Assessing Student Development: A BEVI-Based Analysis of Short-Term Study Abroad Program Outcomes

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Abstract

Learning outcomes of study abroad programs have come under increased scrutiny as universities strive to provide students with meaningful intercultural experiences that promote the development of competencies needed to navigate an increasingly interconnected and complex world. This study explores the impact of a short-term study abroad program on student development using the Beliefs, Events, and Values Inventory (BEVI) as an assessment tool. Pre- and post-tests were administered and aggregate and between-group reports were generated for 14 program participants. Of the 17 process scales that comprise BEVI, the Sociocultural Openness scale, the Ecological Resonance scale, and the Global Resonance scale were focused on as these align closely with the objectives of the target program. The results reveal significant changes over time including striking gender differences toward environmental impact issues, receptivity to diverse viewpoints, and eagerness to engage in new cultural experiences. The study illustrates how BEVI assessment can be employed to improve programs that help students to take full advantage of the growth and learning opportunities that the study abroad experience offers.

Keywords: BEVI Assessment, Study Abroad Outcomes, Student Development, Intercultural Competence, Global Competence

要旨

本研究では、Believes, Events, and Values Inventory(BEVI) の客観的測定ツールを用い、短期留学体験型集中科目「エリアスタディーズ」のハワイプログラムが学生の成長にどのような影響を与えたかを検証する。プログラム参加者14名に対して、留学前後にBEVIテストを実地し、グループ全体、男女間などの属性別レポート分析を行なった。BEVIを構成する17のプロセス尺度のうち「Sociocultural Openness」、「Ecological Resonance」、「Global Resonance 」は、ハワイプログラムの目的と密接に合致しているため、この3つの尺度に焦点を当てた。結果としては、留学前後の様々な変化と、環境問題に対する意識、多様な視点への受容性、新しい文化体験への意欲などにおいて参加者の男女間に顕著な違いがあることが明らかになった。本研究は、学生が留学経験によって得られる成長と学習機会を最大限に活用できるようなプログラムを設計するために、BEVIをどのように活用できるかを示唆する。

1 Introduction

Overseas study experience is considered a key to educating future leaders who have the potential to transform Japanese society at the local and global levels (MOFA, 2023). J-MIRAI: Japan Mobility and Internationalization: Re-engaging and Accelerating Initiative for future generations, a Japanese government initiative launched in April 2023, aims to promote international education and increase the number of students participating in both inbound and outbound study abroad programs to strengthen the

nation's international economic competitiveness. The Goals for 2033, based on the Second Proposal of the Council for the Creation of Future Education, are set at 500,000 outbound Japanese students, compared to the pre-COVID-19 level of 222,000 students, and 400,000 inbound international students, compared to 318,000 students pre-COVID (J-MIRAI, April 27, 2023). The Japan Ministry of Education, Culture, Sports, Science and Technology (MEXT) strategically plans to achieve these goals through financial support incentives, which include 300,000 scholarships for Japanese students in 2024, a significant increase over 2022/2023.

At the university and vocational school level, the 2033 target set by the Japanese government's Council for the Creation of the Future of Education is to increase the number of Japanese students participating in long-term outbound study abroad programs from 60,000 (pre-COVID) to 150,000. The target also includes increasing the number of students participating in short-term and medium-term study abroad programs from 110,000 (pre-COVID) to 230,000 students (J-MIRAI, 2023). The government's rationale for growing the number of students participating in short-term and medium-term programs is that these experiences will encourage more students to continue to long-term (degree) programs, which will ultimately contribute to enhancing Japan's global human resources.

The Japan Student Services Organization (JASSO) is a national center that provides a range of inbound and outbound student support services for higher education in collaboration with the Japanese government, universities, and business. An annual survey published by the organization monitors the number of Japanese students studying abroad and the number of international students studying in Japan. According to JASSO's data, about 60% of study abroad students are women. The organization divides outbound study abroad programs in five categories of program length: less than one month; 1–3 months; 3–6 months; 6–12 months; and more than one year. Figure 1 shows the number of Japanese students who participated in study abroad programs in these categories from 2006 (pre-COVID) to 2021. Data show that short-term programs of less than one month were the most popular among Japanese students studying overseas between 2006 and 2019, attesting to their attractiveness to students (JASSO, 2006–2021). The COVID-19 pandemic, however, severely disrupted study abroad programs, regardless of program length, the flow of Japanese students overseas was almost completely halted in 2020. Although some study abroad

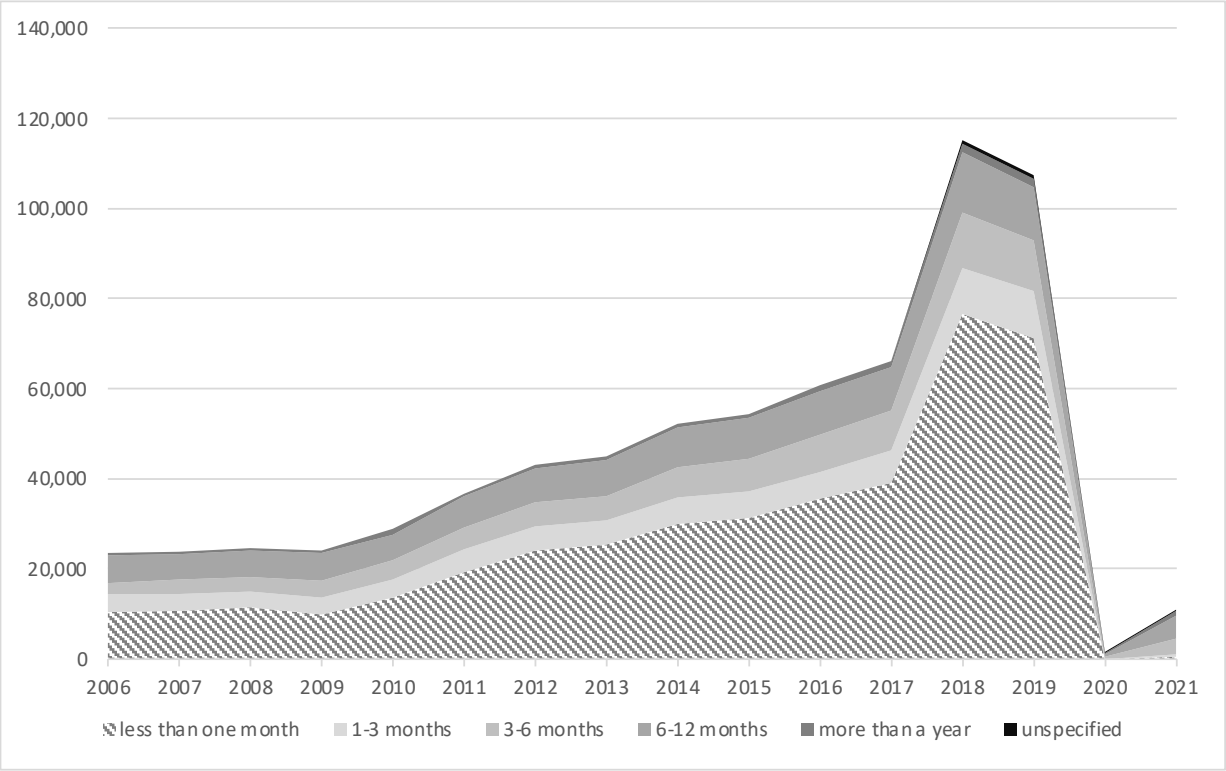

Figure 1. Japanese Students Studying Abroad (2006-2021)

programs resumed in 2021, data show that fewer students are choosing programs of less than one month; a survey found that only 4% of 10,999 students studying abroad participated in programs less than one month in length. As student mobility through study abroad programs continue to recover from the disruption caused by COVID-19, understanding the effectiveness of programs of different length is important for developing the global human resources needed to secure Japan's international competitiveness.

2 Intercultural Competence and Global Competence

Internationalization within higher education is a relatively new field that has been gaining momentum in recent decades (Bendenlier et al., 2018), as well as an evolving area of intercultural studies (Fantini, 2009). Universities play a central role in helping students develop the attitudes, knowledge, and skills needed for intercultural competence (Deardorff, 2006) and global competence (OECD, 2018). One way that universities prepare global-minded students to successfully engage in today's increasingly interconnected and complex globalized society is by providing ample and meaningful outbound study-abroad opportunities. Study abroad programs provide diverse learning experiences and intercultural interactions through which students develop essential competencies for the twenty-first century. The importance of developing the attitudes, knowledge, and skills needed to navigate our increasingly interconnected and complex global society cannot be overstated.

In order to assess outcomes of international education for the purpose of this paper, I use the following definitions of intercultural competence and global competence. Intercultural competence is defined as "the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes" (Deardorff, 2004, p. 194). Global competence is defined as "the capacity to examine local, global and intercultural issues, to engage in open, appropriate and effective interactions with people from different cultures, and to act for collective well-being and sustainable development" (OECD, 2018). Developing intercultural competence and global competence is an ongoing, life-long process (Deardorff, 2006, OECD, 2018). The complexity of developing the necessary skills, attitudes, and behaviors makes measuring students' progress vital.

In recent years, the quality of international education, including the effectiveness of study abroad programs, has come under increased scrutiny. As a result, various assessment tools have been developed to measure the complex construct of intercultural competence (Deardorff, 2006) or some components of it (Fantini, 2009, Yngve, 2020). Among the most widely used assessment tools are the Intercultural Development Inventory (IDI), the Global Perspective Inventory (GPI), the Global Mindedness Scale (GMS) (Grant et al., 2021; Sharpe, 2022), and the Beliefs, Events, and Values Inventory (BEVI) (Fantini, 2009; Roy et al., 2014; Wandscheidner et al., 2015). A clear understanding of the variety of assessment measures available helps to determine the assessment tool best suited to measure program objectives and anticipated student outcomes (Fantini, 2009).

In 2021, the Japan Forum for Internationalization of Universities (JFIU), a collaboration among 18 leading universities selected by the Japanese government, was established to promote the internationalization of universities in Japan. JFIU consists of 19 projects, all aimed at increasing the nation's international competitiveness (JFIU, n.d.). One of the projects focuses on developing and disseminating the Beliefs, Events, and Values Inventory (BEVI) assessment tool to measure the impacts of study abroad programs on student learning outcomes. As part of this initiative, over 40 universities across Japan currently utilize the assessment tool to study the educational effectiveness of their international education programs (Nishitani, 2022). Recently, BEVI has been selected for the Collaborative Online International Learning (COIL) BEVI project, an initiative coordinated by the American Council on Education in the United States and MEXT in Japan. As universities race to provide meaningful experiences to develop students capable of contributing to the nation's international competitiveness, assessing the outcomes of such experiences is vital to achieving JFIU's aims.

3 Beliefs, Events, and Values Inventory (BEVI)

In development for over 30 years, the BEVI assessment tool has been used extensively in the United States and other countries around the world (Wandschneider, 2015). BEVI is a holistic assessment tool

grounded in theory that explains an "individual's unique beliefs, values, life experiences, and overall worldview" (Shealy, 2016, p. 135). It "seeks to understand 'who the person is' prior to participating in an experience, 'how the person changes' as a result of the experience, and how these factors interact to produce a greater or lesser likelihood of learning and growth" (Shealy, 2017). The assessment measures elements of intercultural competence (Yngve, 2020). It evaluates an individual's capacity for and tendencies toward sociocultural openness, ecological resonance, global resonance, and other indicators of self-awareness, awareness of others, and world views (Shealy, 2016). BEVI is applicable in a wide array of contexts, including evaluating learning experiences, understanding learning processes, promoting learning objectives, enhancing teaching and program quality, facilitating growth and development, conducting research, addressing organizational needs, and complying with assessment and accreditation requirements (Shealy, 2016).

BEVI measures learning outcomes and student development at the individual, group, and organizational levels. Individual BEVI results take the form of a seven- to nine-page narrative report containing general explanations and individually tailored responses. "Individual reports have multiple applications and are designed to facilitate thoughtful and substantive reflection on self, others, and the world at large" (Shealy, 2016, p. 148). Individual reports are sent directly to students' university email accounts for personal reflection. Group and organizational reports are presented as a series of bar graphs that show the aggregate of combined individual scores. The numbers assigned to the bars correspond to the "average score for each of the 17 BEVI scales," providing "descriptive information about the group" (Shealy, 2016, p. 150). Group reports are helpful in facilitating group reflections. The combination of individual and group reflection enhances self-awareness, awareness of others, and worldviews (Shealy, 2016). As another component, through BEVI-AI, students are also able to engage "Being Bevi," the AI entity that is part of the "Beviverse," which allows students to have in-depth discussions about the meaning and implications of their BEVI results (Shealy, 2023).

4 Theoretical Framework

Intercultural competence and global competence are complex constructs that continuously develop through communication and meaningful interactions and experiences. Equilintegration Theory (hereinafter referred to as EI theory) was adopted as the theoretical framework for this study. EI theory utilizes a diverse array of theoretical frameworks, empirical evidence, and practical viewpoints to "explain the processes by which beliefs, values, and worldviews are acquired and maintained, why their alteration is typically resisted, and how and under what circumstances their modification occurs" (Shealy, 2004, p. 1075). EI theory provides the underlying framework for the BEVI assessment tool used to assess students' learning experiences in this study.

5 Purpose and Objectives

The focus of this study is an experiential short-term study abroad program (hereinafter referred to as Area Studies in Hawaii) collaboratively organized by Konan University in Japan and the University of Hawaii at Manoa in the United States. Offered during the spring or summer breaks, Area Studies in Hawaii provides opportunities for students to gain a global perspective while deepening their understanding of culture and environmental sustainability and their global and local implications. This study uses BEVI to assess program outcomes and their impact on student development.

6 Materials and Methods

Course Design

The Area Studies in Hawaii comprises two 90-minute pre-study tour lectures in Japan, a 9-day program at the University of Hawaii at Manoa in the United States, followed by a 90-minute post-study tour lecture and wrap-up session in Japan. The objectives of the program are to broaden students' global perspective; to expose students to cultural differences, including different ways of thinking about and approaching environmental sustainability; and to raise students' awareness about the environmental impacts of climate change. Core activities integrated into the on-site program included lectures, field trips, and volunteer

activities designed to achieve the objectives. Lectures are delivered in English by university professors, researchers, and local activists in the community. Field trips and volunteer activities expose students to a history museum and local non-profit organizations dedicated to the preservation of the history, culture, and natural environment of the island of Oahu. The program was supplemented with on-campus student exchange activities and other activities conducted in the local community.

Participants

Fifteen students participated in the Area Studies in Hawaii program that is the subject of this study, with each student earning two academic credits. Four students were male and 11 were female. Seven were first -year students, two were second-year students, five were third-year students, and one was a fourth-year student. Participating students represented eight departments in five academic faculties. They were recruited through university-wide announcements, class visits, and information sessions about the program.

Program Outcome Assessment

The timing of the Area Studies program focused on in this study coincided with a nation-wide BEVI trial period and workshop series in Japan. I attended these workshops and was granted permission to administer the BEVI assessment measure. I used BEVI-3, the most current version of the BEVI, which is composed of a set of demographic and life history questions, 185 4-point Likert-scale items (Strongly Agree, Agree, Disagree, Strongly Disagree), and three qualitative open-ended questions. This assessment tool "evaluates responses to the belief statements according to two validity measures and organizes the responses into 17 process scales that belong to one of seven domains" (Iseminger et al., 2020, p. 3).

The BEVI assessment was administered online in the Japanese language on two occasions during the program. The pre-test (Test 1 or T1) assessment was administered in class at the end of the second pre-study tour lecture session. The post-test (Test 2 or T2) assessment was administered outside class after the post-study tour wrap-up session. Each assessment took approximately 30 minutes to complete. T1 received a 100 percent response rate (n=15) and T2 received a 93 percent response rate (n=14). Group reports were compiled to measure combined T1 and T2 responses for 14 of the 15 participants. The student who failed to complete the T2 assessment was automatically removed from the group report. Results for the participants with corresponding pre- and post-test assessments (n=14) passed validity checks and group reports were generated. Closely corresponding scales are organized under seven overarching domains (Shealy, 2016, pp. 130–134), as shown in Table 1.

Table 1. BEVI Domains and Process Scales (Shealy, 2016, pp. 130–134)

Domain	17 Process Scales	Description
Validity Scales	*Consistency*	*"The degree to which responses are consistent for differently worded items that are assessing similar or identical content."*
	Congruency	*"The degree to which response patterns correspond to that which would be predicted statistically."*
Formative Variables	*Demographic/ Background Items*	*"Gender, educational level, ethnicity, political/ religious orientation, income, and so on."*
	Negative Life Events	*"Difficulties growing up; parents may have struggled; life conflicts; many regrets."*
Fulfillment of Core Needs	*Needs Closure*	*"Challenging life circumstances, odd explanations for why things are the way they are, ambivalent or distant relationship with core needs in self and/or others."*
	Needs Fulfillment	*"Open to experiences, needs, and feelings; deep care/ sensitivity for self, others, and the larger world."*
	Identity Diffusion	*"Indicates painful crisis of identity; fatalistic regarding negatives of marital/family life; feels "bad" about self and prospects."*

Tolerance of Disequilibrium	*Basic Openness*	*"Open and honest about the experience of basic thoughts, feelings, and needs."*
	Self Certitude	*"Strong sense of will; impatient with excuses for difficulties; emphasizes positive thinking; disinclined toward deep analysis."*
Critical Thinking	*Basic Determinism*	*"Prefers simple explanations for differences/ behavior; people do not change/strong will to survive; troubled life history."*
	Socioemotional Convergence	*"Open, aware of self/other, larger world; thoughtful, pragmatic, determined; sees world in shades of gray, such as the need for self-reliance while caring for vulnerable others."*
Self Access	*Physical Resonance*	*"Receptive to corporeal needs/feelings; experientially inclined; appreciates the impact of human nature/evolution."*
	Emotional Attunement	*"Emotional, sensitive, social, needy, affiliative; values the expression of affect; close family connections."*
	Self Awareness	*"Introspective; accepts complexity of self; cares for human experience/condition; tolerates difficult thoughts/feelings."*
	Meaning Quest	*"Searching for meaning; seeks balance in life; resilient/ persistent; highly feeling; concerned for less fortunate."*
Other Access	*Religious Traditionalism*	*"Highly religious; sees self/behavior/events as mediated by God/spiritual forces; one way to the "afterlife."*
	Gender Traditionalism	*"Men and women are built to be a certain way; prefers traditional/simple views of gender and gender roles."*
	Sociocultural Openness	*"Progressive/open regarding a wide range of actions, policies, and practices in the areas of culture, economics, education, environment, gender/global relations, politics."*
Global Access	*Ecological Resonance*	*"Deeply invested in environmental/sustainability issues; concerned about the fate of the earth/natural world."*
	Global Resonance	*"Invested in learning about/encountering different individuals, groups, languages, cultures; seeks global engagement."*

7 Results

The findings reported in this section begin with the aggregate profile, a longitudinal analysis of the pre-test (T1) and post-test (T2) data for the whole sample. This is followed by between-group analyses to explore gender differences and differences among students in the lowest, middle, and highest percentile groups. The section concludes with the docile profile to illuminate changes among participants in the group.

Extensive empirical research has indicated that longitudinal and between-group differences of 5 points or more on a 100-point scale may represent meaningful changes (Shealy, 2016), and are commonly used to identify patterns in groups (Iseminger et al., 2020; for more information about BEVI interpretation, please see the BEVI Manual at https://thebevi.com/wp-content/uploads/2024/01/BEVIManual_v2.pdf). Figure 2 presents the longitudinal analysis of the pre-test (T1) and post-test (T2) results for the whole-group report. Based on the 5-points-or-more criterion, the analysis shows a significant change over time on six scales across five of the seven domains. The pre-test (T1) and post-test (T2) scores for each of these six scales, followed by a brief description, are provided next, in order from greatest change to smallest change.

The group's average of the Ecological Resonance scale on the aggregate profile displayed the most

substantial increase: from 39 to 50 points (+11 points). Higher scores on this scale indicate a greater awareness of environmental impacts, greater concern for nature, and a better understanding of life interconnections. The second-largest change was on the Self Certitude scale, which increased from 44 to 53 (+9 points). This scale measures the extent participants "experience 'a strong sense of will' are 'impatient with excuses for difficulties,' tend to emphasis 'positive thinking,' and are 'disinclined toward

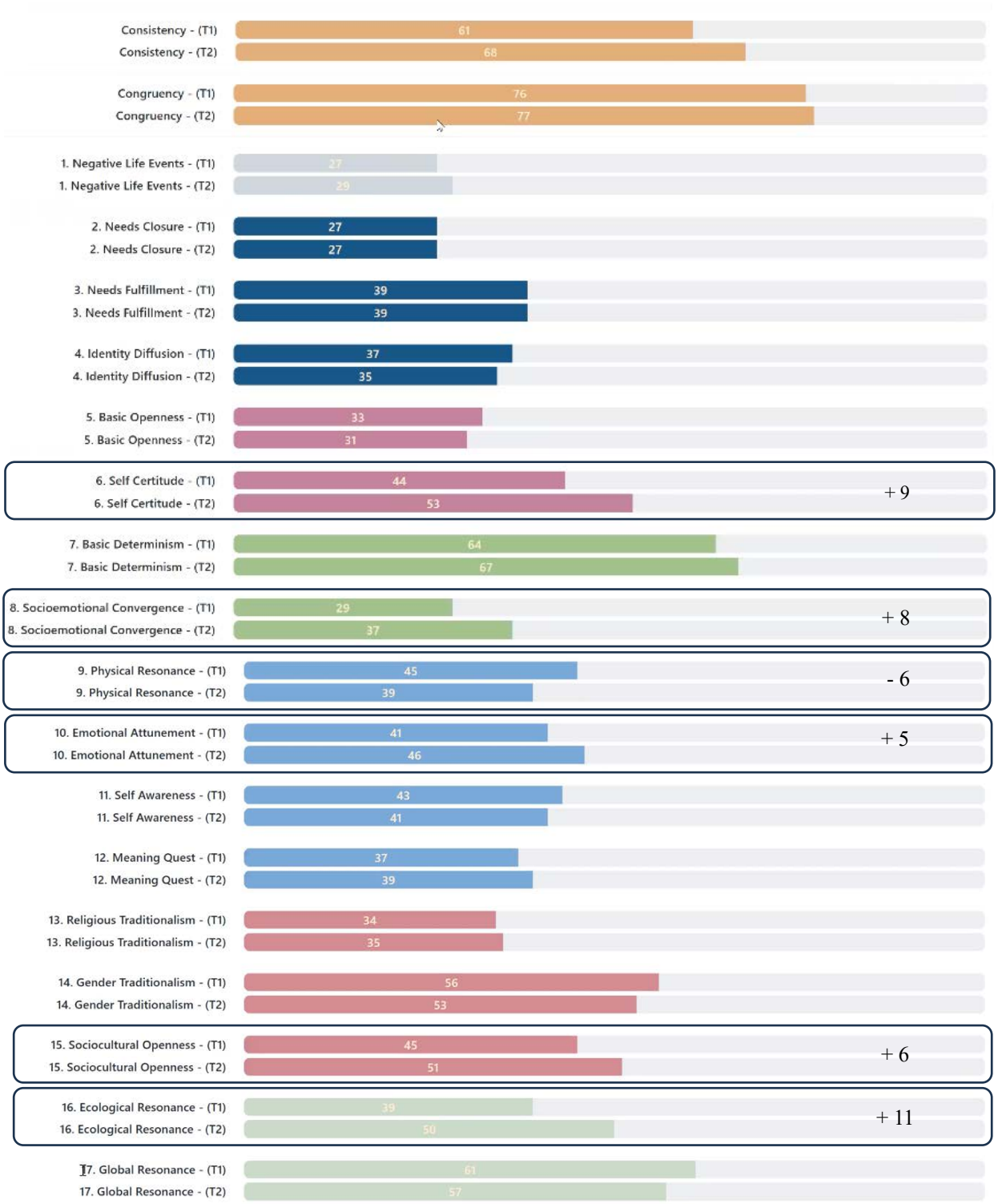

Figure 2. Aggregate Group Profile (T1, T2)

deep analysis' regarding why they or other behave as they do" (Shealy, 2016, p. 451). This was closely followed by a notable change on the Socioemotional Convergence scale, which increased from 29 to 37 (+8 points). Higher scores on this scale imply a heightened and more nuanced awareness of self, others, and the larger world. Another notable change was on the Sociocultural Openness scale, which increased from 45 to 51 (+6 points.) The gain on the scale suggests that the group, on average, became more receptive to diverse cultures, viewpoints, and practices.

Changes over time also included a notable decrease. The Physical Resonance scale dropped from 45 to 39 (-6 points), which indicates that students were experiencing less receptivity to corporeal needs / feelings. Lastly, the Emotional Attunement scale increased from 41 to 46 (+5 points). This scale assesses "receptivity and attitude toward a range of feelings, emotional experiences and behaviors, and affect in general for oneself and others" (Shealy, 2016, p. 146). These results provide a birds-view of the aggregate profile for the whole group.

For the purpose of this study, three scales that correlate with program objectives—the Sociocultural Openness scale, the Ecological Resonance scale, and the Global Resonance scale—were focused on to assess program outcomes and their impact on student development. As mentioned above, the longitudinal analysis showed that there were significant increases over time on the Sociocultural Openness and Ecological Resonance scales. However, no noticeable change in the group's aggregate profile was found on the Global Resonance scale (Figure 2). The Global Resonance scale assesses desire to learn about other peoples and cultures and to interact with others globally; hence it is clearly relevant to this study's objectives. The three scales were further analyzed by gender. The results are shown in Figure 3 and described below in the order of most substantial to least substantial change.

Results by gender for the Ecological Resonance scale show that male participants' scores were considerably lower than female participants' scores, suggesting that there are gender differences in awareness of environmental impacts, concern for nature, and understanding of life interconnections. Moreover, male participants' scores decreased from 26 to 22 (-4 points), while those of female participants increased substantially, from 42 to 58 (+16 points).

There was a marked gender difference in scores on the Sociocultural Openness scale as well. Female participants' scores increased from 53 to 61 (+8 points), while male participants' scores started out much lower and decreased further from 15 to 12 (-3 points).

Significant gender differences were also found on the Global Resonance scale. The scores of both groups decreased, but the score levels were much higher for female participants (decreasing from 71 to 66) than for male participants (decreasing from 25 to 21).

Thus, substantial gender differences were found on all three of the scales that are closely related to program objectives. Female participants' scores were considerably higher than those of their male counterparts on all three scales, and changes in scores from T1 to T2 were larger for female participants and in the opposite direction from male participants' scores (increasing, not decreasing) for two of the three scales.

Figure 3. Between-Group Differences by Gender

Next, using the Profile Contrast index on the BEVI, data for the 14 students were divided into lowest 30 percent, middle 40 percent, and highest 30 percent of scorers Sociocultural Openness, Ecological Resonance, and Global Resonance scales respectively. For each scale, the lowest 30 percent was n=4, the middle 40 percent was n=6, and the highest 30 percent was n-4. The results are presented in Figure 4. The most striking results of this analysis are that the scores for the highest 30 percent increased substantially for Sociocultural Openness and Ecological Resonance, and that the scores for the middle 40 percent increased substantially for Ecological Resonance and decreased substantially for Global Resonance.

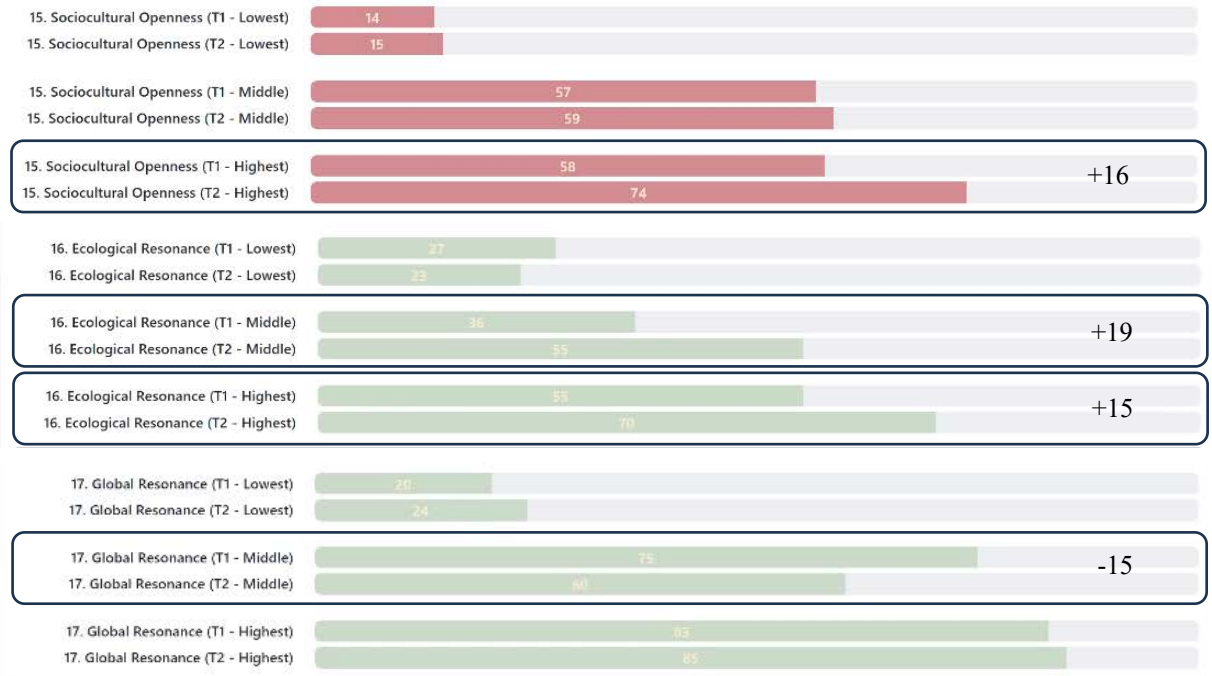

Figure 4. Profile Contrast by Percentile

Finally, the Decile Profile Index on the BEVI offers a detailed overview of the aggregate profile derived from participants in the group. This profile illustrates the percentage of participants within the decile range and captures the changes in distribution over time on the 17 profile scales. Table 2 shows the decile profile

Table 2. Overview of Decile Profile (n=14)

Decile	1	2	3	4	5	6	7	8	9	10
6. Self Certitude (T1)	7.14%	7.14%	7.14%	14.29%	21.43%	28.57%	0%	0%	0%	7.14%
6. Self Certitude (T2)	0%	7.14%	14.29%	21.43%	7.14%	7.14%	14.29%	0%	21.43%	7.14%
8. Socioemotional Convergence (T1)	14.29%	14.29%	14.29%	35.71%	14.29%	0%	0%	7.14%	0%	0%
8. Socioemotional Convergence (T2)	14.29%	35.71%	0%	0%	14.29%	7.14%	7.14%	14.29%	7.14%	0%
9. Physical Resonance (T1)	0%	21.43%	14.29%	0%	7.14%	28.57%	7.14%	21.43%	0%	0%
9. Physical Resonance (T2)	7.14%	21.43%	7.14%	14.29%	7.14%	28.57%	7.14%	7.14%	0%	0%
10. Emotional Attunement (T1)	21.43%	7.14%	0%	14.29%	7.14%	28.57%	7.14%	0%	7.14%	7.14%
10. Emotional Attunement (T2)	7.14%	14.29%	7.14%	7.14%	21.43%	14.29%	0%	7.14%	21.43%	0%
15. Sociocultural Openness (T1)	14.29%	7.14%	0%	14.29%	14.29%	7.14%	28.57%	14.29%	0%	0%
15. Sociocultural Openness (T2)	7.14%	14.29%	14.29%	0%	0%	14.29%	14.29%	28.57%	0%	7.14%
16. Ecological Resonance (T1)	7.14%	7.14%	35.71%	7.14%	14.29%	14.29%	0%	0%	7.14%	7.14%
16. Ecological Resonance (T2)	7.14%	0%	21.43%	7.14%	7.14%	21.43%	14.29%	0%	14.29%	7.14%
17. Global Resonance (T1)	7.14%	7.14%	7.14%	7.14%	0%	7.14%	7.14%	21.43%	35.71%	0%
17. Global Resonance (T2)	7.14%	14.29%	0%	14.29%	0%	14.29%	0%	7.14%	42.86%	0%

for the three scales that correlate with program objectives—the Sociocultural Openness scale, the Ecological Resonance scale, and the Global Resonance scale (in bold)—and the three scales that showed a substantial change over time on the aggregate profile. The varying shades of gray in the table indicate a higher percentage of individuals within each decile, providing a visual representation of the movement in distribution over time across the decile range from the lowest (1-10%) to the highest (90-100%). The shifts in distribution over time correspond to the score fluctuations outlined in this section.

8 Discussion

This study examined the effectiveness of the Area Studies in Hawaii program—a short-term study abroad program—using the Beliefs, Events, and Values Inventory (BEVI) assessment tool. Of the 17 process scales that comprise BEVI, the Sociocultural Openness scale, the Ecological Resonance scale, and the Global Resonance scale were focused on as these are closely related to the goals of the Area Studies in Hawaii program. Aggregate group, between-group by gender and percentiles, and docile profile reports for 14 participants in the program were generated.

The Ecological Resonance scale displayed the most substantial increase over time in the group aggregate scores, the scores of female participants, and the scores of participants in the middle and highest percentiles. These increases are strong indicators that the program successfully exposed students to different ways of thinking and approaches to sustainability and raised their awareness about the environmental impacts of climate change. More specifically, female participants had higher initial Ecological Resonance scores than male participants, and female participants in the middle and highest percentile groups showed the largest score increases. This suggests that female participants were more open to learning about environmental and sustainability issues and made marked gains over the duration of the program. In other words, female participants developed a stronger awareness of environmental impacts, increased concern for nature, and an enhanced understanding of life interconnections through engagement in the experiences provided by the program. These gains point to a shift in beliefs and values that align with the objectives of the program. Male participants, by contrast, did not show such gains. Their low scores on the Sociocultural Openness scale, which signal that they tend to resist different cultures and viewpoints, may help explain their lack of growth in Ecological Resonance. Male participant scores on the Socioemotional Convergence scale, which showed substantial changes over time (detailed in the findings section), suggests that they may have had difficulty appreciating the connection between self, others, and the larger world.

The Sociocultural Openness scale showed an overall pattern similar to that of the Ecological Resonance scale on the group aggregate scores, the between-group differences by gender, and the scores of the different percentiles. Again, initial male scores were lower than initial female scores, and female participant scores rose while male scores fell. This gap suggests that male participants were less receptive to diverse viewpoints and new cultural experiences in general at the start of the program, which likely influenced their engagement—or lack of engagement—with others from different cultural backgrounds during the program. By contrast, female participants' Sociocultural Openness scores were high to begin with, and increased by 8 points during the program. While participants in the lowest and middle percentiles showed only small gains in Sociocultural Openness—+1 point and +2 points, respectively—female participants in the highest profile group (n=4) showed a large gain, of +16 points. This suggests that this specific group of students were the most accepting, culturally attuned, and globally oriented and that they gained the most from the intercultural interactions and learning experiences provided in the program. In other words, the program appears to have been especially meaningful for female participants in the highest percentile group.

Unlike for the two scales discussed above, the scores for both male participants and female participants on the Global Resonance scale decreased over time, by 4 points and 5 points, respectively. But the pre-test (T1) scores for female participants were much higher than those for male participants, indicating that the female students were far more interested in learning about the world and interacting with people from different backgrounds than the male participants. In other words, female participants appear to have begun the program ready to engage on the global stage. The fact that students self-selected to participate in the program suggests that all the participants initially had a desire to learn more about the world and to encounter new experiences, but it may be that the male participants were lacking in readiness to connect

with other people and cultures. As the sample size in this study was small, especially for male participants (n=3), it is difficult to generalize from the above results. But they suggest that further exploration of gender differences on the 17 process scales of BEVI would be a fruitful endeavor. Overall, and consistent with "small N" interpretive methodologies (see https:// thebevi.com/wp-content/uploads/2024/01/BEVI-Manual_v2.pdf), findings like these suggest that the variables of gender may be both moderating and mediating learning, growth, and development processes for these students, an important consideration in relation to the design and delivery of high impact experiences such as study abroad (Pendleton et al., 2016).

The Global Resonance scale scores for the different percentiles are difficult to interpret, with the lowest percentile group having a much lower pre-test (T1) score than the middle and highest percentile groups, and lowest and highest percentile groups' scores increasing slightly while the middle percentile group's score falls sharply. The most apt interpretation may be that students respond to new intercultural interactions in unfamiliar environments encountered through study abroad experiences in different ways and to various degrees (Wandschneider et al, 2015), and that because of this, the effectiveness of study abroad programs varies by student. Likewise, we may be observing the impact of these self / identity structures at the outset of the study abroad experience, which interacted with the experience itself to mediate and moderate learning processes and outcomes (e.g., students lowest on Profile Contrast may be less able to engage and benefit from the learning experience than high Profile Contrast students). Again, such considerations have potential implications for the selection, preparation, and processing of high impact learning experiences (Grant et al., 2021). Specifically, results like these suggest we should be 1) pedagogically more reflective and intentional about what actually is happening "inside" our students, by 2) assessing their relative capacities and inclinations to engage in high impact experiences like study abroad in the first place, while 3) attending to the differential impact of such identity / self structures on the processes and outcomes of learning, particularly when 4) programmatic content or experiences are value-laden and emotionally intense (Acheson et al., 2023; Shealy, 2023).

Using the BEVI assessment tool for this study provided an opportunity to learn first-hand about how BEVI can be applied to improve program outcomes and facilitate learning processes that bring about meaningful changes in students. In the analyses conducted for this study, pre-test (T1) scores showed substantial gender differences related to preparedness (or lack thereof) to fully explore unfamiliar situations and engage wholeheartedly in the intercultural interactions that come with the study abroad experience. Of the multiple factors that influence learning outcomes, lack of student preparedness is one that obstructs learning (Grant et al., 2021). This points to the need to integrate appropriate interventions and support into study abroad programs in order to optimize learning and growth for all students. When designing programs, it is helpful to remember that "students farthest from the learning outcomes of the course, with the most growth to achieve, have the least capacity to respond to challenges experienced in ways that support growth" (Grant et al., 2021. p 141). With the knowledge gained from assessing the outcomes of the study abroad program that is the subject of this study, we hope to incorporate teaching and learning strategies that will help students to take full advantage of the growth and learning that the study abroad experience offers. The development of intercultural competence and global competence is an ongoing, life-long process (Deardorff, 2006, OECD, 2018). Assessment tools like BEVI can contribute to that process by showing where individuals stand in the road to gaining the attitudes, knowledge, and skills needed to navigate our increasingly interconnected and complex world.

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