# The Georgetown Consortium Project: Interventions for Student Learning Abroad

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## I. Introduction

Six years ago, Georgetown University's Office of International Programs, together with partner institutions, designed a large-scale, multi-year study of U.S. student learning abroad with three primary goals in mind. [1] At the most basic level, the study aimed to document target language, intercultural, and disciplinary learning of U.S. students who enrolled in many types of study abroad programs and to compare their learning to that of control group students at several U.S. campuses.

At another and more complex level, the study also sought to identify the extent to which a relationship existed between student learning, specific program components (e.g., duration of program, type of housing) and learner characteristics (e.g., gender, prior study abroad experience, the amount of target language completed prior to departure).

A third goal was to shed light on the extent to which target language gains are associated with intercultural learning, a question important to those who design and deliver study abroad programs.

The test subjects were students abroad who formally studied seven target languages or did coursework conducted in these languages, and students who enrolled in programs abroad conducted in English for the 2003–2004, 2004–2005 academic years (including summers). Data collection involved pre- and post-testing nearly 1,300 students for target language and intercultural learning[2] who were either participants in 61 programs abroad or in control groups on three home campuses.

The data support three broad conclusions with significant implications for study abroad policies and practices.

First, students enrolled in study abroad programs averaged more progress in intercultural learning and oral proficiency in their target languages[3] than control students studying these same languages in U.S. classrooms. However, some students learned more effectively than others. For example, female students abroad made greater intercultural and oral proficiency gains, on average, than their male counterparts.

Second, the study revealed significant relationships between independent variables representing learner characteristics and program features and the intercultural and target language learning of students abroad.

Third, the study identified significant—though somewhat indirect—relationships between gains in target language oral proficiency and intercultural development.

The analysis that follows concentrates for the most part on the second conclusion. The relationships between student learning and certain independent variables support the argument that students learn most effectively abroad given proactive learning interventions.

## II. Historical Context: Study Abroad and the Developments in U.S. Higher Education

When this study began, we believed that too many U.S. students abroad were not learning effectively. We also believed that students abroad with specific learning activities and on-site support (e.g., types of housing, active engagement with host nationals, resident staff to guide reflection on living and learning in a new culture) were learning more than students whose programs lacked these elements. These beliefs were reinforced by visits to programs abroad, observations of and discussions with students before, during, and after their sojourns, and discussions with faculty, and other study abroad professionals.

During the design phase of this study, U.S. higher education was shifting from a traditional teacher-centered to a learner-centered paradigm (Barr & Tagg, 1995; Huba & Freed, 2000). The influence of the learner-centered paradigm on U.S. study abroad had already begun, accompanying a growing body of research about how students learn and about teaching approaches that most effectively promote that learning. For two decades, cognitive psychologists and educational researchers had gathered evidence that students learn most effectively when teachers avoid lectures and instead mediate strategically by creating "learning environments," focusing on specific learning goals, asking students to connect new knowledge with what they already know, reflecting on themselves as learners, encouraging students to interact with each other and with

the teacher, and helping students to apply their new concepts, perspectives, and skills beyond the class (Biggs, 1999; Bonwell & Eison, 1991; Bransford, Brown, & Cocking, 2000; Gardiner, 1994; Elmore, Peterson, & McCarthey, 1996; Kolb, 1984; Ramsden, 1988; Zull, 2002). Pedagogical approaches reflecting this paradigm are usually characterized as "active," "collaborative," or "cooperative." The growing evidence that students learn most effectively in learner-centered environments posed an awkward question for study abroad programs: if many students don't learn particularly well when passively sitting in classrooms in the U.S., how then could they learn effectively in classes abroad, in a pedagogy still based on faculty lectures, especially when these lectures are often delivered in a language other than English?[4]

A second development during this study's design was the increasing importance of the U.S. assessment movement, with its demand for more learner-centered, outcome-based learning. (Bennett, 2008, pp. 15–16, 25; Huba & Freed, 2000, pp. 17, 22). As institutions focused more attention on student learning outcomes at home, interest in assessing and documenting what students are learning abroad was a natural development. Research on student learning abroad also increased dramatically. During the 1970s, 189 research studies were published; that number had increased to 675 by the 1990s. During the first decade of the 21st century, the number will almost certainly exceed 1,000 (Comp, Gladding, Rhodes, Stephenson, & Vande Berg, 2007, p. 99).

The two journals publishing the lion's share of study abroad and international education research—*Frontiers: The Interdisciplinary Journal of Study Abroad* and *The Journal of Studies in International Education (JSIE)*—were launched in 1995 and 1996 respectively, followed in 2001 by the founding of the Forum on Education Abroad, whose institutional membership currently represents some 90% of U.S. students earning academic credits abroad[5] and whose mission statement promotes research on study abroad.[6] These historical events we believe are both a manifestation and a cause of learner-centered study abroad.

A third development was pedagogical training and research centers focused on those learners' needs, which institutions call "Centers for Teaching and Learning," "Centers for Teaching Excellence," "Centers for the Enhancement of Learning," etc. They typically promote and disseminate research on teaching and learning and provide on-campus workshops for faculty. As a result, faculty have learned skills for actively engaging students in and outside classrooms, working with them to identify learning outcomes, providing frequent feedback and opportunities to reflect on their own learning, and discussing how to apply their learning outside the classroom.[7]

A number of host universities do offer international students a range of learning supports similar to those normally found at U.S. institutions, For example, some Australian and British universities provide visiting students with extensive academic counseling, orientation, off-campus excursions, and other services. The European universities participating in the Bologna Process agreed on the importance of identifying student learning goals, which is a characteristic of U.S. learner-centered teaching (*ECTS Users' Guide, 2004*, pp. 11–12).[8] However, the traditional teacher-centered model and the images it still calls up—the wise professor at the lectern in the large hall, lecturing to passive, willing, and able students—continues to dominate much study abroad theory and practice.[9] In 2004 we noted that faculty and study abroad colleagues, while acknowledging that their students faced challenges in living and learning abroad, split on what constituted appropriate action. One group pointed to the good grades U.S. students earned at their home institutions as evidence that they were competent learners. [10] Therefore, they simply needed to learn how to cope with the differences in their study abroad experience. The greater the exposure to the new culture, the greater the likelihood that they would learn (Lou & Bosley, 2008a, 276; Savicki & Selby, 2008, 343).

The second group of educators concluded that mere exposure to new people, events, and institutions did not automatically produce effective learning (Bennett, 2008, p. 17; Pusch & Merrill, 2008, p. 309).[11] They argued for interventions that would provide study abroad students with the tools to respond to, and manage, those differences. Among the interventions were pre-departure orientation sessions, programs designed to teach coping concepts and skills, orientation sessions abroad (either immediately after arrival or for the duration of the stay), beforereentry sessions focused on helping students apply what they had learned abroad.[12] In one bold experiment, a cultural mentor on a formal program conducted an organized, academically credited course on-site, designed to produce specific skill-building.[13] This second group of faculty and study abroad professionals was, typically, interested in research about student learning abroad[14] and particularly in identifying specific program components or learner characteristics that are associated with effective learning.[15]

This interest dovetailed with the growth of intercultural education in U.S. higher education as a respected academic discipline. In addition to workshops on faculty's home campuses, the Summer Institute for Intercultural Communication[16] also offered training, and articles on the topic appeared in *Frontiers*, *JSIE*, and other publications. Interculturally-informed sessions became common at annual conferences organized by The Forum on Education

Abroad, NAFSA, CIEE, AIEA, EAIE and other international education organizations. Its relevance to study abroad seems obvious. Students need to learn intercultural concepts and skills to cope with the cultural differences they experience abroad. Students need these skills to understand the local culture's underlying values and beliefs as expressed in the system of organizing universities and classes, and the roles students and teachers play in acquiring and disseminating knowledge. Furthermore, to the extent that the learning center paradigm prevailed on U.S. campuses, competent U.S. students would be frustrated by a culture of lectures, little or no time in class for questions or discussion, and faculty who were difficult to find outside of class. A growing number of institutions are now offering courses designed to teach concepts and skills that will presumably facilitate the learning of their students abroad.[17]

While some U.S. students do learn well abroad without intervention, our concern is for those who do not.[18] It is not unusual to find groups of self-protective students who reinforce each others' feelings of confusion or fear, who travel protectively with other Americans, avoid contact with the locals, speak English whenever possible, and, in the worst cases, engage in unsociable behavior that has earned U.S. students bad reputations. The findings of our study will be most useful for those trying to maximize the learning of their students abroad.

## III. Research Methods

### Design and Sample

The study featured a pre- and post-test, group design, comparing the target language oral proficiency and intercultural learning of students who studied abroad with students who studied languages at three U.S. colleges and universities. The 61 study abroad programs represented a broad variety: short-term without home institution faculty, short-term with home faculty, direct enrollment programs, hybrid programs, island programs, etc. Resident staff at each of these programs—sometimes hired by U.S. institutions or study abroad providers, sometimes hired by host universities—invited a pre-determined number of students to complete the study's tests. These resident staff members administered the tests to students who volunteered to participate.

The research sample for intercultural learning consisted of 1,297 students, 1,159 of whom were enrolled in the programs abroad, referred to as "SAPs (study abroad participants) or "students abroad." Georgetown University, the University of Minnesota-Twin Cities, and Dickinson College supplied a total of 138 control students.

The research sample for target language learning consisted of 968 students: 830 SAPs studied, and/or learned in, one of seven target languages: Arabic, Chinese, French, German, Japanese, Russian and Spanish.[19] The same 138 control students were also controls for oral proficiency testing.[20] Control students were at the same level of target language instruction as the SAPs but had not (or not yet) studied abroad.

The original design included only students enrolled at the four consortium schools (Georgetown University, University of Minnesota-Twin Cities, Rice University, and Dickinson College) but we quickly expanded the design to include programs operated by several study abroad providers,[21] providing a total of 190 U.S. home institutions whose students were tested.

To identify independent variables that influenced student learning, we drew on the study abroad classification system of Lilli Engle and John Engle (2003). It asserts two propositions: (a) that "focused and reflective interaction with the host culture is finally what separates study abroad from study at home" (p. 4); and (b), that faculty and study abroad professionals can improve student learning by incorporating "defining components" of intercultural experience (p. 4). Their study identifies seven such components, all of which our study treats as independent variables:

- program duration;
- pre-departure target language proficiency;
- the language of instruction abroad
- the academic context abroad (whether students take classes with other U.S. students; with host country students; with other, non-U.S. international students; or with a mixture of international, host, and U.S. students);
- where students are housed (with other U.S. students, with host country students, with international students, or with a host family)
- whether they participate in guided/structured experiential activities abroad
- the frequency with which resident faculty or staff provide "guided reflection on student experience" (Engle & Engle, 2003, p. 8).

Engle and Engle focused specifically on intercultural learning, but our study also tested these variables' influence on oral proficiency learning.[22]

## Instruments

### The Simulated Oral Proficiency Interview (SOPI)

To measure the gains that students made in target language oral proficiency, we used the Simulated Oral Proficiency Interview (SOPI), an instrument

that has been shown to be valid and reliable, and that has been in widespread use since the Center for Applied Linguistics developed the first version in the mid-1980s (Stansfield, 1991, 1996). Unlike the Oral Proficiency Interview (the OPI), which requires that a qualified rater personally interview each subject, the SOPI does not. An audio tape or MP3 file directs the test taker to carry out a series of oral tasks, referring to a booklet whose sections visually correspond to each of the recorded tasks. The students' oral responses are recorded on a second tape or via digital recording. After the test is completed, a trained rater scores the performance of each subject, using oral proficiency guidelines developed by the American Council on the Teaching of Foreign Languages (ACTFL, 1999).

Working with staff at each site whom we had trained to administer the SOPI, SAPs completed their pre-tests within several days after their programs began, and their post-tests several days before their programs ended. Students in the control group were tested within a few days of the beginning and end of a single semester during which they were enrolled in the study of a target language. Once the pre- and post-SOPIs had been completed at each site, trained SOPI raters scored them at the Office of International Programs at Georgetown University.

In analyzing the SOPI results, we assigned the following numeric values to the respective ACTFL levels:[23]

| ACTFL Ratings | Score |
|---|---|
| Superior | 3.0 |
| Advanced High | 2.8 |
| Advanced Mid | 2.3 |
| Advanced Low | 2.1 |
| Intermediate High | 1.8 |
| Intermediate Mid | 1.3 |
| Intermediate Low | 1.1 |
| Novice High | 0.8 |
| Novice Mid | 0.3 |
| Novice Low | 0.1 |

### The Intercultural Development Inventory (IDI)

To test gains in the intercultural development of the study's students, we relied on the Intercultural Development Inventory, an instrument in wide use that, like the SOPI, has been shown to be valid and reliable (Hammer & Bennett, 1998/2004, 2003). Based on Milton Bennett's Developmental Model of Intercultural Sensitivity (DMIS), the IDI was designed by Bennett and Mitch Hammer (who served as one of the study's three outside consultants). A 50-item instrument that measures how individuals understand and respond to cultural difference, the IDI asks subjects to respond to each statement by selecting the best response from among five choices. Each subject is scored by a qualified rater;[24] the resulting

global Developmental Score identifies the subject as operating within one of six corresponding intercultural worldviews: denial, defense, minimization, acceptance, adaptation, and integration. The first three worldviews are categorized as "ethnocentric," and the last three as "ethnorelative."

Working with staff at each site, SAPs completed their pre-tests within several days after their programs began and their post-tests several days before the programs ended. Once the pre- and post-IDIs had been completed at each site, the tests were scored at the Intercultural Communication Institute in Portland, Oregon.

Numerical student IDI Developmental scores reported in our analyses correspond to the following DMIS levels:

| IDI Scores | DMIS Levels |
|---|---|
| 55 (or less) to 84.99 | Denial/defense or reversal |
| 85 to 114.99 | Minimization |
| 115 to 145 | Acceptance/adaptation |

### Data Collection, Timetable, and Analyses (SOPI and IDI)

SOPI data came from students at sites abroad studying one of seven target languages:

All of these students, in addition to others enrolled at sites in English-speaking countries (for a total of 1,159 students abroad), also completed IDI testing twice. Additionally, 592 of the SAPs completed a post-post IDI some five months after the end of their programs.[25] Testing at the sites abroad began in the 2003–2004 academic year and continued through fall semester of 2005. Also tested were students enrolled during the summers of 2004 and 2005. Our analyses of the data began in summer 2006 and continued into early fall 2008. Jeff Connor-Linton has supervised the analysis of the SOPI data, and Michael Paige has supervised the analysis of the IDI data.

**Table 1. Target Languages**

| Language | N | Study Abroad Participants | Control Students |
|---|---|---|---|
| Arabic | 54 | 40 | 14 |
| Chinese | 45 | 25 | 20 |
| French | 138 | 102 | 36 |
| German | 148 | 134 | 14 |
| Japanese | 73 | 67 | 6 |
| Russian | 103 | 100 | 3 |
| Spanish | 407 | 362 | 45 |
| Total | 968 | 830 | 138 |

## IV. Research Findings: Oral Target Language Proficiency

*Please see the Research Tables and Statistics section below, which separately presents data tables and statistical analyses for each of the following findings.*

The research findings below focus primarily on learner characteristics and program components that are significantly associated with improvements in students' oral proficiency, as measured by changes in their pre- to post-SOPI performances. These sections also report on a few variables that were not significantly associated with oral proficiency gains when the lack of correlation itself illuminates the process of student learning.

### Oral Proficiency Gains: Correlations of Background Variables with Learner Characteristics

The study examined whether, and to what extent, several learner characteristics were correlated with gains in second language oral proficiency.

#### Finding 1: Oral Proficiency Gains: Study Abroad Participants vs. Control Students

SAPs' oral proficiency gains were, on average, significantly greater than the gains of control students who were studying the same languages at three home campuses. SAPs improved, on average, one ACTFL sublevel, from just below intermediate high to just below advanced low. Control students at the home campuses improved, on average, about half as much: from just below intermediate high to intermediate high.

Figure 1 (see the Research Tables and Statistics *section*, following Table 2) represents the differences in oral proficiency development between SAPs and controls by showing the percentage of each group whose measured oral proficiency: (a) dropped from the pre-test to the post-test (less than or equal to –0.4 and –0.3 to –0.1), (b) did not change (0), and (c) improved to varying degrees (0.1 to 0.3, 0.4 to 0.7, and more than 0.8).

As measured by the SOPI, the oral proficiency of 22% of controls actually decreased during their semester of instruction, compared to just 10% of SAPs. Thirty-six percent of controls showed no measured change in oral proficiency (the "did not change" category), compared to 24% of SAPs. And only 43% of controls improved their oral proficiency over the course of a semester of instruction, compared to 65% of SAPs.[26]

### Finding 2:
### Oral Proficiency Gains: Females vs. Males

The data show that study abroad had a very different effect upon the development of oral proficiency in female versus male students in this study. While both male and female SAPs' SOPI ratings increased significantly more than the male and female control students, female SAPs made significantly greater progress than male SAPS. Female SAPs improved one full ACTFL sublevel, from just below intermediate high to advanced low, while male SAPs improved about half a sublevel, from just below to just above intermediate high.

This finding suggests the importance of intervening in male target language learning to improve their learning abroad but does not propose what forms that intervention might take.

### Finding 3:
### Oral Proficiency Gains: Academic Major

There were no significant relationships between academic major and oral proficiency improvement in either the SAP or control groups.

## Oral Proficiency Gains and Background Variables: Pre-Study Abroad Learner Experiences Correlations

The study examined whether, and to what extent, several pre-study abroad experiences were correlated with gains in oral proficiency.

### Finding 4:
### Oral Proficiency Gains: Number of Semesters Studying Target Language

On average, students in the study (SAPs and control students, for all target languages combined) had reached an oral proficiency plateau—between intermediate mid and intermediate high—prior to the study. Regardless of the number of semesters they had studied the target language in college and/or high school, the students were apparently "stuck" between the intermediate mid and intermediate high oral proficiency levels at home.

Finding 1 showed that control students did not advance beyond that plateau during the study. In contrast, studying abroad allowed SAPs to advance significantly beyond the plateau, achieving on average nearly an advanced low level of oral proficiency. Study abroad, on average, equally benefited participants' oral proficiency development, regardless of their prior semesters of language study.

### Finding 5:
### Oral Proficiency Gains: Previous Experience Living in Another Culture or Studying Abroad

No significant relationship was found for SAPs who had previously lived abroad and their gains in oral proficiency made during subsequent study abroad. SAPs who had previously studied abroad showed no significant relationship between their previous experience studying abroad and the oral proficiency gains they made while abroad during the study.

### Oral Proficiency Gains in and Across the Study's Seven Languages

These findings show the extent to which levels of oral proficiency of SAPS before departure and their gains during study abroad varied across the seven languages included in the study. The study's samples of Arabic, German, Russian, Chinese, and Japanese learners were small and/or unbalanced, especially for the controls, making it imprudent to make claims about possible differences between SAPs and control subjects in these languages, *individually*.

### Finding 6:
### Oral Proficiency Gains: SAPs vs. Controls (Spanish only)

The oral proficiency of Spanish SAPs who studied abroad for one semester improved significantly more than that of controls who took Spanish for a semester at their home institutions. On average, Spanish SAPs were rated below intermediate high on their pre-SOPI ratings, and increased to just below advanced low on their post-SOPIs. In contrast, on average, Spanish control students were rated between intermediate mid and intermediate high on their SOPIs at the start of the semester, and improved half as much as the SAPs, remaining below intermediate high on their end-of-semester SOPIs.

### Finding 7:
### Oral Proficiency Gains: SAPs vs. Controls (French Only)

The oral proficiency of French SAPs improved significantly more than that of control subjects taking French for a semester at their home institutions. On average, French SAPs were rated advanced low on their pre-SOPIs, and increased to just above advanced mid on their post-SOPIs. In contrast, the oral proficiency of French controls at the home campuses, who were rated just below advanced low on their start-of-semester SOPIs, did not increase significantly. On average, French learners who studied abroad began with a substantially higher level of oral proficiency than Spanish learners.

### Finding 8:
### Oral Proficiency Preparation: Mean Differences among SAPs across Target Languages

Students studying different languages abroad showed wide differences in their pre-study abroad oral proficiency levels. On average, students of Arabic, Chinese, Japanese, and Russian began study abroad with significantly lower SOPI ratings than students of French, German, and Spanish (intermediate low to intermediate mid for the first group, versus intermediate mid to advanced low for the second).

### Finding 9:
### Oral Proficiency Gains: MCTLs vs. LCTLS

The target languages included in this study are divided into "More Commonly Taught Languages" (MCTLs: French, German, and Spanish) and "Less Commonly Taught Languages" (LCTLs: Arabic, Chinese, Japanese, and Russian). Not only do SAPs in this study who are studying the MCTLs and the LCTLs differ in their oral proficiency before their study abroad experiences, but also the language groups differ in the magnitude of their gains on the SOPI test during study abroad.

The oral proficiency development of SAPs in the LCTLs was significantly less than the oral proficiency development of SAPs in French, German, and Spanish study abroad programs. These results may reflect other differences: the relative unavailability of LCTL instruction in high school; only two years of target language instruction (if that) before studying abroad; and the resulting downstream limitations on exposure to the target language on site.

### Finding 10:
### Oral Proficiency Gains: SAPs vs. Controls (MCTLs only)

While small sample sizes preclude SAP versus control comparisons within individual LCTL languages, comparisons between the oral proficiency development of SAPs and control students within the aggregated groups of MCTL- and LCTL-learners were possible. The study found a significant difference between the SOPI gains of SAPs and controls studying MCTLs. On average, MCTL SAPs were rated intermediate high on the pre-SOPI, and improved to above advanced low on their post-SOPIs.

## Finding 11:
## Oral Proficiency Gains: SAPs vs. Controls (LCTLs Only)

LCTL SAPs' SOPI ratings increased from intermediate low to intermediate mid, while LCTL control subjects' ratings improved significantly less, remaining between intermediate mid and intermediate high. LCTL SAPs had significantly lower pre-SOPI ratings than the LCTL control subjects. We have seen that Spanish SAPs seem to have self-selected at least partly based on their pre-departure language proficiency, with higher-proficiency Spanish SAPs statistically more likely to go abroad (see Finding 2). LCTL SAPs, however, had significantly lower pre-SOPI ratings than LCTL controls: intermediate low for SAPS vs. between intermediate mid and intermediate high for controls.

LCTL faculty on home campuses may encourage students to study abroad, even with relatively lower levels of proficiency, since they believe that the students will progress more rapidly abroad than at home. If this is the case, it suggests that LCTL faculty, in comparison with their MCTL colleagues, place different values on the educational potential of studying abroad, studying at home, or both.

## Finding 12:
## Oral Proficiency Gains: Readiness and Threshold Effects

There is a significant relation between SAPs' pre-study abroad ratings and their oral proficiency improvement during study abroad, but it does not suggest a clear "readiness effect," or minimum threshold of pre-departure competence, beyond which learners abroad are likely to increase their oral proficiency more rapidly than learners who have not reached such a threshold. (Finding 4 showed that SAPs' oral proficiency gains were not associated with the number of semesters of target language study prior to study abroad.)

Instead, the data suggest a "ceiling" effect, a point at which learners abroad begin to plateau in their oral proficiency as captured by the SOPI and measured on the ACTFL scale. Students with pre-SOPI ratings in the range of advanced low through superior did not make as much progress as students at lower proficiency levels.

One explanation may be that, in the ACTFL Guidelines, oral proficiency development is conceptualized as an inverted pyramid. Lower levels of proficiency consist of more limited sets of language knowledge and skills. Low-level learners are expected to move more quickly from one low sublevel to another than they do in the higher levels. As proficiency increases, it becomes more difficult and takes longer for learners to receive successively higher ratings.[27] Additional studies of these data focused on fluency and pragmatic

and sociolinguistic competence may show that study abroad students, while not yet attaining the next sublevel, are nonetheless progressing in ways not measurable by the Guidelines.[28]

A second explanation may be that U.S. students plateau in their oral proficiency gains while studying abroad for intercultural reasons. Engle and Engle argue, for example, that U.S. students studying in France are satisfied when they can speak with a certain degree of facility, rather than seeking the grammatical and semantic precision that French language learning—*in France*—requires.[29] They suggest that U.S. institutions "emphasize task-oriented communication over linguistic precision"[30] and that students would benefit from on-site mentoring focused on improving their oral proficiency. Such a mentor could stress that language learning and teaching are culturally-based, and that foreigners are likely to be judged by different sociolinguistic standards than those that prevailed at home.

### Oral Proficiency Gains: Correlations with Program Elements

This section identifies a number of program elements—including most of Engle and Engle's "defining components"—that are significantly associated with gains in oral proficiency during study abroad. The correlations support the conclusion that students learn most effectively abroad with what we call "interventionist" strategies.

### Finding 13:
### Oral Proficiency Gains: Program Duration

The data show a significant relationship between gains in oral proficiency and program duration.

Programs of longer duration are associated with greater improvements in oral proficiency. The greatest differences occur between one-semester programs and programs lasting longer than one semester. SOPI ratings of SAPs in semester-long programs improved from below intermediate high to just above intermediate high. Average ratings of SAPs in programs approaching two semesters in length improved from intermediate high to advanced low. Ratings of SAPs in programs lasting from 26 weeks to an academic year showed the greatest improvement, from below intermediate high to just above advanced low.

### Finding 14:
### Oral Proficiency Gains: Language Used in Coursework

For research purposes, we separated Engle and Engle's "Language Used in Coursework" into two separate variables: "Content Courses Taught in the Target

Language" and "Instruction in the Target Language." The first variable focused on whether the oral proficiency of students who took courses (e.g., history, environmental studies, philosophy, etc.) in the target language showed greater development than SAPs who enrolled in English-language content courses. The second variable analyzes whether SAPs who took instruction in the language of the host country showed greater oral proficiency development than those who did not.

### Finding 14a: Oral Proficiency Gains: Content Courses Taught in Target Language

SAPs who enrolled in content courses taught in the target language made greater gains in oral proficiency than those who did not. They increased their oral proficiency scores (on average to advanced low) significantly more than SAPs who took content courses in English, who improved about half as much (to intermediate mid). Not surprisingly, students who took content courses in the target language started their programs, on average, with a higher SOPI rating (just below intermediate high) than students who took content courses in English (intermediate low).

These findings suggest that study abroad professionals interested in maximizing their students' oral proficiency should encourage (or require) those with sufficient preprogram proficiency to take content courses abroad.

### Finding 14b: Oral Proficiency Gains: Target Language Instruction

The oral proficiency development of SAPs who took target language courses during study abroad was not significantly different than SAPs who did not. Separate analysis of LCTLs and MCTLs failed to identify a significant relation between students taking target language courses and SOPI gains. As we saw in Finding 1, SAPs made significantly greater oral proficiency gains, on average, than controls. Finding 14B, in failing to associate these proficiency gains with formal classroom study of the language, suggests that contact with the target language outside the formal language classroom was more important in developing the oral proficiency of students abroad.

### Finding 15: Oral Proficiency Gains: Pre-Departure Orientation with Cultural Component

Our analysis revealed a significant, though not large, association between gains in oral proficiency and pre-departure orientations that included a cultural

component. It is worth noting that those whose pre-departure orientations had a cultural component also reported significantly higher satisfaction with their study abroad experience.

### Finding 16:
### Oral Proficiency Gains: Student Housing

We found no correlation between types of housing and oral proficiency gains. However, the relationship between housing type and gains in oral proficiency approaches significance for LCTL SAPs. The oral proficiency development of 105 LCTL students who lived with host families, rather than with other U.S. students, other international students, or students from the host country, was greater (though not significantly greater) than students in those other housing categories.

A statistically significant association does exist between gains in oral proficiency and the amount of time MCTL students spent with their home family. This analysis allows us to identify two groups of students living in home stays: those who did not spend much of their free time with family members, and those who spent more time with their host family, benefiting in their language learning from doing so. The variable that matters here is whether students take advantage of home stays by engaging with family members. Arranging for students to live with a host family sets up the potential for the kind of engagement that can lead to student learning. Learning interventions in place before departure and during the program that encourage students to engage with host families will determine to what extent this sort of intervention ends up being effective.

## Interpretation of Oral Proficiency Findings

A number of these oral proficiency findings support the study's first hypothesis--that studying abroad resulted in greater gains in oral proficiency than studying target languages at a home institution. Whether we analyzed the oral proficiency gains of students studying individual languages or of students in MCTLs and LCTLs, SAPs, on average, outperformed controls. The finding that only SAPs' oral proficiency advanced beyond the plateau that many students reached before studying abroad provides additional evidence that language learners' oral proficiency developed more effectively while abroad.

Other findings highlight the relationship between students' exposure to the target language in its native environment and their development of oral proficiency. Two findings, if considered in isolation, apparently support the traditional view that increasing exposure to the target language increases

learning. SAPs who took content courses in the target language—thereby getting additional target language exposure—outperformed those who studied content courses in English. And SAPs' gains in oral proficiency improved as the length of their programs grew, suggesting, again, the connection between increased exposure and increased learning. However, the study's findings, overall, do not support the traditional view that students learn effectively when we 'immerse' them in the native language environment. As Figure 1 displays, 24% of SAPs showed no gains in their SOPI scores, while the SOPI scores of 10% of SAPs actually decreased. And while the oral proficiency gains of males studying abroad were significantly greater than those of males studying at home, females studying abroad made significantly more progress in their oral proficiency than did male SAPs.

The traditional view that makes a straight-line equation between exposure and proficiency fails to account for the very different knowledge, attitudes, skills and perspectives that learners bring to the learning environment. It also fails to account for the different communication opportunities students encounter abroad: some challenging, some easy; some useful where their own learning is concerned, some less so. (Savicki, Binder, & Heller, 2008, pp.111–112; Segalowitz, Freed, Collentine, Lafford, Lazar, & Díaz-Campos, 2004, pp. 13–15). Left to their own devices, too many students fail to learn effectively. Merely exposing them to the potentially rich linguistic environment they will encounter abroad is a necessary, though not a sufficient, condition for improving their language learning. The differential findings on housing types are an example.

Four findings suggest the importance of interventions by faculty and study abroad professionals. First, SAPs who participated in pre-departure orientations that included an intercultural component outperformed SAPs whose orientations did not. Second, students with pre-SOPI ratings in the range of advanced low through superior did not make as much progress abroad as students at lesser pre-SOPI levels. If such students are relatively complacent about their language abilities when they go abroad, they may benefit from an intervention that increases their interest in improving their oral skills. Third, SAPs who took content courses in the target language made greater oral proficiency gains than those who did not, suggesting that faculty and advisors should encourage or require SAPs with sufficient pre-program oral proficiency to enroll in such courses abroad. Fourth, SAPs made progressively greater progress in oral proficiency as they spent more time with host families, suggesting that faculty and advisors should go beyond merely arranging home stays, making sure that someone will be available to work

with them (and perhaps the families as well), to identify ways to help students take fuller advantage of this learning opportunity.[31]

## V. Research Findings: Gains in Intercultural Development

*Please see the Research Tables and Statistics section below for data tables and statistical analyses for each of the following findings.*

### Intercultural Learning Gains: Correlations of Background Variables with Learner Characteristics

#### Finding 1:
#### Intercultural Learning Gains: Study Abroad Participants vs. Controls

Study abroad participants made significantly greater progress in their intercultural learning, between pre-IDIs and post-IDIs, than control students. There was a statistically significant difference, on average, between SAPs and controls in the post-IDI, with SAPs showing significant gains and controls showing a slight decrease in their Developmental Score. The finding provides strong support for the study's first hypothesis: that study abroad programs can provide important opportunities for increasing intercultural competence.

#### Finding 2:
#### Intercultural Learning Gains: Females vs. Males

On average, females in this study made statistically significant gains in their intercultural development while abroad. Males did not. While the IDI scores of female participants increased significantly, the IDI scores of males in fact decreased slightly mathematically. These particular data strongly suggest that in designing and delivering programs, both before departure and on site, study abroad professionals need to be attentive to the specific intercultural learning needs of males. The data also underline the importance of carrying out additional research that focuses on the differences between female and male learning abroad, to identify both the issues involved and effective training approaches that can address them.

#### Finding 3:
#### Academic Major and IDI Gain

The data point to a somewhat stronger association between academic major and intercultural gains than found in the oral proficiency analysis.

While the data show few learning differences associated with student major, SAPs majoring in humanities/social sciences and foreign languages showed a statistically significant increase in their IDI score, from their pre- to their post-program IDIs, when compared with students in other majors. Engineering students showed the greatest numerical increase among all the academic majors, although, due to the very small sample size, this finding was not statistically significant. The effect size, however, while still small, was the highest among all of the academic majors (Kotrlik & Williams, 2003; Meyers & Well, 2003).

## Intercultural Competence Gains: Correlations with Pre-Study Abroad Learner Experiences

### Finding 4: Intercultural Learning Gains: Prior Language Study (High School and College)

SAPs' prior language study is significantly associated with gains in intercultural competence. While increasing numbers of semesters of prior language study is not associated with higher *pre-* IDIs, the amount of prior language study is correlated with students' *post-*IDI scores. Those who began studying in high school (and who studied the target language for between 9 and 14 semesters prior to going abroad) showed the greatest change.

This finding identifies a second relationship, then, between study of a target language and intercultural development. It suggests the importance of increasing intercultural learning that promotes target language education prior to college—in high school and perhaps earlier—and promoting target language study in college, from students' first semester on campus until their departure for study abroad.

### Finding 5: Intercultural Learning Gains: Previous Experience Living in Another Culture

Overall, living or traveling in another culture prior to studying abroad was not meaningfully associated with intercultural competence in this study. However, those who had never lived in another culture had the lowest pre-IDI scores and showed the greatest gains during study abroad.

### Finding 6:
### Intercultural Gains: Prior Study Abroad

A similar pattern was seen with prior study abroad. Overall, experience studying abroad is not associated with IDI gains. However, participants with no prior study abroad experience or up to one month had the lowest pre-IDI scores and showed the greatest gains.

Findings 5 and 6 suggest that the students who had the furthest to go, in terms of their intercultural learning, experienced the greatest gains. These findings also indicate that prior exposure to environments of cultural difference in the past, in and of themselves, did not predict intercultural proficiency. This finding supports the study's hypothesis that many students do not learn interculturally simply through being physically present in another culture.

## Program Components: Correlation with Intercultural Proficiency Gains

A large number of program components correlate meaningfully with gains in intercultural proficiency in this study and suggest specific interventions that faculty and study abroad professionals can make in program design and delivery.

### Finding 7:
### Intercultural Learning Gains: Program Duration

Program duration is significantly associated with IDI gains abroad. SAPs who studied abroad for 13–18 weeks—roughly a semester—showed the greatest gains in their intercultural development. SAPs in other duration categories did not.

These results highlight the need for intervention in student intercultural learning abroad, especially with students who enroll in the shorter and longer programs.

The study's sample of students in the 1–3 week category was too small for valid conclusions about their intercultural learning. While the number of students enrolling in 4–7 week and 8–12 week programs is also too small to permit firm conclusions, the negative gains for students abroad for 4–7 weeks and the very small gains for those in 8–12 week programs reinforce the importance of having resident staff available on-site to help students increase their awareness of and ability to respond to cultural difference in these shorter time frames.

The data also indicate a ceiling effect that again underlines the need for intervention with students who spend the most time abroad. The intercultural learning of SAPs who studied abroad for more than 18 weeks plateaued significantly,

recalling the suggestion of Engle and Engle (2004) that students considered "roughly successful communication" adequate ( p. 234). The same complacency may also occur with students' intercultural learning. The finding suggests, then, that on-site intervention is important to reinvigorate or sustain the intercultural learning process for SAPs who continue their studies beyond a semester.

### Finding 8:
### Intercultural Learning Gains: Content Courses

As was the case with one of the oral proficiency findings (see 14a, above), enrolling in content courses in the target language was positively associated with intercultural development. Students who took some or all of their content courses in the target language showed significantly greater IDI gains than students who took such courses in English.

### Finding 9:
### Intercultural Learning Gains: Target Language Courses

Students who enrolled in target language classes made significantly more intercultural progress than students who didn't. Findings 8 and 9 provide additional evidence of an association between language and intercultural learning in this study. They suggest that faculty and study abroad professionals should encourage or require students with sufficient target language proficiency to enroll in content courses taught in the target language, and encourage or require students with limited oral proficiency to enroll in target language courses. This study's findings support the connection between both forms of target language exposure and intercultural learning.

### Finding 10:
### Intercultural Learning Gains: Class Composition

Students who took courses alongside other U.S. students, or in classes featuring a mixture of U.S., host culture, and other international students, showed greater IDI gains than students who studied in courses made up entirely of host country students.

The 349 students in this study who took all of their courses at the host university made almost no advances in intercultural learning. This finding challenges the view that U.S. students normally learn abroad when left to their own devices." It underlines the significance of interventions for student learning, regardless of the program type, including programs that enroll students entirely in courses at host universities.

Nevitt Sanford (1966) argues that students learn most effectively in environments that provide a balance between challenge and support (see also Bennett, 1993; Lou & Bosley, 2008a). If confronted with too great a challenge, students retreat from learning. They become bored if they receive too much support while experiencing too little challenge. Sanford's challenge/support hypothesis that students directly enrolled in host university courses found the cultural challenge too great and retreated from the learning opportunity. This finding suggests the importance of providing greater support to students, and not stopping their enrollment in host university classes abroad or sending them only to U.S. island/enclave programs. Questions to be explored are: How might faculty and study abroad professionals intervene in high-challenge situations? What types of support might they provide to students who enroll directly in host universities?

### Finding 11:
### Intercultural Learning Gains: Group Mentoring On Site

Students who were able to meet and work on their intercultural learning with a mentor made greater gains than students who did not. While the samples are relatively small, students who received mentoring "often" to "very often" showed the greatest gains. One of the single most important steps we can take in working to maximize students' intercultural learning is to design, or enroll students in, programs that feature intercultural mentors at the site

### Finding 12:
### Intercultural Learning Gains: Perceptions of Cultural Similarity/ Dissimilarity

SAPs who reported that the new culture was "somewhat dissimilar" or "dissimilar" from their host culture showed a statistically significant change between their pre- and post-IDIs, with the largest gain occurring with "dissimilar" cultures. In contrast, SAPs who felt that the new culture was either "very similar," "similar," or "very dissimilar" from the host culture did not show a statistically significant change in their IDI scores.

This finding suggests that intercultural mentoring might be particularly useful for students in either the lowest or highest challenge categories of similarity-dissimilarity. A mentor, for example, could help students who perceive they are in very dissimilar cultures to respond non-evaluatively, using an intercultural learning activity such as the "Description-Interpretation-Evaluation" familiar to intercultural trainers (Bennett, Bennett, & Stillings, 1977; Savicki,

2008). Alternatively, students who perceive their environment as similar could be encouraged to explore cultural differences more deeply, via ethnographic inquiry and other approaches suggested in *Maximizing Study Abroad* (Paige, Cohen, Kappler, Chi, & Lassegard, 2006).

### Finding 13:
### Intercultural Learning Gains: Student Housing

SAPs who lived with other students from the United States or with students from the host country showed statistically significant gains in intercultural learning. SAPs who lived with international students or with a host family did not, even though SAPs who lived with host families had the highest pre-IDI scores. Once again, the data show that those who had the most to gain, did so; SAPs who lived with other U.S. students had the lowest pre-IDI scores and showed the largest post-IDI gains.

Again, Sanford's (1966) challenge/support hypothesis provides a useful interpretation. The least developed SAPS living with other U.S. students chose the housing option that would challenge them the least, the one with the lowest level of intercultural intensity. SAPs who chose to live with a host family may have sensed that they could cope with more intense intercultural situations. This finding raises an important question: What steps might be taken to improve the learning of SAPS who opt for home stays? The next finding responds to that question.

### Finding 14:

The "Challenge/Support" hypothesis provides a productive means of interpreting three related data sets. Each shows the extent to which learning is correlated with the amount of time students spent with people in the learning environment abroad..

### Finding 14a:
### Time Spent with Host Families

The IDI scores of SAPs who reported spending more time with members of their host families increased more than those who spent less time. Students who spent between 1–25% of their time with host families showed the smallest gains; those who spent 26–50% showed higher gains; and those who spent 51–75% improved the most. While the number of students in the 51–75% category was small, the change of IDI score for students in the 25–60% group is statistically significant.

This pattern supports the interpretation about the impact of housing in the analysis of oral proficiency data (see Finding 16). Neither oral nor intercultural proficiency is associated with home stays. However, students who took advantage of the potential in that learning environment by engaging with their host family made significantly more progress in oral and intercultural proficiency than students who did not. This finding reinforces the argument that students do not learn because of simple exposure, but because of the ways they responded to that exposure.

### Finding 14b: Time Spent with Other U.S. Nationals

Students who spent the least amount of time with U.S. nationals made the greatest gains in intercultural learning. Consistent with Sanford's (1966) hypothesis, the intercultural proficiency of those who spent the most time with other U.S. nationals decreased during their time abroad: when students spent 76–100% of their free time with other U.S. nationals, intercultural learning simply stopped.

### Finding 14c: Time Spent with Host Nationals

SAPs who spent 26–50% of their free time with host nationals made the most progress in their intercultural learning. However, SAPS who reported spending from between 51 to 100% of their time with host nationals in fact lost ground. This finding and 14b together reveal upper and lower boundaries of the "challenge/support" boundaries. Students, at one extreme, those who spent much of their free time with other U.S. nationals were interculturally under-challenged and actually became slightly more ethnocentric while abroad. Students at the other extreme spent so much time with host country nationals that they became interculturally overwhelmed, lost ground in their IDI scores, becoming more ethnocentric.

Students who spent the least amount of time with host nationals started out with the lowest IDI scores, reinforcing the importance of having trained staff on site to help motivate students to spend a reasonable amount of their time with host nationals.

## Interpretation of Intercultural Competence Findings

The findings in this section provide strong support for the study's first hypothesis: SAPs made significantly greater gains, from the pre-IDI to the post-IDI, than control students. On average, studying abroad provided

students in this study with opportunities to make significant gains in intercultural competence.

Moreover, students maintained their intercultural gains: 592 SAPS and 85 controls completed a third, Post/post-IDI some five months after they finished their programs abroad. Overall they showed neither gains nor, more surprisingly, losses in intercultural learning. Their intercultural development was sustained, at least during the first five months after their return.

It is also true, however, that a sizable number of students abroad did not learn significantly more than control students. A sizeable number of SAPs did not or could not take advantage of intercultural learning opportunities. Male SAPs on average learned less while abroad in oral proficiency and intercultural development than female SAPS; but 34.8% of female SAPs showed statistically insignificant intercultural gains or actual decline between the pre- and post- IDIs tests.[32] In short, many of these students, when left to their own devices, failed to learn well even when "immersed" in another culture. Being exposed to cultures different from their home cultures turned out to be a necessary, though not a sufficient, condition for their intercultural learning.

Several findings also provide strong support for the study's second hypothesis: the need to intervene to improve student intercultural learning abroad. Faculty and advisors may find the data on program duration and intercultural learning gains useful in persuading some of their students to study abroad for at least a semester. The evidence that a cultural mentor abroad who meets "very often" with students can dramatically increase their intercultural learning strongly suggests that faculty and advisors should develop programs or encourage their students to enroll in programs that feature this form of intervention.

In fact, several other findings suggest that the presence or absence of a well-trained cultural mentor who meets frequently with students may be the single most important intervention to improve student intercultural learning abroad. Such mentors could, for example, advise students to continue their formal study of the target language and (given sufficient proficiency) to enroll in core courses taught in the target language. They could work with male students to increase their interest in and opportunities for intercultural learning, invigorate the intercultural learning process of academic year students, manage student perceptions of cultural similarity and dissimilarity, help them identify the cultural underpinnings of host institution academic practices, and encourage them to spend more time with host family members and less time with other U.S. nationals.

Several other findings point to the usefulness of Sanford's "challenge/support" hypothesis in understanding how various learning environments inform student intercultural learning. SAPs enrolled directly in regular courses with students from the host country learned significantly less, interculturally, than those who were enrolled with other U.S. students. The 349 students who took classes exclusively with host university students learned less than students studying in any of the other three "class composition" environments that we studied. Host university courses are potentially rich environments for intercultural learning, opportunities for students to form relationships with host university students, and to gain repeated exposure to host university teaching and learning practices that may over time reveal deeper cultural values and beliefs. However, the finding does indicate that enrolling students in host university courses without intervening in their learning is not working. When framed within Sanford's hypothesis, the finding suggests that these students found themselves exposed to more cultural difference than they could manage. These are, then, students who would especially benefit from meeting frequently with cultural mentors while abroad. The student housing data, and the two data sets that show the importance of balancing challenge and support where student interaction with U.S. nationals and host nationals abroad is concerned, provide other indicators of the critically important role that on-site cultural mentors can play in helping students balance intercultural challenges with appropriate and timely forms of support

Several findings in this study speak to the third hypothesis: that there is a significant relationship between second language and intercultural learning. Our expectation that there would be a significant relationship between the two was informed by our own experiences living and working abroad: we each had the sense that becoming more proficient in another language had allowed us "to plumb the depths" of the other culture. Our interest in this hypothesis also reflected our interest in the Sapir/Whorf hypothesis. Whorf's much-discussed view—that language shapes, rather than simply conveys, thought—made sense to us, in light of our own prior experience with second languages in other cultures (Whorf, B., 1956; Steinfatt, T.,1989)[33]

However, the study has failed to identify a direct relationship between the two: there is no correlation here between SOPI and IDI gains.[34] If this were the only finding that spoke to the relationship between learning a language and developing interculturally, we might suggest that the two are simply separate processes—that learners are able to become proficient in one without necessarily becoming competent in the other. However, as we've seen, four other findings suggest that there is a meaningful relationship between the two:

- Students who had participated in a pre-departure orientation with a cultural component showed higher oral proficiency gains than those who did not (Oral Proficiency Finding 15).
- Students who, prior to studying abroad, had studied a target language (high school and college combined) for anywhere between five and fourteen semesters showed greater intercultural gains than students who had studied the language for fewer than five semesters (Intercultural Finding 4).
- Students abroad who studied either content courses in the target language or target language courses advanced more in their intercultural learning than those who did not (Intercultural Findings 8 and 9).

These findings suggest that the two learning processes, even if separate, are still able to replace each other, at least in some circumstances. Moreover, there is a clear implication that faculty and study abroad advisors can positively influence oral language proficiency and intercultural development by specific interventions, such as including intercultural teaching or training in pre-departure orientation.

Further research on the relationship between these two learning domains may lead to the identification of other variables that allow faculty and advisors at home and cultural mentors abroad to understand how student learning in one can positively affect learning in the other. Perhaps the relationship between the two learning processes manifests itself only after learners have reached a higher level of proficiency than most students in this study. Student Post-IDI scores indicate that many more of them ended in Minimization than in Acceptance, which may suggest that students need to reach Acceptance before their intercultural development and target language learning become mutually reinforcing.

## VI. Conclusions and Implications

1. This study, in highlighting a number of learner characteristics and program components that are significantly associated with student learning abroad, has yielded two different types of findings: first, those that call attention to needs for improving student learning; and second, those that suggest interventions that address those needs. Figure 1 shows student intercultural learning needs and suggested program interventions at home and abroad. Figure 2 shows student oral proficiency learning needs and suggested program interventions.

**Figure 1. Student Intercultural Learning: Needs and Interventions**

| Student Intercultural Learning Needs | Suggested Interventions |
|---|---|
| | **Interventions on Campus** |
| Increase student intercultural learning at home | Advise students to study abroad, especially at programs with cultural mentors on site |
| Increase student intercultural learning abroad | Include intercultural learning in pre-departure orientation |
| | Advise students to enroll in target language and content courses taught in target language abroad |
| | Advise students to complete 5 or more home target language courses before departure |
| | **Interventions on Site** |
| Poor intercultural learning, on average, of males abroad | Cultural mentor intervenes: challenge/support |
| Poor intercultural learning when students directly enroll in host university courses | Cultural mentor intervenes: challenge/support |
| Poor intercultural learning in home stays | Cultural mentor intervenes: challenge/support |
| Students perceive too much/too little cultural difference between home and host cultures | Cultural mentor intervenes: challenge/support |
| Students spend too much time with U.S. nationals abroad | Cultural mentor intervenes: challenge/support |

**Figure 2. Student Oral Proficiency Learning: Needs and Interventions**

| Student Oral Proficiency Learning Needs | Suggested Interventions |
|---|---|
| | Interventions on Campus |
| Help students progress beyond oral proficiency plateau | Advise students to study abroad, especially on programs with cultural mentors on site |
| Poor oral proficiency learning abroad among some students | Advise longer-term study abroad |
| | Include intercultural learning in pre-departure orientation |
| | Advise enrollment in content courses abroad taught in target language |
| | Interventions at Program Abroad |
| Poor oral proficiency learning abroad among some students | Faculty at home or on-site cultural mentor encourages enrolling in target language content courses |
| Oral proficiency learning plateaus, second semester abroad | Cultural mentor intervenes: challenge/support |
| Poor oral proficiency learning abroad in home stays | Cultural mentor intervenes: increase time spent with host family members |
| Poor oral proficiency learning abroad, on average, of males | Cultural mentor intervenes: challenge/support |

The study has identified two intercultural learning needs and suggested six interventions that might be implemented at home campuses prior to departure to increase intercultural learning abroad. It has also identified five intercultural needs that might be addressed abroad through the intervention of a well-trained cultural mentor who meets with students frequently and who designs and delivers those interventions within Sanford's challenge/support hypothesis.

To summarize: The study identifies on home campuses two different oral proficiency needs and suggests four interventions; at program sites, it identifies four oral proficiency needs and four interventions. The four findings that identify significant associations between target language learning and intercultural learning suggest that a well-trained cultural mentor might play an important role in effectively addressing each.

2. While a fuller discussion about the ways that a cultural mentor might intervene to enhance student learning is beyond the scope of this article, the importance of the cultural mentor is a major finding. Sanford (1966) provides a theoretical basis for understanding how a mentor can design and facilitate learning on site through balancing challenge and support. During the past few years, two of the authors have had considerable experience identifying effective interventions through the ongoing design, implementation, and evaluation of two different structured programs of cultural mentoring.[35] We continue to assess student learning in these two courses and plan to disseminate the results. Of these evaluation sin further publications. In the meantime we recommend that readers interested in learning more about these approaches used in these courses consult Bennett & Bennett (2004) and Paige, Cohen & Shively (2002).

This article proposes only the beginnings of the kind of systematic and structured learning program that a trained cultural mentor would follow in training students to learn the intercultural concepts and skills that would allow them to interact appropriately and effectively with host country nationals. The topics and skills that a cultural mentor ought to teach students abroad includes helping them learn to reflect on what and how they are learning, to become culturally self aware, to suspend hasty (and frequently negative) judgments in responding to people and events, to learn to communicate flexibly, and so on.

3. The study's findings show that most of the "defining components" that Engle & Engle (2004) identified are associated with student learning. While they identified these components with intercultural learning in mind, the study provides evidence that a number of them are also significantly associated with

improving oral proficiency.. Figure 3, below, identifies, with the designation "+SOPI," those variables that are positively associated with interventions in oral proficiency learning, and with "+IDI," the variables that are associated

**Figure 3. Engle and Engle Variables**

| | |
|---|---|
| Program duration | + SOPI, +IDI |
| Pre-departure target language study | +IDI |
| Target language: a. content courses in the second language | +SOPI, +IDI |
| Target language: b. target language courses | +IDI |
| Academic context: a. location of courses (at host U., island, both) | |
| Academic context: b. class composition (in class with: host students, other U.S. students, other international students, ) | +SOPI, +IDI |
| Academic context: c. type of faculty teaching courses (from home, host institution) | |
| Type of housing | +SOPI, +IDI |
| Experiential learning initiatives | |
| Mentoring/guided cultural reflection | +SOPI, +IDI |

with intercultural development.

Improvement in learning can be enhanced by longer programs; by at completing at least five semesters of the target language prior to departure; by urging or requiring students to enroll in content courses taught in the target language; and by providing intercultural mentoring.

However, two key components—housing and experiential activities—require more than simple program design changes. Simply placing students in home stays—a design intervention—will not automatically result in effective oral proficiency or intercultural learning. To maximize the potential of this design intervention, a second intervention is necessary, a well-trained cultural mentor who, in this case, can work to motivate students to spend more free time with the host family. The lack of significant association between experiential activities and either language or intercultural learning suggests that the same "double intervention" strategy may be operating here. That is, students failed to learn effectively because they were left to their own devices: those who designed the programs featuring experiential activities may have believed that such activities naturally allow students to engage with host nationals. As Hunter (2008) puts it, "Programs that do not rely on the haphazard chance of students engaging in this process on their own, but instead very intentionally organize learning activities to encourage it, inevitably will be better poised" to teach effectively (p. 99). That second intervention should be delivered by a

well-trained cultural mentor who can help students develop the intercultural concepts and skills that will facilitate their learning through the internships, field experiences, and other experiential activities provided by their programs. In short, the housing and experiential learning findings suggest that a design intervention may be a necessary but not sufficient condition for improving student learning.

4. The average language learning and intercultural learning gains documented in this study are significant when compared with the gains of control students. Study abroad participants, on average, progressed beyond the intermediate mid to intermediate high levels in oral proficiency, while students studying at home plateaued around the intermediate mid level, semester after semester. On average, SAPS also clearly outperformed controls on intercultural development. However, the many variables in this study that correlate positively with student learning pose an important question: How much greater would the average learning gains of SAPs have been if they had had access to a cultural mentor who helped them understand, reflect on, and more effectively respond to living and learning in new cultures?

Two studies that have been published since we began our research begin to provide an answer to this question. Both report student learning gains abroad in programs featuring systematic interventions delivered by qualified faculty over a semester or year—not the situation for the great majority of students in this study. In the first, Engle and Engle (2004) report, that over a period of six years, students—who among other things were enrolled in a required "French Practicum" at the program site—averaged much greater intercultural gains than the students in our study averaged.[36] Similarly, Lou and Bosley (2008b) report that Willamette and Bellarmine University students made impressive intercultural gains while enrolled abroad in an intercultural distance course taught by Blackboard and email.[37] These studies provide additional evidence that students can make much greater intercultural gains with the support of a well-trained mentor intentionally and strategically, throughout their time abroad.

## VII. Research Tables and Statistics

### Research Tables and Statistics for Oral Proficiency Results

**Oral Proficiency Finding 1**

**Table 2: Oral Proficiency Gain: Study Abroad Participants vs. Controls (All Languages)**

| | Mean Pre-SOPI Rating | Mean Post-SOPI Rating | N |
|---|---|---|---|
| SAPs (N=830) | 1.6 | 2.0 | 830 |
| Controls (N = 138) | 1.7 | 1.8 | 138 |

- Pre-SOPI ratings of SAPs and controls are not significantly different: $t = 0.118$; $df = 966$; $p = 0.731$
- Post-SOPI ratings of SAPs and controls *are* significantly different: $t = 11.796$; $df = 966$; $p < .05$
- The difference between SAPs and controls in SOPI rating gains (Time X SA vs. control) is significant: $F = 26.779$; $df = 1$; $p < .05$

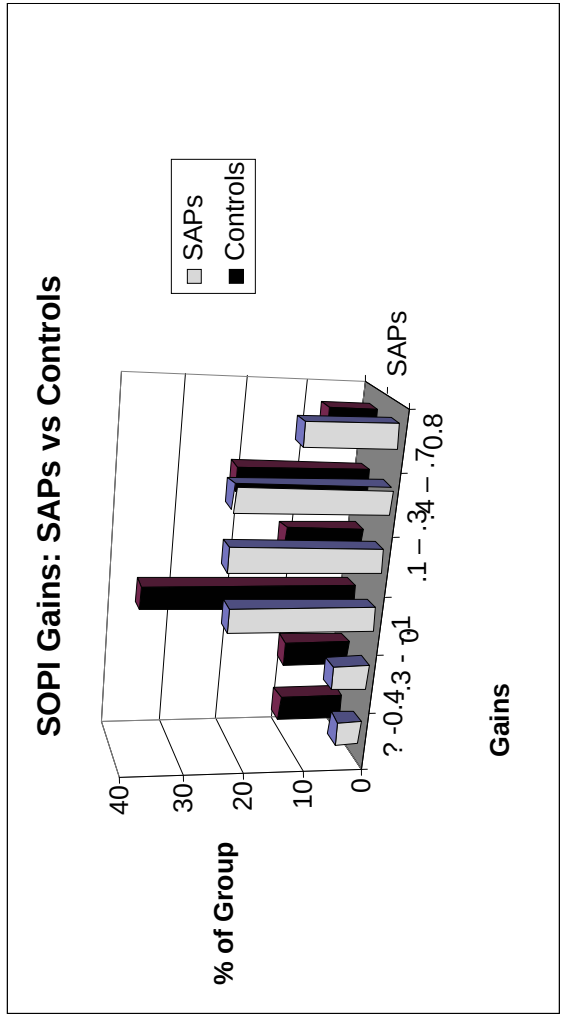
Since controls were enrolled in semester-length programs, we provide another (and perhaps fairer) comparison between controls and SAPS enrolled in programs abroad lasting from 8-18 weeks:

**Table 3: Oral Proficiency Gain: Study Abroad Participants (Program duration = 8-18 weeks) vs. Controls (All Languages)**

| | Pre-SOPI Mean Rating | Post-SOPI Mean Rating |
|---|---|---|
| SAPs (N=463) | 1.6 | 1.9 |
| Controls (N=138) | 1.7 | 1.8 |

SAPs' SOPI gains are still significantly larger than controls when analyzed in this way: $F = 16.472$; $df = 1$; $p < .05$

**Oral Proficiency Figure 1. Distribution of SOPI Gains: SAPs vs. Controls**



**Oral Proficiency Finding 2**

**Table 4: Oral Proficiency Gains: Males vs. Females; SAPs vs. Controls**

| | Mean Pre-SOPI rating | Mean Post-SOPI rating | N |
|---|---|---|---|
| Male SAP (N=260) | 1.6 | 1.8 | 260 |
| Female SAP (N=553) | 1.7 | 2.0 | 553 |
| Male control (N=39) | 1.7 | 1.8 | 39 |
| Female control (N=98) | 1.6 | 1.8 | 98 |

Male SAPs' oral proficiency ratings increased significantly more than did those of male control students ($F = 10.950$; $df = 1$; $p < .05$). Female SAPs' oral proficiency ratings increased significantly more than did those of female control students ($F = 15.980$; $df = 1$; $p < .05$). But Female SAPs' oral proficiency gains were significantly greater than Male SAPs' gains ($F = 4.965$; $df = 1$; $p < .05$).

**Oral Proficiency Finding 3**

**Table 5: Oral Proficiency Gains: Academic Major (All Languages; SAPs and Controls; N=737)**

| Academic Major | Mean Pre-SOPI Rating | Mean Post-SOPI Rating | Mean Pre-SOPI Rating | Mean Post-SOPI Rating |
|---|---|---|---|---|
| | SAPs | SAPs | Controls | Controls |
| Natural/physical science | 1.7 (N=24) | 2.2 | 1.4 (N=7) | 1.6 |
| Health science | 1.6 (N=9) | 1.8 | 1.5 (N=4) | 1.5 |
| Business (not international) | 1.5 (N=26) | 1.8 | 1.6 (N=8) | 1.7 |
| International business | 1.6 (N=37) | 2.0 | 1.7 (N=7) | 1.5 |
| Engineering | 2.1 (N=6) | 2.3 | 2.1 (N=1) | 2.1 |
| Humanities/social science | 1.7 (N=253) | 2.0 | 1.7 (N=36) | 1.8 |
| Foreign language | 1.7 (N=165) | 2.1 | 1.7 (N=31) | 2.0 |
| Other | 1.6 (N=98) | 1.9 | 1.5 (N=33) | 1.6 |

There is no significant relation between SOPI gains and academic major: SAPs: F = 1.281; df = 7; p = n.s.; controls: F = 0.879; df = 7; p = n.s. There is no significant difference between the oral proficiency gains of foreign language majors who studied abroad versus those who studied at their home institutions: F= 0.204; df = 1; p = n.s.

## Oral Proficiency Finding 4

**Table 6: Number of College Semesters Studying TL vs. SOPI Gain**

| | Mean Pre-SOPI rating | Mean Post-SOPI rating | Mean Pre-SOPI rating | Mean Post-SOPI rating |
|---|---|---|---|---|
| No. of Semesters | SAPs | SAPs | Controls | Controls |
| Less than 1 semester | 1.4 (N=4) | 1.7 | 1.8 (N=12) | 1.9 |
| 1-2 semesters | 1.8 (N=61) | 2.1 | 1.7 (N=35) | 1.8 |
| 3-4 semesters | 1.7 (N=353) | 2.0 | 1.5 (N=41) | 1.6 |
| 5-6 semesters | 1.6 (N=213) | 2.0 | 1.7 (N=25) | 1.8 |
| More than 6 semesters | 1.7 (N=51) | 1.9 | 1.7 (N=8) | 2.1 |

There was no significant difference in oral proficiency gains related to the number of college semesters that SAPs or control subjects had spent studying the target language: SAPs: $F = 0.801$; $df = 5$; $p$ = n.s.; controls: $F = 0.801$; $df = 5$; $p$ = n.s.

**Oral Proficiency Finding 5**

**Table 7: Time Previously Spent Living in Another Culture vs. SOPI Gains (SAPs only: N=678)**

| | N | Pre-SOPI Mean Rating | Post-SOPI Mean Rating |
|---|---|---|---|
| Never lived in another culture | 200 | 1.6 | 2.0 |
| Less than 3 months | 167 | 1.6 | 2.0 |
| 3 - 6 months | 125 | 1.6 | 1.9 |
| 7 - 11 months | 50 | 1.8 | 2.0 |
| 1 - 2 years | 51 | 1.8 | 2.1 |
| 3 - 5 years | 33 | 1.7 | 2.1 |
| 6 - 10 years | 26 | 1.7 | 2.0 |
| Over 10 years | 26 | 1.7 | 2.1 |

There was no significant relationship between prior experience living abroad and gains in oral proficiency during subsequent study abroad: $F = 1.038$; $df = 7$; $p > .05$.

**Table 8: Oral Proficiency Gains and Prior Study Abroad Experience**

| Prior Study Abroad Experience | N | Pre-SOPI Mean Rating | Post-SOPI Mean Rating |
|---|---|---|---|
| none | 349 | 1.6 | 2.0 |
| up to 1 month | 66 | 1.6 | 2.0 |
| 1 - 3 months | 109 | 1.8 | 2.1 |
| 4 - 6 months | 45 | 1.6 | 1.9 |
| 7 - 12 months | 28 | 1.9 | 2.1 |
| over 1 year | 40 | 1.8 | 2.1 |

There was no significant relationship between prior study abroad experience and gains in oral proficiency during subsequent study abroad: $F = 1.454$; $df = 5$; $p > .05$.

## Oral Proficiency Finding 6

**Table 9: Oral Proficiency Gain: SAPs vs. Controls (Spanish only)**

| | N | Pre-SOPI Mean Rating | Post-SOPI Mean Rating |
|---|---|---|---|
| Study Abroad | 113 | 1.6 | 2.0 |
| Control | 43 | 1.5 | 1.7 |

The oral proficiency of Spanish learners who studied abroad for one semester improved significantly more than that of control subjects taking Spanish for a semester at their home institutions ($F = 6.272$; $df = 1$; $p < .05$). On average, Spanish SAPs improved from below intermediate high on the pre-SOPI to advanced low on their post-SOPIs. On average, Spanish controls improved less than a half sub-level, remaining between intermediate mid and intermediate high.

**Oral Proficiency Finding 7**

**Table 10: Oral Proficiency Gain: SAPs vs. Controls (French only)**

| | N | Pre-SOPI Mean Rating | Post-SOPI Mean Rating |
|---|---|---|---|
| Study Abroad | 58 | 2.0 | 2.4 |
| Control | 36 | 2.0 | 2.0 |

The oral proficiency of French learners who studied abroad for one semester improved significantly more than that of control subjects taking French for a semester at their home institutions ($F = 10.066$; $df = 1$; $p < .05$). On average, French SAPs improved from just below advanced low on the pre-SOPI to just above advanced mid on their post-SOPIs, whereas French control students' oral proficiency did not improve, on average.

## Oral Proficiency Findings 8 and 9

**Table 11: Mean Pre- and Post-SOPI Ratings of SAPS in each Language Group**

| | N | Pre-SOPI Mean Rating | Post-SOPI Mean Rating |
|---|---|---|---|
| Arabic | 24 | 1.2 | 1.4 |
| Chinese | 25 | 1.3 | 1.3 |
| French | 58 | 2.0 | 2.4 |
| German | 113 | 1.9 | 2.3 |
| Japanese | 7 | 0.9 | 1.1 |
| Russian | 91 | 1.1 | 1.3 |
| Spanish | 113 | 1.6 | 2.0 |

Students studying different languages abroad showed wide differences in their pre-departure oral proficiency ($F = 71.911$; $df = 1$; $p < .05$). SAPs in the language groups differ in the magnitude of their gains on the SOPI test during study abroad ($F = 3.118$; $df = 6$; $p < .05$). The oral proficiency of SAPs of Arabic, Chinese, Japanese, and Russian improved significantly less than that of SAPs of French, German, and Spanish. ). The oral proficiency of SAPs of Spanish improved significantly less than that of SAPs of French and German. Note: Only SAPs in one-semester programs are included in this table.

**Oral Proficiency Finding 10**

**Table 12: Oral Proficiency Gains: SAPs vs. Controls (MCTLs only: N=693)**

| | N | Pre SOPI Mean Rating | Post SOPI Mean Rating |
|---|---|---|---|
| Study abroad | 598 | 1.8 | 2.2 |
| Control | 95 | 1.7 | 1.9 |

There is a significant difference between the SOPI gains of SAPs and controls studying MCTLs ($F = 18.163$; $df = 1$; $p < .05$). There is also a significant difference between the pre-SOPI ratings of SAPs and controls studying MCTLs ($F = 4.469$; $df = 1$; $p < .05$).

**Oral Proficiency Finding 11**

**Table 13: Oral Proficiency Gain: SAPs vs. Controls (LCTLs only: N=275)**

| | N | Pre-SOPI Mean Rating | Post-SOPI Mean Rating |
|---|---|---|---|
| Study Abroad | 232 | 1.1 | 1.3 |
| Control | 43 | 1.5 | 1.6 |

The SOPI ratings of LCTL SAPs increased significantly more than LCTL controls' ratings ($F = 9.403$; $df = 1$; $p < .05$). LCTL SAPS had significantly lower pre-SOPI ratings, on average, than LCTL controls: intermediate low for SAPS vs. between intermediate mid and intermediate high for controls ($F=26.784$, $df = 1$, $p < .05$).

**Oral Proficiency Finding 12**

**Table 14: Oral Proficiency Gain: Pre-SOPI Rating (Readiness & Threshold) (SAPs only; N=813)**

| | N | Mean SOPI Gain | Mean Post-SOPI Score |
|---|---|---|---|
| Novice-high | 83 | 0.4 | 1.2 |
| Intermediate-low | 160 | 0.5 | 1.6 |
| Intermediate-medium | 115 | 0.5 | 1.8 |
| Intermediate-high | 175 | 0.3 | 2.1 |
| Advanced-low | 147 | 0.2 | 2.3 |
| Advanced-Medium | 78 | 0.3 | 2.6 |
| Advanced-high | 43 | 0 | 2.8 |
| Superior | 13 | -0.2 | 2.8 |
| Total | 830 | 0.3 | |

There is a significant correlation between pre-SOPI scores (oral proficiency at the start of the study abroad program) and SOPI gain (oral proficiency improvement, shown here in the "Mean SOPI Gain" column): $F = 14.73$; $df = 9$; $p < .05$. SAPs in all languages improved, on average, 0.3 points on the 3-point SOPI/ACTFL scale. (The SOPI is not validated for learners below novice high, so the small novice low and novice mid samples are not included in this interpretation.)

Post hoc t-tests (Tamhane's) show that learners beginning study abroad with oral proficiency rated intermediate low or intermediate high improved significantly more than SAPs beginning at higher levels of rated proficiency (that is, intermediate high to superior). In addition, SAPs starting at novice high improved significantly more than SAPs initially rated advanced low, advanced high and superior. And SAPs starting with ratings of intermediate high, advanced low and advanced mid improved more than SAPS initially rated advanced high and superior.

**Oral Proficiency Finding 13**

**Table 15: Oral Proficiency Gains: Program Duration (All Languages, SAPs only; N = 810)**

| Duration of Program in Weeks | Pre-SOPI Mean Rating | Post-SOPI Mean Rating |
|---|---|---|
| 8 - 12 weeks (N=38) | 1.3 | 1.5 |
| 13 - 18 weeks (N=425) | 1.6 | 1.9 |
| 19-25 weeks (N=260) | 1.8 | 2.1 |
| 26 weeks-1 academic year (N=87) | 1.6 | 2.2 |

Note: Because only 20 SAPs in our sample participated in programs shorter than 8 weeks, they have been excluded from this analysis.

The data indicate, overall, that programs of progressively longer duration are associated with progressively greater improvements in oral proficiency, with the greatest differences occurring between one-semester programs and programs lasting longer than one semester: $F = 6.803$; $df = 3$; $p < .05$. SAPs in semester-long programs (8-12 weeks and 13-18 weeks) had significantly smaller SOPI gains than SAPs in longer programs (19-25 weeks). On average, SOPI ratings of SAPs in semester-long programs improved from below intermediate high to just above Intermediate high. Average SOPI ratings of SAPs in programs approaching two semesters in length improved from Intermediate high to advanced low. Average SOPI ratings of SAPs in programs lasting from 26 weeks to an academic year showed the greatest improvement, from below intermediate high to just above advanced low. However, the differences in SOPI gains between SAPs in semester-long programs and those in the longest programs (26-weeks-and academic year) only approached significance in post hoc t-tests, in part because of the disparity in the two samples' sizes and variances.

The 8-12 week category was used for semester-long programs (13-18 weeks) where the pre-SOPIs were administered later than the second week of the program and/or where the post-SOPI was administered earlier than the second week before the end of the program; that is, where the period for possible development was shorter than one full semester. The significantly smaller gain in SOPI ratings among the SAPs tested in the 8-12 week category may suggest a lower program duration limit for meaningful oral proficiency development.

**Oral Proficiency Finding 14**

**Table 16: Content Courses in Target Language (All Languages, SAPs only; N = 818)**

| Content Courses Taught in Target Language | N | Pre-SOPI Mean Rating | Post-SOPI Mean Rating |
|---|---|---|---|
| Yes | 663 | 1.7 | 2.1 |
| No | 155 | 1.1 | 1.3 |

Students who enrolled in content courses that were taught in the target language made greater gains in oral proficiency than those who did not: $F = 12.836$; $df = 1$; $p < .05$.

**Table 17: Oral Proficiency Gains: Target Language Courses (All Languages, SAPs only; N = 830)**

| Target Language Courses | N | Pre SOPI Mean Rating | Post SOPI Mean Rating |
|---|---|---|---|
| Yes | 710 | 1.6 | 2.0 |
| No | 92 | 1.8 | 2.1 |
| Combination | 28 | 1.6 | 1.9 |

There is no significant association between enrollment in target-language courses during study abroad and SAPs' SOPI gains: $F = 0.136$; $df = 2$; $p > .05$. The vast majority of SAPs attended programs that required target language instruction. Their average SOPI ratings improved from below intermediate high to just below advanced low. The smaller group of students who did not take target language courses entered with a higher average SOPI rating (intermediate high) and improved to advanced low. "Combination" in this table refers to students enrolled in programs that required only some to take language courses; the 28 students in this category are those whose scores on placement tests (administered just after their arrival at the sites) were relatively low, to the point that they were required to take such language courses.

**Oral Proficiency Finding 15**

**Table 18: Oral Proficiency Gain: Orientation w/Cultural Component Prior to Arrival All Languages, SAPs only; N = 617)**

| Orientation Prior | N | Pre-SOPI Mean Rating | Post- SOPI Mean Rating |
|---|---|---|---|
| Yes | 356 | 1.6 | 2.0 |
| No | 261 | 1.7 | 2.0 |

There is an association between SOPI gain and whether or not a SAP participated in a pre-departure orientation that included a cultural component: $F = 6.770$; $df = 1$; $p < .05$. SAPs who had such prior orientation improved their oral proficiency somewhat more than SAPs who didn't.

**Oral Proficiency Finding 16**

**Table 19: Oral Proficiency Gain: Type of Housing (All Languages, SAPs only; N = 621)**

| | Type of Housing Situation Lived in for the Majority of the Time | Mean N | N |
|---|---|---|---|
| Pre-SOPI rating | With students from the U.S. | 1.535 | 35 |
| | With international students | 1.728 | 28 |
| | With students from the host country | 1.749 | 49 |
| | With a host family | 1.6475 | 475 |
| | Other | 1.834 | 34 |
| Post-SOPI rating | With students from the U.S. | 1.835 | 35 |
| | With international students | 2.128 | 28 |
| | With students from the host country | 1.949 | 49 |
| | With a host family | 2.0475 | 475 |
| | Other | 2.134 | 34 |

Time X Type of Housing: $F = 0.839$; $df = 4$; $p > .05$

While we didn't find a relationship between type of housing and oral proficiency improvement, the unbalanced sample and the high Type II error risk suggest that this result should be viewed with caution (observed power = 0.269). For LCTL SAPs, the relation approaches significance ($F = 2.015$; $df = 4$; $p = 0.095$; $N = 162$), with students who lived with host families (N=105) gaining more (though not significantly more) than students in the other housing categories.

We did, however, find a statistically significant correlation between gains in oral proficiency and the percentage of time that MCTL students spent with their host family (percentage of time spent over past two months with host family: $r = 0.107$; $N = 507$). This finding points to an important distinction between simply living with a host family, and becoming more involved with the family, which presumably occurs as students spend progressively more time with host family members.

**Intercultural Finding 1**

**Table 1: IDI: Study Abroad Participants vs. Controls**

| SAPs and Controls | Mean | N | Std. Deviation |
|---|---|---|---|
| Pre–IDI score study abroad | 96.18 | 1163 | 14.27 |
| control | 94.02 | 134 | 13.22 |
| Post–IDI score study abroad | 98.55 | 1163 | 16.29 |
| control | 93.95 | 134 | 13.29 |

- t = 3.699; df = 182.432; p = .000.
- F = 4.151; df = 1; p = .003.

**Intercultural Finding 2**

**Table 2: Gender and IDI Gain (SAPs only; N = 1156)**

| | | N | Mean | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pre-IDI | SD | Post-IDI | SD | Change score |
| SAPs | Male | 384 | 94.31 | 14.68 | 93.81 | 17.22 | -.4919 |
| | Female | 772 | 97.19 | 13.97 | 100.94 | 15.29 | 3.745 |
| | *Total* | 1156 | 96.23 | 14.27 | 98.56 | 16.30 | 2.33 |
| Controls | Male | 36 | 95.12 | 12.78 | 95.42 | 13.72 | .3 |
| | Female | 98 | 93.62 | 13.42 | 93.41 | 13.16 | -.21 |
| | *Total* | 134 | 94.02 | 13.22 | 93.95 | 13.29 | -.07 |
| *Total* | | 1290 | 96.00 | 14.17 | 98.09 | 16.07 | 2.09 |

**Intercultural Finding 3**

**Table 3: Academic Major and IDI Gain (SAPs only; N = 835)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2-tailed) | |
| Never lived in another culture | 400 | 95.31 | 14.61 | 98.74 | 15.21 | 3.426 | 5.641 | .000 | .282 |
| Less than a year | 541 | 96.83 | 14.13 | 98.72 | 16.99 | 1.890 | 3.193 | .001 | .137 |
| 1-2 years | 66 | 97.42 | 14.85 | 100.16 | 15.58 | 2.734 | 1.742 | .086 | .214 |
| 3-5 years | 50 | 98.80 | 14.46 | 101.06 | 17.40 | 2.263 | 1.023 | .311 | .145 |
| 6-10 years | 26 | 96.67 | 14.65 | 96.43 | 12.92 | -.242 | -.098 | .923 | .019 |
| Over 10 years | 37 | 95.46 | 13.39 | 94.28 | 20.51 | 1.176 | -.417 | .679 | .069 |

The T-test showed a statistically significant IDI score change between pre- and post-tests for participants who had never lived in another culture or who had lived in another culture for less than one year. Participants who had lived in another culture from 1 – 10 years previous to study abroad did not have a statistically significant change in their IDI score.

Only participants who had traveled or lived abroad for less than a year prior to their study abroad experience showed a significant change in their post-IDI score.

- F = 1.373; df = 5; p = .232

Across all time categories, previous experience living in another culture was not statistically significant with respect to changes in IDI score between pre- and post-tests.

There is no correlation between prior living experience and pre-test intercultural proficiency.

**Intercultural Finding 4**

**Table 4: Prior Language Study and IDI Gain (High School and College) (SAPs only; N = 970)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2-tailed) | |
| 0-4 semesters | 66 | 96.46 | 15.53 | 97.37 | 17.35 | .915 | .405 | .687 | .050 |
| 5-8 semesters | 671 | 95.40 | 14.16 | 97.01 | 15.45 | 1.61 | 3.454 | .001 | .096 |
| 9-14 semesters | 233 | 96.55 | 13.53 | 99.18 | 16.00 | 2.63 | 3.165 | .002 | .207 |

Students with 5-8 semesters or 9-14 semesters of prior language study showed a statistically significant increase in their IDI score between their pre- and post-test IDIs. Students with 0-4 semesters of prior language study did not experience a statistically significant change.

- Before grouping high school with college: F = 1.852; df = 12; p = .037.
- After grouping high school with college: F = .724; df = 2; p = .485

## Intercultural Finding 5

**Table 5a: Previous Experience Living in Another Culture (SAPs only; N = 1120)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2-tailed) | |
| Never lived in another culture | 400 | 95.31 | 14.61 | 98.74 | 15.21 | 3.426 | 5.641 | .000 | .282 |
| Less than a year | 541 | 96.83 | 14.13 | 98.72 | 16.99 | 1.890 | 3.193 | .001 | .137 |
| 1-2 years | 66 | 97.42 | 14.85 | 100.16 | 15.58 | 2.734 | 1.742 | .086 | .214 |
| 3-5 years | 50 | 98.80 | 14.46 | 101.06 | 17.40 | 2.263 | 1.023 | .311 | .145 |
| 6-10 years | 26 | 96.67 | 14.65 | 96.43 | 12.92 | -.242 | -.098 | .923 | .019 |
| Over 10 years | 37 | 95.46 | 13.39 | 94.28 | 20.51 | 1.176 | -.417 | .679 | .069 |

The T-test showed a statistically significant IDI score change between pre- and post-tests for participants who had never lived in another culture or who had lived in another culture for less than one year. Participants who had lived in another culture from 1 – 10 years previous to study abroad did not have a statistically significant change in their IDI score.

Only participants who had traveled or lived abroad for less than a year prior to their study abroad experience showed a significant change in their post-IDI score.

- F = 1.373; df = 5; p = .232

Across all time categories, previous experience living in another culture was not statistically significant with respect to changes in IDI score between pre- and post-tests.

There is no correlation between prior living experience and pre-test intercultural proficiency.

**Intercultural Finding 6**

**Table 6: Intercultural Gains and Prior Study Abroad (SAPs only; N = 980)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2-tailed) | |
| None | 564 | 95.11 | 14.14 | 97.08 | 15.60 | 1.968 | 3.556 | .000 | .150 |
| Up to 1 month | 112 | 94.61 | 13.51 | 97.54 | 16.50 | 2.936 | 2.581 | .001 | .244 |
| 1-3 months | 154 | 95.89 | 12.39 | 97.39 | 14.46 | 1.506 | 1.501 | .136 | .121 |
| 4-6 months | 57 | 99.81 | 15.96 | 101.47 | 17.70 | 1.654 | .921 | .361 | .122 |
| 7-12 months | 44 | 96.97 | 16.23 | 98.23 | 17.99 | 1.267 | .677 | .502 | .102 |
| Over 1 year | 49 | 98.81 | 14.41 | 97.92 | 14.35 | -.8975 | -.618 | .540 | .088 |

T-test results show that, on average, participants with no prior study abroad experience, or experience of less than one month, showed a statistically significant increase in their IDI score between pre- and post-tests. However, for participants with more than a month of prior study abroad experience, there was no significant change.

- F = .666; df = 5; p = .649

Participants with the least prior study abroad experience—the majority of participants in the study—did show a statistically significant change in their IDI score between pre- and post-tests. However, they started out fairly low in their IDI scores. The analysis suggests that participants who have the furthest to go, in terms of their intercultural learning, experience the greatest change.

**Intercultural Finding 7**

**Table 7a: Program Duration and IDI Gain (SAPS & Controls; N = 1290)**

| | | N | Mean | | | | |
|---|---|---|---|---|---|---|---|
| | | | Pre-IDI | SD | Pre-IDI | SD | Change Score |
| SAPs | Male | 384 | 94.31 | 14.68 | 93.81 | 17.22 | -.4919 |
| | Female | 772 | 97.19 | 13.97 | 100.94 | 15.29 | 3.745 |
| | *Total* | 1156 | 96.23 | 14.27 | 98.56 | 16.30 | 2.33 |
| Controls | Male | 36 | 95.12 | 12.78 | 95.42 | 13.72 | .3 |
| | Female | 98 | 93.62 | 13.42 | 93.41 | 13.16 | -.21 |
| | *Total* | 134 | 94.02 | 13.22 | 93.95 | 13.29 | -.07 |
| *Total* | | 1290 | 96.00 | 14.17 | 98.09 | 16.07 | 2.09 |

**Table 7b: Program Duration and IDI Gain(SAPs only; N = 1163)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Pre-IDI | SD | Change Score | T | Sig. (2-tailed) | |
| 1-3 weeks | 3 | 87.16 | 6.15 | 89.73 | 12.69 | 2.564 | .237 | .834 | .137 |
| 4-7 weeks | 29 | 95.46 | 11.88 | 94.17 | 17.15 | -1.296 | -.667 | .510 | .124 |
| 8-12 weeks | 18 | 100.38 | 11.62 | 101.60 | 17.22 | 1.221 | .349 | .731 | .082 |
| 13-18 weeks | 742 | 96.02 | 15.08 | 99.42 | 16.50 | 3.398 | 6.994 | .000 | .257 |
| 19-25 weeks | 242 | 96.02 | 13.09 | 96.57 | 14.36 | .5479 | .755 | .451 | .049 |
| 26 weeks- 1 academic year | 129 | 97.14 | 12.45 | 98.00 | 17.87 | .8496 | .605 | .546 | .053 |

- F = 2.653; df = 5; p = .037

**Intercultural Finding 8**

**Table 8: Target Language Content Courses and IDI Gain (SAPs only; N = 1163)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | IDI-1 | SD | IDI-2 | SD | Change Score | T | Sig. (2-tailed) | |
| Yes | 666 | 97.90 | 13.87 | 101.18 | 16.08 | 3.271 | 6.474 | .000 | .251 |
| No | 405 | 94.52 | 14.86 | 95.38 | 16.42 | .860 | 1.245 | .214 | .062 |
| Combination | 92 | 91.01 | 12.38 | 93.50 | 13.53 | 2.489 | 2.235 | .028 | .233 |

- F = 4.221; df = 2; p = .015

To promote more effective student learning, study abroad professionals should enroll students in content courses to improve both their language oral proficiency and their intercultural skills.

**Intercultural Finding 9**

**Table 9: Target language courses and IDI Gain (SAPs only; N = 1094)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2-tailed) | |
| Yes | 821 | 97.30 | 14.34 | 100.11 | 16.65 | 2.813 | 5.854 | .000 | .204 |
| No | 273 | 93.84 | 13.88 | 95.07 | 14.63 | 1.234 | 1.709 | .089 | .103 |

The t-test shows that taking target language courses was statistically significant in contributing to IDI gains.

- F = 2.873; df = 1; p = .090

**Intercultural Finding 10**

**Table 10: Class Composition and IDI Gain (SAPs only; N =1163)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2- tailed) | |
| Study mainly alongside other U.S. students | 630 | 96.57 | 14.67 | 99.75 | 16.64 | 3.182 | 5.979 | .000 | .238 |
| Study alongside U,S,, International, and host country students | 173 | 95.24 | 14.33 | 97.84 | 15.78 | 2.596 | 2.953 | .004 | .224 |
| Study mainly alongside international students | 11 | 90.83 | 15.35 | 95.76 | 15.63 | 4.992 | 1.615 | .137 | .487 |
| Study mainly alongside host country students | 349 | 96.12 | 13.46 | 96.83 | 15.80 | .7080 | .967 | .334 | .051 |

On average, students who had classes mainly alongside other students from the United States and in classes with a mix of students (other U.S., international, and/or host country students) showed a statistically significant increase in their score between their pre- and post-test IDIs.

Students enrolled directly in regular university courses mainly alongside host country students showed almost no progress in their intercultural learning, progressing from an IDI score of 96.12 to only 96.83. However, this finding may be subject to a Type II error due to small and/or unbalanced samples.
F = 2.802; df = 3; p = .039

**Intercultural Finding 11**

**Table 11: Group Mentoring on Site (SAPs only; N = 931)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2- tailed) | |
| Never | 359 | 94.65 | 13.93 | 95.50 | 15.23 | .831 | 1.214 | .226 | .064 |
| Rarely | 302 | 96.27 | 13.82 | 97.88 | 14.62 | 1.607 | 2.247 | .025 | .129 |
| Sometimes | 179 | 96.91 | 14.30 | 99.09 | 16.99 | 2.178 | 2.301 | .023 | .172 |
| Often | 60 | 96.65 | 17.09 | 99.80 | 17.21 | 3.143 | 1.951 | .056 | .252 |
| Very often | 31 | 94.89 | 12.53 | 99.91 | 18.46 | 5.016 | 1.987 | .056 | .357 |

The t-test shows that group mentoring on-site was statistically significant for students who received mentoring rarely and sometimes. Because of small and/or unbalanced sample sizes, the other categories were not statistically significant, though mentoring "often" and "very often" approach significance.

- F = 1.194; df = 4; p = .312

While the samples are relatively small, students who received mentoring "often" to "very often" show dramatically greater gains in intercultural development; the "very often" category shows the largest effect size, and "often" the second largest.

**Intercultural Finding 12**

**Table 12: Perceived Cultural Similarity/ Dissimilarity (SAPs only; N = 864)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2-tailed) | |
| 1 very similar | 29 | 95.51 | 15.04 | 93.62 | 16.75 | -1.896 | -.975 | .338 | .181 |
| 2 ↑ | 146 | 93.96 | 14.68 | 93.53 | 15.44 | -.4315 | -.438 | .662 | .036 |
| 3 | 350 | 95.07 | 13.96 | 97.66 | 15.72 | 2.584 | 3.844 | .000 | .205 |
| 4 ↓ | 293 | 97.67 | 13.77 | 99.96 | 14.83 | 2.284 | 3.244 | .001 | .190 |
| 5 very dissimilar | 46 | 95.68 | 14.06 | 94.78 | 18.81 | -.9020 | -.384 | .703 | .057 |

On the cultural similarity-dissimilarity variable, participants who felt their culture was "somewhat dissimilar" to "dissimilar" from the host culture had a statistically significant change in their IDI score between their pre- and post-tests. However, participants who felt their culture was either "very similar," "similar," or "very dissimilar" from the host culture did not show a statistically significant change in their IDI score.

- F = 2.783; df = 4; p = .026

**Intercultural Finding 13**

**Table 13: Intercultural Learning Gains: Housing (SAPs only; N = 894)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change score | T | Sig. (2- tailed) | |
| With U,S. students | 194 | 93.51 | 14.43 | 96.88 | 14.15 | 3.368 | 4.413 | .000 | .317 |
| With international students | 69 | 94.88 | 14.75 | 93.59 | 18.66 | -1.289 | -.688 | .494 | .083 |
| With host country students | 118 | 96.22 | 14.24 | 98.30 | 14.86 | 2.084 | 2.055 | .042 | .189 |
| With host family | 513 | 96.62 | 13.88 | 97.68 | 15.84 | 1.066 | 1.828 | .068 | .081 |

The t-test indicates that participants who lived with students from the United States or with students from the host country showed a statistically significant increase in their IDI score between their pre- and post-tests. However, students who stayed with international students or with a host family did not experience statistically significant change.

- F = 2.823; df = 3; p = .038

**Intercultural Finding 14:**

The "challenge/support" hypothesis found strong support in three related data sets. Each shows the extent to which learning is correlated with the amount of time students spent with people from the host culture, as opposed to spending time with other U,S. citizens.

The first table shows how much students benefited from spending time with members of their host families:

**Table 14a: Host Family (SAPs only; N = 572)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2-tailed) | |
| 1: 1~25% | 445 | 96.85 | 13.67 | 98.03 | 16.20 | 1.172 | 1.823 | .069 | .086 |
| 2: 26~50% | 120 | 94.98 | 13.81 | 98.34 | 14.09 | 3.366 | 2.904 | .004 | .265 |
| 3:51~75% | 7 | 94.38 | 8.84 | 99.33 | 10.66 | 4.947 | 1.723 | .136 | .651 |
| 4:76~100% | 0 | ------- | | ------- | | ------- | -------- | ---------- | |

On this variable, the t-test indicates that the most statistically significant IDI score difference, between the pre- and post-test, was for those participants who spent from 26-50% with their host family. The greatest actual IDI score came in the 51-75% category; however, there were only seven respondents in this category, the effect size was large, and the t-test results were thus not statistically significant. None of the participants spent 76-100% of their time with their host family.

- F = 1.490; df = 2; p = .226

**Table 14:. Time Spent with Other U.S. Nationals (SAPs only; N = 923)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2- tailed) | |
| 1: 1~25% | 231 | 96.60 | 14.69 | 99.11 | 15.66 | 2.509 | 3.308 | .001 | .218 |
| 2: 26~50% | 402 | 95.50 | 13.78 | 97.16 | 15.64 | 1.648 | 2.477 | .014 | .124 |
| 3:51~75% | 212 | 94.48 | 14.09 | 96.19 | 15.01 | 1.710 | 2.095 | .037 | .144 |
| 4:76~100% | 78 | 96.52 | 14.64 | 95.56 | 17.50 | -.956 | -.556 | .580 | .063 |

The amount of time spent with other participants from the United States was significant from 1-75%. The 76-100% category was not significant. The effect size of 1-25% is the largest, meaning that intercultural gains are greatest when students spent less than 25% of their time with other U.S. nationals.

- F = 1437; df = 3; p = .230

**Table 14c. Host Country People (SAPs only; N = 924)**

| | N | Mean | | | | | | | Effect size (Cohen's *d*) |
|---|---|---|---|---|---|---|---|---|---|
| | | Pre-IDI | SD | Post-IDI | SD | Change Score | T | Sig. (2- tailed) | |
| 1: 1~25% | 737 | 95.55 | 13.89 | 96.98 | 15.23 | 1.437 | 3.137 | .002 | .119 |
| 2: 26~50% | 153 | 96.65 | 14.68 | 99.44 | 18.08 | 2.795 | 2.188 | .030 | .185 |
| 3:51~75% | 28 | 96.47 | 15.38 | 96.06 | 15.86 | -.411 | -.220 | .828 | .042 |
| 4:76~100% | 6 | 88.12 | 9.53 | 86.39 | 13.34 | -1.733 | -.359 | .734 | .147 |

The amount of time participants spent with people from the host country was statistically significant from 1-50%; spending more time (51-75% and 76-100%) with host nationals was not significant.

- F = .858; df = 3; p = .4463

The amount of time participants spent with people from the host country was not statistically significant across all percentage categories between Time I and Time II.

These last three data sets, which considered together summarize the impact of student contact with host nationals, suggest a boundary where the "challenge/support" hypothesis is concerned. It is striking that students who spent the most time with host nationals did not improve as much as those who spent less time. There is a point beyond which contact with host nationals becomes counter-productive. Spending too much time with host nationals apparently poses challenges that most students cannot overcome.
Students who spent the least amount of time with host nationals started out with the lowest IDI scores, suggesting again the importance of having trained on-site resident staff to motivate students to spend part of their time with host nationals.

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## Notes

[1] This study was discussed five years ago, while still in its data-collection phase (2004), see "A Report at the Half-Way Mark: The Georgetown Consortium Project." *Frontiers: The Interdisciplinary Journal of Study Abroad,* X, 101–16.

[2] The study also aimed to measure the extent to which students made gains in competencies associated with learning in four broad disciplinary areas: business, engineering, humanities, and physical/medical sciences. Faculty from the four partner institutions identified competencies that they believed students in these four areas should acquire or develop through studying abroad. The study's three outside consultants developed an instrument designed to measure student competencies from each of these four broad disciplinary areas. However, as only a small amount of data was collected during field testing of the instrument, the analysis was inconclusive. The result was the cancellation of additional testing of disciplinary learning in this particular study.

[3] While we set out to collect data from 10 languages, we were able to work with only seven. Political events in Israel and Indonesia significantly reduced the enrollment of U.S. students in both countries, and insufficient numbers of U.S. students in Niger effectively eliminated Hebrew, Indonesian, and Hausa from the study.

[4] On the need for giving "more emphasis to experiential learning" abroad, see Chambers & Chambers, 2008, p. 152.

[5] Dr. Brian Whalen, President and CEO of the Forum on Education Abroad, personal communication, September 25, 2008.

[6] Assessing outcomes is one of the Forum's five goals areas. See the association's mission statement at http://www.forumea.org.

[7] This is not to say that the paradigm shift to learner-centered education driven by these undercurrents has swept all U.S. campuses. Nor do we mean to suggest that all, or even most, U.S. faculty are now committed to learner-centered practices in their teaching. U.S. institutions, disciplines, and faculty continue to display considerable diversity in attitudes about teaching and learning. Each of us has faculty colleagues who continue to embrace straightforward lecturing as their primary or only means of engaging their undergraduate students. There is, in fact, significant resistance, from students as well as faculty, to learner-centered education, in spite of strong research findings about the effectiveness of learner-centered approaches. See Weimer (2002), pp. 153–166, for an effective discussion of the resistance to learner-centered teaching.

[8] See also the section, "Planning for an Educational Module," which encourages identifying learning outcomes in course design.

[9] Vande Berg (2007), p. 398 discusses some of the implications of this gap between student expectations about learning abroad and the reality of what they encounter.

[10] The widespread practice of using minimum GPAs as an eligibility requirement for studying abroad reflects the important traditional assumption that students who learn well at home will normally learn well abroad. That assumption does not accommodate students' capacity for coping with cultural differences and whether the program features the sorts of learning interventions highlighted by this study.

[11] Savicki (2008), p. 2, suggests a fundamental difference between these two groups—the first focuses on "international" and "didactic" learning based in academic disciplines, while the second focuses on "intercultural" and "developmental" learning. See also Rubin & Sutton (2001), Engle & Engle (2003).

[12] By 2003 each of these intervention strategies offered a number of well-known examples. For more than a quarter century, the University of the Pacific had offered students credit-bearing pre-departure and reentry courses that focused on their learning abroad (see LaBrack, 1999–2000a, 1999–2000b.) Kalamazoo College had, since the early 1990s, required study abroad participants to enroll in a 10-week pre-departure orientation program on campus that focused significantly on intercultural learning. At about the same time, the University of Notre Dame began offering a research-based reentry program that was also focusing on student learning.

[13] In 2004–2005, Loren Ringer, then resident director of CIEE's program in Rennes, France, developed a component that had, by 2007, become a standard, non-credit part of the program. During informal weekly meetings, participants discussed basic intercultural principles. For many years, the American University Center of Provence has required a credit-bearing "French Practicum" course that continues to meet twice weekly with the aim of advancing students' intercultural learning.

[14] One of the Forum on Education Abroad's five main goals is outcomes assessment research, an indication of its growing importance among those designing and organizing study abroad programs. See the Forum's mission statement at www.forumea.org.

[15] Another measure of the growing interest in research is an annual pre-NAFSA conference workshop on study abroad and other aspects of international education that has been offered since 2004. Its 2010 workshop will be required as part of its training program for study abroad professionals. In addition, the Forum on Education Abroad has offered sessions and workshops in research design and research applications since 2006. Also, since 2006, the Association of International Education Administrators has offered pre-conference workshops on assessing learning outcomes.

[16] The Summer Institute for Intercultural Communication, organized and operated by the Intercultural Communication Institute (ICI), has since 1987 provided more than 10,000 participants with intercultural courses. Janet Bennett, personal communication, September 6, 2008.

[17] Many U.S. institutions and organizations now offer courses on students intercultural learning abroad: (a) The University of Minnesota's "Maximizing Study Abroad" (Cohen, Paige, Shively, Emert, & Hoff, 2005); (b) Bellarmine University and Willamette University collaborate on a for-credit on-line course on intercultural learning for some of their students abroad (Lou & Bosley, 2008); (c) The Council on International Educational Exchange (CIEE) piloted a "Seminar in Living and Learning" at 12 of its programs during fall semester, 2008; (d) The American Heritage Association requires its students at Vienna, Sienam, and Oviedo to enroll in an intercultural communication course (Arrué, 2008; Binder, 2008; Minucci, 2008).

[18] On students retreating from cultural engagement, see Savicki, 2008, p. 74.

[19] We excluded the 20 SAPs in our sample who participated in programs shorter than eight weeks. The short interval between their pre- and post-SOPIs would have increased the probability of a test-familiarity/learning effect.

[20] The largest single sample of SAPs and most of the control subjects came from Georgetown University.

[21] We are grateful to the study abroad providers that tested students enrolled in their programs: AUCP (the American University Center of Provence), Boston University, the Council on International Educational Exchange (CIEE), the Institute for the International Education of Students (IES), and Semester at Sea.

[22] Engle and Engle, 2003, p. 4, note that their classification is focused on "culture-based study abroad."

[23] Intermediate mid to advanced low ratings describe the range of oral proficiency developed by most students in this study. In interpreting the quantitative findings (oral proficiency gains), it is important to "translate" those numerical equivalents back into their respective qualitative rating levels. See ACTFL Rating Level Descriptors at: http://www.sil.org/lingualinks/languagelearning/OtherResources/ACTFLProficiencyGuidelines/contents.htm.

[24] When the IDI is taken on-line, no qualified rater is needed: the test is machine scored.

[25] Our analysis failed to identify any significant differences in IDI scores between the post- and post/post-tests; hence, the review of IDI data focuses only on differences between pre- and post-test data, and on the extent to which those differences are correlated with various student characteristics and program elements.

[26] Because the study included programs of varying lengths and because all of the controls were tested at the beginning and end of a semester of target language study at their home institutions, Figure 1 in the Research Tables and Statistics section includes only the 425 SAPs who were enrolled in semester-length programs.

[27] Liskin-Gasparro (1982) *ETS Oral Proficiency Testing Manual*. Princeton, NJ: Educational Testing Service.

[28] It is possible, even likely, that the target language abilities elicited by the SOPI, as rated by the ACTFL scale, do not adequately capture such high-ability proficiencies as, for example, dialect acquisition, and narrative and pragmatic competence included among SOPI performance samples.

[29] Engle and Engle (2004), p. 234: "For most students, roughly successful communication is enough. To progress beyond this point, and to arrive at truly precise, subtle foreign language expression, means for most language learners a new, significant effort of concentration and attention. If students are more or less comfortable in their language use, and can make themselves understood, they may become complacent."

[30] Engle & Engle (2004), p. 228. Lilli Engle, 2008, personal communication, September 22, additionally reports that student language performance, as measured on *le Test d'Evaluation du Français* (TEF), has improved through a number of interventions, including having French language professors explain to students that they are being evaluated in their use of French by different standards than those that they had become accustomed to at home.

[31] For example, a member of a host family could be trained to serve, in a limited capacity, as a target language coach. According to our observations, some U.S. students housed with host families develop a range of simple rejoinders that allow them to move a conversation forward without having to say much more than, "Oh really?", "I had no idea—tell me more!", "Who told you that?", "And then what did he say?", and so on. The host family language coach might be trained, among other things, to ask students to narrate events in the past at mealtime (a more difficult task than simply offering rejoinders): "What did you do at school today?", What did you do last night?", and so on.

[32] While female SAPs gained, on average, 3.75 points on the IDI, 34.8% of those studying on semester programs (the great majority studied for a semester abroad) in fact gained nothing or lost ground.

[33] Steinfatt summarized the research on this hypothesis and concluded that there was in fact some evidence to support the view that language plays a significant role in shaping the way that native speakers think.

[34] There are no significant correlations between SOPI Gain and IDI gain (Post IDI DS minus Pre IDI DS), nor between SOPI Gain and any 'change scores' (Post minus Pre IDI) on the major subscales: DD, R, AA, EM (Ns=557–649). There are no significant correlations between SOPI Gain and any "change2 scores" (Post/Post minus Pre IDI) on the major subscales: DD, R, AA, EM (Ns=322–330). We've left out of this analysis the SAPs who studied in the UK or elsewhere in the English-speaking world since their intercultural learning took place in a non-second language context.

[35] Paige was a lead member of the team that carried out the Maximizing Study Abroad curriculum development project; he was the lead co-author of the three Maximizing Study Abroad books, principal investigator of the Department of Education Title VI-funded Maximizing Study Abroad research project, and developer of the course based in this project that some University of Minnesota students are completing while studying abroad. Vande Berg is leading the CIEE Student Learning Project, including the development of the curriculum for the "Seminar in Living and Learning Abroad" and the training of the resident directors who are now piloting this course abroad.

[36]The American University Center of Provence (AUCP) program provides an example of a "reverse-engineered" educational experience abroad: Engle and Engle identified the program learning goals as their starting point, and then developed the courses and activities that they believed would allow students to achieve those learning goals. The resulting study abroad program offers students a structured experience that intervenes in their learning in various ways, including through a credit-bearing course, "French Practicum," that provides support for students' intercultural learning. The AUCP has been collecting pre- and post-IDI data for more than seven years. L. Engle reports that the IDI scores of 366 students who studied at the AUCP for over 14 semesters showed, on average, an improvement of 11.97 points. Females had average gains of 12.55, and males average gains of 11.85 IDI points.

[37]Lou and Bosley designed, and continue to deliver, an intercultural course that they and, respectively, their Willamette University and Bellarmine University colleagues teach, from the two home campuses via Blackboard, to some of their students who are enrolled in various programs abroad. Lou reports that the IDI scores of eight Willamette University students who in fall 2007 took the intercultural course abroad improved by an average of 10.27 points, and that the 14 students who in spring 2008 students took this course abroad improved by an average of 9.4 points. Bosley reports that the IDI scores of 12 Bellarmine students who in fall 2007 took the intercultural course abroad showed an average improvement of 9.91 points in comparison with a group of students at home who did not take this course. In spring 2008, the 15 Bellarmine students who completed this course abroad improved an average of 8.19 points between their pre- and post-IDIs. Lou and Bosley reported the spring semester results in separate personal communications on September 25, 2008.

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