Assessing the Impact of a Strategies-Based Curriculum on Language and Culture Learning Abroad

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Authors's Note: *The authors would like to extend a special thanks to research assistants Holly Emert and Joe Hoff for their assistance with the data analysis and for their comments that helped to improve this article, and to Takuya Yoshida (Nagoya University) for his work on the factor analysis.*

Introduction

Rationale for the Study

During the past 20 years, the internationalization of higher education has become a major feature of educational reform throughout the world and study abroad has been identified as a major component of internationalization. Today, over one million tertiary level students are studying in countries other than their passport nations; over 160,000 students from the U.S. were studying abroad in 2002-2003 (International Institute of Education, 2004). Study abroad is clearly a global educational phenomenon, a "growth industry" in higher education, and contributes to broader internationalization efforts in colleges and universities. In an era of ever-greater accountability and cost-benefit analysis, hard evidence is being demanded to demonstrate that investments in various forms of education, including study abroad, are worthy ones that are realizing their learning objectives. In the case of study abroad, the learning objectives most commonly mentioned are intercultural competence, second language acquisition, and learning in the disciplines. Yet, the research evidence is incomplete and, in the case of second language learning, somewhat contradictory (Freed, 1995).

What the research literature suggests is that despite the seemingly enormous potential for the study abroad environment to produce gains in language acquisition and intercultural competence, students who study abroad often do not take full advantage of the language or culture learning experiences afforded them. Based on her literature review, Pelligrino (1998) concludes that students' perceptions of language learning while abroad, combined with cross-cultural issues, can limit their learning inside and outside of the classroom. For example, they tend to view classroom learning as much less important than learning from interactions with hosts (Miller & Ginsberg, 1995), and thus may not take full advantage of it. Second, the students assume that they will learn language from mere exposure to native speakers – the "language myth" (Wilkonson, 1997), a perception that can lead them to be rather casual about language learning. Third, they still view language academically, that is, as a static linguistic system with rules and one way of communicating, hence are not alert to learning the subtle nuances and variations of language use that could be gained from everyday exposure (Miller & Ginsberg, 1995). As a result, students are very often not properly equipped to make the most of their time spent in a study abroad program.

This situation is not surprising considering that students who go on study abroad programs frequently leave without any formal preparation for language and culture learning in the field and without materials specifically intended to assist them. While there are books that focus on second-language learning strategies (e.g., Cohen, 1990; Kutash, 1990; Brown, 1991; Rubin and Thompson, 1994), these works are academic in nature and do not provide study abroad students or professionals working with these students user-friendly and practical tools to make use of the wealth of research on language strategies. In addition, a sizable literature on intercultural orientation, training, and education, some of the best-known works being Brislin and Yoshida (1994), Cushner and Brislin (1997), Kohls (2001), Landis, Bennett, and Bennett (2003), Landis and Bhagat (1996), Mumford and Fowler (1995, 1999), Paige (1993), Singelis (1998), and Storti (1998, 2001). However, there does not yet appear to be in place a comparable support program for university students going abroad that offers specific language and culture learning strategies in one package and provides inventories to orient them to the use of such strategies.

It should also be noted that while a great deal has been written about study abroad (Chao, 2001; Comp, 2004), there has been a consistent call for more rigorous research which would employ, for example, longitudinal and experimental designs, valid and reliable instruments, multiple research (quantitative and qualitative) approaches, and larger samples (Sell, 1983; Stimpfl and Engberg, 1997). This study was designed to address most of these research issues.

The purpose of this study was to explore the impact of the study abroad experience, in general, and the impact of a curriculum intervention, in particular, on students' intercultural development, second language acquisition, and employment of learning strategies related to language and culture. Cohen and Paige – two of the authors of this article – were the senior authors of a three-volume set of guidebooks, the *Maximizing Study Abroad Guides* which were intended to enhance overseas students' language and culture learning through a strategies-based approach. By utilizing a scientifically rigorous set of research procedures, we sought to ascertain the impact and efficacy of the *Students' Guide* – one of the volumes in the series – as well as to test a set of hypotheses about the learning outcomes associated with study abroad.

Overview of the *Maximizing Study Abroad* Guides

The *Maximizing Study Abroad* materials used in this research program were developed by the authors and their colleagues in response to a perceived need for materials that could systematically prepare and support students in their language and culture learning. As Paige and Kappler (1998), LaBrack (1993), and others have pointed out, the study abroad field has been highly uneven in the level of support for language and culture learning available to students. We surmised that students in general were not necessarily aware of the specific strategies that could facilitate and enhance their learning while abroad, had a limited range of such strategies for learning language and culture, used them sporadically at best, and even in the best of circumstances lacked an overall strategic plan for making the most of their study abroad experience. We designed the *Guides* and, later, the research program to examine these assumptions.

As a result of our interest in and analysis of language and culture learning in the study abroad context, we embarked on a four-year writing project that culminated in the publication of three *Maximizing Study Abroad* volumes – a self-study textbook for students and companion volumes for study abroad program professionals and language instructors, two populations very directly involved in the lives of sojourning students. The *Guides* were based on the following assumptions. First, strategies for language and culture learning can be taught explicitly in the classroom, can be acquired by students via self-access to the *Students' Guide*, and can be facilitated by study abroad professionals. Second, language and culture learning can be enhanced if students become aware of the range of strategies that they can employ to learn and use a foreign language and to interact with another culture. Third, written materials can help students learn on their own as well as help study abroad professionals and language instructors prepare their students to be more effective language and culture learners.

The *Guides* were written with specific criteria in mind. In order to help study abroad students learn both language and culture more effectively, they would (1) be generalizable across study abroad sites, cultures, and languages, (2) emphasize a strategies-based approach to language and culture learning, (3) address all three phases of the experience (pre-departure, in-country, and re-entry), (4) assist students, program professionals, and language instructors, (5) be based on theory and research about language acquisition and intercultural competence, and (6) be flexible in their application – they could be used in a self-study format (*Students' Guide*), an orientation program, and a formal course.

Overview of the *Maximizing Study Abroad* Research Project

The research has focused on the volumes' three audiences: students, study abroad program professionals, and language instructors. While the focus of this paper is on the students, let us briefly mention the other two components. First, 13 study abroad program professionals used the *Program Professionals' Guide* in advising, pre-departure orientations, and on-site programs during fall 2003 and spring 2004. Their experiences were documented in several forms: e-journals, an exit questionnaire, and an exit interview. Second, a case study was conducted with four language instructors, three of whom were developing a curriculum for their Spanish language course and one for her French course, integrating activities from the *Language Instructors' Guide*. They shared their experiences with the research team via monthly feedback, interviews during and at the end of the course, and an exit focus group interview. The data from these last two components are currently being analysed.

Study Abroad Students

The student component of the study was designed to examine in detail how the *Students' Guide* specifically and the study abroad experience in general might impact four learning outcomes: second language gain, intercultural sensitivity, language learning strategies, and culture learning strategies. A sample of 86 U.S. university students was drawn for this phase of the research. This article will deal with four of the research questions examined in this study:

1. How can strategies for learning and using culture and language be conceptualized and measured?
2. How do students compare on intercultural sensitivity, culture strategy use, and language strategy use before and after a study abroad experience?

3. How do study abroad students receiving a language and culture strategy intervention compare to those who do not with respect to intercultural sensitivity and reported culture strategy use?
4. How do study abroad students receiving a language and culture strategy intervention compare to those who do not with respect to reported language strategy use?

Method

Sample

The sample consisted of 86 students from seven Minnesota colleges and universities who had signed up to participate in a study abroad program located in a Spanish- or French-speaking country and had studied Spanish or French for a minimum of three semesters, or the equivalent, prior to study abroad. Recruitment efforts in fall semester 2002 and spring 2003 produced two cohorts of students, 42 in cohort A; 44 in cohort B. Cohort A students were abroad in spring semester 2003 programs and cohort B students in fall 2003.

Students in both cohorts were randomly assigned to the control group (C group) or the experimental group (E group). In cohort A there were 21 students in each of the E and C groups. Cohort B began with 23 students in the E group and 23 students in the C group, but two dropped out of the E group before the end of the study.

Figure 1 shows selected demographic characteristics of the students in the sample. As can be seen, females outnumbered males, Spanish language students were more numerous than those studying French, sophomores and juniors were in the majority, E and C groups were approximately equal, and the students were studying in one of 13 different Spanish or French speaking countries. In addition to the information presented in Figure 1, the data showed that the respondents came from seven different Minnesota colleges and universities, represented 38 different majors, and while abroad were living in 32 different cities. English was the native language of 82 students, while the remaining four listed Bosnian, Russian, Hmong, and French as their mother tongues. The French speaker was studying abroad in a Spanish-speaking country.

Figure 1: Descriptive Statistics of the Sample

Variable	Values	Number	% of Sample
E and C groups	E group	42	49
	C group	44	51
Gender	Female	67	78
	Male	19	22
Language Studied Abroad			
	French	19	22
	Spanish	67	78
Year Rank in School			
	Freshman	4	5
	Sophomore	32	37
	Junior	41	48
	Senior	9	10
Destination Countries			
	Spain	38	44
	France	17	20
	Mexico	6	7
	Chile	6	7
	Argentina	4	5
	Costa Rica	4	5
	Ecuador	3	4
	Guatemala; Cuba	2 (each)	2 (each)
Cameroon; Dominican Republic;	Panama; Senegal	1 (each)	1 (each)
Total Sample	*86*		

Data Collection: Instruments, E-Journals, Interviews

Instruments

Two demographic questionnaires were constructed by the research team, the first being the Background Questionnaire, administered prior to the students' departure, and second, the Exit Language Contact Profile, which was administered at the conclusion of the semester abroad. The former solicited information regarding demographic characteristics such as age, gender, and prior intercultural experience. The latter sought information about their language learning experiences (such as amount and frequency of exposure to the target language) along with data on the students' overseas living arrangements, study abroad programs, and types of classes taken. Both of these surveys were based in part on instruments developed by Freed, Dewey, Segalowitz, and Halter (2004). A third instrument, the Follow-Up Interview Protocol, is described below. The four learning outcomes – intercultural sensitivity, language gain, culture learning strategies, language learning strategies – were measured by the following instruments:

Intercultural Development Inventory (IDI) (Hammer & Bennett, 1998, 2001).

The *IDI* was used to measure intercultural sensitivity. In our view, it was the most robust intercultural measure available, one that had a theoretical basis in the developmental model of intercultural sensitivity (DMIS) (Bennett, 1993), as well as demonstrated validity and reliability (Paige, 2003; Paige, Jacobs-Cassuto, Yershova, and DeJaeghere, J., 2003; Hammer, Bennett, and Wiseman, 2003).

The underlying model of the IDI and the DMIS, conceptualizes intercultural sensitivity as a developmental phenomenon that can be described in terms of six alternative intercultural worldviews, three of which are *ethnocentric* (Denial, Defense, and Minimization) and three of which are *ethnorelative* (Acceptance, Adaptation, and Integration). As persons gain more intercultural experience and understanding, their intercultural worldview shifts to incorporate new ways of perceiving and making meaning out of cultural difference. In the DMIS, the ethnocentric worldviews begin with Denial, where difference is initially ignored. When that is no longer possible, a Defense worldview emerges where difference is viewed as a threat and is resisted. Polarization into "we – they" thinking is the norm. Reversal, a subset of Defense, is the phenomenon of a cultural identity shift from one's original to another culture group; however, the polarization of difference continues, though the referent groups change. Minimization is a shift in worldview to the position that similarities are more important than differences, a perceptual mechanism that makes it more comfortable for individuals to interact in a positive albeit still culturally uninformed way with persons from other cultures.

In the ethnorelative worldviews, cultures are now seen in their own context, not merely from the vantage point of the other culture. In Acceptance, there is recognition of the principle that culture (including language) is a major organizing influence in one's life and that cultural differences are important. Adaptation, the second orientation, involves the development of skills necessary for functioning successfully in another culture. It includes both cultural-general competencies (knowing how and what to learn regardless of the setting), as well as culture-specific skills (becoming linguistically and culturally proficient in a specific setting). Integration refers to the worldview orientation where two or more cultural frames of reference have been learned and internalized. Rather than being defined by culture, persons in Integration become constructors of culture.

The IDI, a 50-item instrument, measures Denial and Defense (DD) as a combined scale, Reversal (R), Minimization (M), Acceptance and Adaptation (AA) as another combined scale, and the Encapsulated Marginality (EM) form of Integration (where there is still some discomfort over one's own cultural identity), as well as overall intercultural sensitivity, referred to as the Developmental Score (DS).

Strategies Inventory for Learning Culture (SILC) (Paige, Rong, Zhang, Kappler, Hoff, and Emert, 2002).

The SILC was originally created for the *Students' Guide* and revised for use as a research instrument in this study. It consists of 52 items conceptually organized into the nine culture learning categories used in the *Guide*: adapting to culturally different surroundings, culture shock/coping strategies, interpreting culture, communicating across cultures, communication styles, non-verbal communication, interacting with culturally different people, home stay strategies, and re-entry strategies. Students are asked to indicate how often they use a particular strategy, if applicable, using a four-point response format ranging from "very often" to "seldom."

Language Strategy Survey (LSS) (Cohen & Chi, 2001).

The LSS was also created for the *Students' Guide* and revised by the authors for this study. It consists of 89 items in six language skill areas: listening, speaking, vocabulary, reading, writing, and translation. The measure utilizes the same self-report frequency of use format employed in the SILC.

Speech Act Measure of Language Gain (Cohen & Shively, 2002).

Designed for this study, the Speech Act Measure constitutes an indirect assessment of spoken language in the form of a multiple-rejoinder discourse completion task (DCT). Consisting of ten vignettes, the LSS measures students' ability to perform the speech acts of requesting and apologizing in Spanish or French. The multiple-rejoinder approach is utilized, calling for the respondent to provide a dialogue with three or four responses from the interlocutor and to write down what the appropriate utterance would be in each case.

Two versions of the Spanish instrument (Peninsular and South American) were created in order to partially capture dialect variation. The instrument underwent pilot testing with native Spanish and French speakers as a means for evaluating the appropriateness of the speech act situations and the language used by the interlocutors in those situations. The piloting also provided an opportunity to collect Spanish and French native speaker baseline data from which to compare students' responses.

In addition to these quantitative measures, e-journals and interviews were also used as data sources for the study, allowing a means for triangulating the information provided by the students in the study.

E-Journals

The E group students were given weekly reading assignments from the *Guide* and asked to comment on those readings in their e-journal entries on a biweekly basis.

They were also asked to talk about their language and culture learning experiences, including examples of ways in which they used materials in the *Guide*.

Interviews

The final data source was generated by one-on-one interviews with E group students administered by the research assistants (RAs) for the study. The interviews were semi-structured, approximately one hour in length, and utilized the Follow-Up Interview Protocol developed for this study. The Protocol included eleven questions regarding the following: (1) which parts of the *Guide* they found the most and least helpful; (2) whether their language and intercultural skills improved during study abroad and, if so, how; (3) whether the *Guide* played any role in this improvement; (4) whether they had used the language and culture strategies contained in the *Guide* to assist with re-entry to the U.S. and, if so, how; and (5) their suggestions on how the *Guide* could be improved.

Data Collection Procedures and Treatment

Orientation and pre-test instrument administration

In December 2002, April 2003, and May 2003, one-day orientation programs were conducted for the participants. During the first part of the orientation, all students were introduced to the project, filled out the Background Questionnaire, and were administered the IDI, SILC, LSS, and Speech Act Measure. They were also informed about the on-line post-test procedure. At the conclusion of first part of the orientation, the C group students left and the E group students spent two more hours being introduced to their role in the project.

Treatment

The *Guide* and the activities associated with it constituted the treatment for E group students. They received the *Guide*, an orientation to the language and culture strategies in the *Guide*, and a presentation on speech acts (a concept that integrates language and culture). They were also given instructions regarding their weekly reading and bi-weekly journal assignments, a process that began before they left and concluded near the end of their study abroad programs.

Each week in their e-journals, students responded to the following questions:

- What were your impressions of the readings in the assigned section?
- What were your impressions of the activities? Please comment on each of the activities.

- What types of language and culture strategies are you using in order to deal with the host country language and culture (for example, listening for key words in a conversation, explaining cross-cultural experiences to family and friends back home, etc.; see pages 16-28 in the guide for lists of strategies)?
- What are the contexts and situations in which you use these language and culture strategies (for example, eating dinner with your host family, talking with your language partner, etc.)?
- How have the readings and activities related to your study abroad experience? Please give examples with explanations.
- Is there anything else you would like to tell us?

Post-test instrument administration

The Exit Language Contact Profile, the IDI, the SILC, the LSS, and the Speech Act Measure were administered on-line. All of the students participated in the post-testing. The instruments were made available to the students shortly before they were to leave their study abroad sites in April 2003 for cohort A and in December 2003 for cohort B.

Follow-up interview protocol

Some two-to-four months after students in each cohort returned to their home institutions, the RAs followed up with interviews, using a set protocol of questions. The data collected from these interviews served to determine whether the students were continuing to use the language and culture strategies that were part of the intervention materials. These follow-up interviews were conducted with 20 E group students, ten from each cohort.

Data Analysis

First, the two strategy instruments were empirically tested for validity and reliability. Second, statistical analyses were conducted on the pre- and post-test data to examine change over time on the SILC, LSS, and IDI. Third, the E and C group were compared regarding the frequency of use of language and culture learning strategies (LSS, SILC), and intercultural sensitivity (IDI). Fourth, thematic analysis of the E group electronic journals and the interview transcripts is underway but not yet completed. Fifth, analyses of language gain are also in progress at this time. Sixth, correlational and multivariate analyses will be conducted when all of the data are available.

Findings

Research Question #1: How can strategies for learning and using culture and language be conceptualized and measured?

The conceptualization and measurement of culture and language strategies has been central to this study. The process of developing instruments to measure strategies began during the writing of the *Guide* where preliminary versions of LSS and the SILC were presented. As part of this study, each of the two instruments was administered to a sample of 577 University of Minnesota students in Spanish and French classes, who were not currently studying abroad, and the data were subjected to exploratory and confirmatory factor analyses. The results of these analyses gave support to the underlying conceptual structure of both the SILC and the LSS.

Strategies Inventory for Learning Culture (SILC)

The SILC was subjected to exploratory and confirmatory factor analyses. These were performed on a sample of 277 students to test the construct validity of the conceptual model and the reliability analysis was then conducted on the resulting five SILC scales. The exploratory factor analysis had generated a five-factor model of culture

Figure 2: SILC five-factor model and sample items

Factor I: Interpreting Culture
Item 17: *I analyse things that happen to me in another culture from as many perspectives as I can.*
Item 20: *I refrain from making quick interpretations about another culture.*
Factor II. Non-Verbal Communication
Item 32: *I learn about the ways in which people from another culture use non-verbal communication.*
Item 3: *I practice using a variety of different nonverbal communication patterns.*
Factor III. Home Stay Strategies
Item 44: *I get permission before bringing someone home.*
Item 46: *I teach games common in my own country to my home stay family.*
Factor IV. Culture Shock/Coping Strategies
Item 10: *I treat moments of culture shock as learning experiences, for example by writing about them in my journal.*
Item 11: *I use a variety of coping strategies when I feel like I have culture shock overload.*
Factor V. Re-Entry Strategies
Item 47. *I find a group of people who have had similar experiences to talk to and share experiences.*
Item 50. *I volunteer for work related to the other culture, for example with international students at a local university.*

Figure 3: LSS five-factor model and sample items

Factor I: Learning Structure and Vocabulary
Item 37: *I go over new words often when I first learn them to help me remember them.*
Item: 66: *I plan out in advance how I'm going to read the text, monitor to see how I'm doing, and then check to see how much I understand.*
Factor II: Speaking
Item 48: *I regularly seek out opportunities to talk with native speakers (of the target language).*
Item: 56: *I figure out and model native speakers' language patterns when requesting, apologizing, or complaining.*
Factor III: Listening.
Item 10: *I predict what the other person is going to say based on what has been said so far.*
Item 26: *I watch speakers' gestures and general body language to help me figure out the meaning of what they are saying.*
Factor IV: Reading
Item 69: *I pay attention to the organization of the text, especially headings and subheadings.*
Item 70: *I make ongoing summaries of the reading either in my mind or in the margins of the text.*
Factor V: Asking for Clarification
Item 20: *I ask speakers to repeat what they said if it wasn't clear to me.*
Item 22: *I ask speakers to slow down if they are speaking too fast.*

learning that corresponded well with the original conceptual structure while reducing the complexity of the model from nine to five factors. Confirmatory factor analysis indicated that this model represented a sound fit with the data (Goodness of Fit Index = .92; RMSEA = .04; chi square ÷ df = 1.41) according to criteria established by Jöreskog and Sörbom (1984), Browne and Cudeck (1989), and Hammer *et al*. (2003). The five SILC scales also possessed good internal consistency with the exception of the Culture Shock/Coping Strategies scale: Interpreting Culture (*r* = .84), Nonverbal Communication (*r* = .86), Homestay Strategies (á = .86), Culture Shock/Coping Strategies (*r* = .72), and Re-Entry Strategies (*r* = .86). Figure 2 presents the five-factor SILC model and samples items from the instrument.

Learning Strategies Survey (LSS)

The LSS underwent exploratory factor analyses with a sample of 300 students, producing a five-factor model that was a reasonable approximation of the original conceptual structure, and confirmatory factor analysis demonstrated that the model represented a fair, if not robust, fit with the data (GFI = .75; RMSEA = .06; chi square ÷ df = 2.01). The five factors and sample items are presented in Figure 3 below. The factors and their reliability coefficients are: Learning Structure and Vocabulary (*r* = .85),

Speaking (r = .77), Listening (r = .83), Reading (r = .67), and Asking for Clarification (r = .79). Figure 3 provides examples of the items included in each of the five LSS factors.

Research Question #2:
How do students compare on intercultural sensitivity, culture strategy use, and language strategy use before and after a study abroad experience?

Intercultural Sensitivity

Table 1 presents the IDI results of paired-sample t-tests and shows that the group as a whole shifted in the direction of greater intercultural sensitivity. Their overall intercultural sensitivity (Development Score or DS) increased over time (p = .001), and there were declines in all three of the ethnocentrism scales (Denial/Defense, Reversal, Minimization), one of which – the Reversal finding – was statistically significant (p < .001). In addition, there was an increase in the Acceptance/Adaptation scale, which was also significant (p < .001).

Table 1: Means comparison – intercultural sensitivity

Intercultural Development Inventory Scales	Mean	St. Dev	t value	df	Sig. (2-tailed)
Defense-Denial (DD)					
DD pre-test	1.51	.42	1.33	85	n.s.
DD post-test	1.46	.43			
Reversal (R)					
R pre-test	2.27	.75	3.02	85	.01**
R post-test	2.07	.77			
Minimization (M)					
M pre-test	3.14	.75	.32	85	n.s.
M post-test	3.12	.83			
Acceptance-Adaption (AA)					
A pre-test	3.24	.47	-4.58	85	.001***
A post-test	3.48	.43			
Encapsulated Marginality (EM)					
EM pre-test	2.02	.88	1.03	85	n.s.
EM post-test	1.19	.85			
Overall Intercultural Development Score (DS)					
DS pre-test	99.07	15.34	-3.55	85	.001***
DS post-test	103.54	16.11			

* p< .05 ** p< .01 *** p< .001

Strategies Inventory for Learning Culture (SILC)

As presented in Table 2, the results of paired-sample *t*-tests showed that three of the five SILC scales – Interpreting Culture, Nonverbal Communication Strategies, and Culture Shock/Coping Strategies – showed statistically significant shifts between time 1 and time 2. As hypothesized, the shifts were in the direction of greater frequency of strategies use.

When the data were broken down into specific items, descriptive statistics showed that students used 41 of 52 culture strategies with greater frequency at time two. These shifts were statistically significant (p = .05, .01, or .001) in 26 of the 41 cases. Decreases in reported frequency of use occurred for only 11 of 52 culture strategies and only one decrease was statistically significant (p = .05). Closer inspection of these items showed that the decreases occurred on items pertaining to home stay strategies and on ideas for strategies to use upon returning home. These findings are difficult to interpret since we might have expected an increase in reported home stay strategies from pre- to post-testing, since most of the students were in home stay situations. In addition, we would have thought the students would be more directed to post-study abroad strategies as their overseas experience was ending.

Table 2: Means comparison, culture strategies survey

SILC Scale	Mean	St. Dev	t value	df	Sig. (2-tailed)
SLIC1 Interpreting Culture					
SILC1 pre-test	3.07	.52	-2.39	85	.05*
SILC1 post-test	3.21	.49			
SILC2 Nonverbal Communication					
SILC2 pre-test	2.49	.74	-4.99	85	.001***
SILC2 post-test	2.91	.57			
SILC3 Reentry					
SILC3 pre-test	2.15	1.23	.23	85	n.s.
SILC3 post-test	2.12	1.12			
SILC4 Homestay					
SILC4 pre-test	2.38	1.34	1.14	84	n.s.
SILC4 post-test	2.21	1.15			
SILC5 Culture Shock/Coping					
SILC5 pre-test	2.23	1.20	-4.93	83	.001***
SILC5 post-test	2.30	.84			
* $p < .05$ ** $p < .01$ *** $p < .001$					

Learning Strategies Survey (LSS)

Using a paired-samples *t*-test, four of the five LSS factor groupings of items that resulted from the confirmatory factor analysis were found to have statistically significant shifts in frequency use between time 1 and time 2 (see Table 3). Two of the factors –

Speaking and Listening – showed movement towards a higher frequency of reported strategy use, whereas Learning Structure and Vocabulary, and Reading showed declines. The context of study abroad helps explain these findings. While abroad, students are likely to have more frequent opportunities than they would have at home to interact with native speakers. As such, strategies for speaking and listening effectively may become more important – and more frequently used – in the study abroad context.

Table 3: Means comparison, language strategies survey

LSS Scale	Mean	St. Dev	t value	df	Sig. (2-tailed)
LSS1 Structure/Vocabulary					
LSS1 pre-test	2.53	.47	3.71	85	.001***
LSS1 post-test	2.34	.43			
LSS2 Speaking					
LSS2 pre-test	2.57	.54	-6.25	85	.001***
LSS2 post-test	2.90	.46			
LSS3 Listening					
LSS3 pre-test	3.08	.45	-2.08	85	.05*
LSS3 post-test	3.17	.42			
LSS4 Reading					
LSS4 pre-test	2.46	.58	4.17	85	.001***
LSS4 post-test	2.23	.48			
LSS5 Ask for Clarification					
LSS5 pre-test	3.06	.66	.96	85	n.s.
LSS5 post-test	2.98	.66			

*$p<.05$ ** $p<.01$ *** $p<.001$

Research Question #3:
How do study abroad students receiving a language and culture strategy intervention compare to those who do not with respect to intercultural sensitivity and reported culture strategy use?

Intercultural Sensitivity (IDI)

Change scores were first computed for the IDI and SILC items and scales. Then the data were analysed (using one-way analysis of variance and chi square analysis) to compare the E and C groups. There were no statistically significant differences between the two groups on overall intercultural sensitivity or any of the IDI scales. Item analysis revealed only two of 50 items where the change scores were statistically significant.

Strategies Inventory for Learning Culture (SILC)

The SILC results are similar to the IDI results. There were no statistically significant differences between the E and C groups on any of the five SILC scales. Item analysis

showed that the E and C groups were equally divided across the 52 items in terms of their respective gains in frequency of strategy use. On five individual items, presented in Table 4 below, the E and C group gain score differences were statistically significant near or below p = .05. In the case of item #2, both groups gained, but the C group had the greater increase. Item #5 shows a gain for the E group, a difference that may be due to the fact that the *Guide* has a section that gives a number of pointers on how to avoid stereotyping another culture when describing it. Similarly, the *Guide* provides considerable information about communicating across cultures, which may explain the finding on item #31 in favor of the E group. The results on items #25 and #49 showing gains for the C group and a slight decrease for the E group are harder to interpret. One speculation is that the findings reflect more the nature of the experiences they had on site and during reentry than their exposure or not to the *Guide.*

Table 4: Description of SILC items with differences between the E group and C group showing a statistical significance near or below p=.05

SILC Item	Item Description	E group mean gain	C Group mean gain	p value
(2)	I figure out what cultural values might be involved when I encounter a conflict or something goes wrong (Interpreting Culture).	.10	.43	.06
(5)	I counter stereotypes others use about people from my country by using generalizations and cultural values instead (Interpreting Culture).	.64	.14	.06
(25)	I build relations with local people by finding opportunities to spend time with them (Communication).	-.05	0.48	.05
(31)	I respect the way people from another culture express themselves (Communication).	.14	-.20	.03
(49)	I take a class that will help me keep up with the other culture (Reentry).	-4.0	.36	.05

Research Question #4:
How do study abroad students receiving a language and culture strategy intervention compare to those who do not, with respect to reported language strategy use?

Learning Strategies Survey (LSS)

There were no statistically significant differences between the E and C groups when LSS items were grouped using either the five-factor model or the original six skill areas. As shown in Table 5, however, eight individual items on the LSS were found to show differences in strategy use between the E and C groups with statistical significance near or better than $p < .05$. The two Listening items (#9 and #13) are about specific aspects of the language such as native speaker pronunciation and

sentence stress. The E group increase may be attributable to the *Guide*, since it familiarizes students with these features of language and encourages students to pay attention to them.

The three Vocabulary items (#27, #28 and #36) all showed E group declines in frequency of use, a finding that occurred for the sample as a whole on the LSS Vocabulary scale. One explanation may be that the increased exposure to language in the study abroad environment, where words were being acquired more naturally in a rich context, meant that there was less need to use word attack skills in learning vocabulary.

In terms of Speaking strategies, items #52 (being actively involved in target language conversations) and #61 (using gestures to convey meaning) show E group gains compared to the C group decreases. This difference between the groups may reflect the fact that the *Guide* advises students to be actively involved in both of these strategies.

Lastly, on item #88 (a Translation strategy item), the E group reported using word-for-word translation less frequently than the C group. This difference may be an outgrowth of the treatment, since the *Guide* advises students not to depend entirely on such word-to-word translations.

Table 5: Descriptions of LSS items with differences between the E and C groups showing a statistical significance near or below p = .05

LSS Item	Item Description	E group mean gain	C Group mean gain	p value
(9)	I pay special attention to specific aspects of the language; for example, the way the speaker pronounces certain sounds (Listening)	.10	-.36	.05
(13)	I listen for word and sentence stress to see what native speakers emphasize when they speak (Listening.)	.31	-.11	.03
(27)	I pay attention to the structure of the new word (Vocabulary).	-.17	.25	.06
(28)	I break the words into parts that I can identify. (Vocabulary).	-.40	.02	.05
(36)	I use flash cards in a systematic way to learn new words (Vocabulary).	-.14	-.64	.04
(52)	I ask questions as a way to be involved in the conversation (Speaking).	.38	-.07	.02
(61)	I use gestures as a way to try and get my meaning across (Speaking).	.07	-.34	.05
(88)	I try to understand what has been heard or read without translating it word -for-word into my own language (Translation).	.57	.07	.02

The analysis is still underway, but excerpts from the e-journals of the E group students are providing insights into research questions #3 and #4. For example, students frequently expressed that the *Guide* provided relevant information that helped them to understand, interpret, and engage more actively in their study abroad experiences. For example, a student studying in Chile during Fall 2003 said:

> I feel like every section I read, my reaction is, "Oh yeah!! I had forgotten to pay attention to that!!" I like doing these readings while I'm here. It keeps things fresher in my mind. I think if I had gone to my school's orientation in May (which was the alternative to participating in this project); I would have half-listened to everything and then promptly forgotten it.

Another student, studying in Spain (Spring 2003) related the following:

> Maximizing [Study Abroad] has been an effective book not because it answers ALL of my questions, but because it provides guidance and structure during a time when one can feel utterly lost, wandering around in a mental, physical, and cultural landscape without any landmarks in sight.

These quotes also underscore the importance of providing students with support for learning during their sojourns when these strategies will be most relevant.

Students also commented on specific language and culture strategies contained in the *Guide*. For example, one student in a West African nation (Spring 2003) felt that the *Guide* helped her better understand differences in communication styles between cultures:

> I felt like the culture readings were really relevant to my experience here. One of the greatest things about [the Students' Guide] is that it helps put new words to things we've been struggling with, things that are an inherent part of any experience like [study abroad]. Sometimes, it names the things we struggle with and helps U.S. recognize that they're there – often you'll struggle in a situation and feel irritated or discouraged, but not really be sure why, and then you do your readings for the week and you realize the source of the problem…I sit up late nights reading in my mosquito net and all of a sudden think, "Oh! It's because I'm a linear communicator and she's a circular communicator. Huh." and then the suggestions about how to negotiate those things help me digest and deal better with the issue.

In addition to helping give students perspective on their experiences, the information contained in the *Guide* also provided students with the terminology necessary to more precisely describe the experiences they were having.

Language strategies contained in the *Guide* gave students new ideas to improve their language skills. Another student who studied in Spain (Spring 2003), for example, remarked that:

> As this semester has progressed I have become more skilled at using various language strategies to improve my speaking. For example, since I read the section [in the Students' Guide] on remembering words I have become accustomed

> to writing new words down in a notebook and going over them to make sure I remember them. I have also stopped trying to translate word for word what people are telling me and I just focus on getting the main idea. This has helped me to be able to talk more with my host family. At the beginning of my stay our dinners used to be them talking to each other and me just eating, but now I join in on conversations, and sometimes I even start them. My host mom always teases me and tells me I talk too much!

The *Guide* also encouraged students to be "language detectives" and seek out native speakers who could serve as resources, as the following example describes:

> The [Students' Guide] section on Varying Strategies for Apologizing was important. I seem to be always saying the wrong thing. I am still working on [apologies] and playing language detective by asking my host mom about appropriate expressions."

These findings are preliminary. So far, the qualitative feedback from students about the *Students' Guide* has been highly positive, suggesting that from the student perspective, an intervention in the form of a self-access guidebook with language and culture strategy instruction can be a valuable tool for getting the most out of the study abroad experience. Although the majority of E group students provided positive assessments, students also suggested improvements. One student suggested that more language strategies for very advanced language learners be included; another student recommended adding specific strategies for study abroad students who may be more introverted.

Discussion

This study, which is still in process, has already produced significant outcomes for the researchers. First, it has led to the refinement of two survey instruments originally created for the *Guide* (the *Language Strategies Survey* and the *Strategies Inventory for Learning Culture*) and the construction of a new language measure (the *Speech Act Measure of Language Gain*). In our estimation, these measures can be used fruitfully in future research studies, as well as in language and culture education. We have found both the *LSS* and the *SILC* to be reliable and valid measures.

Second, the study has produced new findings regarding language learning and culture learning, about the strategies students employ in order to learn and use language and culture in the study abroad context. In two language learning areas where it would be most expected, Speaking and Listening, there is a statistically significant shift toward greater frequency in the use of these strategies. In three of the culture learning dimensions – Interpreting Culture, Nonverbal Communication, and Culture

Shock/Coping – the frequency of use of these strategies was seen to increase and this increase was statistically significant. It was striking to find that 41 of 52 culture strategies were used with greater frequency at the conclusion of the programs and that 26 of these shifts were statistically significant.

Third, this study provides evidence that study abroad has a positive impact on intercultural development. Our confidence in this finding resides, in part, on our use of the IDI (Hammer & Bennett, 1998; 2001), which has been used in other research studies and been shown to be valid and reliable (Paige, 2003). As hypothesized, there were statistically significant decreases in the ethnocentric scales and increases in the ethnorelative ones, as well as an increase in overall intercultural sensitivity.

Fourth, the impact of study abroad itself may be confounding our ability to ascertain the effects of the curriculum intervention, at least with the instruments we have employed. However, while there were no differences between the E and C groups on the IDI or on the SILC and LSS scores overall, several differences on individual language and culture strategy items were found between the two groups. The differences in culture strategy use between the E and C groups are not easily interpretable at this time, but the differences between the two groups regarding the use of several specific language strategies may reflect the effects of the Guide.

The qualitative evidence – e-journal entries and interviews – are still being analyzed at this point in time, but the early results, some of which are presented above, suggest that the influence of the *Guide* is greater than the quantitative E and C group comparisons reported in this article would suggest. This is a point we will continue to examine and report on in greater detail at a later date.

Limitations

Clearly, the most significant limitation in the current report is that, at this time, large segments of the data collected in this study have not yet been thoroughly analysed. As such, it is not yet possible to discuss potentially significant intervening variables that may have an impact on language and culture strategy use. For example, in designing the study, the researchers recognized that the term "study abroad" does not describe a uniform experience. On the contrary, students who study overseas participate in different types of programs (e.g., "island" programs, direct enrollment programs, field experiences), have variable living arrangements (e.g., host family, student dormitory, private room), and various degrees of contact with the target language inside and outside of the classroom. Two of the instruments used in the study that have yet to be analysed – the Background Questionnaire and the Exit Language Contact Profile – include items intended to capture variables such as those listed above. In addition, correlations between the results on the IDI, SILC, LSS, Speech Act Measure, and language

contact surveys, as well as analyses of the qualitative e-journal and interview data are expected to provide a more complete understanding of both the influence of study abroad itself, as well as the impact of the curricular intervention discussed here.

A second limitation relates to the sample. First, the students who participated in the study were attending universities located in Minnesota, which means that we must be cautious in generalizing our findings. While they are likely to be similar to other U.S. university study abroad populations in terms of demographics and study abroad experiences, strictly speaking our findings pertain to this sample. Second, the sample size was relatively small. We did not reach our sample target of 150 students due to difficulties in finding students who met the criteria for participating in the study and were willing to participate. In fact, the lower-than-expected numbers of participants in the first cohort of students led U.S. to recruit a second cohort in fall 2003. While including the second cohort more than doubled the sample size, doing so may have created an additional limitation, namely, the minor possibility of a cohort effect related to academic level of the respondent (cohort A students who studied abroad during the spring semester were, on average, one semester older than cohort A participants who were abroad in the fall).

Finally, two of the instruments discussed in this report – the Learning Strategies Survey (LSS) and the Strategies Inventory for Learning Culture (SILC) – are new and, as such, are likely to be refined in the years ahead as more research evidence becomes available, as would be the case with most such instruments. The rigorous validity and reliability testing discussed in this article does provide U.S. with strong initial support for the integrity of these instruments as measures of the underlying theoretical models upon which they are based.

References

Bennett, M. J. (1993). Toward ethnorelativism: A developmental model of intercultural sensitivity. In R. M. Paige (ed.), *Education for the intercultural experience* (pp. 21-71). Yarmouth, ME: Intercultural Press.

Brislin, R. W., & Yoshida, T. (Eds.) (1994). *Improving intercultural interactions: Modules for cross-cultural training programs.* Thousand Oaks, CA: Sage.

Brown, H. D. (1991). *Breaking the language barrier.* Yarmouth, ME: Intercultural Press.

Browne, M. W., & Cudeck, R. (1989). Single sample cross-validation indices for covariance structures. *Multivariate Behavioral Research, 24*, 445-455.

Chao, M. (2001). *Research on U.S. students study abroad: An update 1988-2000*. Los Angeles, CA: The Center for Global Education, University of Southern California. . [Final editing, online publication, and introduction by The Center for Global Education, Gary Rhodes, Director]. http://www.usc.edu/dept/education/globaled/ro/book_research_chao.htm

Cohen, A. D. (1990). *Language learning: Insights for learners, teachers, and researchers.* NY: Newbury House/Harper Collins.

Cohen, A. D., & Chi, J. C. (2001). *Language Strategy Use Survey.* Minneapolis, MN: Center for Advanced Research on Language Acquisition, University of Minnesota. Downloadable from the CARLA website: http://www.carla.umn.edu/about/profiles/Cohen

Cohen, A. D., & Shively, R. (2003). *Speech Act Measure of Language Gain.* Minneapolis, MN: Center for Advanced Research on Language Acquisition, University of Minnesota.

Cohen, A. D., Paige, R. M., Kappler, B., Demmessie, M., Weaver, S. J., Chi, J.C., & Lassegard, J. P. (2003). *Maximizing study abroad: A language instructor's guide to strategies for language and culture learning and use.* Minneapolis, MN: Center for Advanced Research on Language Acquisition, University of Minnesota.

Comp, D. (ed.) (2004). *Research on U.S. students study abroad: An update, volume III, 2001-2003, with updates to the 1989 and volume II editions 2000-2003*. Los Angeles, CA: The Center for Global Education, University of Southern California. [Final editing, online publication, and introduction by The Center for Global Education, Gary Rhodes, Director]. http://www.usc.edu/dept/education/globaled/ro/book_research_comp.html

Cushner, K., & Brislin. R. W. (1997). *Improving intercultural interactions: Modules for cross-cultural training programs.* Vol. 2. Thousand Oaks, CA: Sage.

Freed, B. (1995). *Second language acquisition in a study abroad context*. Philadelphia: John Benjamins.

Freed, B. F., Dewey, D. P., Segalowitz, N. S., & Halter, R. H. (2004). *The Language Contact Profile. Studies in Second Language Acquisition*, *26* (2), 349-356.

Hammer, M. R. (1999). A measure of intercultural sensitivity: The Intercultural Development Inventory. In S. M. Fowler & M. G. Mumford (Eds.), *The intercultural sourcebook* (Vol. 2, pp. 61-72). Yarmouth, ME: Intercultural Press.

Hammer, M. R., & Bennett, M. J. (1998, 2001). *The Intercultural Development Inventory (IDI) manual.* Portland, OR: Intercultural Communication Institute.

Hammer, M. R., Bennett, M. J. & Wiseman, R. (2003). Measuring intercultural sensitivity: The Intercultural Development Inventory. *International Journal of Intercultural Relations, 27*, 421-443.

Hess, D. J. (1997). *Studying abroad/learning abroad: An abridged version of the whole world guide to intercultural learning*. Yarmouth, ME: Intercultural Press.

International Institute of Education (2004). *Open doors 2002-2003*. New York: IIE.

Jöreskog, K. G., & Sörbom, D. (1984). *LISREL-VI users' guide* (3rd ed.). Mooresville, IN: Scientific Software.

Kohls, L. R. (2001). *Survival kit for overseas living, for Americans planning to live and work abroad.* Fourth Edition. NY: Longitude.

Kutash, G. (1990). *How to learn a foreign language.* Sidney, Australia: John Ferguson.

LaBrack, B. (1993). The missing linkage: The process of integrating orientation and reentry. In R. M. Paige (Ed.), *Education for the intercultural experience* (pp. 241-279). Yarmouth, ME: Intercultural Press.

Landis, D., & Bhagat, R. S. (Eds.) (1996). *Handbook of intercultural training*. 2nd ed. Thousand Oaks, CA: Sage.

Landis, D., Bennett, J. M., & Bennett, M. J. (Eds.) (2003). *Handbook of intercultural training*. 3rd ed. Thousand Oaks, CA: Sage.

Miller, L., & Ginsberg, R. B. (1995). Folklinguistic theories of language learning. In B. F. Freed (Ed.), *Second language acquisition in a study abroad context* (pp. 293-316). Amsterdam/Philadelphia: John Benjamins.

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.

Paige, R. M. (1993). *Education for the intercultural experience*. Yarmouth, ME: Intercultural Press.

Paige, R. M. (2003). Editorial. In R. M. Paige (Guest Ed.). Special issue on intercultural development. *International Journal of Intercultural Relations, 27*, 383-385.

Paige, R. M., Cohen, A. D., Kappler, B., Chi, J.C., & Lassegard, J. P. (2002). *Maximizing study abroad: A students' guide to strategies for language and culture learning and use.* Minneapolis, MN: Center for Advanced Research on Language Acquisition, University of Minnesota.

Paige, R. M., Cohen, A. D., Kappler, B., Chi, J.C., & Lassegard, J. P. (2002). *Maximizing study abroad: A program professional's guide to strategies for language and culture learning and use.* Minneapolis, MN: Center for Advanced Research on Language Acquisition, University of Minnesota.

Paige, R. M., & Kappler, B. (1998). Review of W. Hoffa and J. Pearson (Eds.) 1997. NAFSA's guide to education abroad for advisers and administrators, Second Edition. Washington, DC: NAFSA: Association of International Educators. *Frontiers*, fall, 205-215.

Paige, R. M., Rong, J., Zhang, W., Kappler, B. Hoff, J. & Emert, H. (2002). *Strategies Inventory for Learning Culture.* Minneapolis, MN: Center for Advanced Research on Language Acquisition, University of Minnesota.

Paige, R.M., Jacobs-Cassuto, M., Yershova, Y. A. & DeJaeghere, J. (2003). Assessing intercultural sensitivity: An empirical analysis of the Hammer and Bennett Intercultural Development Inventory. *International Journal of Intercultural Relations, 27,* 467-486.

Pelligrino, V. A. (1998). Student perspectives on language learning in a study abroad context. In B. F. Freed, (Guest Ed.), *Frontiers. Special Issue: Language learning in a study abroad context*, Fall, 91-120.

Rubin, J. & Thompson, I. (1994). *How to be a more successful language learner*. Boston: Heinle & Heinle.

Sell, D.K. (1983) Research on attitude changes in U.S. students who participate in foreign study experiences: Past findings and suggestions for future research. *International Journal of Intercultural Relations,* 7, 131-147.

Singelis, T. M. (Ed.) (1998). *Teaching about culture, ethnicity, & diversity: Exercises and planned activities.* Thousand Oaks, CA: Sage.

Stimpfl, J.R., & Engberg, D. (1997). What to know before you go: Creating a basis of comparison for research on study abroad programs. *International Education Forum, 17*, 7-21.

Storti, C. (1998). *Figuring foreigners out: A practical guide*. Yarmouth, ME: Intercultural Press.

Storti, C. (2001). *The art of crossing cultures.* Second Edition. Yarmouth, ME: Intercultural Press.

Wilkinson, S. (1998). On the nature of immersion during study abroad: Some participant perspectives. In B. F. Freed, (Guest Ed.), *Frontiers. Special Issue: Language learning in a study abroad context,* Fall, 121-138.