



## Does study abroad relate to increased student engagement?

*An examination of study abroad impact on an aspect of reflective and integrative learning*

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### Introduction

Study abroad has a long history at Indiana University and a prominent spot in the institution's international strategic plan. Participation in study abroad programs served as a focal point of both the 2008 and 2015 *Indiana University International Strategic Plan* (ISP), and the 2015 ISP notes that: "For over half a century Indiana University has been a pioneer in developing new opportunities for study abroad, internships and international service learning programs," (OVPIA, 2015, p.6). Indiana University Bloomington (IUB) students represent approximately 77% of study abroad participants system-wide (Office of Overseas Study, 2014), and by 2015, 25% of all Indiana University Bloomington (IUB) graduates had studied abroad, compared to 20% in 2008 (Office of Overseas Study, 2014; OVPIA, 2015).

What the 2015 ISP does not consider is what occurs in the remainder of study abroad participants' IUB academic careers. Research broadly shows positive benefits of studying abroad, particularly in increasing students' sense of global citizenship (Hendershot & Sperandio, 2009). While perhaps less studied compared to global citizenship attitudes, research also shows broad academic benefits including students being more academically-focused on their return (Hadis, 2005) and more profound impacts on language acquisition and other skills among those studying abroad a full academic year (Dwyer, 2004). While these studies offer broad positive benefits, there is still much to consider regarding study abroad's impact on students' academic experiences when they return.

Such research allows us to continue exploring questions of what happens when students return from studying abroad in the context of IUB. How does study abroad impact IUB students' remaining studies before graduation? In what ways does study abroad impact IUB students' academics? Such questions are important to investigate to help administrators maximize the benefits of study abroad for their students.

To contribute to administrators' understanding of their students and study abroad programming, this research brief offers an exploratory study of one way in which study abroad participation relates to student engagement, using the National Survey of Student Engagement (NSSE). Specifically, this brief seeks to answer the following question:

① *Do study abroad participants connect ideas from their courses to their prior experience and knowledge more often than those who did not study abroad?*

As many factors can impact students' academic engagement, it is also essential to explore how some of these factors relate to students' engagement, to gain a better understanding of the extent to which study abroad may affect engagement. For instance, if there are student engagement gains among study abroad participants, is it due to study abroad itself, or because of the type of students who study abroad? Therefore, in addition to the primary research question, the following questions will also be considered:

② *How do demographic factors relate to how often students connect ideas to their prior experiences and knowledge?*

③ *How do academic factors relate to how often students connect ideas to their prior experiences and knowledge?*

### Methodology

From IUB's most recent NSSE results, a sample of 1,080 students was identified that included non-international seniors. Seniors were chosen specifically to get a better snapshot of how study abroad and student engagement relate as students are preparing to graduate. This sample was divided into two groups based on their study abroad participation – 284 seniors who studied abroad at some point in their undergraduate career (26%) and 796 who did not (74%). These proportions are similar to the graduating class of 2015, referenced previously.

Relevant survey items used to address the research questions include: the frequency that students connect ideas from their courses to prior experiences and knowledge, gender identity, racial/ethnic identity, number of majors, typical course grades, highest level of education students expect to achieve, and major subject area.

Due to the differences in group sizes and to get a clearer idea of the significance of differences between the two sample groups, Chi-square tests are used where appropriate.

To explore how demographic and academic factors relate to study abroad and student engagement, analysis is done in three tiers. The first tier consists of examining how the two study abroad groups breakdown based on their demographic and academic characteristics. In the second tier, all students' responses to how frequently they connect ideas to prior experiences are broken down by those demographic and academic factors by which the sample groups are significantly different. In each of the first two tiers, Chi-square tests are used to determine which factors are significant in: 1) explaining differences between the two sample groups, and 2) explaining differences in student engagement among the whole sample. The third tier of analysis more closely examines the interplay of those significant factors.

### Study Abroad and Student Engagement

Seniors rated how frequently during the current school year they connected ideas from their courses to their prior experiences and knowledge. When disaggregated by their participation in study abroad, several differences are notable between the two groups.

Overall, 99% of those who studied abroad and of those who did not study abroad connected ideas with some degree of frequency (see Figure 1). However, 87% of study abroad participants did so often or very often, compared to 82% of those who did not study abroad. The gap between the

two groups is further visible in those who connect ideas very often – 46% among study abroad participants and 38% among seniors who did not study abroad.

A chi-square test was performed to further examine the relationship between study abroad participation and the frequency of connecting ideas to prior experiences and knowledge. The relationship between these two variables was found to be significant,  $\chi^2$  (df=3) = 9.035,  $p < .05$ , with the observed difference in the distribution of responses indicating that study abroad participants more frequently connect ideas from their courses to prior experiences and knowledge.

### Demographic and Academic Characteristics of Seniors

Consideration of the demographic and academic characteristics of study abroad participants and seniors who did not study abroad will help to establish whether the modest, positive relationship between study abroad participation and the frequency of connecting ideas to prior experiences and knowledge is due to study abroad participation, due to selection effects, or a mix of both. Please note that sample sizes may sum to less than 1,080 in these analyses as some respondents did not respond to all survey items.

As seen in Table 1, differences between the two sample groups are minimal regarding race/ethnicity. Black students were less represented among study abroad participants (2% vs. 4%) as were white students (77% vs. 78%). However,

Table 1. Demographic characteristics of sample groups

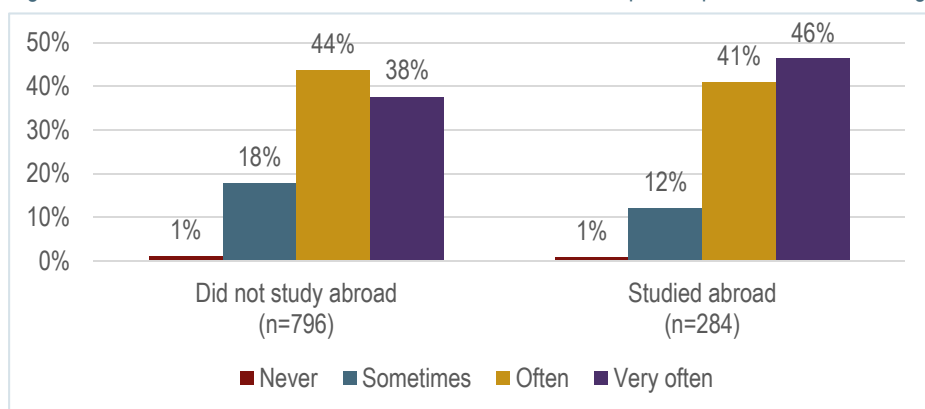
	Did not study abroad (n=795)	Studied abroad (n=284)
Asian, Native Hawaiian, or Other Pacific Islander	5%	5%
Black or African American	4%	2%
Hispanic or Latino	3%	4%
White	78%	77%
American Indian, Alaska Native, Other, Multiracial	7%	9%
Prefer not to respond (Race)	3%	3%
Man	38%	30%
Woman	60%	67%
Another gender identity	1%	1%
Prefer not to respond (Gender)	1%	2%

Hispanic students were more represented among study abroad students compared to non-study abroad (4% vs 3%) as were American Indian, Alaskan Native, Other, or Multiracial students (9% vs. 7%).

Differences in gender identity between the two groups were more pronounced. Men represented less than one-third of study abroad participants while women represented two-thirds. Among seniors who did not study abroad, 38% identified as men and 60% as women. Chi-square tests were completed to determine whether the differences between sample groups on race/ethnicity and gender were significant. The relationship between race/ethnicity and study abroad participation was not significant,  $\chi^2$  (df=5) = 4.082,  $p > .05$ . Likewise the relationship between gender and study abroad participation was not significant  $\chi^2$  (df=3) = 6.545,  $p > .05$ .

Academic characteristics reveal more differences between those who studied abroad and those who did not than demographic factors. Figure 2 shows differences in the number of majors and typical grades, Table 2 shows differences

Figure 1. How often seniors connect ideas from their courses to prior experience and knowledge



in major subject areas, and finally Figure 3 shows differences in the highest level of education seniors expect to achieve. Regarding number of majors, majorities of both sample groups had only one major; however, large gaps are apparent. For study abroad participants 54% had one major and 46% had more than one major. For those not studying abroad, over three-quarters had one major and only 21% had more than one major. While nearly all seniors of both sample groups had mostly A's or B's, study abroad students earned mostly A's (71%) than B's (29%). Non-study abroad seniors were close to evenly split, with slightly more earning mostly A's (49%) than B's (47%).

Among study abroad participants, the common major subject areas included Business (21%), Social Sciences (19%), and Arts and Humanities (18%). For students who did not study abroad, those three subject areas are among the five most common (14%, 13%, and 13%, respectively) along with Health Professions (13%). The miscellaneous "All Other" category was the largest among non-study abroad students (19%). Excluding "All Other" the only major subject area that was more represented among non-study abroad students than among study abroad students was Health Professions.

Study abroad students also tended to aspire to receive higher levels of education. A total of 77% of study abroad students expect to receive a Master's (45%) or Doctoral/Professional degree (32%), while 65% of non-study abroad students expect to achieve a Master's (40%) or Doctoral/Professional degree (25%).

As with demographic factors, Chi-square tests were performed to better understand the relationships discussed between study abroad participation and each academic factor: number of majors, typical grades, major category, and highest level of education expected to receive. The relationship between study abroad participation and students' number of majors was significant,  $\chi^2$  (df=1) = 63.762,  $p < .01$ , with the distribution of responses

Figure 2. Number of majors and typical grades among sample groups

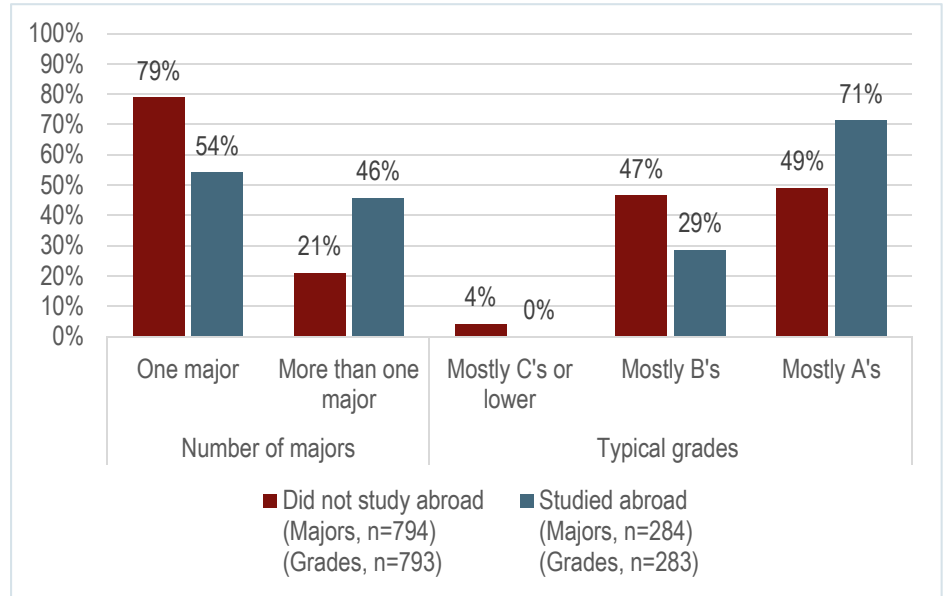
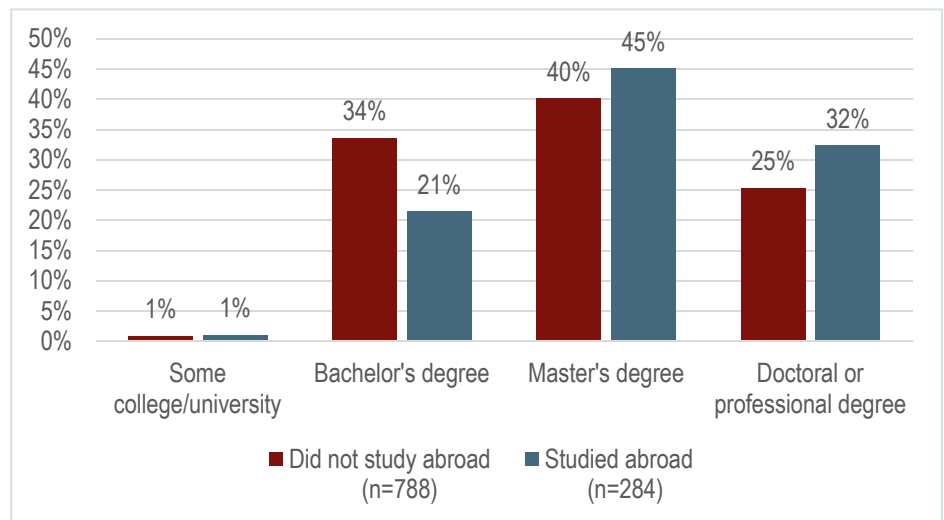


Table 2. Major subject areas among sample groups

	Did not study abroad (n=790)	Studied abroad (n=284)
Arts & Humanities	13%	18%
Biological Sciences, Agriculture, & Natural Resources	10%	10%
Physical Sciences, Mathematics, & Computer Science	4%	4%
Social Sciences	13%	19%
Business	14%	21%
Communications, Media, & Public Relations	6%	8%
Education	3%	3%
Health Professions	13%	4%
Social Service Professions	5%	6%
All Other	19%	6%

Figure 3. Highest level of education expected to receive among sample groups



suggesting study abroad participants are more likely to have more than one major. Likewise, the relationship between study abroad participation and students' typical grades was significant,  $\chi^2$  (df=2) = 47.245,  $p < .01$ , with the observed differences in responses indicating that study abroad students are more likely to have higher typical grades. The relationship between study abroad and major subject area was also significant,  $\chi^2$  (df=9) = 56.794,  $p < .01$ . Lastly, the relationship between study abroad participation and the highest level of education students expect to receive was significant,  $\chi^2$  (df=3) = 15.213,  $p < .01$ , with the distribution of responses suggesting that study abroad participants are more likely to pursue higher levels of education.

As demonstrated in this section, the two sample groups, seniors who studied abroad and seniors who did not study abroad are significantly different in each of the examined academic factors but not significantly different in terms of the two demographic factors. This suggests that there could potentially be a selection effect between the two groups by academic factors that explains in part, or in whole, the observed difference between the two groups on how frequently they connect ideas from their courses to prior experience and knowledge.

### Academic Factors and Student Engagement

Having identified four factors by which the two sample groups are significantly different, it is necessary to explore the potential for which this selection effect explains the relationship between study abroad participation and students' engagement.

The frequency of connecting ideas to prior experiences among the whole sample was broken down by each of these four academic factors, with Chi-square tests conducted to determine if each factor had a significant relationship with the engagement indicator. Since the "Never" category of the engagement indicator was

approximately 1% of the population, the Likert scale was collapsed into two categories: Infrequently (Never or Sometimes) and Frequently (Often or Very often). This step was further appropriate as differences between the percentages indicating "Often" or "Very often" among the categories in each factor did not yield notable trends.

Differences by the number of majors in the percentage of respondents connecting ideas "frequently" were minimal.

Among students with one major, 82% connected ideas to prior experiences frequently, compared to 85% of those with more than one major. Similarly, differences by major subject area were small. Among the nine major subject areas, the percentages of students who connected ideas ranged from 80% (Physical Sciences, Mathematics and Computer Sciences) to 91% (Education). Of students in "All Other" subject areas, the percentage was 77%.

Chi-square tests between each of these variables and the frequency of connecting ideas to prior experience indicated that neither factor was significantly related to student engagement. For the number of majors,  $\chi^2$  (df=1) = 1.512,  $p > .05$  and for major subject area,  $\chi^2$  (df=9) = 8.686,  $p > .05$ .

The breakdown by typical grades illustrates a clear trend (see Table 3). Among student who earn mostly C's or lower, 59% frequently connect ideas to prior experience. This percentage jumps to 81% among students with mostly B's and to 86% among students who typically earn A's. When disaggregated by the highest level of education students expect to receive, a trend is less pronounced. Among those expecting to receive a Doctoral or professional degree or receive a Master's degree, 85% connected ideas frequently, compared with 78% of those only expecting to receive a Bachelor's degree. Ninety

Table 3. Relation of typical grades and educational aspiration to frequency of connecting ideas

	Infrequently	Frequently
Typical grades (n=1,076)		
Mostly C's or lower	41%	59%
Mostly B's	19%	81%
Mostly A's	14%	86%
Highest level of education expected (n=1,072)		
Some college/university	10%	90%
Bachelor's degree	22%	78%
Master's degree	15%	85%
Doctoral/professional degree	15%	85%

percent of students who expect to complete some college, but less than a Bachelor's connected ideas to prior experiences frequently; however, this is likely to low number of respondents in that category (n=10).

Chi-square tests between each of these factors and the frequency that students connected ideas to prior experience and knowledge were conducted. The relationship between typical grades and the frequency of connecting ideas to prior experiences was significant,  $\chi^2$  (df=2) = 19.323,  $p < .01$ . However, the relationship between connecting ideas to prior experiences and the highest level of education students' expect to receive was not significant,  $\chi^2$  (df=3) = 7.515,  $p > .05$ .

This examination of the interactions between the four academic factors and the engagement indicator of connecting ideas to prior experience and knowledge suggests that only the differences in typical grades are significantly related to students' engagement in this reflective and integrative learning practice. It further suggests that the higher students' typical grades, the more likely they are to connect ideas to prior experience and knowledge.

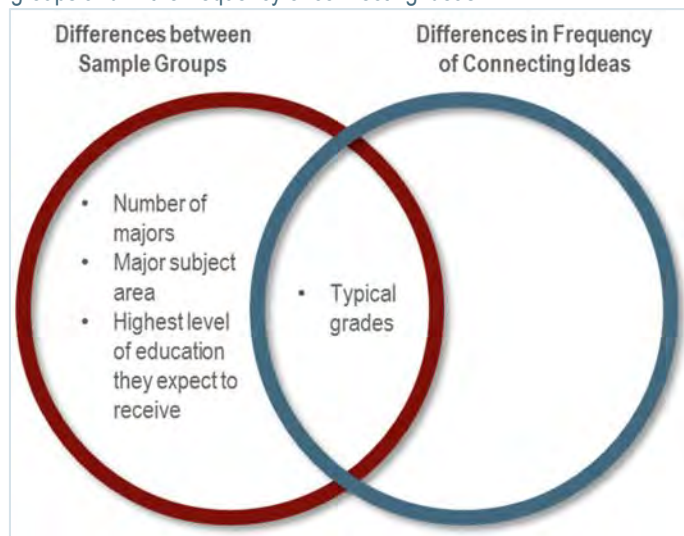
### What Does This Tell Us?

NSSE identifies study abroad as a "high-impact practice" which is positively associated with student learning ("High-

Impact Practices", 2016). It is unsurprising then that participation in study abroad was significantly related to seniors more frequently connecting ideas from their courses to their prior experiences and knowledge. Also unsurprising is that this exploratory study found that study abroad participants and seniors who do not study abroad differ significantly in their academic characteristics (see Figure 4). However, demographic factors were found to not be significant in explaining group differences.

often seniors connect ideas (regardless of study abroad participation). Only students' typical grades was significantly related, indicating there is likely some degree of selection effect that explains the positive relationship between study abroad participation and engagement in connecting ideas from courses to prior experiences and knowledge. Determining the degree of this mediating selection effect is outside the scope of this brief and warrants further investigation.

Figure 4. Significant factors that explain difference between sample groups and in the frequency of connecting ideas



It is these factors that by which the sample groups differ that introduce the possibility that the observed relationship between study abroad and the frequency of connecting ideas may not be due, in part or in whole, to the effect of study. It introduces the possibility that this relationship was observed simply because students who connect ideas more often happen to study abroad more than students who connect ideas less often.

This possibility was explored considering the relationships between each of the four academic factors and how frequently all seniors in the sample connect ideas to prior experiences. If one or more of these factors is wholly or partially the cause of the study abroad-engagement connection, then it is likely that there are significant relationships between the factors and how

Considering the number of academic and demographic factors that can impact students' academic engagement, it is perhaps surprising that only one of the seven factors explored in this brief was significant as a selection effect. However, this could potentially be indicative of the importance of high-impact practices – that those practices are stronger drivers of academic engagement than students' academic and demographic characteristics. Expanding research to study the impact of study abroad on other areas of student engagement would be invaluable. Additionally, study of factors that relate to study abroad programs, such as the length of study abroad programs (e.g. two-week vs. academic year) or the timing of students' study abroad experiences (e.g. sophomore year vs. senior year) would help in better understanding the extent to which study abroad affects students' academic engagement.

The information provided in this brief and the suggestions for further study enrich the understanding of the impact of study abroad. By exploring the effect of study abroad, demographic factors, and academic factors on students' engagement

in a reflective and integrative learning practice, this brief demonstrates to administrators and educators the potential of study abroad participation to drive students' academic engagement.

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