International Journal of Instruction *January 2027 ● Vol.20, No.1*
e-ISSN: 1308-1470 ● www.e-iji.net *p-ISSN: 1694-609X*
pp. 421-436

Article submission code: 20260408114959
Received: 08/04/2026 Revision: 15/07/2026
Accepted: 24/07/2026 OnlineFirst: 01/10/2026

Exploring Intercultural Sensitivity in Short-Term Study Abroad: A Pilot Longitudinal Study

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This study examined changes in intercultural sensitivity among Japanese university students who participated in a two-week study abroad program in Australia, focusing on whether it produced measurable changes among students for whom intercultural development may be the least automatic. This longitudinal pilot study included 14 students with no prior overseas experience and beginner-level English proficiency. A ten-item questionnaire that was suitable for educational contexts administered pre- and post-program was used to measure changes. The results indicated that none of the items exhibited significant changes, and the effect sizes were negligible. However, the mean scores increased slightly for some items. These preliminary patterns suggest that the effects of short-term study abroad may be inconsistent and depend on learner characteristics and experience quality rather than participation alone. This study also tentatively implies that learners' understanding and interpretation of their experiences may be as important as their amount of experience. Accordingly, the findings point to the potential value of offering ongoing learning support before, during, and after the study abroad program. As a pilot study based on a small sample, it offers preliminary insights into the educational effects of short-term study abroad programs using a simple measurement method, indicating directions for larger-scale investigations.

Keywords: short-term study abroad, intercultural sensitivity, longitudinal study, Japanese university students, intercultural competence

Citation: Amaki, Y., Shirasu, Y., & Tomoto, Y. N. (2027). Exploring intercultural sensitivity in short-term study abroad: A pilot longitudinal study. *International Journal of Instruction*, *20*(1), 421-436.

INTRODUCTION

Higher education has increasingly prioritized internationalization, resulting in the widespread implementation of study abroad programs to foster intercultural understanding. Short-term programs are particularly significant because they are more accessible than long-term programs and can provide international experience to more students. However, a consistent perspective on the educational effects of short-term study abroad programs is lacking. Some studies have posited that even a short stay can change people's intercultural understanding and attitudes. However, other studies indicate that these effects are limited and vary depending on learners' characteristics and the program's conditions. Thus, the outcomes of short-term study abroad programs exhibit significant variability.

Regarding Japanese higher education, research on intercultural sensitivity has examined how different types of intercultural programs affect student development. More broadly, intercultural sensitivity and education have been widely studied in the context of language learning. For example, Chau and Truong (2019) examined how intercultural education can be integrated into English language teaching, and Uyun and Warsah (2022) measured intercultural sensitivity as an affective basis for multicultural education. These studies suggest that intercultural sensitivity is closely tied to language education and shaped by instructional and contextual factors rather than exposure alone. Amaki et al. (2025) used the Intercultural Development Inventory (IDI), based on Bennett's (1986) Developmental Model of Intercultural Sensitivity (DMIS), to compare the effects on the intercultural sensitivity of Japanese college students of a domestic English immersion program and a two-week study abroad program. Although both programs increased intercultural sensitivity, the study abroad group demonstrated greater gains, particularly in the more advanced stages of the DMIS, such as Acceptance and Adaptation. These results suggest that more immersive experiences are more effective in fostering deep intercultural understanding and that domestic programs, while useful as a starting point, may not be sufficient to promote advanced intercultural adaptation.

How widely Japanese students differ in their perceptions of and engagement with intercultural experiences has received less attention. Hirose (2020) conducted a study of first-year Japanese university students and found that although many students wanted to befriend international students, they were reluctant to speak to foreigners in everyday settings, often because of low confidence in their English. Furthermore, many were not inclined to live or work abroad. These findings suggest that international orientation and the accompanying willingness vary considerably, even among students in the same class. In a survey of Japanese university students, Numata (2012) found that their intercultural understanding was not uniform, with some students actively engaging in understanding other cultures, whereas others did so only partially or even showed resistance. Amaki et al. (2023) found that although students with low international orientation often enjoy short-term programs as a form of tourism, they do not progress to genuine intercultural understanding and often lose motivation to continue learning. Moreover, much of this research has focused on students with high international orientation who participate in study abroad programs or overseas internships. Few

studies have examined students with low international orientation, beginner-level English proficiency, and limited overseas experience.

Measuring the effects of short-term study abroad programs also poses challenges. Although existing scales, such as the IDI, are useful, they frequently face practical and time-related constraints in educational contexts. Consequently, simpler and more practical assessment methods are increasingly needed.

Collectively, these issues highlight a specific gap. It remains unclear whether and in what respects a short-term study abroad program produces changes in intercultural sensitivity among students without prior overseas experience and with only beginner-level English proficiency. Intercultural development may be the least automatic for these students. Whether a measurement method that is feasible in ordinary educational settings can capture such changes also remains unclear.

Thus, this study examined the impact of a two-week short-term study abroad program in Australia on the intercultural sensitivity of Japanese university students. It employed a longitudinal approach, focusing on students acquiring beginner-level English proficiency and traveling overseas for the first time. A simple questionnaire was designed for this study to explore changes after the program compared to responses before it.

LITERATURE REVIEW

This section reviews previous studies on the effects of short-term study abroad programs on intercultural sensitivity and clarifies this study's position. Specifically, it addresses the following points. First, it defines the fundamental concepts of intercultural sensitivity and competence. Second, it reviews studies on the effects of short-term study abroad programs. Third, it examines the effects of short-term study abroad programs on intercultural sensitivity. Fourth, it addresses issues related to measurement scales and evaluation methods. Fifth, it emphasizes the significance of support and program design in the context of short-term study abroad.

Concepts and Frameworks of Intercultural Sensitivity and Competence

Intercultural sensitivity is a multidimensional concept that encompasses individuals' attitudes toward other cultures, their cognitive processes, and their interactions with others. Bennett's (1986) framework, the DMIS, is widely utilized to elucidate the gradual development of people's understanding of cultural differences. The DMIS posits that individual's transition from an ethnocentric view, in which cultural differences are primarily understood from their own cultural perspective, to a more relativistic view. From this perspective, cultural differences are understood in context, and individuals can adapt their behavior according to various intercultural situations. Thus, the model offers a developmental perspective on intercultural sensitivity by providing a theoretical framework that explains how perceptions and evaluations of cultural differences evolve.

Conversely, abilities related to intercultural understanding encompass cognitive aspects, attitudes, skills, and behavioral changes. This concept is closely related to intercultural

competence. Deardorff (2006) considered intercultural competence a learning outcome for students initially rooted in attitudes that subsequently develops through knowledge, comprehension, and skills, ultimately resulting in outcomes in intercultural contexts. Furthermore, the Process Model of Intercultural Competence differentiates between internal and external outcomes. Internal outcomes denote changes in the learner, such as flexibility, empathy, and an intercultural perspective. In contrast, external outcomes are observable changes, such as the ability to communicate and act effectively and appropriately in intercultural situations. This framework implies that intercultural understanding is the outcome of multiple interacting aspects rather than a single ability. Based on this perspective, this study adopts four dimensions: awareness of and attitudes toward culture, awareness of and interest in culture, understanding of language and culture, and engagement with and behavior toward other cultures. The purpose of these dimensions is to capture the aspects of intercultural sensitivity that may change through short-term study abroad programs.

Short-Term Study Abroad Research Trends

Short-term study abroad programs are more accessible than long-term programs, and several universities have introduced them as part of their international education initiatives. However, findings on the outcomes of short-term study abroad programs are inconsistent, and the degree to which they can foster intercultural sensitivity and competence has become a significant research topic. Goldstein (2022) systematically reviewed empirical studies on study abroad programs lasting eight weeks or less, published between 2004 and 2021, and discovered that several reported enhanced intercultural competence following short-term study abroad. However, previous studies have employed various measurement scales, research designs (e.g., longitudinal and cross-sectional), and analytical methods, creating difficulties in directly comparing findings across studies or drawing consistent conclusions regarding the effects of short-term study abroad programs.

Furthermore, short-term study abroad programs vary widely in format, educational content, participant characteristics, pre- and post-program learning support, and immersion level at the host site. The quality of learning experiences can vary even within the same category. Therefore, considering not only the length of stay but also the program's characteristics and learning environment is crucial when examining the outcomes of short-term study abroad programs. Although research on such programs has increased, their outcomes must be examined from multiple perspectives, particularly regarding the aspects of intercultural sensitivity that have changed.

Changes in Intercultural Sensitivity Through Short-Term Study Abroad

Previous studies have demonstrated that short-term study abroad programs can affect intercultural sensitivity and competence. Song (2020) examined the intercultural competence and oral proficiency of students who participated in a short-term study abroad program and found that even after a short period, intercultural competence was enhanced significantly across multiple dimensions, including cognitive, affective, and behavioral aspects. In contrast, language use exhibited improved oral ability, but

fluency and pragmatic ability did not. These results suggest that enhancing intercultural competence does not directly result in the development of language ability.

Mahapatra et al. (2025) investigated changes in intercultural competence among students participating in a short-term study abroad program, comparing students' responses before and after the program using a short questionnaire that reflected scenarios involving intercultural living and interaction. The results demonstrated significant changes across all three examined dimensions (i.e., knowledge, attitudes, and skills) and overall scores. These results indicate that short-term study abroad programs may lead to learning outcomes associated with intercultural understanding. Notably, the changes were most significant in the knowledge dimension. These findings imply that when the program duration is limited, as in a short-term study abroad program, learners may be more likely to experience changes in their thought processes, such as greater awareness of cultural differences and the development of broader perspectives, rather than deeper changes in their values or behavior.

Furthermore, in the context of international mobility, Bartel-Radic and Cucchi (2025) examined the conditions and processes underlying the development of intercultural competence, demonstrating that factors beyond mere contact influence the effects of intercultural experience. Additional factors include how individuals manage challenges and conflicts, as well as the lessons they derive from their experiences, commonly referred to as perceived learning. Thus, it is important to concentrate on the process by which participants become cognizant of new cultural perspectives, develop attitudes and behaviors, and manage their emotions through intercultural experiences to understand the outcomes of studying abroad.

Overall, these studies indicate that short-term study abroad programs can enhance intercultural sensitivity and competence. However, these changes do not manifest in a single aspect, but in various ways across multiple dimensions, such as attitudes, knowledge, and behavior.

Issues in Measurement and Evaluation: IDI-based studies and the need for simple scales

Hammer and Bennett (1998) introduced the IDI, a widely used tool for measuring intercultural sensitivity using the DMIS. Hammer et al. (2003) further developed the IDI based on the DMIS theoretical framework. Through statistical validation, they demonstrated the scale's reliability and validity in measuring how individuals perceive cultural differences across developmental stages.

Goldstein (2022) systematically reviewed studies on short-term study abroad programs and observed that despite reported improvements in intercultural competence, research designs and measurement methods vary considerably. Furthermore, the study highlighted the need to resolve methodological and conceptual issues. Therefore, the characteristics of the research designs and measurement methods used must be considered when examining the outcomes of short-term study abroad programs.

The extensive use of different measurement tools and evaluation frameworks in research on short-term study abroad programs creates challenges for comparing results

across studies. Furthermore, the need for methods that alleviate the burden on participants while remaining beneficial for the evaluation of educational practices is underscored by the fact that data collection in short-term study abroad programs must be completed in a constrained timeframe before and after travel. Consequently, this study developed a simple questionnaire based on insights from existing scales to facilitate its use in educational contexts. Participants were surveyed before departure and after returning to examine changes in their intercultural sensitivity over time.

Importance of Support and Program Design for Short-Term Study Abroad

Short-term study abroad programs involve a limited stay, making it crucial to provide support and thoughtful design to ensure that participants gain meaningful learning from the experience rather than viewing it as simply ending after the trip. Goldstein (2022) reviewed studies on short-term study abroad programs lasting eight weeks or less and demonstrated that they can foster intercultural competence. However, consistently achieving these effects requires additional research to determine the most effective program designs and implementations. Short-term study abroad programs require careful planning and educational support to help participants transform limited experiences into meaningful learning opportunities, which can significantly influence outcomes.

The literature suggests that merely having intercultural experiences may be inadequate for developing intercultural competence. The intentional inclusion of opportunities for reflective learning is important to enable participants to learn from their experiences. Building on previous studies emphasizing the importance of promoting reflective processes, Tarchi et al. (2019) examined how study abroad experiences can foster intercultural understanding. In their study, students used video diaries to record and discuss confusing or challenging cultural experiences, commonly referred to as "critical incidents." The results of analyzing this content suggested that intercultural sensitivity may be related to students' descriptions of their experiences and attention to context. Moreover, the study indicated that reflection through video diaries and critical incidents can be an effective educational approach.

Based on a large-scale study of approximately 1,300 study abroad participants, Vande et al. (2009) demonstrated that studying abroad positively affects intercultural learning and language development. However, the results also indicated individual variations in outcomes and that learner characteristics and program factors, such as program length and housing arrangements, influence learning outcomes. Furthermore, they contended that learning does not occur automatically while studying abroad and is more effectively enhanced by intentional, proactive learning support. Therefore, even for short-term study abroad programs, it is crucial to design support strategies that help participants convert their limited experiences into meaningful learning opportunities.

This intervention design aligns with the DMIS's view of intercultural sensitivity as a developmental construct. This model anticipates that individuals will demonstrate stepwise progress from awareness of cultural differences to more adaptive comprehension. However, simple contact alone may not result in sufficient development within a short period of studying abroad. Therefore, educational support

and reflection opportunities must be intentionally designed to facilitate the transformation of experiences into learning. In this study, the short-term study abroad program encompassed both pre-departure preparation and post-return learning activities. These activities were specifically designed to provide participants with opportunities to reflect on and incorporate their experiences into their learning.

RESEARCH QUESTIONS AND HYPOTHESES

Research Questions

Previous studies have examined the effects of short-term study abroad programs on intercultural sensitivity. However, longitudinal studies focusing on students with limited English proficiency experiencing overseas travel for the first time remain scarce. Although existing scales, such as the IDI, are useful, simple scales that can be used in educational settings are vital. For this study, a simple scale was considered a short questionnaire that could be completed quickly while imposing a relatively low burden on participants. In particular, data must be collected before and after travel in a limited timeframe for short-term study abroad programs. Therefore, it is important to employ measurement methods that are useful for evaluating educational practices and improving programs while also minimizing the burden on participants. Therefore, this study focuses on Japanese university students who participated in a two-week short-term study abroad program in Australia. A ten-item questionnaire designed for this study was used to explore changes in intercultural sensitivity pre- and post-program.

Intercultural sensitivity is not perceived as a single trait, such as a personality trait. Instead, it is perceived as a concept comprising multiple aspects, including attitudes toward other cultures, ways of thinking, interest levels, behavior in intercultural situations, and self-reflection. Furthermore, when the period of experience is limited, such as in short-term study abroad programs, it may be more effective to examine the aspects likely to change through intercultural experiences rather than directly measure shifts in developmental stages, as described in Bennett's model. Consequently, this study defines intercultural sensitivity using four operational dimensions: awareness and attitudes toward culture, awareness and interest in culture, understanding of language and culture, and engagement with and behavior toward other cultures. We developed questionnaire items based on this framework and propose the following research questions (RQs):

RQ1. How does the intercultural sensitivity of Japanese university students change after participating in a two-week short-term study abroad program in Australia?

RQ2. Do changes in intercultural sensitivity vary across the dimensions measured by the questionnaire: awareness and attitudes toward culture; awareness and interest in culture; understanding of language and culture; and engagement with and behavior toward other cultures?

RQ3. How does the perceived difficulty in understanding or discomfort with the thoughts and behaviors of individuals from other cultures change after a short-term study abroad program?

Hypotheses

Based on previous research and the characteristics of the participants in this study, namely first-time overseas travel and beginner-level English proficiency, we propose the following hypotheses regarding the effects of short-term study abroad programs on intercultural sensitivity:

H1. Scores related to engagement with and behavior toward other cultures will increase after the program compared to before. Increased opportunities for intercultural contact are anticipated to lead more readily to changes in behavior than in attitudes or perceptions in short-term study abroad programs.

H2. Scores related to cultural awareness and interest will increase after the program compared to before. Exposure to local information and daily experiences while studying abroad may increase interest in the societies and events of other countries.

H3. Scores related to awareness and attitudes toward culture will not change significantly after the program compared to before. Views of human nature and values tend to be relatively stable and may not change easily in two weeks.

H4. Scores on the item indicating difficulty in understanding or discomfort with the ways of thinking and behavior of people from different cultures may increase after the program compared to before. Direct experiences of cultural differences while studying abroad can heighten awareness of the challenges involved in understanding these differences and the discomfort they may cause.

Theoretical Framework

This study examined the effects of a short-term study abroad program on intercultural sensitivity among Japanese university students. It adopted the DMIS as its theoretical framework, which explains how perceptions and experiences of cultural differences evolve, and proposes that contact with other cultures can enrich individuals' cognitive structures and attitudes. Specifically, the model describes a continuum through which the comprehension of cultural differences evolves from ethnocentric to ethnorelative. Six stages are proposed: Denial, Defense, Minimization, Acceptance, Adaptation, and Integration. This process enables individuals to cultivate more complex and refined ways of understanding cultural differences, thereby facilitating more effective and appropriate behavior in intercultural contexts. The DMIS is a fundamental framework for comprehending the development of intercultural sensitivity because it explains the correlation between perceptions and evaluations of cultural differences and behavioral changes.

Intercultural sensitivity is supported by the DMIS and theoretical frameworks of intercultural competence. Although Bennett's (1986) model explains how an understanding of cultural differences develops over time, intercultural competence research provides a more comprehensive view of how various elements connect to produce actual behavior and interaction in intercultural contexts. According to Deardorff (2006), intercultural competence comprises multiple elements, including attitudes, knowledge, comprehension, and skills. These elements develop through their

interactions, thereby facilitating effective communication and behavior in intercultural contexts. This perspective posits that intercultural understanding is not restricted to knowledge acquisition. It also entails having an open attitude toward others, reflecting on one's assumptions, and adapting one's interactions to the situation. In particular, learners may return home before they can fully comprehend their intercultural experiences if the duration of experience is limited, such as in a short-term study abroad program. Therefore, when examining changes in intercultural sensitivity, it is crucial to consider not only significant changes in developmental stages but also aspects that are more likely to change within a short period, including attitudes, interest levels, and ways of interacting. From this perspective, Deardorff's (2006) framework is a valuable complementary approach to understanding how intercultural sensitivity develops through a short-term study abroad program.

METHOD

Participants

This pilot longitudinal study focused on a single cohort to track changes in the same group of students after the program compared to before. This study examined 14 Japanese university students enrolled in a two-week short-term study abroad program in Australia. The group comprised eight first-year students, one second-year student, and five third-year students. All participants received their education in Japan. At the time of the study, 11 students had no prior overseas travel experience, whereas three had limited experience of less than one month. The participants' TOEIC scores ranged from 120 to 224, their IELTS scores were 2.0, and their Eiken levels ranged from Grades 3 to 5, indicating that their English proficiency was generally at the beginner level. The participants were selected because they met the criteria of having no or minimal overseas experience and beginner-level English proficiency, a group who has received little attention in prior research. Although the present research team has conducted studies with participants in previous short-term study abroad programs, those cohorts were not assessed using the same ten-item questionnaire or the same pre- and post-program procedure as applied here, and program conditions differed across years. Therefore, their data were not comparable and could not be combined with the present sample. The present sample size is acknowledged to be small, which limits the statistical power and generalizability. Thus, the findings should be treated as preliminary.

Instruments

This study utilized a ten-item pilot questionnaire to measure intercultural sensitivity. The questionnaire was developed through discussions among the research team and designed to be administered both before and after the short-term study abroad program. The questionnaire was limited to ten items to minimize participant burden while addressing the four dimensions (Table 1). Each item corresponded to one of the four dimensions mentioned above. Additional background information on the participants was collected, including English test scores and overseas travel experience. Item 3 contained a negative statement and was reverse-coded for the analysis. Although the survey included open-ended questions, this study focused exclusively on quantitative data.

Table 1
Items and constructs of intercultural awareness and attitudes

No.	Item	Construct
	(1) Awareness and attitudes toward other cultures (3 items)	
1	I think that people's feelings are similar, even if their country or appearance is different.	Perceived similarity in emotions
2	I think that people have similar wishes and goals, even if their cultures are different.	Commonality of wishes and goals
3	I sometimes find it hard to understand the ideas or actions of people from different cultures, or I feel uncomfortable.	Discomfort with other cultures (reverse-coded item)
	(2) Awareness and interest in other cultures (1 item)	
4	I am always interested in the history and news of other countries.	Interest in other countries
	(3) Understanding of other languages and cultures (2 items)	
5	I think that English is essential for understanding people from different countries and cultures.	Perception of the importance of English
6	I think it is crucial to improve my English pronunciation and expressions to speak like a native speaker when I interact with people from different cultures.	Native speaker orientation
	(4) Engagement with and behavior toward other cultures (4 items)	
7	I want to talk more to or do something with people from different cultures.	Willingness to engage in intercultural interactions
8	When I think or make decisions, I try to include perspectives from cultures that differ from my own.	Use of intercultural perspectives
9	When I talk to people from different cultures, I sometimes change how I speak or behave to match their culture.	Adjustment of behavior
10	When I interact with people from different cultures, I sometimes rethink my own culture.	Reconsideration of one's own culture

Procedure

The survey was administered twice, before and after the short-term study abroad program. The pre-departure survey was administered approximately three months before the program began, when the pre-program preparatory classes were launched, whereas the post-return survey was administered within one week of the participants' return. Participants were informed of the study's purpose, that participation was voluntary, and that the data would be analyzed and reported in a manner that would not identify individuals. After they provided their consent, participants were asked to complete the questionnaire, which was administered using an online form.

This study examined a short-term study abroad program in Australia that emphasized language training. The program included English classes and hospitality-related training at a local educational institution, along with opportunities to interact with local students and teachers. Participants resided with host families and engaged in leisure activities and daily interactions with local residents. Through these experiences, participants were anticipated to become more proactive in their communication, enhance their English skills, and develop a deeper understanding of the local culture.

Data Analysis

This study examined changes in intercultural sensitivity after the program by calculating the scores for each questionnaire item and the mean scores for each of the four dimensions. To facilitate the analysis, responses on the four-point scale were converted into numerical values: strongly agree was scored as 4, somewhat agree as 3,

somewhat disagree as 2, and strongly disagree as 1. Higher scores indicated greater intercultural sensitivity. Item 3 included a negative statement that it is occasionally challenging to understand or feel comfortable with the perspectives and behaviors of individuals from different cultures. Therefore, it was reverse-coded to ensure consistency in the scoring direction. Consequently, higher scores across all items indicated higher intercultural sensitivity.

All statistical analyses were conducted using IBM SPSS Statistics. The hypotheses (H1–H4) were tested by comparing the pre- and post-program scores for each item. For each item, the null hypothesis was that the pre- and post-program means would be equal, and the alternative hypothesis was that they would differ. H1, H2, and H4 predicted higher post-program scores for the relevant items, whereas H3 predicted no significant change. The same participants were assessed before and after the program; therefore, a paired-samples *t*-test was conducted for each item, with the significance level set at $\alpha = .05$. Cohen's d was calculated for each item to measure effect size. The mean (M), standard deviation (SD), *t* value, and Cohen's d were calculated for each item.

FINDINGS

Paired-sample *t*-tests were implemented for each questionnaire item to investigate the extent to which the short-term study abroad program affected participants' intercultural sensitivity (Table 2). The results showed no significant differences for any item (all $p > .05$). The effect sizes, measured by Cohen's d, were small for all items ($|d| = 0.00$–0.27), indicating a limited magnitude of change. A focus on changes in mean scores revealed a slight increase for several items after the program. Particularly evident were the relatively clear increases in willingness to engage in intercultural interactions (Item 7) and reflection on one's own culture (Item 10). In contrast, perceptions of the importance of English (Item 5) decreased slightly after the program. No changes were observed in mean scores for discomfort with other cultures (Item 3, reverse-coded) after the program. Overall, these results indicate that changes in intercultural sensitivity among participants were not statistically significant after the short-term study abroad program, and the degree of change was small.

Table 2
Comparison of pre- and post-program scores for each questionnaire item (N = 14)

No.	Item (summary)	Pre-Program M (SD)	Post-Program M (SD)	*t* value	*p* value	*d*
1	Perceived similarity in emotions	3.07 (1.00)	3.21 (0.70)	-0.41	.69	0.11
2	Commonality of wishes and goals	2.93 (0.83)	3.00 (0.68)	-0.25	.81	0.07
3	Discomfort with other cultures (reverse-coded item)	2.43 (1.02)	2.43 (0.94)	0.00	1.00	0.00
4	Interest in other countries	2.78 (0.89)	2.86 (0.77)	-0.22	.83	0.06
5	Perception of the importance of English	3.93 (0.27)	3.79 (0.43)	1.00	.34	0.27
6	Native speaker orientation	3.14 (0.77)	3.29 (0.73)	-0.52	.61	0.14
7	Willingness to engage in intercultural interactions	3.05 (0.65)	3.36 (0.63)	0.56	.58	0.15
8	Use of intercultural perspectives	3.14 (0.66)	3.21 (0.70)	-0.25	.81	0.07
9	Adjustment of behavior	2.43 (0.65)	2.57 (0.94)	-0.46	.66	0.12
10	Reflection on one's own culture	2.79 (0.70)	3.07 (0.92)	-1.00	.34	0.27

Note: M = mean, SD = standard deviation, *t* = result of the paired sample *t*-test, *d* = Cohen's d (effect size). Item 3 was reverse-coded.

DISCUSSION

Examination of the Hypotheses and Summary of the Results

This study examined changes in intercultural sensitivity among Japanese university students who participated in a two-week study abroad program in Australia. The results showed no significant changes for any items, and the effect sizes were small. However, some items exhibited an increasing trend in mean scores. A key finding is that short-term study abroad programs may not result in measurable changes in intercultural sensitivity over a short period among beginner-level learners. This may reflect a lack of observable changes and the limitations of the current measurement approach in capturing it. Early shifts in intercultural sensitivity tend to be subtle and challenging to detect using quantitative instruments. The link between the results and hypotheses is discussed below.

H1 predicted increased scores related to engagement with and behavior toward other cultures. Although mean scores increased for willingness to engage in intercultural interaction (Item 7), adjustment of behavior (Item 9), and reflection on one's own culture (Item 10), no significant differences were found. These results indicate that short-term study abroad programs may result in early signs of behavioral change; however, such changes are limited. One possible reason is that behavioral adaptation develops mainly through sustained face-to-face interactions in daily life rather than through brief exposure. For example, Amaki et al. (2025) found that students in a two-week study abroad program in Australia showed greater behavioral adaptation than those in a domestic program, which was attributed to students' need to use English and interact with local people in their daily lives. The limited behavioral change observed in the present study may therefore reflect the fact that beginner-level learners had fewer opportunities for such sustained interaction in only two weeks, even while abroad.

H2 predicted increased scores related to cultural awareness and interest. Although interest in other countries (Item 4) increased slightly, no significant changes were observed. Therefore, although short-term study abroad may influence interest to some extent, the effect appears limited. One possible reason is that increased interest does not easily lead to a deeper intercultural understanding over a short period. Amaki et al. (2025) found that students in a two-day residential English immersion program in Japan developed greater interest in other cultures. However, their acceptance of cultural diversity remained relatively limited, which was attributed to the difference between learning about cultural differences as abstract knowledge and directly experiencing them in daily life. This suggests that a two-week program may be sufficient to increase interest but not for that interest to develop into measurable changes in deeper dimensions of intercultural sensitivity, particularly for learners with limited prior intercultural experience. This view aligns with that of Chau and Truong (2019), who argued that developing intercultural competence is a social and personal process requiring individual engagement, social interaction, and critical reflection. They also stated that merely transferring cultural knowledge is insufficient for this purpose. Accordingly, the increased interest observed in the present study may represent an early knowledge-oriented response that did not develop into the deeper engagement needed for measurable changes in intercultural sensitivity in two weeks.

H3 predicted that neither awareness of nor attitudes toward culture would change substantially. Students' perceptions did not exhibit significant changes in terms of similarity in emotions (Item 1) or commonality of wishes and goals (Item 2). These results indicate that aspects related to values and views of human nature are less likely to change in the short term. This is consistent with the findings of Amaki et al. (2025), who reported that deeper dimensions of intercultural sensitivity, such as the acceptance and integration of cultural differences, develop mainly through prolonged immersion rather than short-term contact. Attitudes toward values and human nature are closely linked to these deeper dimensions; therefore, two weeks may not be sufficient to foster measurable change, particularly for learners with limited prior intercultural experience. The findings of Uyun and Warsah (2022) further support this interpretation, characterizing intercultural sensitivity as an affective domain that is difficult to establish firmly and requires sustained external support to develop and maintain. Thus, attitudes related to values and human nature are unlikely to demonstrate a stable measurable shift following a single two-week experience without continued reinforcement.

H4 predicted increased discomfort with other cultures. However, no changes were observed for the relevant item (Item 3). This finding does not support the hypothesis that a short-term study abroad program necessarily increases discomfort with cultural differences. Overall, these results imply that significant changes in intercultural sensitivity may be challenging to attain in a short period, particularly for beginner-level English learners. Furthermore, the findings indicate a potential discrepancy between the initial stages of intercultural development and the capacity of quantitative measures to identify these subtle shifts. One possible reason is that brief exposure does not consistently intensify negative reactions to cultural differences. Amaki et al. (2025) found that meaningful changes in how students relate to other cultures, including reduced negative or stereotypical perceptions, emerged mainly through direct and sustained interaction in daily life rather than short-term contact. After only two weeks, such direct engagement may have been insufficient to produce a consistent change in discomfort at the group level, particularly for beginner-level learners. This interpretation aligns with Sellami-Sellami (2021), who reported wide variations in learners' reactions to an unfamiliar target-language culture, ranging from mild discomfort to deeper unease. Sellami-Sellami also noted that culture shock is not necessarily negative because it can provide a basis for greater self-awareness and growth. This variability suggests that a short-term program may produce diverse individual reactions rather than a uniform increase in discomfort. This is consistent with the lack of consistent changes at the group level in this study.

Relationship to Previous Studies and Theoretical Frameworks

The results of this study do not fully align with those of previous studies reporting improvements in intercultural competence through short-term study abroad programs, such as Song (2020) and Mahapatra et al. (2025). This study discovered no significant changes, which may be attributable to the participants' characteristics and the program's conditions. This study focused on learners with beginner-level English proficiency experiencing overseas travel for the first time, a context that differs from those of several previous studies. These learners may have found it challenging to fully comprehend and reflect on their experiences in an intercultural environment. According

to Bartel-Radic and Cucchi (2025), the development of intercultural competence depends not only on contact but also on how experiences are interpreted and understood as learning. The results of this study empirically support the notion that contact does not necessarily result in learning.

The DMIS posits that intercultural sensitivity develops in stages. However, a clear shift between developmental stages is unlikely to occur within a two-week timeframe. The results of this study indicate that participants may have remained at an early stage, characterized by increased awareness of cultural differences or growing interest. Additionally, according to Deardorff's (2006) process model, intercultural understanding develops through interactions between attitudes, knowledge, and skills. In this study, these elements may not have been fully integrated yet. Consequently, clear changes in observable behavior as an external outcome may not have occurred. Therefore, this study reveals that the effects of a short-term study abroad program are not uniform but vary according to learners' characteristics and the quality of their experiences. This perspective suggests that the lack of significant change in this study should not be interpreted as merely a lack of development but also recognized as an indication that current measurement approaches are limited in their ability to capture early-stage intercultural learning.

Educational Implications

The results of this study do not imply that the effects of a short-term study abroad program are minimal. Instead, they indicate that these effects significantly depend on program design. As demonstrated by previous studies, including Goldstein (2022) and Vande et al. (2009), the outcomes of short-term study abroad programs vary depending on the program content and type of learning support provided. This study's findings are consistent with this view and indicate that it is particularly critical to provide support that enables beginner-level learners to organize their intercultural experiences as learning rather than treating them as isolated experiences. Tarchi et al. (2019) demonstrated that reflective activities, such as the use of critical incidents, can effectively help learners comprehend their intercultural experiences. This study's results also suggest that in short-term study abroad programs, the quality of experiences is more significant than the quantity. Therefore, short-term study abroad programs should provide continuous learning support, including pre-departure preparation, opportunities to reflect on and express experiences during the program, and post-program reflection. These supports can transform intercultural experiences from mere events into significant learning outcomes.

Study Limitations and Future Research Directions

This study had several limitations. First, the small sample size (n = 14) limited the statistical reliability and generalizability of the findings. The ten-item questionnaire and pre- and post-program procedure had not been administered to participants in earlier programs, preventing the data from previous cohorts from being combined with the present sample to increase statistical power. Second, this study's questionnaire was a pilot instrument. Therefore, further research on its reliability and validity is required. Third, the study was conducted using longitudinal data collected over a short two-week period, which means that it does not account for long-term developmental processes.

Future research should incorporate larger samples, comparisons with established scales, and mixed-methods approaches. Examining how learners interpret their intercultural experiences through qualitative data is essential for understanding the learning process in short-term study abroad programs. Moreover, future studies should focus on practical questions, such as what educational interventions can maximize the effects of short-term study abroad programs. Furthermore, the findings highlight broader methodological challenges in evaluating intercultural development in the context of short-term study abroad programs. These results indicate that more structured and sensitive approaches are required to capture subtle changes, particularly during the early stages of development. Overall, these findings should be regarded as exploratory, providing a foundation for future research using larger samples, consistent measurements, and mixed methods.

CONCLUSION

This longitudinal study examined changes in intercultural sensitivity among Japanese university students who participated in a two-week study abroad program in Australia. Although no significant changes were observed, the results showed a slight increase in some items. These results imply that short-term study abroad programs do not necessarily result in measurable changes. This may be particularly true for beginner-level learners, for whom the effects may be minimal. This study also demonstrates that the effects of short-term study abroad programs are not uniform but significantly influenced by learner characteristics and the learning environment. Furthermore, this study is notable for its utilization of a simple questionnaire that can be implemented in educational settings to capture changes before and after a short-term study abroad program. This approach can provide fundamental insights that are valuable for program evaluation and the enhancement of educational practices. Future research should examine a broader spectrum of learners and track changes over an extended period. Integrating quantitative and qualitative data will also be crucial for developing a better understanding of the learning processes involved in short-term study abroad programs.

ACKNOWLEDGMENT

This work was supported by JSPS KAKENHI Grant Number 25K04328.

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