



# The Global and the Local: Programs that Predict Critical Thinking and Cultural Appreciation Development in Students

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## **The Global and the Local: Programs that Predict Critical Thinking and Cultural Appreciation Development in Students**

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Increasingly, colleges and universities across the United States are encouraging students to study abroad, citing enhanced cultural appreciation and critical thinking skills as intended outcomes. However, on every campus, there are students who cannot participate in learning-abroad opportunities because of visa, financial, familial, or other personal reasons. At the same time, some students are more drawn to opportunities for engagement in their own communities than outside the United States. This article discusses a study that focused on student outcomes for alumni of domestic and international programs designed to be cross-cultural and experiential in nature. The findings suggest that U.S.-based service-learning opportunities that are intentionally experiential and contain cross-cultural elements may be just as effective in developing students' cultural appreciation and critical thinking skills as international experiences. Results also indicate that programmatic elements may be as strong of a predictor of student outcomes as location.

**Keywords:** critical thinking, cross-cultural, international service-learning

Internationalization of higher education is a strategic approach that universities across the world have undertaken to maintain relevance in a highly globalized society. Building on Knight's (2004) conceptualization of "comprehensive internationalization," universities are increasingly promoting international perspectives at the administrative, research, and classroom levels. For students, an internationalized campus may provide a wide range of experiences such as study abroad, interactions with a nationally diverse student body, internationally focused course work, or a mandatory second-language requirement for graduation. Jones and Abes (2013) noted that border crossing and interaction with those different than oneself may contribute to identity development in undergraduate students.

In general, campus internationalization efforts are framed by international education administrators as key catalysts for the development of students' intercultural competencies, which are defined as the "the set of cognitive, affective and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts" (Bennett, 2008, p. 16). The goal of enhancing students' intercultural competencies drives a variety of international programs on campuses. Often, the need for intercultural skills in future employment is cited as a primary rationale for intercultural development-oriented programs. For example, Hart Research Associates (2013) found that employers are increasingly searching for college graduates who can work well in teams of diverse coworkers, write and speak well, analyze complex problems, demonstrate leadership skills, and understand global contexts.

Campus-based internationalization efforts in the United States have historically focused on study abroad in promoting intercultural competencies in undergraduate students. The emphasis on study abroad, however, has also raised questions about its potential limitations in terms of both accessibility and outcomes. Despite its widespread support, issues ranging from difficulties in transferring credits, additional costs, fears of encountering prejudice abroad, a lack of faculty of color, and familial responsibilities plague study-abroad participation (Soria & Troisi, 2014). Moreover, students of low socioeconomic status and students of color are underrepresented in learning abroad. Recent studies have

also suggested that while study abroad provides immediate positive impacts on students' intercultural competencies, without the necessary avenues to further pursue intercultural interests, these benefits are not always sustained in the long term (Rexeisen, Anderson, Lawton, & Hubbard, 2008). Similarly, Gardner, Gross, and Steglitz (2008) concluded that while there is great value in study abroad, it should not necessarily be perceived as the most valuable pathway to the development of such skills. Since study abroad is not available to all students and because outcomes may not always be self-sustaining, it is necessary to better understand alternative approaches to promoting students' intercultural competencies.

One approach prevalent in recent academic discourse focuses on exploring whether domestic intercultural interactions can yield similar impacts on intercultural competencies as those associated with study abroad experiences. The potential benefits of promoting domestic intercultural interactions as a means for developing students' intercultural competencies include: providing additional opportunities for students returning from learning-abroad programs; expanding opportunities to include traditionally underrepresented students; and decreasing program development and maintenance costs (Sobania & Braskamp, 2009). While the benefits associated with domestic intercultural experiences are many, questions remain regarding their efficacy as a tool for promoting intercultural competencies.

The growing interest in exploring whether domestic experiences can promote intercultural competencies is evident in a contemporary use of the term *study away*. The concept of study away was first introduced by Sobania and Braskamp (2009) to broaden the palette of student programs that are considered effective tools for promoting intercultural competencies. Rather than limiting institutional practice to solely include study abroad programs, study away attempts to incorporate a greater diversity of experiences, such as community-based education and domestic off-campus programs, in addition to study abroad (Sobania, 2015). Study away is built around the belief that instead of supplanting study abroad as the preferred approach to developing intercultural competencies, a domestic intercultural experience can be a viable complement for students wishing to further pursue intercultural interests or an alternative option for students who do not have the means or desire to go abroad (Engberg, 2013).

By questioning the role of "place" in the development of intercultural competencies, we posit that programmatic elements may be stronger predictors of outcomes than the location of a program. Our position emerges largely from the evidence that exposure to an intercultural experience does not necessarily result in the development of intercultural competencies (Bennet, 2008; Berg, Paige, & Lou, 2012; Engle & Engle, 2002; Hunter, 2008); rather, outcomes result from pedagogical or programmatic elements (Jones & Abes, 2013). In fact, neglecting the importance of pedagogical and programmatic considerations may even be detrimental to students' cognitive and affective development. The risks of unstructured intercultural experiences are evidenced amply in the scholarly literature and include cultural backlash, developmental regression, entrenchment of hegemonic and imperialist attitudes, and economic instrumentalism (Feller, 2015). Although a degree of cultural adaptation is a necessary and important element of learning-abroad programs, Magolda (1999) noted that meaningful support in times of transition can help lead to positive self-authorship in students.

This article explores the extent to which programs promoting domestic intercultural experiences can replicate the impact that study abroad programs have on the development of intercultural competencies. We conducted this examination by comparing the self-reported development of intercultural competencies of undergraduate students at a large, urban, public research university in the United States who successfully completed a domestic intercultural program with those of students who completed a study abroad program. The goal of the article is to contribute to the ongoing discussion of whether or not the "place" an intercultural experience occurs influences the development of students' intercultural competencies.

### **Theoretical or Conceptual Framework**

The conceptual framework for this study drew from Astin's (1993) well-established input-environment-output model, which hypothesizes that the background characteristics of college students (inputs) and relevant aspects of the college experience (environment) influence outcomes. Our statistical approach

reflected this model in that it controlled for inputs (e.g., gender, racial and ethnic identity, and pre-college rating of leadership and multicultural competence). Additional college experiences (e.g., grade point average, involvement in student organizations, and students' academic majors) were included as separate blocks in models predicting students' critical thinking development and multicultural competence, thereby isolating their contributions from the focal independent variables—that is, students' participation in local and domestic learning programs. Effects of students' participation in study or travel abroad, given their known benefits in enhancing students' intercultural skills development, were also considered (Stebbleton, Soria, & Cheney, 2013).

## Methodology

Our statistical modeling was designed to help us understand differences (if any) in students who have had cross-cultural, experiential learning opportunities within the United States and internationally. In order to meet this goal, we solicited data from a variety of programs that had programmatic features that (1) were co-curricular (related to the core curriculum but not necessarily traditional coursework); (2) were experiential (i.e., had some form of extra-curricular learning that was explicitly or implicitly included in the program); (3) offered opportunities for intercultural communication (i.e., students interact or reflect upon cultures other than their own); and (4) were facilitated by staff at the university (to ensure that learning in programs was an intentional focus). These programmatic selection criteria were based on conversations with program directors regarding key program features that may facilitate critical thinking and cultural appreciation; however, programs were not directly evaluated for this study.

## Instrument and Participants

Our sample consisted of students who had participated in one of the activities mentioned previously in 2013 or 2014 and who had also completed the Student Experience in the Research University (SERU) survey (see <http://seru.umn.edu/undergraduate-seru/about>). The SERU is administered within a consortium of universities (25 based in the United States; 16 international partners take the international version of the instrument) and focuses on academic engagement and global experiences (40% of items); civic and community engagement (20% of items); and campus-specific items (40% of items). In order to identify students who had participated in specific programs, we drew data from one of the SERU consortium-member universities. Selection of this university allowed for collaboration with relevant offices to identify specific student identification numbers that were present in both program completion logs and had completed relevant SERU items.

In spring of 2014, the SERU survey was administered to all undergraduate students at the large, public research university chosen for this study. Survey responses were obtained from 6,780 enrolled undergraduate students (23.96% of the student population). The majority of students in the sample self-identified as White ( $n = 4,925$ , or 72.6% of the sample) and female ( $n = 4,152$ , or 61.2% of the sample), and were enrolled as non-transfer students (transfer students only comprised 27.1% of the sample). Table 1 provides a full demographic summary of the sample.

**Table 1.** Description of Variables Included in Analyses (n = 6,780)

<b>Categorical Variables</b>	<b>n</b>	<b>%</b>
Male	2,627	38.8
Female	4,152	61.2
American Indian or Native American	77	1.1
Asian	732	10.8
Black	224	3.3
Hispanic	210	3.1
International	545	8.0
Non-specified race	35	0.5
White	4,925	72.6
Pell Grant recipient	1,850	27.3
First-generation	1,867	27.5
Lived in a residence hall	4,383	64.6
Enrolled in a freshman seminar	1,646	24.3
Business college	441	6.5
Science and engineering college	1253	18.5
Biological sciences college	610	9.0
Agricultural college	537	7.9
Design college	270	4.0
Liberal arts college	2790	41.2
Education college	607	9.0
Transfer student	1,834	27.1
Internships in a cross-cultural environment	9	0.1
Research	4	0.1
NSE off-campus	44	0.6
Service-learning	564	8.3
Short-term study abroad	134	2.0
Long-term study abroad	252	3.7

Students included in the sample had either participated in a university learning abroad program or in one of the following domestic experiences: (1) a service-learning experience managed by the university's public engagement office; (2) a domestic exchange program (e.g., National Student Exchange); or (3) a course-based or research experience that required community engagement. Many of the service-learning assignments took place in the multicultural urban environment in which the university resides.

### **Dependent Measures**

Cultural appreciation includes a wide array of cognitive and affective skills and dispositions. For the purposes of this study, items assessed perceived changes in students' critical thinking and communication

skills development, leadership development, and cultural appreciation skills development. We chose these focal areas based on both the broad aims of campus internationalization efforts (Knight, 2004) and the characteristics that employers are increasingly demanding from college graduates (Hart Research Associates, 2013).

The items for measuring students' self-reported development in critical thinking and communication focused on students' "analytical and critical thinking skills," "ability to be clear and effective when writing," "ability to speak clearly and effectively in English," and "foreign language skills." Students reported their abilities in these areas when they started their studies at the university and their current abilities on a scale from 1 (very poor) to 6 (excellent).

Three items measured students' cultural appreciation skills. Specifically, students were asked to rate their ability to: appreciate, tolerate, and understand racial and ethnic diversity; appreciate cultural and global diversity; and understand international perspectives (economic, political, social, and cultural). Students reported their abilities in these areas when they started at their university and their current abilities on a scale from 1 (very poor) to 6 (excellent).

### **Independent Variables**

The comparison of outcomes by program was buttressed by demographic variables, which helped further explain program outcomes. To this end, several measures of students' pre-college demographics, including students' sex, race and ethnicity, Pell Grant status, and first-generation status were utilized.

In addition, variables associated with college students' experiences in higher education, including their college of enrollment, academic level, transfer status, participation in a multicultural retention program, residence on campus, participation in an honors program, and participation in freshman seminars were all examined in order to control for alternative explanations.

Finally, six measures related to students' participation in co-curricular, domestic activities and study abroad were examined. Students' participation in these programs was collected by the institution and recoded to reflect whether students had participated at least once in each program. The six programs were: (1) long-term study abroad (i.e., one semester or longer); (2) short-term study abroad (shorter than one semester, typically three weeks); (3) domestic service-learning in cross-cultural contexts; (4) domestic-based research; (5) National Student Exchange off-campus; and (6) international work, internship, or volunteer experiences.

### **Data Analyses**

For the purpose of data reduction, we conducted a factor analysis, which helped us to examine a larger set of measured variables with a smaller set of latent constructs. To develop the dependent and independent measures used in this study, we conducted a factor analysis on SERU items with oblique rotation (promax). Rather than relying on Kaiser's eigenvalue rule (which can overestimate the number of factors), the scree plot test (which can suffer from subjectivity and variability), or Bartlett's test (which is sensitive to sample size), we used Velicer's (1976) minimum average partial (MAP) method to estimate the factors (Courtney, 2013). We implemented the procedures outlined by Courtney (2013) to analyze the data using SPSS R-Menu version 2.0 (Basto & Pereira, 2012). Velicer's MAP values indicated a distinct second step minimum squared average partial correlation suggesting two factors. We then computed factor scores using the regression method and saved them as standardized scores with a mean of zero and a standard deviation of one. Each of the dependent variable factors had good reliability: cultural appreciation development ( $\alpha = .893$ ) and critical thinking and communication development ( $\alpha = .824$ ).

After completing the factor analysis, we conducted hierarchical least squares regression analyses. As noted earlier, predominant theoretical frameworks have suggested that students' demographic characteristics and institutional contexts might covary with collegiate experiences, potentially confounding the effects of those collegiate experiences (Astin, 1993; Pascarella & Terenzini, 2005). With this in mind, data were entered into three blocks in order to assess what the variance-specific collegiate experience items explain above and beyond the variance explained by control measures (Petrocelli, 2003). These items addressed: (1) precollege characteristics; (2) collegiate experiences; and (3) experiential,

cross-cultural program (domestic or abroad). We tested the assumptions of regression analysis and found that the multicollinearity assumptions were not violated (tolerance statistics and variance inflation factors were within acceptable ranges; VIF values ranged from 1.065 to 6.663) (Field, 2013). In testing homoscedasticity, we discovered random scatter and variability in scatterplots of standardized residuals against the standardized predicted values. We produced histograms of standardized residuals and normal probability plots comparing the distribution of standardized residuals to a normal distribution and found evidence for normality. We examined the matrix scatterplots and discovered that the relationships between the predictor and outcome variables were relatively linear. We also found that the residual errors were consistently independent across the models (the Durbin-Watson statistics were 1.967 and 1.940, respectively); therefore, the results of these analyses suggest the regression assumptions were not violated.

## Results

For the first regression, we entered demographic variables into the model, and they did not explain a significant level of variance in students' development of critical thinking and communication ( $R^2 = .002$ ,  $p > .05$ ). We entered additional collegiate variables in step two, and they explained significant variance in students' development of critical thinking and communication above and beyond demographic variables ( $R^2 = .108$ ,  $R^2\Delta = .106$ ,  $p < .001$ ). Finally, the cross-cultural, experiential education experiences entered into block three explained a significant amount of variance in students' development of critical thinking and communication above and beyond their demographic and other collegiate experiences ( $R^2 = .115$ ,  $R^2\Delta = .007$ ,  $p < .001$ ). Our analyses suggest that several of the cross-cultural, experiential education activities were positively associated with students' development of critical thinking and communication. For instance, domestic service-learning, short-term study abroad, long-term study abroad, and working abroad were positively associated with students' critical thinking and communication (see Table 2).

**Table 2.** Regression Analysis Predicting Students' Critical Thinking and Communication

Variable	Model 1		Model 2		Model 3	
	$\beta$	$p$	$\beta$	$p$	$\beta$	$p$
(Constant)				***		***
Asian	-0.014		-0.022		-0.023	
Black	0.019		0.024	*	0.025	*
International	0.013		0.078	***	0.080	***
Hispanic	-0.002		0.006		0.006	
American Indian or Native American	-0.013		0.000		0.000	
Female	-0.030	*	-0.033	**	-0.041	***
Pell	0.019		0.018		0.019	
First-generation	-0.005		0.015		0.017	
Business college			-0.010		-0.015	
Science and engineering college			-0.105	***	-0.101	***
Biological sciences college			0.004		0.004	
Agricultural college			0.004		0.001	
Design college			-0.021		-0.022	
Liberal arts college			-0.036		-0.044	
Education college			0.029		0.016	
Residence hall			0.015		0.010	
Multicultural retention program			0.008		0.007	
Honors			-0.030	*	-0.029	*
Freshman seminar			0.001		-0.004	
Class level			0.294	***	0.273	***
Transfer			-0.199	***	-0.194	***
Internships in cross-cultural environment					-0.012	
Service-learning in cross-cultural					0.032	*
Research					0.002	
NSE off-campus					0.022	
Short-term					0.026	*
Long-term					0.056	***
Work					0.033	**
$R^2$		.002		.108		.115

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

For the second regression, we entered demographic variables into the model, and they did not explain a significant level of variance in students' development of cultural appreciation ( $R^2 = .002$ ,  $p > .05$ ) (see Table 3). We entered additional collegiate variables in step two, and they explained significant variance in



students' development of cultural appreciation above and beyond demographic variables ( $R^2 = .077$ ,  $R^2\Delta = .075$ ,  $p < .001$ ). Finally, the cross-cultural, experiential education experiences entered into block three explained a significant amount of variance in students' development of cultural appreciation above and beyond their demographic and other collegiate experiences ( $R^2 = .087$ ,  $R^2\Delta = .010$ ,  $p < .001$ ).

Additionally, service-learning, long-term study abroad, and work abroad were positively associated with students' development of cultural appreciation. These results suggest that border crossing is a predictor of development of student cultural appreciation and critical thinking skills; however, there may be other local opportunities that produce similar outcomes.

**Table 3.** Regression Analysis Predicting Students' Cultural Appreciation

Variable	Model 1		Model 2		Model 3	
	$\beta$	$p$	$\beta$	$p$	$\beta$	$p$
(Constant)				***		***
Asian	-0.020		-0.025	*	-0.026	*
Black	-0.004		-0.001		-0.001	
International	0.022		0.091	***	0.094	***
Hispanic	-0.003		0.002		0.001	
American Indian or Native American	-0.009		-0.001		-0.001	
Female	0.026	*	0.001		-0.008	
Pell	0.002		0.016		0.017	
First-generation	0.015		0.038	**	0.038	**
Business college			0.010		0.007	
Science and engineering college			-0.141	***	-0.136	***
Biological sciences college			-0.017		-0.016	
Agricultural college			-0.015		-0.017	
Design college			-0.032		-0.032	
Liberal arts college			-0.023		-0.034	
Education college			0.038		0.018	
Residence hall			0.085	***	0.080	***
Multicultural retention program			-0.006		-0.008	
Honors			-0.030	*	-0.029	*
Freshman Seminar			0.020		0.015	
Class level			0.169	***	0.147	***
Transfer			-0.169	***	-0.163	***
Internships in cross-cultural environment					0.011	
Service-learning in cross-cultural					0.070	***
Research					0.008	
NSE off-campus					0.014	
Short-term					0.011	

Variable	Model 1		Model 2		Model 3	
	$\beta$	$p$	$\beta$	$p$	$\beta$	$p$
Long-term					0.049	***
Work					0.039	**
$R^2$		.002		.077		.087

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

As noted previously, three important results emerged from our analyses that may have implications for higher education institutions. In the following sections, we explain each of these results in relation to student developmental change over time in the sample.

### Length and Purpose of Program Mattered for International Study for Cultural Appreciation

Although there has been much debate on whether the particular length of a program “matters” in terms of intercultural development (Bennett, 2008; Berg et al., 2012; Engle & Engle, 2002; Hunter, 2008), in this study there was a statistically significant change in self-perceived cultural appreciation for students who studied abroad. Specifically, long-term programming was a stronger predictor of change in cultural appreciation than short-term programs. However, both short- and long-term study-abroad program participants had statistically significant changes in critical thinking items. To this end, there was significant change in self-perceived critical thinking development for all students who participated in learning abroad, but changes in cultural appreciation were better predicted by longer term programs. For this particular sample, international education practitioners and scholars may conclude that any learning-abroad experience can help facilitate changes in critical thinking, but cultural appreciation appears to be enhanced by time in the host country.

Similarly, students who were involved in a work experience abroad (a subset of those participating in both short and long programs) had statistically significant gains in their self-perceived critical thinking and cultural appreciation. This finding aligns with Berg, Paige, and Lou’s (2012) assertion that programming elements may matter more than length of time. Students who participated in work experiences abroad may have had more authentic opportunities to engage internationally and may have also faced more regular critical thinking and cultural challenges than students in faculty-led programs. Gardner et al.’s (2008) survey of employers aligned with this finding, indicating that employers value work and international experience above general study abroad programming. Finally, Tonkin and Bourgault du Coudray’s (2016) study reinforced the important role of naturalistic socialization opportunities.

### Service-Learning Was Significant Among Domestic-Based Programs

Although students reported statistically significant changes in their critical thinking and cultural appreciation skills after working abroad, the same results did not occur domestically. Among all of the experiential, cross-cultural, domestic experiences reported by students in our sample, only service-learning yielded statistically significant changes in both critical thinking and cultural appreciation.

Non-significant results for internships, National Student Exchange, and research, however, may be spurious findings since the sample sizes for participants in these programs were very small ( $n = 9, 44,$  and  $4,$  respectively). A much larger sample would be needed to adequately compare results among domestic programs.

Our most robust domestic group—students who participated in service-learning ( $n = 564$ )—had statistically significant gains in both critical thinking and cultural appreciation. These gains were more instructive when compared to results for students who studied abroad (which had larger samples) than

other domestically oriented programs. The comparison of service-learning and learning abroad programs is outlined in the next section.

### **Similar Critical Thinking and Cultural Appreciation Outcomes Existed for Domestic Service-Learning, Long-Term Study Abroad, and Work Abroad Programs**

In this article's introduction, we hypothesized that program features may be a better predictor of critical thinking and cultural appreciation development than program location. Our data appear to have supported this hypothesis. When asked about their development over time in the areas of critical thinking and cultural appreciation, only students who had participated in service-learning, long-term study abroad, and work abroad reported statistically significant differences.

The less significant findings for short-term international programs suggest that there may be elements of programming associated with the development of critical thinking and cultural appreciation that are leading to gains that are not necessarily location dependent. From the data available through the SERU survey, it was not possible to glean the specific program elements of every service-learning, long-term study-abroad, and work-abroad program on campus, but the programmatic focus of the service-learning program was helpful in understanding why results were significant for this particular program. Specifically, Bringle and Hatcher's (1996) conceptualization of service-learning has been highly influential in outlining service-learning dimensions in higher education institutions. The authors described service-learning as:

a credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs and reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. Unlike extracurricular voluntary service, service learning is a course-based service experience that produces the best outcomes when meaningful service activities are related to course material through reflection activities such as directed writings, small group discussions, and class presentations. Unlike practica and internships, the experiential activity in a service learning course is not necessarily skill-based within the context of professional education. (p. 222)

Recent studies related to international service-learning have indicated that students may develop cultural appreciation through the process of engaging with communities directly (Clark & Jasaw, 2014; Martin & Griffiths, 2014). On the university campus where this study was conducted, most service-learning placements are with community-based organizations in a multicultural urban environment and require a sustained period of engagement followed by on-campus reflection and connection to academic programming. From SERU survey data, it is impossible to know what factors are most salient, but data indicate that critical thinking and cultural outcomes may emerge from programs that either are domestic community-based or international.

### **Limitations**

This article outlines self-reported changes in critical thinking and cultural appreciation for undergraduate students at a large research university in relation to student program participation. One limitation of our study was that all data relied on self-report survey items rather than instrumentation designed specifically to measure development outcomes. Responses to items may have been susceptible to social desirable responses (Donaldson & Grant-Vallone, 2002; Van de Mortel, 2008); however, Spector (1987) noted that well-designed instruments (such as the SERU survey) may have very little variance in item results based on self-report bias.

A second limitation was that our aggregate factors may not have been sensitive enough to identify subthemes that could further inform policy and practice. Engberg (2013) found significant differences in developmental outcomes between study abroad and service-learning programs. Focusing on the concept of *global learning*, Engberg concluded that study abroad was more closely associated with cognitive knowing, while service-learning was connected to intrapersonal skills such as social responsibility and

identity formation. Furthermore, as evidenced by the change in variance in the outcome variables in our models, the cross-cultural educational experiences added little variance to students' development of critical thinking and communication, and cultural appreciation. Additional factors not included in the models may explain more of the variances in the dependent variables. The purpose of our study was to compare similar outcomes from different programs but may have benefited from a wider range of indicators than selected.

Finally, although the sample size was sufficient, this study was at risk of locational and institutional bias. The research was conducted at a single, large research-intensive institution with robust learning abroad and service-learning options; the university is based in a metropolitan area, and the student population is predominately White. Further research on different types and sizes of institutions would be necessary to determine if this study's findings are applicable to other higher educational institutions.

## Discussion

Despite its limitations, this study offers an important conclusion for universities immersed in international community engagement work. Our data suggest that U.S.-based educational opportunities that are intentionally experiential and contain cross-cultural elements may be just as effective in developing students' cultural awareness and critical thinking as international programs. The implications of this finding are threefold. First, new options (with seemingly similar predictive outcomes) may be offered to students who cannot participate in learning abroad opportunities because of financial, familial, or other personal reasons. Second, impact studies of learning abroad may need to be expanded to include cross-cultural, experiential, local learning to tease out what exactly supports and does not support student development. In such cases, a broader term such as *global learning experience* may be appropriate. Finally, service-learning may serve as a tool that can be used in partnership with learning abroad to enhance impact. In this study, the few students who both studied abroad and participated in service-learning were eliminated in order to isolate effects. However, there may be a multiplier effect if both program approaches are utilized. For example, when Smith, Jennings, and Lakhani (2014) developed an international program with a service-learning component, they found that students developed social justice orientations. Impacts of sequential programs (i.e., first learning abroad then service-learning or vice versa) also have unknown effects.

Therefore, as the empirical base for internationalization of education continues to emerge, it will be important for scholars in the field to identify and clarify desired outcomes and the indicators of those outcomes. In highly interconnected and locally diverse worlds, one might be just as likely to develop critical thinking and cultural appreciation skills locally as internationally. Following Creswell's (2014) conceptualization of explanatory case studies, further qualitative and quantitative research on specific program elements is needed to help identify the "how's" and "why's" of our findings. A qualitative taxonomic approach to identifying program variables may help to further explain (or potentially contradict) the results of our study.

Important policy investigations will also be needed on campuses across the United States and around the world. We found that students with service-learning experiences demonstrated greater critical thinking and cultural appreciation change than students who studied abroad in short programs. There is both opportunity and danger related to these findings in relation to internationalization strategy. The statistical evidence points to the positive outcomes that can emerge in sustained, locally oriented, cross-cultural service-learning programs—an opportunity for institutions. Such data are helpful for understanding the value of existing programs and for creating new programs that are accessible to all students (including those who cannot study abroad because of financial, family, academic, athletic, or other reasons).

At the same time, there is danger in assuming that all of these experiences are "the same." There are qualitative (and potentially quantitative, using different indicators) differences between domestic and international programs, as evidenced by Engberg (2013). Local service-learning programs can create considerable access for students to develop critical thinking and cross-cultural skills, but care should be taken that these experiences not be used as a proxy experience for students who are typically

underrepresented in learning abroad and have interest in such experiences. In a globally interconnected world, border crossing (especially when it involves longer duration stays, work or internship experiences, or service-learning) may be very beneficial to the development of critical thinking skills, cultural appreciation (this study), and global learning (Engberg, 2013). For all of these reasons, accessibility to global programs, including financial support, removal of barriers for students with disabilities, identity-affirming and heritage programs, and programs for underrepresented majors, must remain a priority for international strategists at universities while, at the same time, they recognize the educational value of domestic experiences.

### Author Note

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