Journal of Interdisciplinary Studies in Education

Volume 15, Issue 2 (2026), pp. 17-34
Journal of Interdisciplinary Studies in Education
ISSN: 2166-2681Print 2690-0408 Online | https://ojed.org/jise
https://doi.org/10.32674/c15fjm84

Short-Term Education Abroad and Global Competence: Assessing Student Outcomes and Program Impact

Lisa Chieffo
University of Delaware (Retired), USA

Ravichandran Ammigan
University of Delaware, USA

Meng Fan
Human Resources Research Organization, USA

Rujia Wei
Vanguard, USA

Noel L. Shadowen
Skyline Psychotherapy, USA

ABSTRACT

This study examines the impact of short-term education abroad programs on the global competencies of 829 undergraduate students at a U.S. mid-sized public university. Students participated in three- to four-week international education programs during the winter of 2023 and were asked to complete pre- and post-program self-rated measures of their attitudes, knowledge, and awareness regarding cultural engagement, diversity tolerance, ambiguity tolerance, knowledge of the host site, and perceived resilience. The results showed that during their short-term experience, students reported increased competencies in all areas except for perceived resilience. The combination of host-country

language and language of instruction (English or another language) minimally influences results in a few areas, including ambiguity tolerance and diversity openness. The implications of these results for short-term education abroad programs are examined and directions for future study are proposed.

Keywords: Education abroad, global engagement, measurement scales, short-term study abroad

BACKGROUND

Higher Education emphasizes the importance of the opportunity for students to study internationally during their university careers (Whatley, 2024; Chow & Bhandari, 2011). In fact, some universities continue to set explicit annual target rates for participation in such experiences, some ranging from 25% to 50% of their student population (Cunningham, 2025; Martel, 2024). Historically, education abroad in the U.S. has been a longer-term experience, often for a semester or even a whole year of a student's university career (Ammigan et al., 2026). However, as institutions increase their emphasis on participation in these types of experiences, there has been a marked shift in enrollment patterns to short-term education abroad programs. According to the Institute of International Education, short-term programs are defined as programs that last for a summer or up to eight weeks (IIE, 2025a).

Increasingly, students are participating in short-term education abroad programs that often take place during a winter or summer breaks. In fact, 64% of U.S. study abroad participants chose to complete short-term abroad experiences rather than semester-long or year-long experiences in the 2022-2023 academic year, representing a 47% increase over the previous year (IIE, 2025b). As the field of international education moves in this direction, the importance of measuring and assessing the exact skills and competencies developed by students during short-term programs has also become a focal point and a critical part of understanding student outcomes (Chieffo & Griffiths, 2009; Fedewa, 2024; Goldstein, 2022). Can short-term education abroad experiences impact student outcomes positively in the same way as longer-term experiences are intended to do?

Education abroad experiences at the university level provide students with an important opportunity to engage in classroom learning while interacting more

generally with a new cultural environment (NAFSA, 2026; Firmin, 2019). Theoretically, spending time in this global context provides a unique learning experience that would not be possible at the home university, leading to pedagogical and/or personal gains (CIEE, 2024; Bletscher & Hellmann, 2022). Classroom experiences typically align with the host site cultural experiences, such as when students study Italian language while in Rome, or take a class on Spanish architecture in Madrid. This allows learning to be reinforced and complemented by guided experiential activities throughout the time spent in that location and culture (Passarelli & Kolb, 2023).

One of the most commonly cited benefits of education abroad in higher education is that students are immersed in a foreign culture and exposed to the local language, people, food, and ways of life in that context (Ellis, 2024). When participating in education abroad programs that encourage meaningful interaction with their surroundings, students have the opportunity to learn about and experience a culture in a way that is not possible from outside of that environment. This exposure to such cultural learning has been theorized to expand the diversity openness and cultural engagement of students, as well as generally increase overall cultural knowledge and global competence (see Ogden et al., 2021; Deardorff, 2006). A large body of literature theorizes and provides empirical evidence that these skills can carry over into students' future competencies in life and in the workplace (e.g., NAFSA, 2026; Potts, 2022; Spitzberg & Changnon, 2009).

Additionally, education abroad experiences often provide students with their first opportunity to navigate an unfamiliar location and discover how to logistically complete tasks and make decisions on their own. Even for the most independent university students, negotiating a new environment in a foreign language (or even in one's native language) is usually challenging (Ammigan et al., 2026). Therefore, in addition to the reinforcement and real-world application of classroom learning, education abroad programs provide a novel situation and opportunity for students to exercise and improve their critical thinking, planning, and emotion regulation skills (Loes & An, 2024; Tucker, Gullekson, & McCambridge, 2011).

A broad array of education abroad experiences and models are available for students at most U.S. colleges and universities (Institute of International Education, 2025). These include participation in programs in non-English-speaking countries with instruction exclusively in English, in non-English-speaking countries with instruction exclusively in the local language, with mixed-language instruction, and in English-speaking countries. Additionally, programs may offer housing with other students from the students' home institution or home country, with local students, or perhaps home-stay housing with local families (Starr et al., 2022). It is not unreasonable to hypothesize that differences in these critical aspects of program structure may impact student outcomes, particularly in the domain of intercultural competence.

Despite the enormous investment of many higher education institutions in the development, programming, and implementation of education abroad programs, the measurement of student outcomes (academic, personal, sociocultural, etc.) from education abroad programs has been limited in capturing and benchmarking the complexity of their impact on student experiences (Mulder, 2025; Davis & Knight, 2023). The best approaches to measuring student experiences through outcome-based research have long been debated in the field, and the need for rigorous assessment and statistically significant evidence from education abroad remains (DiMaria et al., 2024; Goldstein, 2022, Poole & Davis, 2004).

In an increasingly diverse and globalized world, it is expected that intercultural competence will continue to be a valued skill and approach to life, both on the job and in the local community (Deardorff & Jones, 2022). Colleges and universities continue to expand their offerings of short-term education abroad programs, and students report more interest in participation in such programs as they recognize the utility of intercultural competence skills in both their personal and professional lives (Goldstein, 2022; Niehaus & Nyunt, 2022)). It is therefore essential to understand, and to the extent possible, to measure, the educational and developmental impact that these programs provide. Currently, it is unclear which aspects of programs contribute most to positive student outcomes and which components of intercultural competence grow the most as a result of international experiences. The field continues to investigate the effectiveness and importance of short-term education abroad programs for university offerings and student outcomes (Ogden et al., 2021; Ogden, 2016). Further data are needed to understand the complexities of growth in intercultural competence, including in which areas students experience the most change and to what extent and how short-term education abroad programs can be a viable programmatic option for increasing global competence.

To address this need, the Global Engagement Measurement Scale (GEMS) was developed in 2015 by Shadowen et al. (2015). The GEMS is an online measure designed to assess concepts related to intercultural competence for education abroad students. The framework of this measurement scale is premised upon the need to operationalize concrete skills that universities attempt to develop in students through education abroad experiences. These competence areas fall broadly under the umbrella of "intercultural competence" and are based on core areas identified through prior literature (Shadowen et al., 2015). Shadowen et al. (2015) recognize that there is no widely accepted consensus on a definition of intercultural competence, or even on the most relevant constructs that might comprise such a skill. Nevertheless, this instrument was developed in order to identify constructs that were likely to change as a result of an experience abroad, and which would be applicable to a very wide range of program models. Its six scales are comprised of 43 items that are answered on a 4-point Likert scale in

addition to one qualitative reflective question. The specific components measured by the GEMS subscales include cultural engagement, tolerance for ambiguity, knowledge of the host site, diversity tolerance (two subscales), and resilience (new subscale added following the 2015 study—see Measures and Procedures section). This scale was developed at the University of Delaware in order to provide ongoing and thorough measurement of student outcomes for programmatic and research use. This measure is also publicly available for use by international educators.

The present study aims to preliminarily explore and understand the intercultural competence skills of university students participating in various short-term education abroad programs and to examine the average change in these skills that students report during their time abroad, as measured by the GEMS. Specifically, this study aims to: 1) examine the correlational relation of each construct of interest; 2) examine the change between students' pre-education abroad and post-education abroad scores; and 3) determine the impact of two program characteristics (host country language and language of instruction) on the amount of change.

We hypothesized that in the aggregate, student scores would increase in the domains of cultural engagement, tolerance for ambiguity, knowledge of the host site, diversity tolerance, and resilience during the time abroad. Additionally, we hypothesized that students who participated in a program in a non-English-speaking country and took coursework in the local language while abroad would show greater increases in scores across all subscales.

METHOD

Participants and Procedures

This study protocol was submitted to the University of Delaware Institutional Review Board (IRB) and deemed exempt from IRB approval. Participants were students from the University of Delaware, a mid-size Mid-Atlantic public research university, who took part in a short-term, faculty-led education abroad experience lasting three to four weeks in January of 2023. Of 829 total students who studied abroad through the University of Delaware during this time, 767 completed at least the majority of the assessment instrument prior to departure and then again at the close of their program. The respondents' ethnic backgrounds was as follows: 88% of the sample were White/European American, 5% were Asian, 4% were African American, and 1% were Hispanic. Juniors made up 40% of the sample, followed by Seniors (37%) and Sophomores (19%). Approximately 99% of the students completing the survey were U.S. citizens. Consistent with general U.S. study abroad trends, 74% of the sample was female students. Respondents participated in a total of 41 different programs that took place in 24 different countries and represented more than 40 different academic discipline areas that varied widely from majors such as mechanical engineering

and political science to education and economics. Program design and itineraries were diverse as well, with some remaining mostly in one location with occasional day or overnight trips, while others moved frequently to multiple locations; accommodations ranged from standard tourist-class hotels and hostels to homestays to dormitory rooms on local university campuses. In all cases students were accompanied by at least one faculty member from the home campus who taught at least one of their courses; some students took a second course taught by a local instructor (mainly foreign language courses).

Measures and Procedures

IBM SPSS (Version 31) was the software used for all data analyses. The GEMS was developed by the researchers and was previously validated and tested in a similar sample of university students (Shadowen et al., 2015). Subsequent to the publication of the above article, a subscale measuring resilience levels was added to the GEMS, and this study is the first to examine the performance of the resilience measure.

The GEMS includes 6 subscales: Cultural Engagement (CE), Ambiguity Tolerance (AT), Knowledge of Host Site (KN), Diversity Tolerance for Friends (DT Friends), Diversity Tolerance for Siblings (DT Sibling), and Resilience (RE). Cultural engagement is defined in this context to mean the ability to understand and value diversity and to express an open-minded worldview (Shadowen et al., 2015). Tolerance for ambiguity is defined as a preference for ambiguous situations (where there is environmental uncertainty) and is theoretically linked with improved workplace ability to perform in high-pressure, uncertain situations. Knowledge of the host site refers to practical knowledge of important cultural, historic, and current aspects of the country in which the student studies. Diversity tolerance as defined in this measure refers to the ability to embrace and enjoy interacting with people with different backgrounds, perspectives, and worldviews (Shadowen et al., 2015). On the GEMS, the diversity tolerance construct was operationalized by asking respondents to imagine two scenarios, one measuring judgment toward someone from different backgrounds who was going to marry their friend ("Friends" subscale) and one in which someone was going to marry their sibling ("Sibling" subscale). For a further discussion of the various constructs included in the GEMS, refer to Shadowen et al. (2015). Table 1 contains item-level information on the various domains of the GEMS.

To analyze the change in subscale scores from pre- to post-education abroad experience, a change score was calculated. Paired-samples t-tests were used to measure the significance of mean response change from pre to post. One-Way Analysis of Variance (ANOVA) was employed to examine the potential program effects on overall levels of mean student change from pre to post.

RESULTS

Descriptive Analysis

First, descriptive statistics (Table 1) were calculated for the pre- and post-education abroad experience scores. Reliability coefficients for each subscale were determined and were in the acceptable to excellent range for all subscales, from .69 to .89. Means for pre- and post- scores and standard deviations were also calculated. This additional descriptive information and the number of items for each subscale can be found in Table 1.

Table 1: Descriptive Statistics for Pre- and Post-Subscales

	N	Min	Max	Mean	Std. Dev.	Alpha	Items
CE Pre	782	23	39	30.2	7.49	.69	12
AT Pre	782	11	28	19.21	5.51	.81	7
KN Pre	782	5	20	10.84	4.74	.89	5
DT Friends Pre	782	14	28	25.2	6.21	.77	7
DT Siblings Pre	782	10	24	21.52	5.41	.81	6
RE Pre	782	10	21	14.44	3.57	.79	6
CE Post	764	4	41	32.7	3.68	.69	12
AT Post	762	4	28	21.52	4.05	.85	7
KN Post	761	7	20	16.71	3.18	.80	5
DT Friends Post	761	14	28	26.44	3.2	.78	7
DT Siblings Post	761	12	24	22.05	2.76	.74	6
RE Post	762	8	17	13.81	1.94	.75	6

Note: CE = Cultural Engagement, AT = Ambiguity Tolerance, KN = Site Knowledge, DT = Diversity Tolerance, RE = Resilience

Bivariate Correlations

Bivariate correlations were calculated for all subscales at pre- and post-intervention time points. Correlations were consistent with expectations for the subscales, with the highest cross-correlations between the Diversity Tolerance Friends and Siblings subscales for both pre and post. See Table 2 for all bivariate correlations of the scales.

Pre- to Post-Change

Paired-samples t-tests were used to determine levels of change in student scores from pre- to post- abroad experience in the overall sample. The results are shown in Table 3. As expected, significant gains were realized in pre- to post-intervention scores in the areas of cultural engagement, ambiguity tolerance, knowledge of the host site, and on both diversity tolerance scales. In general, there was a significant increase in students' cultural engagement scores from pre to post ($M = 2.49$, $SD = 7.96$), $t\ (723) = 8.68$, $p < .001$. Additionally, students tended to

Table 2: Bivariate Correlations of Scales for 23 Winter GEMS Results

	1	2	3	4	5	6	7	8	9	10	11	12
1CE Pre	1											
2AT Pre	.54**	1										
3KN Pre	.54**	.55**	1									
4DTF Pre	.67**	.54**	.53**	1								
5DTS Pre	.65**	.55**	.54**	.88**	1							
6 RE Pre	.50**	.56**	.46**	.57**	.62**	1						
7CE Post	.11**	.02	.06	.04	.03	.06	1					
8AT Post	.11**	.24**	.13**	.08*	.07*	.15**	.84**	1				
9KN Post	.06	.09*	.23**	-.01	.03	.06	.58**	.59**	1			
10DTFPost	.04	.02	.05	.09**	.07*	.07*	.92**	.83**	.55**	1		
11DTSPost	.04	.02	.05	.11**	.11**	.07*	.90**	.81**	.55**	.96**	1	
12RE Post	.02	-.02	.02	.03	.03	.05	.90**	.79**	.53**	.91**	.89**	1

*p<.05, **p<.001

increase in their measured scores of ambiguity tolerance ($M = 2.32$, $SD = 5.99$), t (721) = 10.7, $p < .001$ and there was a moderate effect size ($d = .38$). As expected, there was a statistically significant and also practically large increase in students' levels of knowledge of the host site ($M = 5.87$, $SD = 5.06$), t (721) = 32.15, $p < .001$. The effect size for increase in the knowledge of host site subscale was large ($d = 1.16$). Subscales for diversity tolerance of both friends ($M = 1.24$, $SD = 6.71$), t (721) = 5.11, $p < .001$ and siblings ($M = .54$, $SD = 5.79$), t (721) = 2.57, $p < .001$ were also significantly increased for students at the post-education abroad measurement time point. Surprisingly, the resilience subscale revealed a significant *negative* change from pre to post ($M = -.63$, $SD = 3.97$), t (722) = -4.43, $p < .001$. This counterintuitive finding will be explored further in the discussion section below.

Program-level differences

Finally, the results were also examined specifically at the group-level, using the program type variables to explore potential differences for students experiencing varying linguistic environments, both instructionally and outside the classroom. The program types were defined as follows: English language only (abbreviated as ENGL; for example, a program in Australia or the United Kingdom), foreign language only (FL; i.e., a program in which students took classes in the target language in a non-English-speaking country, for example French in France), and non-English-speaking, no language (nonENGL/noFL; i.e., a program with instruction and activities in English taking place in a non-English-speaking country such as Vietnam or Germany). An examination by program type (subgroups) was carried out in order to introduce a layer of complexity into the analysis, which, thus far had investigated only pre/post change among all students across all programs. Given the diversity of programs in the sample, the researchers hypothesized that the degree of change for the subscales could vary with specific program design factors. The language of instruction and the host site provided a clearly defined means by which programs could be classified, as well as a criterion that could influence students' overall experience. Certainly other program design criteria could have been chosen (for example the number of host sites visited, type

Table 3: Pre and Post Changes for 23 Winter GEMS Results

Scale	Mean Change	SD_ Change	t	df	p_value	Cohens_d
CE	2.49	7.96	8.68	723	0	.31
AT	2.32	5.99	10.7	721	0	.39
KN	5.87	5.06	32.15	721	0	1.16
DTF	1.24	6.71	5.11	721	0	.18
DTS	.54	5.79	2.57	721	0.01	.09
RE	-.63	3.97	-4.43	722	0	-.16

of housing, or ratio of structured to unstructured time), but given the traditional role that language study has played in the assessment of the efficacy of education abroad experiences, the researchers defined program type in this way in order to augment the existing body of research surrounding this common component of study abroad.

Table 4: Group-level analysis results (ANOVA)

Variable	Program Type	Mean Pre	Mean Post	Mean Change	df	F	*p*
Cultural Engagement					2, 765	.79	.455
	English	30.03	32.75	2.72			
	Foreign Lang	30.59	32.29	1.69			
	Foreign, no Lang	30.37	32.81	2.44			
Ambiguity Tolerance					2, 765	.95	.388
	English	19.17	21.73	2.56			
	Foreign Lang	19.25	21.25	2.00			
	Foreign, no Lang	19.28	21.2	1.92			
Knowledge Host Site					2, 765	.09	.914
	English	10.82	16.72	5.90			
	Foreign Lang	11.08	16.77	5.69			
	Foreign, no Lang	10.74	16.63	5.90			
Diversity Tolerance-Friends					2, 765	.89	.410
	English	24.97	26.48	1.5			
	Foreign Lang	25.55	26.39	.84			
	Foreign, no Lang	25.54	26.38	.84			
Diversity Tolerance-Siblings					2, 765	.65	.522
	English	21.38	22.11	.73			
	Foreign Lang	21.67	21.93	.26			
	Foreign, no Lang	21.75	21.98	.23			
Resilience					2, 765	.54	.584
	English	14.40	13.85	-.55			
	Foreign Lang	14.34	13.78	-.56			
	Foreign, no Lang	14.60	13.71	-.89			

A one-way between-0subjects ANOVA was conducted to compare the effects of program types on the amount of change observed over the time abroad. There was no significant effect of program type on the dependent variable subscale scores of Cultural Engagement [F (2, 765) = .79, p = .455], Ambiguity Tolerance [F (2, 765) = .95, p = .388], Knowledge of the Host Site [F (2, 765) = .09, p = .914], Diversity Tolerance-Friends [F (2, 765) = .89, p = .410], Diversity Tolerance-Siblings [F (2, 765) = .65, p = .522], or Resilience [F (2, 765) = .54, p = .584]. It made no significant difference for these submeasures whether or not a student studied in an English-speaking or non-English-speaking country, or whether classes and activities were conducted in English or in the language of the host country.

DISCUSSION

The results of this study demonstrate that short-term education abroad programs can be effective in increasing aspects of students' intercultural competence. The GEMS was designed to include a variety of submeasures that research has found to be related to a general global engagement mindset. This study provides further evidence that short-term education abroad programs can indeed increase global and intercultural competence outcomes for students across a variety of core domains, from content areas (knowledge of the site) to attitude changes (such as diversity tolerance).

There has been some debate in the literature about the efficacy of short-term education abroad programs on students' personal development and global cultural learning, including the development of a global mindset. Our research suggests that short-term education abroad experiences can in fact impact students' global competence in a substantial and positive way. The evidence is all the more compelling given the large group size and the broad range of experiences (geographic location, language instruction, program characteristics and design, and course discipline area). The overall scores for students who participated in a short-term program during this term increased significantly across 5 of the 6 subareas of interest. This demonstrates that even a relatively short period of time (approximately four weeks on average) can be enough to significantly change students' self-reported ideas, attitudes, and knowledge. These student outcomes demonstrate that student attitudes in global competence increased measurably across various domains after participation in a short-term study abroad program.

Resilience was the sole subdomain in which scores did not increase, and in fact actually decreased, over the course of the education abroad experience. This measure assessed students' ability to adapt to change and their confidence in their ability to rebound from setbacks. Not only did students not indicate an increased sense of self-reported resilience, but they also reported a significant *decline* in their own confidence over the course of their program abroad. One possible explanation

is that the experience of navigating a complex new context over an intensive few weeks gave students a sense of their own limitations. In this way, the short-term experience could have temporarily depressed students' sense of self-efficacy and confidence in their adaptability. It is also possible that students tended to overestimate their own competence and resilience at the predeparture stage, and, after having experienced the challenges of navigating a new environment abroad, had a more measured and accurate sense of their own resilience at the post-program stage. This is an interesting finding that should be investigated further, particularly in longer-term (semester) education abroad programs. In such instances the extended time in a new context may allow students to adjust and acquire more skill in navigating the new environment, thereby perhaps having a different impact on students' feelings of competence and resilience.

When investigating the impact of language of instruction and host-country language, this study did not find statistically significant differences in the Ambiguity Tolerance subscale across program types. Although all groups improved in their Ambiguity Tolerance scores, the degree of change did not significantly differ between students studying in English-speaking versus non-English-speaking environments. This finding suggests that while increased tolerance for ambiguity may occur during study abroad, it may not be solely or strongly influenced by the language environment. Prior research suggests that people may develop a tolerance for "gray areas" and other types of ambiguity through repeated exposure to unclear or confusing situations, such as when communication barriers arise. These types of situations may still occur across a variety of cultural and logistical contexts, regardless of the language of instruction.

Group analyses did not reveal significant differences in the domain of diversity tolerance for friends depending on program type. Although earlier hypotheses suggested that students studying in a non-English-speaking country with instruction in English might show greater increases in this area, the data did not support this distinction. Additionally, our study found no statistically significant differences across the three program types, indicating that gains in diversity tolerance were not dependent on language or instructional context.

Overall, the results of this study supported the initial hypotheses, with a few exceptions. We hypothesized that on the aggregate, student scores would increase across all domains over the course of a short-term education abroad program. The results supported this hypothesis in the subdomains of Cultural Engagement, Tolerance for Ambiguity, Knowledge of the Host Site, and Diversity Tolerance (for friends and family). The hypothesis was not supported in the sub-domain of Resilience, in which overall students reported feeling less confident in their resilience levels at the end of the program. This may be due to students over-estimating their ease of adaptation, and/or due to the intensity of the experience during the few weeks abroad, and possibly would return to starting levels or even

increase if measurement were extended out a few months from time of return. We also hypothesized that students who participated in a program in a non-English-speaking country and took coursework in the local language while abroad would have greater increases in scores across all areas, due to theoretically greater immersion in the host culture due to language and, in many cases, a homestay housing arrangement. This hypothesis was not supported. Students in all program types showed similar levels of growth across all domains. While there was an expectation of stronger outcomes for the language-immersion group, the differences in change scores across groups were not statistically significant. These findings suggest that short-term education abroad experiences can support intercultural development regardless of the language of instruction or host-country context.

CONCLUSION

The results of this study demonstrate that short-term education abroad programs of only a few weeks can impact student outcomes across various domains of global intercultural competence. The programs included in this study differed drastically in their design components, course offerings, language of instruction, and country destination. While some variation in gains was observed across program types, particularly in domains such as ambiguity tolerance, most outcomes did not differ significantly by program type. Therefore, further research is needed to determine which aspects of program structure most meaningfully affect specific intercultural outcomes.

The current study has many strengths. This study includes virtually the entire population of students who enrolled in and completed (earned credit for) a large variety of short-term education abroad programs, as the measurement tool was incorporated into the pre- and post-program requirements. Therefore, attrition bias, with the exception of the few students who withdrew from or otherwise did not complete the program, was avoided in this study. Additionally, the present study included a broad range of short-term education abroad programs across a variety of geographical locations and with various characteristics (e.g. different living arrangements, program-related activities, interaction with host-country nationals, and so on). Students also represented varied academic disciplines and were drawn from a mid-sized public university. The presented results therefore encompass experiences from a wide array of students and majors, with a high likelihood of diverse experiences and perspectives.

Limitations and Future Directions

This study had several methodological limitations inherent in studies on education abroad. Students could not be randomized to conditions, and it is likely

that there is a self-selection bias, not only for studying abroad in the first place and being disposed to self-challenge and openness to change, but also for self-selecting into certain types of education abroad programs. Some of the education abroad experiences offered through this university were major specific, and thus academic disciplines were not randomized across program types. Additionally, it was not possible to include an on-campus control group, and all measures were all self-reported. Although self-report measures do have benefits, they also tend to reflect respondents' subjective biases about themselves and may be influenced by biases related to how individuals would like to be perceived.

Future studies should focus on understanding the design of individual short-term education abroad programs and why particular aspects may be important for affecting change across different areas of intercultural competence. What are the main drivers of growth in intercultural competence? Future study of the specific characteristics of students (for example major, year in university, ethnic background, and prior travel experience) and of short-term programs (for example type of accommodation, number of program locations, time spent traveling as a group, and the extent of meaningful interaction with host nationals) could be a fruitful area of research. A comparison of the amount of change in these domains of global engagement between short-term and long-term education abroad students may also be interesting. Finally, the long-term outcomes and future career trajectories of students who participate in short-term education abroad studies are currently unknown. It will be important to also consider long-term outcomes and the nuanced ways in which intercultural competence may impact participants' global engagement, well-being, and attitudes over the course of their lives.

Acknowledgements

The authors would like to thank Kelvin Dankwah Agyei and Matthew L. Drexler for their assistance with data collection and analysis for this study.

REFERENCES

Ammigan, R., Drexler, M. L., Gleason, M. A., & Foley, A. G. (Eds.). (2026). *100 years of study abroad: Reflections from university students, alumni, faculty, and staff*. STAR Scholars Press.

Bletscher, C., & Hellmann, K. (2022). "We come from different countries, but we all have one earth": Enhancing intercultural competencies through international and domestic student service learning. *Journal of Interdisciplinary Studies in Education*, *11*(2), 154-175.

CIEE. (2024). How Long is Study Abroad? Semester, Summer, J-term, and More! College Study Abroad. https://www.ciee.org/go-abroad/college-

study-abroad/blog/how-long-study-abroad-semester-summer-j-term-and-more
Chieffo, L., & Griffiths, L. (2009). Here to stay: Increasing acceptance of short-term study abroad programs. In R. Lewin (Ed.), *The handbook of practice and research in study abroad: Higher education and the quest for global citizenship* (pp. 365-380). Routledge.
Chin, H.K.K. (2006). Open Doors 2006: Report on International Educational Exchange. New York: Institute of International Education. http://opendoors.iienetwork.org/?p=89252
Chow, P. & Bhandari, R. (2011). Open doors: Report on international education exchange. Institute of International Education. http://files.eric.ed.gov/fulltext/ED661506.pdf
Comp, D. (2007). Chapter VI: Literature and resources. In M. Bolen (Ed.), *The guide to assessment for international education* (p. 99). Forum on Education Abroad.
Cunningham, H., Topping, K., & Levy, S. (2025). Higher Education internationalisation policy and home student populations. *Compare: A Journal of Comparative and International Education*, 55(4), 623-640.
Davis, K. A., & Knight, D. B. (2023). Assessing learning processes rather than outcomes: Using critical incidents to explore student learning abroad. *Higher Education*, *85*(2), 341-357.
Deardorff, D.K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization, *Journal of Studies in International Education, 10 (3),* 241-266.
Deardorff, D. K., & Jones, E. (2022). Intercultural competence as a core focus in international higher education. In *The handbook of international higher education* (pp. 223-241). Routledge.
DiMaria, J., Gray, D. M., Melton, J., & Hicks, N. (2024). Developing an evidence-based faculty-led study abroad business course. *Cogent Business & Management*, 11(1), 2319393.
Ellis, T., Jola, C., & Cameron, A. (2024). Cultural adaptation and transitions within international higher education: University students' experiences of studying abroad during the 2020 Coronavirus pandemic. *PLOS ONE*, *19*(10), e0308134.
Fedewa, K. (2024). Holistic evaluation of short-term education abroad interventions: A preliminary case study. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 36(1), 163-201.
Firmin, M. W. (2019). Draws and Drawbacks of an Oxford Study Abroad Experience. *Journal of Interdisciplinary Studies in Education*, *5*(1).
Goldstein, S. B. (2022). A systematic review of short-term study abroad research methodology and intercultural competence outcomes. *International Journal of Intercultural Relations*, 87, 26-36.

Hammer, M.R. (2015). The Developmental Paradigm for Intercultural Competence
Research. *International Journal of Intercultural Relations, 48*, 12-13.
Howarth, C., & Andreouli, E. (2015). "Nobody wants to be an outsider": From diversity management to diversity engagement. *Political Psychology, 37*, 327-340.
Institute of International Education [IIE] (2025a). "Duration of U.S. Study Abroad." Open Doors Report. https://opendoorsdata.org/data/us-study-abroad/duration-of-study-abroad/
Institute of International Education [IIE] (2025b). "2024 Fast Facts." Open Doors Report. https://opendoorsdata.org/fast_facts/fast-facts-2024/
Kurt, MR, Olitsky, N.H., Geis, P. (2013). Assessing global awareness over short-term study abroad sequence: A factor analysis. *Frontiers: The Interdisciplinary Journal of Study Abroad, 23*, 22-41.
Loes, C. N., & An, B. P. (2024). Study abroad enhances cognitive development. *Journal of Student Affairs Research and Practice*, *61*(1), 72-85.
Martel, M. (2024). Spring 2024 Snapshot on International Education Exchange. Institute of International Education. https://www.iie.org/publications/spring-2024-snapshot-on-international-educational-exchange/
Mulder, D. (2025) miXabroad report puts evidence behind the impact of global learning. *The Koala News.* https://thekoalanews.com/mixabroad-report-puts-evidence-behind-the-impact-of-global-learning/
NAFSA. (2026). Independent Research Measuring the Impact of Study Abroad. https://www.nafsa.org/policy-and-advocacy/policy-resources/independent-research-measuring-impact-study-abroad
Niehaus, E., & Nyunt, G. (2023). Uncovering the potential learning in short-term study abroad. *Journal of Student Affairs Research and Practice*, *60*(3), 417-432.
Ogden, A. (2016). Toward a research agenda on US education abroad. Association of International Education Administrators (AIEA). http://www.aieaworld.org/research-agenda
Ogden, A. C., Streitwieser, B., & Van Mol, C. (Eds.). (2021). *Education abroad: Bridging scholarship and practice*. Routledge.
Passarelli, A. M., & Kolb, D. A. (2023). Using experiential learning theory to promote student learning and development in programs of education abroad. In *Student learning abroad* (pp. 137-161). Routledge.
Poole, D. & Davis, T. (2004). Concept mapping to measure outcomes in study abroad programs. *Social Work Education, 25*, 61-77.
Potts, D. (2022). Employability development and career outcomes from short-term learning abroad programmes. *Higher Education Research & Development*, 41(4), 1215-1230.

Shadowen, N, Chieffo, L, & Guerra, N. (2015). The Global Engagement Measurement Scale: A new scale for assessing the impact of education abroad and campus internationalization. *Frontiers: The Interdisciplinary Journal of Study Abroad, 26*, 231-247.

Spitzberg, Brian & Changnon, G. (2009). Conceptualizing intercultural competence. *The Sage Handbook of intercultural competence*. 2-52.

Starr, L., Yngve, K., & Jin, L. (2022). Intercultural competence outcomes of a STEM living–learning community. *International Journal of STEM Education*, *9*(1), 31.

Tarrant, M.A., Rubin, D.L., & Stoner, L. (2014). The added value of study abroad: Fostering a global citzenry. *Journal of Studies in International Education, 18,* 141-161.

Tucker, M.L., Gullekson, N.L., & McCambridge, J. (2011). Assurance of Learning in Short-Term, Study Abroad Programs. *Research in Higher Education Journal, 14,* 1-11.

Whatley, M. (2024). International Education's Academic Benefit: Potential for Community College Virtual International Exchange. *Research in Higher Education*, 65(7), 1647-1678.

LISA CHIEFFO, EdD, managed study abroad programs at the University of Delaware for 28 years, most recently as associate director. She has conducted research and published on outcomes assessment of short-term programs, presented at numerous NAFSA and Forum national conferences, and co-edited the third edition of NAFSA's Guide to Successful Short-Term Programs Abroad.
Email: lchieffo@udel.edu

RAVICHANDRAN AMMIGAN, PhD, is Vice Provost for Global Engagement at the University of Delaware, leading the institution's internationalization strategy and global initiatives. With 25 years of experience in the field, he also serves as Associate Professor of Education, focusing his research on student experiences and institutional support services in higher education.
Email: rammigan@udel.edu

MENG FAN, PhD, is a Research Scientist at the Human Resources Research Organization (HumRRO) specializing in psychometrics, causal inference, and program evaluation. He leads quality control for state assessments and studies the impact of educational interventions. He holds a Ph.D. in Educational Statistics and Research Methods from the University of Delaware.
Email: fanmeng2046@gmail.com

RUJIA WEI, is a lead analyst at Vanguard. She earned her master's degree in Statistics from the University of Delaware, where she also served as global program assistant at the Institute for Global Studies.
Email: andrea.rujia.wei@gmail.com

NOEL L. SHADOWEN, PhD, received her doctorate from the University of Delaware in 2018. She participated in a study abroad program to Italy during her undergraduate years of study and considers that experience formative in many ways. Email: nshadow@udel.edu

Manuscript submitted: ***September 12, 2025***
Manuscript revised: ***March 28, 2026***
Accepted for publication: ***March 29, 2026***