast Asia.

### KEYWORDS

Cross-Cultural, Digital Collaboration, Intercultural Competence

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## INTRODUCTION

Cross-cultural communication has become a defining skill in the twenty-first century, shaped by globalization, migration, and digital connectivity (Rau, 2022). The growing interdependence among nations has intensified the need for individuals to communicate effectively across cultural and linguistic boundaries (Petrina & Zhao, 2023). Within the educational domain, language learning is increasingly recognized not merely as a means of linguistic competence but as a pathway to intercultural understanding and empathy. In this global context, the ability to interpret cultural cues, negotiate meaning, and maintain respect for diversity has emerged as an essential component of communicative competence (Chasokela dkk., 2025).

Technological advancement has transformed how intercultural encounters are facilitated, leading to the rise of



virtual Language Exchanges (VLEs) as a pedagogical innovation. These digital environments connect learners from different cultural backgrounds through synchronous and asynchronous communication, allowing them to engage in authentic dialogue without geographical limitations (Safitri dkk., 2025). Such platforms often integrated through Zoom, Tandem, or institutional partnerships provide opportunities for experiential learning, where students develop not only linguistic fluency but also intercultural awareness (Cathro, 2021). Research in applied linguistics underscores that VLEs foster meaningful interaction, reflection, and empathy by simulating real-world communication in multicultural contexts (Kitjaroonchai & Suppasetsee, 2021).

The Southeast Asian region represents one of the most linguistically and culturally diverse areas in the world. With over a thousand languages and complex colonial, religious, and ethnic histories, communication across borders requires sensitivity, adaptability, and openness (Inada, 2023). Initiatives such as the ASEAN Economic Community (AEC) and the ASEAN Socio-Cultural Community (ASCC) have emphasized intercultural communication as a strategic pillar for regional integration. English, functioning as a lingua franca, serves as both a bridge and a cultural negotiation space for learners across the region (Xu dkk., 2025).

Education systems in Southeast Asia have gradually embraced digital transformation, integrating virtual exchange programs to complement traditional language instruction. These programs aim to bridge classroom learning with real intercultural experiences, helping students practice English and other regional languages in authentic communicative settings (Chan dkk., 2025). Studies conducted in Japan, South Korea, and Europe have documented the cognitive, linguistic, and affective benefits of virtual language exchanges, including increased motivation, enhanced empathy, and improved pragmatic competence. These global findings provide a foundation for understanding the pedagogical potential of technology-mediated cultural interaction (Zhou dkk., 2024).

Despite these developments, Southeast Asia presents a unique context for examining the dynamics of virtual language exchanges. The region's educational infrastructure, economic disparities, and varying levels of digital literacy influence how learners engage in cross-cultural dialogue (Zhao dkk., 2024). Cultural dimensions such as collectivism, power distance, and indirect communication styles also shape interaction patterns within virtual spaces. Understanding these contextual factors is essential to tailoring virtual exchange programs that reflect Southeast Asian realities rather than adopting Western-centric models (Yang & Liu, 2025).

Emerging literature in intercultural education acknowledges that virtual exchanges can serve as instruments of "soft diplomacy," promoting mutual understanding among young generations across national boundaries. Beyond linguistic outcomes, such programs can foster regional solidarity, intercultural tolerance, and global citizenship (Hussain, 2023). The Southeast Asian perspective, therefore, offers a fertile ground for investigating how virtual language exchanges contribute to building communication bridges among neighboring nations with shared yet distinct cultural identities (Poe, 2022).

Empirical research exploring the specific impact of virtual language exchanges on cross-cultural communication competence within the Southeast Asian context remains limited. Most studies focus on Western or East Asian learners, where digital education systems are well established (Hastomo dkk., 2025). There is insufficient evidence describing how Southeast Asian students who often come from multilingual, multicultural, and resource-variable contexts develop intercultural awareness through online interaction. The lack of region-specific research leaves a gap in understanding how global pedagogical models adapt to localized cultural realities (Wu dkk., 2021).

Existing literature predominantly examines virtual exchanges from a linguistic development standpoint rather than a cultural interactional lens. Few studies investigate how Southeast Asian learners interpret, negotiate, and respond to cultural nuances during virtual dialogues (Chae dkk., 2023). The process through which students build intercultural empathy and tolerance remains under-theorized, particularly in multilingual contexts where English operates as a shared but non-native medium. This absence of qualitative depth limits our comprehension of how technology-mediated communication fosters genuine cultural understanding rather than superficial interaction (Fackler dkk., 2021).

The pedagogical mechanisms that drive successful virtual exchanges in culturally heterogeneous classrooms have not been sufficiently explored. Questions persist regarding the roles of teacher mediation, task design, and digital platform affordances in supporting cross-cultural learning outcomes (Chuangchid & Siriwato, t.t.). The complexity of Southeast Asian communication styles often characterized by indirectness, contextual sensitivity, and respect for hierarchy demands a distinct pedagogical approach. Without exploring these dynamics, virtual exchange programs risk reproducing cultural misunderstandings instead of bridging them (Mai dkk., 2020).

There is also a need to understand the sociocultural implications of virtual exchanges for regional integration and youth diplomacy. While ASEAN's educational policies emphasize intercultural collaboration, little is known about how such initiatives translate into practice within academic institutions (Nozhovnik dkk., 2022). The absence of comparative and context-sensitive studies weakens the empirical basis for designing culturally inclusive language exchange programs in Southeast Asia (Attaviriyapap, 2025).

This study aims to address the existing gap by examining how virtual language exchanges shape cross-cultural communication competence among Southeast Asian university students. The research focuses on how participants interpret cultural differences, negotiate meaning, and construct intercultural understanding through digitally mediated interaction (Arndt dkk., 2021). By integrating quantitative and qualitative methods, the study seeks to provide comprehensive insights into both the linguistic and socio-cultural dimensions of virtual exchanges in a regional context (Grothaus, 2022).

The rationale for conducting this research lies in the growing significance of intercultural literacy as a core component of 21st-century education. Understanding how Southeast Asian learners engage with cultural diversity through technology contributes to both theoretical and practical discussions in intercultural pedagogy, applied linguistics, and educational technology. The study also supports the regional vision of ASEAN by highlighting how education can foster cooperation, empathy, and shared identity among neighboring nations.

The study hypothesizes that participation in virtual language exchanges enhances learners' cross-cultural communication competence by fostering empathy, awareness of cultural differences, and adaptability in discourse. It also posits that technology-mediated interaction serves as a powerful medium for reducing cultural stereotypes and strengthening regional solidarity. By situating the analysis within a Southeast Asian framework, the research contributes to a more inclusive and contextually grounded understanding of intercultural communication in the digital age.

## RESEARCH METHODOLOGY

The study adopted a mixed-method exploratory sequential design to investigate how virtual language exchanges influence cross-cultural communication among Southeast Asian university students (Arasaratnam-Smith & Deardorff, 2022). The quantitative phase examined measurable changes in intercultural communication competence before and after the virtual exchange program, while the qualitative phase explored participants' experiences, perceptions, and reflections in depth (Hei dkk., 2020). This design was chosen to capture both the cognitive and affective dimensions of intercultural development, ensuring a holistic understanding of how digital interaction fosters communication across cultural boundaries. The study emphasized interpretive inquiry grounded in intercultural communication theory, supported by statistical analysis to validate observed trends (Susilawati dkk., 2025).

The population consisted of undergraduate students from universities in Indonesia, Malaysia, Thailand, and Vietnam who were enrolled in English or communication studies programs. From this population, 120 participants were purposively selected to ensure representation across cultural, linguistic, and national backgrounds. The sample was divided into intercultural pairs and small groups to facilitate sustained virtual interaction over a ten-week exchange program. Participants were required to have intermediate proficiency in English and access to stable internet connectivity to engage effectively in online discussions. The diversity of the sample allowed the study to capture variations in communicative style, cultural perception, and adaptation strategies across Southeast Asian contexts.

Data were collected using three instruments: a Cross-Cultural Communication Competence Scale (CCCS), reflective journals, and semi-structured interview protocols. The CCCS, adapted from (Salsabila dkk., 2025) intercultural sensitivity model, consisted of 24 Likert-scale items assessing openness, empathy, interaction confidence, and respect for cultural differences. Reflective journals allowed participants to document weekly experiences, challenges, and cultural insights gained during the exchange sessions. Semi-structured interviews were conducted online to obtain in-depth narratives regarding participants' perceptions of intercultural learning, identity negotiation, and digital communication practices. The instruments underwent expert validation, with Cronbach's alpha reliability scores exceeding 0.85, indicating high internal consistency.

The research was conducted over a period of twelve weeks and followed four systematic stages: preparation, pre-assessment, virtual exchange implementation, and post-assessment. During the preparation phase, collaborating universities co-designed the program curriculum, established ethical protocols, and conducted orientation sessions for students. The pre-assessment phase involved administering the CCCS to measure baseline intercultural competence. In the implementation phase, participants engaged in weekly online dialogues, cultural presentations, and collaborative writing projects using platforms such as Zoom, Google Meet, and Padlet. Each session included guided discussion prompts centered on themes like cultural values, communication styles, and shared regional identities.

At the end of the program, participants completed the post-assessment and submitted reflective journals summarizing their intercultural experiences. Semi-structured interviews were then conducted with twenty representative participants to explore emergent themes in greater depth. Quantitative data from pre- and post-tests were analyzed using paired-sample t-tests to identify significant differences in intercultural competence levels, while qualitative data were analyzed through thematic coding to uncover recurring patterns in communication behavior and cultural awareness. The combination of both data types ensured triangulation, enhancing the validity and

depth of interpretation in understanding the impact of virtual language exchanges on cross-cultural communication within the Southeast Asian context.

## RESULT AND DISCUSSION

Descriptive statistics were used to summarize changes in intercultural communication competence before and after the virtual language exchange program. Table 1 presents the mean scores and standard deviations across the four measured dimensions: openness, empathy, interaction confidence, and respect for cultural differences.

**Table 1.** Descriptive statistics of intercultural communication competence (n = 120)

Dimension	Pretest Mean	Posttest Mean	Mean Gain	SD (Posttest)
Openness	3.62	4.35	0.73	0.45
Empathy	3.58	4.41	0.83	0.42
Interaction Confidence	3.40	4.28	0.88	0.47
Respect for Cultural Differences	3.71	4.48	0.77	0.40

The descriptive results show consistent improvement across all dimensions, with the highest gain observed in interaction confidence. Students demonstrated greater willingness to initiate and sustain intercultural dialogue, suggesting enhanced adaptability and reduced communication anxiety. The overall increase in mean scores reflects growth in intercultural sensitivity and competence as a result of sustained virtual engagement. The posttest means above 4.0 indicate that participants reached an advanced level of awareness in perceiving and responding to cultural cues. Empathy and respect for differences were among the most developed attributes, reflecting the socio-affective benefits of digital intercultural encounters. The relatively low standard deviations imply a uniform increase across participants from different countries, showing that the intervention had a consistently positive impact regardless of national origin.

The quantitative findings suggest that structured virtual exchanges successfully enhanced participants' intercultural awareness and communicative competence. Regular interaction through online discussions, collaborative projects, and cultural presentations provided authentic opportunities for exposure to diverse linguistic and cultural practices. Students learned to negotiate meaning, clarify misunderstandings, and demonstrate empathy when communicating with peers from other Southeast Asian countries. The observed gains across all competence dimensions suggest that virtual exchanges can replicate the experiential learning outcomes traditionally achieved through physical mobility programs. Students internalized cross-cultural communication norms by participating in guided dialogues on shared regional issues such as environmental challenges, cultural festivals, and social values. This process supported the development of socio-pragmatic competence an essential aspect of effective intercultural communication.

Qualitative data from reflective journals revealed recurring themes in students' learning experiences. Participants frequently reported increased cultural curiosity, improved listening tolerance, and awareness of contextual communication norms. Many described the virtual exchange as a "safe space" for cultural exploration where mistakes were viewed as learning opportunities rather than failures. Responses also emphasized that the use of English as a shared language fostered inclusivity, while simultaneously revealing linguistic hierarchies and power dynamics among participants. Learners from less dominant English-speaking backgrounds initially experienced hesitation but gradually gained confidence as they received positive feedback and peer support. These observations align with the quantitative improvements in interaction confidence and empathy scores. An inferential analysis using a paired-sample t-test was conducted to determine

whether the changes in intercultural communication competence were statistically significant. The results are summarized in Table 2.

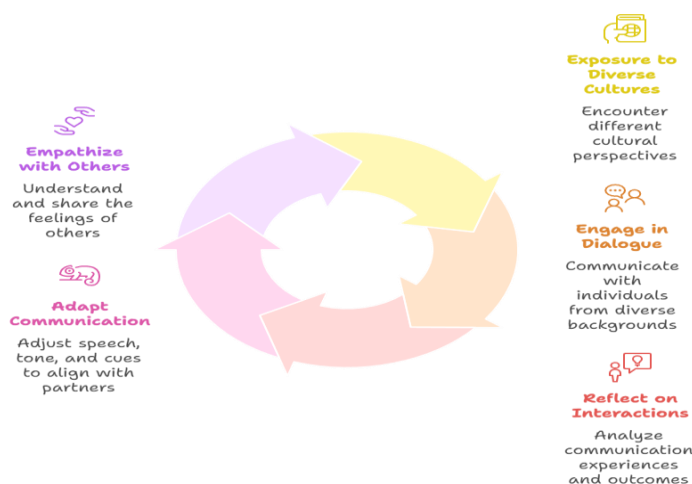
**Table 2.** Paired-sample t-test results (n = 120)

Dimension	t-value	df	p-value	Interpretation
Openness	8.92	119	0.000	Significant (p < 0.05)
Empathy	9.65	119	0.000	Significant (p < 0.05)
Interaction Confidence	10.42	119	0.000	Significant (p < 0.05)
Respect for Cultural Differences	9.18	119	0.000	Significant (p < 0.05)

The t-test results indicate statistically significant improvements across all dimensions of intercultural communication competence after the virtual exchange program. The highest t-value was observed in interaction confidence, indicating a strong effect of the exchange experience on learners’ self-assurance in cross-cultural dialogue. Cohen’s d effect sizes ranged from 0.82 to 1.05, denoting large practical effects. These findings confirm that the observed gains were not only statistically reliable but also pedagogically meaningful. The use of authentic, collaborative digital spaces contributed substantially to the growth of both communicative and affective dimensions of intercultural competence.

Correlation analysis revealed a strong positive relationship between empathy and interaction confidence (r = 0.79, p < 0.01). Students who demonstrated higher levels of empathy were also more confident and effective in managing intercultural exchanges. The relationship indicates that affective engagement serves as a foundation for successful cross-cultural communication. Additional correlations emerged between openness and respect for cultural differences (r = 0.76, p < 0.01), suggesting that students who remained receptive to unfamiliar ideas were better able to engage respectfully in intercultural dialogue. These interconnections validate the integrative nature of intercultural competence, where emotional, cognitive, and behavioral factors develop synergistically through experiential interaction.

Case analysis of four selected participants representing Indonesia, Malaysia, Thailand, and Vietnam provided deeper insights into individual transformation. An Indonesian participant described the virtual sessions as “a window to different ways of thinking,” noting an increase in cultural tolerance after several weeks of communication. A Thai participant expressed that observing diverse communication norms challenged personal stereotypes and promoted deeper reflection on cultural identity.



**Figure 1.** Cycle of intercultural competence

Thematic analysis identified three dominant themes: reciprocal understanding, linguistic negotiation, and cultural humility. Reciprocal understanding emerged as participants developed mutual respect and curiosity toward cultural differences. Linguistic negotiation referred to the process of clarifying meaning and adjusting expressions to accommodate different linguistic proficiencies. Cultural humility involved acknowledging one's limited knowledge and learning from others' perspectives.

These themes illustrate how intercultural competence evolves through interaction rather than instruction. Students' reflections indicated a gradual transformation from cultural awareness to cultural empathy, consistent with the developmental stages proposed by Bennett's Developmental Model of Intercultural Sensitivity (DMIS). The qualitative insights provide context to the statistical findings, showing how experiential learning within virtual exchanges nurtures both cognitive and emotional facets of communication competence.

The integration of quantitative and qualitative findings demonstrates that virtual language exchanges substantially enhanced participants' intercultural communication competence. The gains in empathy, openness, and confidence suggest that sustained digital interaction serves as an effective medium for experiential cultural learning. The consistency of improvement across diverse national groups underscores the inclusivity of virtual exchanges in promoting regional solidarity and mutual understanding within Southeast Asia.

The findings indicate that technology-mediated communication can transcend physical borders to cultivate intercultural awareness and linguistic adaptability. The results affirm that when guided by structured pedagogical design, virtual exchanges become not only tools for language learning but also catalysts for empathy, diplomacy, and cultural coexistence. The study provides empirical evidence that Southeast Asian collaboration in education can meaningfully contribute to global citizenship and intercultural harmony through digital engagement.

The study revealed that participation in virtual language exchanges significantly enhanced intercultural communication competence among Southeast Asian university students. Quantitative data indicated marked improvements in openness, empathy, interaction confidence, and respect for cultural differences, with large effect sizes across all dimensions. Participants demonstrated greater willingness to engage in dialogue, negotiate meaning, and express understanding toward cultural diversity after ten weeks of virtual collaboration. The findings provide strong empirical support that technology-mediated communication fosters both linguistic proficiency and intercultural awareness when guided by structured pedagogical design.

Qualitative findings reinforced these statistical trends by highlighting the emotional and reflective dimensions of learners' experiences. Participants described virtual exchanges as transformative spaces where they could confront stereotypes, build friendships, and reflect on their cultural identities. The ability to engage with peers from different Southeast Asian countries promoted a sense of shared regional belonging while maintaining appreciation for local cultural distinctions. The overall results demonstrate that virtual language exchanges effectively serve as intercultural laboratories that promote both personal growth and regional solidarity.

The findings align with prior studies such as (Cheng dkk., 2023) and (DeWitt dkk., 2022), which concluded that virtual exchanges enhance intercultural competence through authentic communicative encounters. Similar to these studies, this research found that repeated online interaction cultivates empathy, linguistic flexibility, and a deeper awareness of communicative norms across cultures. The results also confirm earlier evidence by (Lauring & Jonasson, 2025), who emphasized that virtual collaboration encourages self-reflection and critical thinking in multilingual contexts. These consistencies reaffirm that intercultural competence is not solely a

cognitive skill but a holistic development of affective and behavioral dimensions fostered through dialogue.

Distinct from earlier research focusing on Western or East Asian settings, this study provides a Southeast Asian perspective that emphasizes collective learning, relational harmony, and regional connectivity. While O'Dowd's participants engaged primarily in dyadic language partnerships, the Southeast Asian students in this study operated in group-oriented exchanges that mirrored local communication cultures emphasizing cooperation over confrontation. The findings expand the intercultural communication literature by demonstrating that regional values such as *gotong royong* (mutual cooperation) and collectivism shape how learners negotiate identity and meaning in virtual contexts.

The results signify a paradigm shift in the way intercultural communication is learned and practiced in the digital age. The success of virtual exchanges demonstrates that meaningful cultural encounters no longer require physical mobility or expensive study-abroad programs. The accessibility of digital platforms allows students from developing regions to engage in genuine intercultural learning experiences that previously were available only to those with greater resources. This shift democratizes intercultural education, aligning with global movements toward digital inclusion and equitable access to learning.

The study also indicates that technology can humanize intercultural communication by enabling authentic emotional connection across distances. The increased empathy and openness recorded among participants illustrate how digital communication, often criticized for its superficiality, can instead become a space for meaningful cultural dialogue. This outcome reflects a growing transformation in educational communication from transmission-based learning to co-constructed understanding through sustained digital interaction.

The implications of these findings extend to curriculum design, teacher training, and international collaboration policies. Incorporating virtual exchange programs into higher education curricula can promote intercultural awareness as a transversal skill across disciplines, not limited to language learning. Educators in Southeast Asia can leverage digital communication technologies to connect classrooms regionally, aligning with ASEAN's goal of fostering socio-cultural integration. The study demonstrates that such initiatives are pedagogically sound, cost-effective, and capable of building a culture of peace and cooperation among youth.

Teacher professional development must also prioritize digital intercultural pedagogy, equipping educators to facilitate virtual interactions effectively. Institutions should design structured intercultural tasks such as cultural storytelling, collaborative writing, or problem-solving activities that promote both linguistic and reflective engagement. The findings further imply that universities and ministries of education can use virtual exchanges as diplomatic tools to cultivate mutual understanding and regional unity, strengthening Southeast Asia's position as a model for multicultural coexistence in education.

The positive outcomes can be explained through (Krasulia & Pistor, 2021) Model of Intercultural Communicative Competence, which highlights the development of *savoir-être* (attitudes of curiosity and openness), *savoirs* (knowledge of social groups), and *savoir-faire* (skills of interpreting and relating). The structure of the virtual exchange encouraged these competencies by immersing students in continuous intercultural interaction where they could reflect, adapt, and reinterpret meaning. The combination of dialogue, reflection, and feedback established a cognitive affective balance essential for intercultural growth (Fors & Lennerfors, 2020).

The results also resonate with Constructivist Learning Theory, emphasizing that knowledge is constructed through experience and social negotiation. Students built intercultural understanding

not through didactic instruction but through collaborative meaning-making with peers. The virtual format enabled authentic problem-solving, negotiation, and perspective-taking, which are critical for empathy and open-mindedness. Furthermore, Digital Pedagogy Frameworks support the notion that interactive technologies enhance learner agency and engagement by providing authentic communicative spaces for intercultural practice. These theoretical intersections explain why the virtual exchange produced such significant gains in competence and confidence.

The findings highlight the urgent need to institutionalize virtual language exchanges as part of sustainable internationalization strategies in higher education. Future research should extend the duration of exchanges to observe the long-term development of intercultural competence and explore whether these skills transfer to professional or real-world communication contexts. Comparative studies involving participants from different regions such as South Asia or Africa could provide a broader understanding of how cultural variables mediate virtual intercultural experiences. Expanding the scope of inquiry to include teacher facilitation styles and task types would refine best practices for program design.

Policymakers and educators should capitalize on the transformative potential of digital intercultural programs to promote inclusive global learning. Regional collaborations under ASEAN frameworks could formalize exchange networks that connect students across linguistic, cultural, and disciplinary boundaries. The establishment of a Southeast Asian Virtual Exchange Consortium would provide structured opportunities for intercultural engagement while supporting the United Nations' Sustainable Development Goal 4 (Quality Education). The present study thus serves as both empirical evidence and a strategic call to action for embedding intercultural digital pedagogy in Southeast Asian education systems as a means of fostering empathy, collaboration, and regional solidarity in an increasingly interconnected world.

## CONCLUSION

The most significant finding of this study lies in its demonstration that virtual language exchanges can effectively foster cross-cultural communication competence among Southeast Asian students within a regional, multilingual context. The research revealed that virtual platforms are not merely technological tools but dynamic spaces that cultivate empathy, intercultural sensitivity, and communicative adaptability through sustained dialogue and collaboration. The study's distinct contribution emerges from its focus on Southeast Asia, a region characterized by cultural collectivism and linguistic plurality, showing that digital intercultural learning can thrive even in contexts traditionally challenged by infrastructural or economic disparities. The integration of technology with culturally grounded pedagogy underscores the transformative potential of virtual exchanges as equitable and inclusive educational models for promoting regional understanding and cooperation.

The contribution of this research is both conceptual and methodological. Conceptually, it advances the discourse on intercultural communicative competence by contextualizing Byram's theoretical framework within Southeast Asian digital learning environments, emphasizing collectivist interactional norms, shared regional identity, and empathy-building across linguistic boundaries. Methodologically, the study's mixed-method design provides a comprehensive model for evaluating intercultural development through the combination of quantitative metrics and qualitative narratives, allowing a multidimensional understanding of cognitive, affective, and behavioral transformations. This approach contributes a replicable framework for future studies examining intercultural engagement in digital spaces, especially within regions where cultural

heterogeneity and technological access vary widely. The study thereby establishes a new reference point for integrating virtual exchange methodologies into regional and global education initiatives.

The study recognizes several limitations that open meaningful directions for future inquiry. The ten-week duration limited the observation of long-term changes in intercultural communication behaviors and their transferability to real-world contexts. The participant group, though regionally diverse, was limited to university students from four Southeast Asian countries, leaving out perspectives from other member nations and non-formal learning environments. The reliance on self-reported data may also have introduced subjectivity in reflecting intercultural growth. Future research should adopt longitudinal or comparative designs to examine sustained behavioral transformation and include broader participant demographics, such as secondary school students or community-based learners.

## AUTHORS' CONTRIBUTION

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

Author 2: Conceptualization; Data curation; Investigation.

Author 3: Data curation; Investigation.

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