

Enhancing Intercultural Competence Through Structured Study Abroad Program

Sakhi Aggrawal
Computer and Information Technology
Purdue University
West Lafayette, U.S.A.
saggrawa@purdue.edu

Aparajita Jaiswal
CILMAR
Purdue University
West Lafayette, U.S.A.
jaiswal2@purdue.edu

Atin Dewan
Electrical and Computer Engineering
Purdue University
West Lafayette, U.S.A.
dewan2@purdue.edu

Abstract—This research-to-practice paper explores learnings from a study abroad program through the lens of intercultural competence. Intercultural competence, the ability to effectively navigate and engage with diverse cultures, is increasingly recognized as a critical skill in our interconnected global society. This competence is particularly important for pre-freshman students, who are at a formative stage of their educational and personal development. Recognizing the need to cultivate these skills early, this study evaluates the effectiveness of a structured study abroad program at a large Midwestern university, aimed at enhancing intercultural competence among pre-freshman students. Fifteen participants completed the Intercultural Development Inventory (IDI) assessment before and after a two-week program in Germany and Spain and maintained reflective journals. A mixed-methods approach was employed, with quantitative analysis of IDI scores and qualitative analysis of journal entries using thematic analysis. The results indicate a significant increase in IDI scores, with students moving from Polarization (86.37) to Minimization (94.36) on the Intercultural Development Continuum, suggesting enhanced intercultural understanding. Qualitative data revealed themes such as increased adaptability, deeper cultural insight, and enhanced self-awareness in students, illustrating the program's transformative potential. Overall, the study highlights the effectiveness of structured study-abroad programs in fostering intercultural competence. Immersive experiences, coupled with reflective practices, can promote multidimensional growth. These findings advocate for the integration of structured international experiences into pre-freshman curricula to foster global readiness and intercultural skills. Future research should expand to other institutions and incorporate longitudinal studies to further validate and refine these educational initiatives.

Index Terms—intercultural competence, study abroad, student experience, extracurricular, diversity

I. BACKGROUND

A. Introduction to Intercultural Competence

Intercultural competence is the ability to effectively interact, communicate, and collaborate with individuals from diverse cultural backgrounds [1]. In today's globalized world, where interactions between people from different cultures are very common, intercultural competence has become a necessary skill [2], [3]. It involves not only understanding and appreciating different cultures, but also adapting behaviors, attitudes, and communication styles to thrive in a multicultural environment [4]. Today's businesses, educational institutions, and organizations increasingly are diverse and interconnected

[5]. Individuals who possess intercultural competence and interpersonal skills are better equipped to thrive in professional teamwork environments [6], [7] and personal contexts, leading to positive outcomes [8]. Intercultural competence not only enhances the ability to contribute positively in diverse teams, but it also fosters empathy, respect, and tolerance towards people from different cultures [9]. This, in turn, promotes social cohesion and harmony among team members [1], [10].

B. Methods for Intercultural Development in Higher Education

Recognizing the growing importance of intercultural competence in today's world, higher education institutions are actively adopting different methods to develop this skill among their students [11]. A commonly used approach includes cultural immersion programs where students are exposed to different cultures through study abroad programs, internships, or team projects with members from different cultures [12]. This allows students to engage directly with individuals from diverse cultural backgrounds and helps foster empathy, understanding, and appreciation for cultural differences [13]. Another prevalent method includes intercultural training like courses, workshops, or seminars that focus on enhancing intercultural communication, awareness, and conflict resolution [14]. Through interactive activities, case studies, and discussions, students develop the necessary competencies to effectively operate in diverse environments and overcome any existing biases [15]. Beyond formal educational methods, informal interactions with classmates from varied backgrounds also play a crucial role in cultivating intercultural competence [14]. College environments foster this development through multicultural student organizations and events that bridge cultural gaps and enhance understanding among students from diverse backgrounds [16].

C. Study Abroad Programs for Intercultural Development

Study abroad programs have been found to be an effective way to develop intercultural competence among students [17]. These programs allow students to live and study in a foreign country and gain firsthand experience of cultural diversity as well as provide them with opportunities to interact with locals, observe cultural practices, and navigate everyday situations

in a new cultural environment [18]. Study abroad programs push students out of their comfort zones, challenging them to confront their biases and develop adaptive strategies for intercultural communication and problem-solving [19]. This immersive experience helps students develop a deeper understanding of new cultural norms, values, and perspectives [20]. Overall, study abroad programs are transformative experiences that not only enhance students' academic and personal growth but also foster the development of intercultural competence [21]. This experience equips students with the skills and mindset needed to thrive in an increasingly diverse and interconnected world [22], [23].

D. Purpose of the Study

In pursuit of developing an interculturally trained STEM workforce for today's interconnected world [24], [25], studying abroad has emerged as a prevalent strategy for fostering cultural understanding [26]. However, mere exposure to diverse cultures through study abroad is insufficient [27]. A purposefully designed, theoretically anchored study abroad program is essential to encourage reflective practice and meaning-making [26], transforming these international sojourns from mere academic tourism into powerful catalysts for personal and professional growth.

The purpose of this study is to propose a framework for structuring study abroad programs that effectively enhance intercultural competence. This framework is informed by Schon's reflection model [28] and emphasizes developing cultural self-awareness and cross-cultural communication skills among students. By engaging students in both reflection-in-action and reflection-on-action, the program aims to deepen their understanding of their own cultural biases and improve their ability to communicate across cultural boundaries.

The overall research question is: *How does participation in a structured, theoretically informed study abroad program impact students' intercultural competence?* This question seeks to explore the depth of intercultural learning, focusing on the transformative potential of reflective practices embedded within the program.

II. THEORETICAL FRAMEWORK

The theoretical foundation of this research is based on the Intercultural Development Continuum (IDC). The IDC is a model that describes the intercultural competence of individuals and groups and outlines a progression from ethnocentrism to ethnorelativism [29], reflecting a move from a more monocultural mindset to a more interculturally competent perspective [30]. The stages include Denial, Polarization (or Defense), Minimization, Acceptance, and Adaptation, with each stage representing a specific orientation toward cultural difference and complexity [31].

Denial is characterized by a lack of recognition of cultural differences. Individuals in this stage tend to avoid or withdraw from cultural differences, often due to a limited experience of other cultures [32]. *Defense or Polarization* is a stage where

cultural differences are recognized but evaluated negatively. This stage often involves a polarized view of "us" versus "them," with one's own culture seen as superior or inferior [33]. *Minimization* is marked by the acknowledgment of superficial cultural differences but a significant emphasis on universal values and similarities that may overshadow deeper cultural differences [33]. *Acceptance* involves recognizing and appreciating deep cultural and personal differences. People in this stage can see the world from various cultural perspectives but do not yet adapt their behavior accordingly [34]. *Adaptation* is the stage where individuals are able to shift their cultural perspective and change their behavior in culturally appropriate and authentic ways. This represents a high level of competence in managing and bridging cultural differences [35].

The Intercultural Development Continuum is particularly relevant to this research as it provides a quantifiable measure of intercultural competence through IDI (Intercultural Development Inventory) scores [36], which range from 0 to around 145, correlating to different stages of intercultural sensitivity (see Figure 1). This research integrates the IDC framework with IDI to analyze how students transition through these stages over the course of a study abroad program [34].

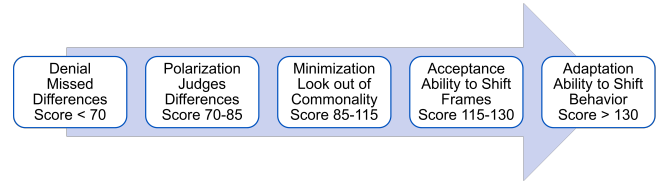


Fig. 1. Stages of Intercultural Competence

The application of the IDI framework in this study is supported by extensive empirical research indicating its validity and reliability in diverse contexts [32], [34]. This framework not only underpins the conceptual basis of our research but also guides the methodology for assessing and interpreting intercultural competencies.

III. PROGRAM DESCRIPTION AND CONTEXT

A. Program Objectives

The study abroad program aimed to 1) Foster cultural self-awareness by enabling students to recognize their cultural norms and biases as well as understand how their background shapes their perceptions of others; 2) Enhance cross-cultural communication skills by helping students interact effectively in diverse cultural settings and adapt their communication style appropriately in intercultural exchanges.

B. Pedagogical Framework

This study's pedagogical framework is rooted in Schon's reflection model, which emphasizes reflection as a crucial element in experiential learning. The program offered students multiple opportunities to deeply examine and derive meaning from their experiences. Schon's model [28] presents

two modes of reflection: reflection-in-action and reflection-on-action.

Reflection-in-action is an immediate, dynamic process where individuals reflect on experiences as they are happening [37]. This approach enables students to think critically in the moment and adjust their behavior in real-time [38]. For instance, a student might modify their direct communication style upon encountering someone who communicates more indirectly.

Conversely, reflection-on-action occurs after an event has concluded [37]. It involves retrospective analysis of actions taken and consideration of potential improvements. This practice allows students to extract valuable insights from their experiences, informing future actions [39]. An example might be a student reflecting on an interaction with a local resident during a group debriefing session with a mentor.

The study abroad course facilitated both reflection-in-action and reflection-on-action. Mentors played a pivotal role in guiding students' real-time reflections, while evening group debriefings and written reflections provided structured opportunities for students to contemplate their daily experiences.

C. Program Overview

This study abroad program targeted pre-freshman students, aiming to expose them to diverse cultures before their college journey began at a culturally diverse university with a rich international population. 15 incoming freshmen participated in the program, which consisted of a pre-departure phase followed by a two-week study abroad experience.

The pre-departure phase involved a comprehensive briefing on cultural etiquette and expectations in the host countries. Students were assigned preparatory videos and readings and completed an Intercultural Development Inventory (IDI) assessment. Additionally, they filled out a preliminary reflection booklet.

The two-week abroad phase took participants to Germany and Spain under the guidance of two seasoned intercultural experts, each with over a decade of experience mentoring STEM graduates in cross-cultural learning. Throughout their travels, students maintained a reflection journal and engaged in daily group discussions facilitated by their mentors. These reflective conversations helped students process and contextualize their experiences in real time.

Upon returning to the United States, participants completed a final reflection exercise and took a post-program IDI assessment, allowing for measurement of their intercultural growth over the course of the program.

IV. METHODS

A. Participants

The study involved 15 pre-freshman students enrolled in a short-term study abroad program offered by the Office of Globalization in a large Midwestern university. Participants were selected based on their enrollment status as incoming freshmen and their voluntary participation in the program. The participants included 9 males and 6 females.

B. Data Collection

Quantitative data was collected through the Intercultural Development Inventory (IDI) assessment, a 50-item questionnaire designed to measure intercultural competence across a developmental continuum. It is a robust instrument used by multiple programs to measure the intercultural competence of the students [24], [40] and provides a detailed profile of an individual's predominant stage of intercultural development, offering insight into their capacity to navigate cultural differences. The assessment was administered to participants before and after their study abroad experience. The pre-test was conducted one week before the study abroad trip and the post-test was conducted upon return to the United States. Qualitative data was collected through guided reflective journals where participants documented their experiences, reflections, and perceived challenges and growth during their study abroad program. The journals included prompts to guide reflection on specific intercultural encounters, personal adjustments, and changes in perceptions or attitudes toward cultural differences. The data collection process is summarized in Table 1.

TABLE I
DATA COLLECTION PROCESS

Stage	Collection Activity	Data Nature
Pre-Program Assessment	Before departing for their study abroad experience, participants completed the pre-program IDI to establish a baseline measure of their intercultural competence.	Quantitative
During Program	Participants were asked to maintain a reflective journal throughout the duration of the study abroad program, responding to weekly prompts that encouraged them to reflect on their interactions, observations, and learning in the new cultural setting.	Qualitative
Post-Program Assessment	Upon completion of the study abroad program, participants completed the post-program IDI to assess any changes in their intercultural competence.	Quantitative

C. Data Analysis

A mixed-methods approach was employed to analyze the data. For quantitative analysis, changes in IDI scores from pre- to post-study abroad were analyzed using paired t-tests to determine statistical significance. This analysis aimed to quantify the development of intercultural competence as a direct result of the study abroad experience. Qualitatively, the reflective journals were analyzed using thematic analysis to identify themes related to participants' intercultural experiences, challenges, growth, and learning. Coding was conducted iteratively, with initial codes refined into broader themes. The qualitative themes were then integrated with the quantitative IDI score changes to provide a comprehensive understanding of the impact of the study abroad program on participants' intercultural competence. The research design is summarized in Figure 2.

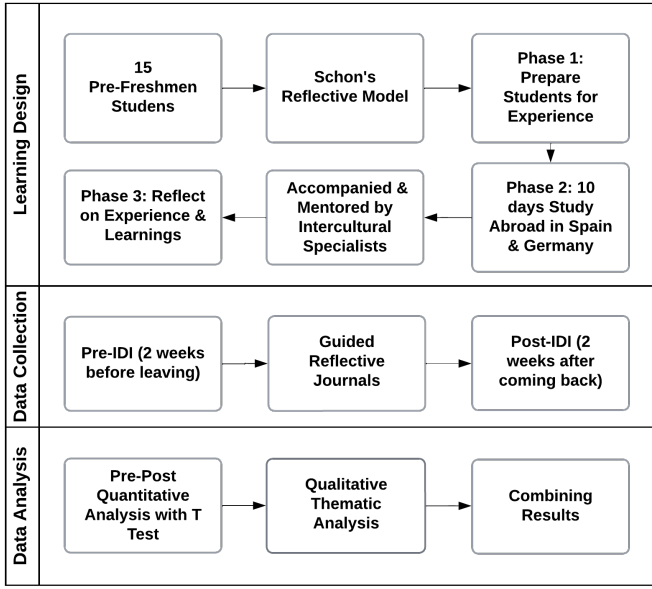


Fig. 2. Research Overview

D. Ethical and Trustworthiness Considerations

The study received approval from the university's Institutional Review Board, ensuring adherence to ethical standards in research involving human participants. Confidentiality and anonymity were maintained by removing any personal identifiers from the data, assigning pseudonyms to the participants, and storing collected data securely.

To validate the quantitative analysis results, a t-test was performed to compare pre- and post-program IDI scores. This statistical test allowed for the assessment of significant changes in participants' intercultural competence levels, providing a robust method to quantify the impact of the study abroad program.

To ensure the reliability of qualitative data analysis, 20% of the data was coded independently by three coders, achieving an inter-rater reliability of 92%. This high level of agreement indicates a strong consensus in the coding process, enhancing the validity of the qualitative findings. Additionally, the research team engaged in peer debriefing sessions to discuss and validate the coding framework, interpretations of the data, and the thematic analysis process. Peer debriefing helped in identifying biases, ensuring a more rigorous and reflective analysis of the qualitative data.

V. RESULTS AND DISCUSSION

A. Quantitative Results

The quantitative data was analyzed using descriptive statistics, and t-tests were conducted to identify significant differences in students' intercultural development before and after the experience, as measured by the IDI scores.

Table 2 reveals that students demonstrated an increase of 7.99 points on the IDI from pre- to post-test. Based on the

Intercultural Development Continuum (IDC) stages, students are initially positioned at the threshold between polarization and minimization, progressing to near the center of minimization by the end of the study abroad trip. The t-test verified the statistical significance of this growth in intercultural competence. The results indicated a significant improvement from the pre-test ($M=86.38$, $SD=17.00$) to the post-test ($M=94.36$, $SD=20.17$, $t = 0.039$, $p = 0.00$).

TABLE II
IDI SCORES PRE & POST EXPERIENCE

	Mean	SD
Pre-Test	86.38	17.00
Post-Test	94.36	20.17

These findings demonstrate that students achieved a statistically significant gain in intercultural competence. Notably, an increase of 7 or more points on the IDI is considered a meaningful real-world improvement in intercultural competence [24], [41]. This outcome aligns with existing literature suggesting that intentionally structured study abroad programs can lead to significant and practical gains in intercultural competence [40], [42].

B. Qualitative Results

The qualitative findings from the study support the nuanced shifts in students' intercultural competence as evidenced by the quantitative results, particularly through their reflections and experiences in different cultural contexts. These reflections are categorized under three main themes: Adaptability in New Cultural Contexts, Uncovering Deep-Rooted Values, and Enhanced Self-Awareness.

1) *Adaptability in New Cultural Contexts*: Adaptability in new cultural contexts is essential, serving not only as a survival skill but also as a means to thrive, learn, and grow [43], [44]. The study abroad programs are not just international travel gateways but are transformative experiences that help students challenge themselves in a globally interconnected world [45].

The reflections show that students articulated their experiences of adapting to varying emotional expressions and pace of life in different countries. One student noted, "*I am less emotionally expressive than a normal average person. In Germany they seemed to hold similar emotional restraint. In a place where emotional restraint is needed I can easily calm myself and adapt to the situation. In Germany this is very common so I feel that I can adequately handle myself. But the situation is not same in Spain, people are emotionally expressive and I need to learn to balance my emotions when interacting with people from different cultures.*". The quote highlights the importance of cultural self-awareness, cultural sensitivity, and the willingness to learn. The student recognizes their ability to manage emotions, contrasting the cultural norms of Germany and Spain, and demonstrates flexibility and emotional regulation. This adaptability highlights the critical aspects of personal growth and a deeper understanding of cross-cultural

values. Overall, this insight reflects the movement from a rigid to a more flexible cultural engagement, indicating progress in the IDC continuum from minimization to acceptance [32].

Students also discussed the challenges of integrating into different cultures but acknowledged how these challenges facilitated new learning experiences. One student recounted their experience with Flamenco dance in Spain, stating, *“For example, learning the flamenco dance made me feel more expressive because I am familiar with dancing, but I was learning a new dance outside my comfort zone.”* This statement illustrates how engaging with unfamiliar aspects of a culture, such as Flamenco dancing, can enhance personal expressiveness. It also highlights how embracing challenges outside one’s comfort zone and being adaptable can deepen cultural immersion and promote personal growth [46].

2) *Uncovering Deep-Rooted Values*: Exploring beneath the surface of cultural practices is crucial for a comprehensive understanding of societal behaviors and norms [47]. Through attentive observation and interaction, students can uncover these foundational beliefs, gaining insights that transcend mere surface-level differences. This knowledge not only aids in navigating cultural differences more effectively but also fosters respect and appreciation for diverse worldviews [48].

The student reflections show that they discovered underlying cultural values through everyday observations. A student mentioned, *“The way others talk dressed and noticeable aspect of culture showed deeper value that are emphasized in their culture for example, my interaction in Germany shows that Germans deeply value time efficiency. Another concept that I related to my experience was value dimension. Germans value independence for example, I saw many kids out on their own. In contrast Spain values family which I saw at the park where many family went to take their kids to spend time.”*

This student quote draws on the iceberg metaphor of culture to illustrate how visible cultural traits—such as language, attire, and behaviors—serve as a gateway to deeper societal values. Student observed that in Germany, there is a societal emphasis on punctuality and productivity, demonstrating the value placed on time efficiency. In contrast, Spain highlights a strong communal orientation, evidenced by families spending time together in parks, showcasing the importance of familial bonds. These experiences encourage students to understand and appreciate the cultural differences and the underlying values that shape societal norms, thereby enriching their intercultural interactions. Overall, these observations highlight the transition from recognizing superficial cultural differences to understanding deeper cultural values, aligning with the acceptance stage of the IDC continuum [33].

3) *Enhanced Self-Awareness*: The enhanced self-awareness through intercultural experiences captures the essence of how study abroad experiences can help students develop a deeper understanding of their experiences by confronting and reflecting upon their cultural biases and assumptions [49]. This process of self-discovery, facilitated by experiential learning

and reflective practice, deepens students’ understanding of their identities within a global context and contributes to their personal and professional growth [50].

The reflections show that the study abroad experience significantly contributed to students’ self-awareness. One student reflected, *“I learned that I am able to adjust to a new culture and travel alone. I learned to handle conflict in a new country and adapt accordingly. My open-mindedness and curiosity will help me to better communicate to people from different cultures and avoid conflict.”* A similar sentiment was shared by another student who said, *“I am pretty relaxed and unhurried. Germany is quick and fast paced. I become overwhelmed and confused when I am unprepared in a fast environment. I can take a moment for myself to regroup and prepare what to do.”*

These quotes showcase a shift towards enhanced self-awareness in intercultural interactions. By engaging with challenges such as communication barriers and pace differences, these students not only recognized their shortcomings but also cultivated patience, adaptability, and conflict resolution skills, essential for navigating and thriving in diverse settings. Overall, this increase in self-awareness is crucial for advancing towards the adaptation stage, where individuals not only recognize but also adapt their behavior based on cultural understanding [35].

VI. IMPLICATIONS

The findings from this study highlight the significant role structured study abroad programs play in enhancing intercultural competence among pre-freshman students. The increase in IDC scores post-experience suggests that such programs not only deepen cultural understanding but also prepare students for global citizenship by fostering essential skills like adaptability, empathy, and cross-cultural communication. These competencies are critical as they translate into improved teamwork in diverse settings, greater problem-solving abilities, and a broader understanding of global issues.

Educational institutions should consider integrating structured international experiences into the curriculum even before students commence their higher education journey. Furthermore, policymakers might leverage these insights to advocate for increased funding and support for study abroad initiatives, particularly those designed with a strong pedagogical framework that includes reflective practices.

Moreover, the qualitative data highlight the transformative potential of encountering and navigating cultural differences firsthand. Institutions may use these insights to refine their approach, focusing on personalized, reflective components that cater to the developmental needs of younger students. This could include mentor-guided reflections and more targeted pre-departure training that addresses the emotional and psychological preparation for cultural immersion.

VII. CONCLUSION, LIMITATIONS. FUTURE WORK

This study showed that a well-structured study abroad program can significantly enhance intercultural competence

among pre-freshman students, as evidenced by both quantitative improvements in IDI scores and qualitative reflections of personal growth. The engagement with diverse cultural settings has not only broadened students' perspectives but also imbued them with skills critical for thriving in a globalized world.

However, the study has certain limitations that should be acknowledged. The small sample size of 15 students from a single institution may limit the generalizability of the findings to broader student populations. Additionally, the two-week duration of the program, while impactful, provides only a snapshot of intercultural development. Longitudinal studies tracking students' growth over extended periods could offer further insights.

Future research should explore the long-term impacts of early study abroad experiences on students' academic, personal, and professional trajectories. Comparative studies across different program structures, durations, and destinations could help identify best practices for maximizing intercultural learning outcomes. Investigating the perspectives of host communities and examining the reciprocal impacts of intercultural engagement would add valuable dimensions to the research.

In sum, this study makes a compelling case for the transformative potential of structured study abroad programs in fostering intercultural competence. By prioritizing such experiences and integrating reflective practices, educational institutions can empower students to become global citizens, equipped with the skills and mindsets to navigate and contribute meaningfully to an interconnected world.

ACKNOWLEDGMENT

We are thankful to the Office of Globalization at Purdue Polytechnic and IDI LLC for supporting this research.

REFERENCES

- [1] S. Lloyd and C. Härtel, "Intercultural competencies for culturally diverse work teams," *Journal of Managerial Psychology*, vol. 25, no. 8, pp. 845–875, 2010.
- [2] D. Dias, C. J. Zhu, and R. Samarasinghe, "Examining the role of cultural exposure in improving intercultural competence: implications for hr practices in multicultural organizations," *The International Journal of Human Resource Management*, vol. 31, no. 11, pp. 1359–1378, 2020.
- [3] O. Kuffuor, S. Aggrawal, A. Jaiswal, R. J. Smith, and P. V. Morris, "Transformative pathways: Implementing intercultural competence development in higher education using kotter's change model," *Education Sciences*, vol. 14, no. 7, p. 686, 2024.
- [4] M. d. Fatima Oliveira, "Multicultural environments and their challenges to crisis communication," *The Journal of Business Communication* (1973), vol. 50, no. 3, pp. 253–277, 2013.
- [5] A. Tichnor-Wagner and J. Manise, "Globally competent educational leadership: A framework for leading schools in a diverse, interconnected world," *Alexandria, Virginia: Association for Supervision and Curriculum Development and Longview Foundation*, 2019.
- [6] A. J. Magana, T. Amuah, S. Aggrawal, and D. A. Patel, "Teamwork dynamics in the context of large-size software development courses," *International Journal of STEM Education*, vol. 10, no. 1, p. 57, 2023.
- [7] S. Aggrawal and A. J. Magana, "Teamwork conflict management training and conflict resolution practice via large language models," *Future Internet*, vol. 16, no. 5, p. 177, 2024.
- [8] Y. Munezane, "A new model of intercultural communicative competence: bridging language classrooms and intercultural communicative contexts," *Studies in Higher Education*, vol. 46, no. 8, pp. 1664–1681, 2021.
- [9] M. Barrett, "Intercultural competence," *EWG Statement Series*, vol. 2, pp. 23–27, 2011.
- [10] V. J. Friedman and A. B. Antal, "Negotiating reality: A theory of action approach to intercultural competence," *Management learning*, vol. 36, no. 1, pp. 69–86, 2005.
- [11] J. Lindsay, "Growing interreligious and intercultural competence in the classroom," *Teaching Theology & Religion*, vol. 23, no. 1, pp. 17–33, 2020.
- [12] S. W. Quigg, *Intercultural Competency Assessment through International Cultural Immersion Programs*. Prescott College, 2013.
- [13] G. Di Pietro, "Do study abroad programs enhance the employability of graduates?" *Education Finance and policy*, vol. 10, no. 2, pp. 223–243, 2015.
- [14] N. Dimitrov and A. Haque, "Intercultural teaching competence: A multi-disciplinary model for instructor reflection," *Intercultural education*, vol. 27, no. 5, pp. 437–456, 2016.
- [15] K. L. Liu, "Exploring intercultural competence through an intercultural extracurricular activity in taiwan," *Journal of Language and Cultural Education*, vol. 4, no. 1, pp. 99–109, 2016.
- [16] N. Yankina, "Organizing and staging extracurricular cross-cultural events at a university with the participation of international students as a way to create multicultural educational environment," *Science Vector of Togliatti State University. Series: Pedagogy, Psychology*, no. 3, pp. 19–23, 2020.
- [17] C. Tarchi and A. Surian, "Promoting intercultural competence in study abroad students," *European Journal of Psychology of Education*, pp. 1–18, 2021.
- [18] M. M. Dwyer, "More is better: The impact of study abroad program duration," *Frontiers: The interdisciplinary journal of study abroad*, vol. 10, pp. 151–163, 2004.
- [19] A. Freed, A. Benavides, and L. Huffling, "Teaching, reflecting and learning: Exploring teacher education study abroad programs as transformatioal learning opportunities," in *Pedagogy in basic and higher education-current developments and challenges*. IntechOpen, 2019.
- [20] A. Jaiswal, M. Sapkota, and K. Acheson, "Bridging borders: assessing the impact of semester-long study abroad programs on intercultural competence development in undergraduate engineering students," *International Journal of STEM Education*, vol. 11, no. 1, p. 24, 2024.
- [21] A. Chwialkowska, "Maximizing cross-cultural learning from exchange study abroad programs: Transformative learning theory," *Journal of Studies in International Education*, vol. 24, no. 5, pp. 535–554, 2020.
- [22] M. H. Salisbury, B. P. An, and E. T. Pascarella, "The effect of study abroad on intercultural competence among undergraduate college students," *Journal of student affairs research and practice*, vol. 50, no. 1, pp. 1–20, 2013.
- [23] Y. He, K. Lundgren, and P. Pynes, "Impact of short-term study abroad program: Inservice teachers' development of intercultural competence and pedagogical beliefs," *Teaching and teacher education*, vol. 66, pp. 147–157, 2017.
- [24] A. Jaiswal, L. Jin, and K. Acheson, "Evaluation of stem program on student intercultural development: Do intercultural interventions work?" *Innovative Higher Education*, pp. 1–19, 2024.
- [25] P. Bahrami, Y. Kim, A. Jaiswal, D. Patel, S. Aggrawal, and A. J. Magana, "Information technology undergraduate students' intercultural value orientations and their beliefs about the influence of such orientations on teamwork interactions," *Trends in Higher Education*, vol. 2, no. 2, pp. 270–282, 2023.
- [26] L. A. Krishnan, C. Masters, H. Holgate, C. Wang, and C. A. Calahan, "Structured study abroad enhances intercultural competence," *Teaching and Learning in Communication Sciences & Disorders*, vol. 1, no. 1, p. 5, 2017.
- [27] A. Groeppel-Klein, C. C. Germelmann, and M. Glaum, "Intercultural interaction needs more than mere exposure: Searching for drivers of student interaction at border universities," *International Journal of Intercultural Relations*, vol. 34, no. 3, pp. 253–267, 2010.
- [28] D. A. Schön, *The reflective practitioner: How professionals think in action*. Routledge, 2017.
- [29] K. Acheson and S. Schneider-Bean, "Representing the intercultural development continuum as a pendulum: Addressing the lived experiences of intercultural competence development and maintenance," *European Journal of Cross-Cultural Competence and Management*, vol. 5, no. 1, pp. 42–61, 2019.
- [30] J. A. Kruse, J. Didion, and K. Perzynski, "Utilizing the intercultural development inventory® to develop intercultural competence," *Springer-Plus*, vol. 3, pp. 1–8, 2014.

- [31] M. R. Hammer, "Additional cross-cultural validity testing of the intercultural development inventory," *International journal of intercultural relations*, vol. 35, no. 4, pp. 474–487, 2011.
- [32] M. R. Hammer, M. J. Bennett, and R. Wiseman, "Measuring intercultural sensitivity: The intercultural development inventory," *International journal of intercultural relations*, vol. 27, no. 4, pp. 421–443, 2003.
- [33] M. J. Bennett, "Becoming interculturally competent," *Toward multiculturalism: A reader in multicultural education*, vol. 2, no. 1, pp. 62–77, 2004.
- [34] M. R. Hammer, "The intercultural development inventory: A new frontier in assessment and development of intercultural competence," in *Student learning abroad*. Routledge, 2012, pp. 115–136.
- [35] R. M. Paige and M. L. Goode, "Intercultural competence in international education administration: Cultural mentoring: International education professionals and the development of intercultural competence," *The SAGE handbook of intercultural competence*, pp. 333–349, 2009.
- [36] E. A. Fitzgerald, P. R. Marzalik, and J. Kue, "Assessing intercultural development pre-and post education abroad," *Journal of Nursing Education*, vol. 57, no. 12, pp. 747–750, 2018.
- [37] H. Munby, "Reflection-in-action and reflection-on-action," *Current issues in education*, vol. 9, no. 1, pp. 31–42, 1989.
- [38] S. J. Shannon, I. W. Roberts, and R. F. Woodbury, "vgallery: Scaffolding reflection-in-action for students and teachers," in *ASCILITE*, 2001.
- [39] A. A. Cattaneo and E. Motta, "'i reflect, therefore i am... a good professional'. on the relationship between reflection-on-action, reflection-in-action and professional performance in vocational education," *Vocations and Learning*, vol. 14, no. 2, pp. 185–204, 2021.
- [40] L. Jin, A. Jaiswal, D. C. Jones, M. Sapkota, S. N. McClure, and A. Stahl, "Enhancing intercultural learning in study abroad through an online curriculum in group-mentored intervention," *Frontiers: The Interdisciplinary Journal of Study Abroad*, vol. 36, no. 1, pp. 350–383, 2024.
- [41] A. Jaiswal, C. Masters, L. Jin, T. Inani, A. Schenkel, M. Sapkota, and L. Krishnan, "It's never too soon! comparing intercultural learning outcomes of undergraduate students via face-to-face and online teaching modalities," *Perspectives of the ASHA Special Interest Groups*, vol. 8, no. 4, pp. 761–781, 2023.
- [42] L. A. Krishnan, H. Diatta-Holgate, and C. A. Calahan, "Intercultural competence gains from study abroad in india," *Teaching and Learning in Communication Sciences & Disorders*, vol. 5, no. 2, p. 6, 2021.
- [43] J. J. Deal, J. Leslie, M. Dalton, and C. Ernst, "Cultural adaptability and leading across cultures," in *Advances in global leadership*. Emerald Group Publishing Limited, 2003, pp. 149–166.
- [44] H. Levin, "The importance of adaptability for the 21st century," *Society*, vol. 52, no. 2, pp. 136–141, 2015.
- [45] Y. Gong, X. Gao, M. Li, and C. Lai, "Cultural adaptation challenges and strategies during study abroad: New zealand students in china," *Language, Culture and Curriculum*, vol. 34, no. 4, pp. 417–437, 2021.
- [46] J. Lichy and B. Favre, "12 leaving the comfort zone," *International Enterprise Education: Perspectives on Theory and Practice*, 2018.
- [47] J. Thomas, *Doing critical ethnography*. Sage, 1993, vol. 26.
- [48] R. T. Moran, P. R. Harris, and S. Moran, *Managing cultural differences*. Routledge, 2010.
- [49] A. C. Gaia, "Short-term faculty-led study abroad programs enhance cultural exchange and self-awareness," *International Education Journal: Comparative Perspectives*, vol. 14, no. 1, pp. 21–31, 2015.
- [50] S. Aggrawal, J. A. Cristancho, D. A. Patel, and A. J. Magana, "Cooperative learning and co-regulation: Exploring students' teamwork strategies in higher education," in *2023 IEEE Frontiers in Education Conference (FIE)*. IEEE, 2023, pp. 1–7.