


Short-Term Study Abroad in Psychology: Effects of a Cultural Scavenger Hunt on the Development of Intercultural Competence

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Abstract

Steadily increasing ethnic and cultural diversity in the United States has led employers to see intercultural competence as a valuable and necessary trait for those entering the workforce, including students studying psychology. One high-impact practice that may increase students' multicultural awareness is study abroad. The current research examined the effectiveness of a cultural scavenger hunt offered during two short-term study abroad programs to increase participants' intercultural competencies. Cultural competence was assessed in Study 1 ($N = 10$) using the Miville-Guzman Universality-Diversity Scale—Short Form. Results indicated a statistically significant increase across all subscales. In Study 2 ($N = 16$), the Cross-Cultural Adaptability Inventory was utilized. Results from Study 2 demonstrated statistically significant improvements in the Emotional Resilience subscale. These findings suggest that a cultural scavenger hunt may assist participants in actively engaging in the local culture and facilitate the initial development of intercultural competencies.

Keywords

intercultural competence, study abroad, scavenger hunt, experiential learning

As cultural diversity in the United States expands—with non-Hispanic Whites projected to no longer be the majority group by 2044 (Colby & Ortman, 2015)—employers have grown more concerned with developing an atmosphere conducive to diversity in a globalized work environment (Moran et al., 2009). In order to increase their marketability, college students must be prepared to interact with people from a variety of backgrounds and cultures (Anderson et al., 2006). Therefore, universities have begun to focus on internationalizing their curriculum and developing intercultural competence in their graduates (Bikos et al., 2013; Patterson et al., 2018; Westcott & Cushman, 2016). Although there is no consensus definition of intercultural competence (see Griffith et al., 2016, for a review), defined broadly, intercultural competence is a “learning process in which one builds authentic relationships by observing, listening, and asking those who are from different backgrounds to teach, to share, to enter into dialogue together about relevant needs and issues” (Deardoff, 2009, p. xiii).

Intercultural competence is essential for professionals whose career requires frequent interactions with increasingly diverse populations such as clinical psychologists, counselors, and professors (Earnest et al., 2016; Swazo & Celinska, 2014). Furthermore, knowledge of the relevance of culture to the study of human behavior and cognition can have significant impacts on those who conduct research in psychology (Shupe, 2013). Consequently, the American Psychological Association (APA) has

encouraged postsecondary institutions to include curriculum that will sharpen psychology students' abilities to cooperate and communicate with individuals of diverse backgrounds and dissimilar life experiences (APA, 2011, 2013).

One of the best ways to facilitate such cooperation and communication skills is to place students in direct contact with other cultures, as studies have shown that study abroad programs can enhance the development of intercultural competence (e.g., Anderson et al., 2006; Earnest et al., 2016; Pederson, 2009). Study abroad programs for psychology students have been found to improve not only intercultural competence but also emotional resilience, flexibility and openness, and perceptual acuity, characteristics that are also imperative for practitioners of psychology (Earnest et al., 2016). Furthermore, studies have found that psychology majors enrolled in programs that include study abroad opportunities perform better on standardized tests, have higher program completion rates, and have higher rates of graduate

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school attendance (Stoloff et al., 2015). Despite this evidence, few psychology study abroad programs are available (Schwebel & Carter, 2010; Shupe, 2013). In order to improve psychology students' overall success, marketability, and future career outcomes, proactive steps to increase intercultural competence are necessary, including expanding study abroad opportunities.

Although there has been significant evidence that studying abroad has positive effects on developing intercultural competence, other studies report less of an impact (e.g., Davies et al., 2015). A possible explanation for these conflicting findings is the degree to which the study abroad programs immerse their students into the culture of the foreign nation. Research suggests that intercultural competence is most positively influenced when students are actively engaged with elements of the culture rather than just being exposed to a culturally diverse setting (Pederson, 2009; Wesp & Baumann, 2012). One mechanism through which students can become immersed in the local culture—and more actively engaged in the study abroad experience—is participating in a cultural scavenger hunt.

Cultural Scavenger Hunt

During a cultural scavenger hunt (e.g., Doyle et al., 2004), study abroad students are given a series of questions focused on the host city/country and are asked to find the answers using local resources such as speaking with residents or visiting culturally/historically significant sites. The immersion process is also facilitated by having local university students and faculty serve as guides (and possibly interpreters) during the activity. Previously published studies have examined the use of a cultural scavenger hunt during study abroad programs in psychology (e.g., Wesp & Baumann, 2012) and business (e.g., Doyle et al., 2004).

Wesp and Baumann (2012) examined the effects of a week-long cultural scavenger hunt (25 questions) completed by American psychology students while studying abroad in St. Croix in the U.S. Virgin Islands. Students who participated in the program enrolled in a cross-cultural behavior therapy course, with the main course objective focusing on understanding behavior therapy and the role of cultural issues in its application. The authors report that their cultural scavenger hunt was successful, as students rated the scavenger hunt the second most important activity that contributed to understanding the local culture. Overall, the scavenger hunt was reported to be a positive experience and facilitated friendly interactions and conversations between the American students and the Crucian students at a farewell group dinner. However, conclusions regarding the effects of the scavenger hunt on students' cultural competency were limited, as the authors did not use a validated scale to assess students' intercultural competence.

Doyle and colleagues (2004) conducted a business-oriented scavenger hunt with study abroad students during a 9-day trip to Mexico. Students were given approximately 8 hr over the course of 1 day to complete the 31-item scavenger hunt that

focused on “a search for tangible goods, an assessment of services, participation in marketing experiences, exposure to the political environment, and a historical/social component” (Doyle et al., 2004, p. 80). The most challenging item included in the scavenger hunt was to secure an invitation to a local resident's home and find household items that were originally from the United States; only one team was able to complete this task. In addition to the challenging nature of this hunt, the participants also experienced several complications resulting from language barriers. For example, when completing the task of visiting a hospital, one student was almost accidentally admitted to the facility because staff members misinterpreted him and thought he needed medical assistance. Despite these challenges and complications, the authors concluded that their cultural scavenger hunt was a success, as all groups completed most of the tasks and reported the experience to be the highlight of their study abroad program. However, the authors are limited in discussing the effects of the scavenger hunt on promoting intercultural competence growth in the student participants, as they only reported anecdotal student feedback.

To our knowledge, no published studies have examined the effects of a cultural scavenger hunt on the development of intercultural competence in study abroad students that utilized a validated scale. Therefore, in the current research, the Miville-Guzman Universality-Diversity Scale–Short Form (M-GUDS-S; Fuertes, Miville, et al., 2000) was utilized to assess the impact of a cultural scavenger hunt on the development of intercultural competence in undergraduate psychology students during a short-term study abroad program. Additionally, the authors of the current study sought to design a less time consuming and challenging scavenger hunt than implemented in previous studies while still maintaining the most vital cultural components. Based on previous research (Doyle et al., 2004; Wesp & Baumann, 2012), the authors hypothesized that participating in a short-term study abroad program that incorporates a cultural scavenger hunt would increase participants' intercultural competence.

Study I

Method

Participants

After receiving approval from the institutional review board, students participating in a short-term (16 days) psychology study abroad program to Europe (Austria, Germany, and Switzerland) focusing on the history of psychology were recruited. A total of 10 students ($N = 10$) participated in the study. The median age of participants was 21 years (range 20–27), with the majority of the sample being female (80%). All participants were Caucasian (100%). The majority of participants had never traveled outside of the United States (80%), did not speak a language other than English (70%), and had not taken previous coursework focused on multicultural issues (80%).

Materials

In collaboration with faculty at the host institution in Germany, a 35-question cultural scavenger hunt (see Online Appendix A) was developed that focused on several topic areas (education, communication, work, emergency services, entertainment, recreation, media, food, religion, and history) specific to the city and country. To assess the impact of the cultural scavenger hunt on the development of intercultural competence, participants completed the M-GUDS-S (Fuertes, Miville, et al., 2000). The M-GUDS was developed and tested to measure an individual's degree of universal-diverse orientation, which the authors defined as the degree to which an individual possesses an "attitude of awareness and acceptance of both similarities and differences that exist among people" (Miville et al., 1999, p. 241), which constitutes the critical foundation for acquiring intercultural competence and effectiveness in intercultural endeavors. The M-GUDS total scale is composed of three subscales, (a) Diversity of Contact, which measures students' interest in participating in diverse social and cultural activities, (b) Relativistic Appreciation, which assesses the extent to which students value the impact of diversity on self-understanding and personal growth, and (c) Comfort With Difference, which examines students' degree of comfort with diverse individuals. Research suggests that scores on the M-GUDS are reliable (coefficient $\alpha = .93$; test-retest reliability = $.94$; Miville et al., 1999). The original M-GUDS included 45 items with 15 items in each subscale; however, Fuertes et al. developed an equally predictive short form (M-GUDS-S) of the original instrument that reduced the length of the instrument to 15 questions with each subscale composed of five questions utilizing a 6-point Likert-type scale (1 = *strongly disagree*; 6 = *strongly agree*). The external validity of the M-GUDS-S has been supported by studies that used the instrument to successfully predict attitudes among first-year college students toward diversity in a college setting (Fuertes, Sedlacek, et al., 2000) and students' perceptions of minority mental health counselors (e.g., Fuertes & Brobst, 2002).

Procedure

Four days after arriving in Germany, students participated in a welcome dinner where they were introduced to several local university students—who would serve as scavenger hunt facilitators—and a faculty member from the host institution. Following dinner, the study abroad participants and their local student facilitators were introduced to the rules of the cultural scavenger hunt. To facilitate discussion with local residents and immerse themselves in the culture, study abroad participants were told that they were not allowed to use their smartphones to find answers to the scavenger hunt questions. Participants were required to record their source of information (e.g., speaking with a resident, viewing a restaurant menu) and were informed that internet sources would not be accepted. Completion of the scavenger hunt accounted for approximately 9% of a student's final course grade.

The next morning, participants were divided into teams of four to five, which included at least one local university student on each team. Teams were given approximately 3 hr to complete the scavenger hunt. Students then returned to the university, where the faculty members (United States and German) and host students facilitated a discussion of each groups' answers while eating lunch. The completion of the 35-question cultural scavenger hunt and ensuing discussion took approximately 5 hr.

Following the conclusion of the scavenger hunt and related discussion, participants completed the M-GUDS-S using a retrospective post-then-pre-evaluation method (Davis, 2003; Khanna et al., 2009; Rockwell & Kohn, 1989). As opposed to the traditional pretest-posttest, this retrospective approach is conducted only once and requires the participants to report their knowledge/attitudes toward a specific topic *before* an experience (i.e., the cultural scavenger hunt) and *after* the activity has been completed. Therefore, it can be viewed as a self-assessment of the perceived intraindividual changes in attitudes/beliefs/knowledge and thus as a measure of the impact of the activity. This procedure can be useful in limiting response shift bias (Hill & Betz, 2005; Howard, 1980; Lam & Bengo, 2003) and address problems of respondents overestimating their knowledge/beliefs, which has been associated with the traditional pre-then-post-evaluation method (Pratt et al., 2000). It can also be helpful in limiting potential cognitive biases, particularly future-oriented optimism (Bazerman, 1990), in which students will respond to a traditional pretest based on an idealized self.

Additionally, upon returning from the study abroad trip, participants completed an anonymous survey administered using Qualtrics. The survey asked participants to rank order their favorite trip activities (e.g., touring Sigmund Freud's home and museum, visiting the Wilhelm Wundt room at the University of Leipzig), describe aspects of the program they found enjoyable, provide suggestions for improvement, and provide advice for future study abroad participants.

Results and Discussion

Inspection of the descriptive values (see Table 1) showed a considerable improvement from retrospective pre- to postvalues. Single difference values in all subscales and across individuals were exclusively positive. The data were analyzed using a 2×3 repeated measures design with two within-person factors, time (pre vs. post) and scale (subscales of the M-GUDS-S). Both main effects time, $F(1, 9) = 177.3, p < .001, \eta^2 = .95$, and scale, $F(2, 18) = 22.50, p < .001, \eta^2 = .71$, were significant, indicating a strong difference between pre- and postvalues and between the different subscales. A significant effect was also found for the interaction Time \times Scale, $F(2, 18) = 3.99, p = .037, \eta^2 = .31$. While the subscales Diversity of Contact and Relativistic Appreciation showed a parallel increase, Comfort With Differences increased to a slightly less extent. Subsequent dependent *t* tests on the changes in each subscale revealed large positive effects, too, with the highest

Table 1. Descriptive Statistics and Test Results of the Pre- and Postcomparison on the M-GUDS-S Subscales.

Scale	<i>N</i>	<i>M</i> _{Pre}	<i>SD</i> _{Pre}	<i>M</i> _{Post}	<i>SD</i> _{Post}	<i>M</i> _{Diff}	<i>SD</i> _{Diff}	<i>t</i>	<i>r</i> _{Pre-Post}	<i>p</i>	<i>d</i>
Diversity of Contact	10	3.84	.71	4.92	.56	1.08	.56	6.11	.635	<.001	1.65
Relativistic Appreciation	10	4.68	.34	5.74	.23	1.06	.25	13.39	.683	<.001	3.37
Comfort With Differences	10	4.80	.33	5.48	.29	0.68	.17	12.75	.857	<.001	2.16

Note. The effect size *d* was computed according to the procedure of Dunlap et al. (1996) on the basis of dependent *t* test statistics via Lenhard and Lenhard (2016). M-GUDS-S = Miville-Guzman Universality-Diversity Scale—Short Form.

effect sizes in *relativistic appreciation*. As only two students had travel experiences outside the United States (7–10 days in Mexico) prior to the study abroad program, we could not assess the effects of prior travel experiences. The same is true for the comparison between males and females, as the sample consisted of mostly female students. The age of the participants was not associated with different values for Diversity of Contact and relativistic appreciation. There was a high positive correlation of $r = .73$ between the pre–post difference of Comfort With Differences and age, indicating a larger positive effect for the older participants on this subscale.

Overall, participants' responses to questions on the Qualtrics survey indicated they were extremely satisfied with the study abroad program. Of the 19 identified activities provided on the survey, participants ranked the cultural scavenger hunt as being the fifth most enjoyable and beneficial activity. Many of the participants' open-ended responses (60%) identified the opportunity to interact with local students and being placed "outside their comfort zone" as benefits of the scavenger hunt, and 90% of the participants highly recommended the inclusion of this activity in future study abroad programs.

The retrospective M-GUDS-S self-assessment revealed a large impact on the attitudes of the participants in all subscales. According to their self-report, the students' interest in participating in social and cultural activities (e.g., joining intercultural organizations, meeting people from other cultures) increased following the cultural scavenger hunt activity and initial study abroad experiences. The students reported feeling more comfortable when interacting with people from other cultures and were less irritable. The largest effect size was seen when measuring students' relativistic appreciation, which suggests that through their experiences while completing the scavenger hunt (e.g., speaking with locals, interacting with host university students), participants learned to more fully appreciate diversity, which positively contributed to their personal growth.

While these preliminary results are promising, there are limitations to the study. Although a number of researchers (Khanna et al., 2009; Pratt et al., 2000; Rockwell & Kohn, 1989) support the use of a retrospective post-then-pre-evaluation to limit response shift bias, the authors recognize that this approach does not eliminate issues related to social desirability bias and may increase bias (Hill & Betz, 2005). Therefore, it is possible that students' self-reported growth in intercultural competence was not due to the cultural scavenger hunt but instead influenced by perceptions of social desirability. Additionally, a control group was not utilized. To address

these limitations, a second study was conducted using a traditional pretest–posttest method that included a control group.

Study 2

Method

Participants

Scavenger hunt. After receiving approval from the institutional review board, students participating in a short-term (18 days) psychology study abroad program to Europe (Germany, Greece, and Switzerland) focusing on the history of psychology were recruited. A total of 16 students ($N = 16$) participated in the cultural scavenger hunt. The median age of participants was 21 years (range 19–23), with the majority of the sample being female (81.25%). All participants were Caucasian (100%). Fifty percent of the participants had prior travel experience outside of the United States, while the majority of participants did not speak a language other than English (93.75%) and had not taken previous coursework focused on multicultural issues (87.50%).

Control group. The control group consisted of students who had expressed interest in participating in the study abroad program but were unable to travel with the group. Nineteen students completed a pretest assessment. We eliminated six students from the data analysis as they did not complete both pre- and posttest assessments, resulting in a total of 13 students in the control group. The median age of participants was 20 years (range 19–27), with the majority of the sample being female (69.23%) and Caucasian (84.62%). One member of the control group (7.69%) had prior travel experience outside of the United States, while the majority of participants did not speak a language other than English (69.24%) and had not taken previous coursework focused on multicultural issues (92.31%).

Materials

The same 35-question cultural scavenger hunt used in Study 1 was utilized. To assess the impact of the cultural scavenger hunt on the development of intercultural competencies, Study 2 used the Cross-Cultural Adaptability Inventory (CCAI; Kelley & Myers, 1995). Given that there is no universally accepted measure for culture competence, the authors decided to use a different assessment for Study 2. The CCAI was

Table 2. Descriptive Statistics and Test Results of the Pre- and Postcomparison on the CCAI Subscales.

Scale	Experimental Group (N = 16)				Control Group (N = 13)			
	M_{Pre}	SD_{Pre}	M_{Post}	SD_{Post}	M_{Pre}	SD_{Pre}	M_{Post}	SD_{Post}
Emotional Resilience	80.1	8.41	86.4	6.07	82.4	10.34	82.3	10.59
Flexibility/Openness	68.7	4.61	67.8	5.58	68.8	7.00	68.54	6.85
Perceptual Acuity	49.7	4.57	49.7	4.42	49.4	5.78	49.7	5.70
Personal Autonomy	34.4	2.40	34.63	2.87	33.8	2.76	33.5	2.70

Note. CCAI = Cross-Cultural Adaptability Inventory.

selected in part due to its extensive use in empirical studies to assess intercultural competence in study abroad students (e.g., Black & Duhon, 2006; Earnest et al., 2016; Kitsantas, 2004; Mapp, 2012; Niendorf & Alberts, 2017; Williams, 2005) and its alignment with several of our program goals, including the development of cross-cultural tolerance and empathy as well as increasing students' self-confidence and independence.

The CCAI consists of fifty 6-point Likert-type scale questions ranging from *definitely true* to *definitely not true* in order to measure "the ability to adapt to living in another country and to effectively interact with people of other cultures" (Kelley & Meyers, 1995, p. 2). The items can be summed up to a total score, and they are grouped into four subscales: Emotional Resilience (ER = able to maintain one's self-esteem and confidence while coping with unfamiliar situations that may be stressful), Flexibility/Openness (tolerance toward different ways of thinking), Perceptual Acuity (attentiveness toward verbal and nonverbal communication and interpersonal relations), and Personal Autonomy (PA = ability to take responsibility for one's own actions and to respect other individuals and their decisions). The scales differ in the number of items, and consequently, the absolute scores between the scales are not comparable. While the test overall shows a high reliability of $r > .9$, the subscales are intercorrelated and thus partly overlap (Niendorf & Alberts, 2017). Homogeneity of the total scale was Kuder-Richardson 20 (KR-20) = .92 (KR-20 was used due to the nonbinary format of the items) for the pretest results in the current study.

Procedure

Approximately 1 month prior to departure, participants in the program (experimental group) and the control group completed an online pretest of the CCAI. Similar to Study 1, 4 days after arriving in Germany, program participants had a welcome dinner with several local university students and a faculty member from the host institution. The next morning, participants were divided into teams of five to six, which included at least one local university student on each team. Participants were informed of the same rules described in Study 1. Teams were given approximately 3 hr to complete the scavenger hunt. Students then returned to the university, where the faculty members (United States and German) and host students facilitated a discussion of each groups' answers while eating lunch. The completion of the 35-question cultural scavenger hunt and

ensuing discussion took approximately 4 hr. Completion of the scavenger hunt accounted for approximately 9% of a student's final course grade.

Following the conclusion of the scavenger hunt and related discussion, program participants completed an online posttest CCAI. Concurrently, participants in the control group were emailed a link to the posttest CCAI and had 24 hr to complete the assessment. After returning to the United States, program participants also completed the anonymous Qualtrics survey described in Study 1.

Results and Discussion

Inspection of the descriptive values (see Table 2) showed a considerable improvement in the ER scale from pre to post in the experimental group. Due to the different range of values in the subscales, we analyzed the pre-post differences with separate 2×2 repeated measures analyses of variance (ANOVAs) with measurement time (pre vs. post) as the within factor and group as the between factor for each scale separately. In the ER scale, there was both a highly significant main effect for group, $F(1, 27) = 14.03, p < .001, \eta_{part}^2 = 34.2$, and the interaction Group \times Time, $F(1, 27) = 12.14, p < .001, \eta_{part}^2 = 31.0$. While the control group showed almost no difference between the pre- and posttest, the experimental group started at a lower score and exhibited a very strong increase, equaling an effect of $d_{Cohen} = .831$. Given the small sample size, it was not possible to include prior travel experiences in the repeated measures ANOVA as a covariate. We therefore computed the change score in this scale from pre to post and entered it as the dependent variable in a regression analysis, with the dummy-coded variables on grouping and prior experiences as the independent measures. The group factor exerted a highly significant influence on the ER change scores, $t(1) = 3.37, p < .01, \beta = .60$, while the prior travel experience did not have a significant effect. The change in ER thus was only influenced by the scavenger hunt and the respective academic exchange and not travel experiences in general.

Among the other subscales, neither main effects nor interactions reached significance. The scale PA descriptively showed a small effect with an increase within the experimental group, which might become significant in larger samples and a higher power of the statistical procedures. Given the program's objectives of improving students' feelings of self-confidence and independence, the positive changes in ER scores and small

effect in PA show some promise for the inclusion of the scavenger hunt. However, the activity did not appear to make an immediate impact on issues related to cross-cultural tolerance or empathy. This finding is in conflict with results from Study 1, in which students saw significant positive changes in how they value diversity (as measured on the Relativistic Appreciation subscale of the M-GUDS-S). This finding may be due to disparities between the M-GUDS-S and the CCAI or dissimilarities between the research designs used in the two studies. Future research is necessary to clarify these results. While the overall self-reported changes in students' intercultural competencies in Studies 1 and 2 are promising, definitive conclusions about the impact of the cultural scavenger hunt cannot be made; readers are encouraged to interpret these findings cautiously.

Overall, participants' responses to questions on the Qualtrics survey indicated they greatly valued the study abroad program and found it beneficial to their development. Similar to findings from Study 1, students rated the scavenger hunt highly (sixth of 14 activities) in terms of enjoyment and usefulness. The vast majority (84%) of participants highly recommended the inclusion of this activity in future study abroad programs.

General Discussion

As the need for cultural competency in the workplace has become more pronounced, especially in the field of mental health, the importance of students developing intercultural competence has increased. Studies have shown that diverse populations frequently experience disparities such as poorer access to care (Alegría et al., 2002), questionable diagnostic practices (Leong & Lau, 2001; Snowden, 2003), underutilization of available services (Barrio et al., 2003; Leong & Lau, 2001), and poorer treatment outcomes (Phillips et al., 2001).

One way to begin combatting these disparities is to increase the cultural competency of individuals pursuing careers in the mental health field. By integrating activities (i.e., a cultural scavenger hunt) into short-term study abroad programs that require students to actively engage with elements of different cultures, we can create additional opportunities for students to learn, practice, and incorporate principles related to cultural self-awareness and multicultural knowledge into their lives while providing a foundation for future instruction. Ideally, as these students enter the field, they will be more cognizant of diversity issues and how they relate to practice, research, consultation, and education (APA, 2017). Having a more thorough appreciation and understanding for multicultural issues may also increase the probability of individuals utilizing culturally sensitive models of traditional treatments. Research has shown this approach to be effective in a number of areas, including substance abuse treatment (Castro & Barrera, 2015), violence prevention programs (Oscós-Sánchez et al., 2008), community-based participatory research (Clark, 2012), and social work (Small et al., 2017). Research has also indicated that many forms of therapy, such as dialectical behavior

therapy, mindfulness-based cognitive therapy, and acceptance and commitment therapy, are more effective when they are delivered utilizing culturally sensitive psychosocial treatment models (Masuda, 2014).

The value of developing intercultural competencies is not limited only to those psychology students pursuing careers in the mental health field. Prior research has discussed the value of experiential learning in developing cultural competencies for students interested in environmental psychology (Ganzel & Siebert, 2016), social inequality (Shupe, 2013), human development (Gross, 2016), industrial-organizational psychology and cross-cultural psychology (Earnest et al., 2016), and human sexuality (Pedersen, 2009). Additionally, for careers in psychological research, it is vital that students are trained to understand how to respond correctly to the variations in cognition and behavior across cultural groups (Shupe, 2013). In other areas of research, such as community-based participatory research, an even higher level of cultural awareness is required in order for researchers to establish community partnerships, construct research methodology, and implement interventions (Israel et al., 2013).

Limitations and Future Research

Similar to prior research utilizing cultural scavenger hunts (Doyle et al., 2004; Wesp & Baumann, 2012), our results are promising. Both studies reported in this article yielded exclusively positive results with different samples and using different measures. However, although our findings suggest that the use of a cultural scavenger hunt may contribute to an increase in certain areas of students' intercultural competencies, there are limitations to the research. First, we had very small sample sizes that were relatively homogenous (e.g., mostly female, all Caucasian). Due to the limited number of students participating in study abroad, these data should be interpreted with caution, as it is possible that the results would not generalize to a larger and more diverse sample. Future research with larger and more heterogeneous samples that are representative of U.S. study abroad students (see Institute of International Education, 2018) would be beneficial. On the upside, the current study had high ecological validity. Immersing the students into a different culture and exposing them to real-life experiences should at least partly compensate for the high homogeneity of the samples. Second, it is difficult to determine the impact of the scavenger hunt on intercultural competence independent of other study abroad activities. Prior to completing the scavenger hunt, participants had 4 full days of exposure to new cultures and participated in several activities (e.g., interactions with locals at restaurants, speaking with students from other countries, visiting the *Memorial to the Murdered Jews of Europe* in Berlin) that may have contributed to the self-reported changes. Given that prior research (Behrnd & Porzelt, 2012) suggests a positive correlation between the development of specific types of intercultural competence (conative) and duration of stay, additional studies that require students to complete a cultural scavenger hunt at various points during a short-term

study abroad program (e.g., the first day of the trip, halfway through, the last day of the trip) may provide additional insight into the interaction between the scavenger hunt and length of time abroad. Additionally, adding a control group that experiences all other planned activities except the cultural scavenger hunt would be beneficial. Finally, future research may also consider examining behavioral skills related to intercultural competence (e.g., changes in social skills, demonstrating empathy) in addition to self-report measures.

Overall, the current findings align with prior research on cultural scavenger hunts (Doyle et al., 2004; Wesp & Baumann, 2012) as an efficient and enjoyable way to encourage students to interact with diverse individuals and immerse themselves in the local culture. As programs look to internationalize their psychology curriculum and introduce high-impact practices (Brownell & Swanner, 2009; Kuh, 2008) like study abroad to their offerings, faculty are encouraged to be mindful of the intentional pedagogy of intercultural competence that should occur for students to fully benefit from their study abroad experience. Incorporating a cultural scavenger hunt may be one way to help meet this goal.

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Supplemental Material

Supplemental material for this article is available online.

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