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Impacts of a Short-Term International Engineering and Business Consulting Practicum

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Abstract

Increase in short-term programs is one of the biggest shifts in study abroad over the past twenty years. With prior research in this area showing many positive but also mixed impacts, skepticism persists about the ability of short-term study abroad to change students' views on cultural differences. The aim of this study is to characterize if and how students' views on cultural differences in the context of international client work change after a practicum-based faculty-led short-term study abroad program in Argentina. Twenty-four students who participated in the program responded to short-answer questions before and after the program. These responses were open-coded, and themes were identified. Results show that, before the program, students largely identified surface-level cultural differences from an ethnocentric perspective. After the program, students were more ethnorelative as evidenced by their discussing the deeper cultural context and values of Argentina and their willingness to adapt.

Keywords

Business; consulting; engineering; practicum

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1. Introduction

Short-term study abroad (STSA) experiences are transforming the study abroad landscape in higher education. Based on data from the Institute for International Education's (IIE) Open Doors Project, the proportion of students studying abroad in the summer for 8 weeks or less has risen from roughly 38% in 1993/4 (Chieffo & Griffiths, 2004) to 65% in 2017/18 (Institute of International Education, 2019a). The proportion studying abroad that were U.S. engineering majors nearly doubled from 2.7% in 2000/1 to 5.2% in 2017/18 (Institute of International Education, 2019b).

The positive impacts of study abroad are well-researched and documented. Study abroad has been shown to positively affect students' personal growth and development and their interest in and ability to operate in cultures other than their own (Black & Duhon, 2006; Carlson et al., 1990; Hadis, 2005; Hutchins, 1996). If such benefits endure as program duration is shortened, however, has been met with skepticism. Gudykunst (1979) questions the completeness of the "psychological experience" for short-duration experiences, Bennett (1993) claims it takes two years to develop adaptive behaviors and develop a new worldview, while Leong and Ward (2000) point to needing enough time to experience "the demands of a new environment". Woolf (2007) represents a seemingly widely held viewpoint when questioning the line between tourism and education of STSA where "content [may be] of marginal validity, and the purpose may well have more to do with finance and publicity than with learning". That many STSA are led by disciplinary faculty with little background in study abroad further deepens these concerns (Niehaus et al., 2019).

To explore this skepticism, the research on STSA (addressed in the literature review) has grown along with the STSA programs themselves. The prior research, where the verdict on STSA is mixed, is most heavily focused on language and culture programs (see, for example, the Georgetown Consortium Project (Vande Berg et al., 2009)). The growth of STSA, however, has benefited from doors being opened to other disciplines due to the short duration. Given this landscape, the real question is not "can STSA have impacts" but instead "what types of STSA models generate what types of impacts." In this work, I focus on the impacts of a "practicum" faculty-led STSA (FLSTSA) model on

students' views on cultural differences. The hallmarks of such practicum programs are tied to experiential learning: students can shape their own learning through focusing on real world problems in small groups with the professor acting as a mentor. Practica aim to help students learn complex skills such as navigating an open-ended project from beginning to end, interacting with clients and users to understand needs, handling uncertainty and ambiguity, and working on a team (Cross, 1994; Mosser, 1989). In business, these complex skills map well onto *consulting*. In engineering, these complex skills map well onto *designing*. I am focusing this study on the practicum model of FLSTSA because:

- Prior research shows practica to be a promising model (see the literature review), but more work is needed;
- Practica embody key characteristics for effective meaning making by students on study abroad identified by Jones et al. (2012), namely getting out of the bubble, boundary crossing, and personalizing;
- Practica provide a strong basis for interdisciplinary work between engineering and business; and
- The cornerstone of the practicum model, the client experience, is suggested to be central to engaging students with culture based on program evaluation data (Berger & Bailey, 2013).

In the particular program studied in this work, the practicum model is realized through students serving on consulting and design teams for industry clients in Argentina. Students from a state university in the United States work on the projects in Argentina for two weeks. I am focusing on analyzing students' views on cultural differences due to the skepticism that programs this short can have any impact on how students observe and make sense of a culture different than their own. I use the context of the international client work to explore student's views on cultural differences due to the centrality of the client relationship on the program. More specifically, the research question addressed in this work is: Do students' views on cultural differences in the context of international client work change after a practicum-based faculty-led short-term study abroad program? If so, how?

2. Literature Review

Prior research on STSA is less extensive than that on long term study abroad programs. The research, however, is growing along with the relatively recent and sharp rise in popularity of STSA programs. While many studies have found positive impacts of STSA programs, the results are more mixed than those in the general study abroad literature. The Literature Review is divided into four sections: 1) short-term study abroad in general, 2) the practicum model in study abroad, 3) international engineering programs, and 4) intercultural learning and global competency. Through these four sections, I identify a) the gap explored by this study, namely that the practicum model of STSA is both promising and understudied with respect to its impact on students views of cultural differences and b) two models of intercultural learning, the Hofstede Layer Model and the developmental model of intercultural sensitivity (DMIS), that proved useful when analyzing the results.

2.1. Related Work on Short-term Study Abroad in General

Chieffo and Griffiths' (2004) study measured global awareness using a 20-item survey instrument of over 2300 students at the University of Delaware engaged either in STSA or on-campus courses with multicultural components. Courses were four to eight weeks long. Quoting from the study: "Based on the data yielded by this first study, it was concluded that short-term [study abroad] programs, even as short as one month, are worthwhile educational endeavors that have significant self-perceived impacts on students' intellectual and personal lives" (Chieffo & Griffiths, 2004, p. 174).

In 2012, Mapp used the Cross-Cultural Adaptability Inventory (CCAI) as a pre-post measure on 81 students at a small liberal arts college in Pennsylvania. Students participated in one of five programs ranging in length from nine days to two weeks. According to Mapp (2012),

> The results of this study support the hypothesis that short- term trips can produce this change in baccalaureate students, even after a trip as short as 9 days. Interestingly, the length of trip and whether it took place in an English- speaking country did not affect the results, nor did the student's previous experiences abroad. (pp. 732-733)

A 2005 study focused on 23 senior-level undergraduates on a faculty-led management course with a week of on-campus study, two weeks in London, and

two weeks in Ireland (Anderson et al., 2006). Using the Intercultural Development Inventory (IDI), the researchers found weak statistical support (p=0.069) for an overall shift on the IDI and stronger support showing that students "lessened their tendency to see other cultures as better than their own (Reversal) and improved their ability to accept and adapt to cultural differences (Acceptance/Adaptation)" (Anderson et al., 2006, p. 464).

Numerous studies in the STSA literature focus on language and culture programs. Martinsen (2011) saw a "small but significant" increase in students' cultural sensitivity (using the Inventory of Cross-cultural Sensitivity (ICCS)) during a six-week program in Argentina while Jackson (2009) saw overall improvements using the IDI among Chinese students on five-week program in Oxford. Schenker (2019) observed statistically mixed results on an eight-week German (four-week prep, four-week in Germany) program using the Global Competence Aptitude Assessment (GCCA). Bloom and Miranda (2015) found that students on a four-week program in Spain "made little changes in intercultural sensitivity as measured by the Intercultural Sensitivity Index and as reported in the qualitative data," concluding that further work was needed to determine if these negative results were due to the program duration or the program design. This conclusion is extendable to all of these studies in language and culture programs – the duration was short for them all, but the impacts (or lack thereof) are not attributable to program duration in particular.

In contrast, the Georgetown Consortium Project (Vande Berg et al., 2009) focused on program duration in studying various programs, most of which focused on language development. The authors found that 13-18 weeks (i.e., semester-long) programs promoted intercultural development while both shorter and longer programs did not and that longer programs were always better for improving oral proficiency in a language.

Medina-López-Portillo (2004) also specifically studied program duration of STSA through comparing two language-based programs. While the author claims the work shows that longer programs have more impact on student intercultural sensitivity, I argue that this result is an artefact of the binning of interval IDI data into the ordinal IDI bins. As the author points out, "There were no statistically significant differences … before or after" when the raw interval values of the IDI were analyzed (Medina-López-Portillo, 2004, p. 186). Clearer evidence from Medina-López-Portillo comes from the qualitative data, where

she found that students on the longer Mexico City program gave more concrete examples of culture and more detailed answers about Mexican culture showing greater depth of knowledge.

In a longitudinal study across 80 study abroad programs from a single institution, DeLoach et al. (2021) conclude that longer duration is better and *depth* has limited impact using global awareness measures based on those from Chieffo and Griffiths (2004) . A "deeper" program had students involved in more types of activities, was in a common destination that was not English-speaking, and were not an "island" program.

In terms of what types of STSA programs engage students the most, "Getting out of the bubble" in a new environment with new people, "Boundary crossing" between the familiar/comfortable and unfamiliar/uncomfortable (e.g., navigating non-native languages), and "Personalizing" experiences through working with real people are three characteristics identified by Jones et al. (2012), as promoting meaning-making on the four STSA programs they studied. These elements highlighted by Jones are particularly relevant to this study as the Argentina program is deeply rooted in all three. Rowan-Kenyon and Niehaus (2011), in studying students a year after a STSA program, found that continued engagement in learning opportunities was critical for continued impact.

Collectively, a large gap remains in understanding how particular types of STSA programs impact students. Prior research, which leans positive but has mixed results, focuses most heavily on language and culture programs. Less is known about how a practicum model, which embodies the three characteristics outlined by Jones et al. (2012), impacts students' views on cultural differences.

2.2. Related Work on International Practicum

International practica, most associated with business programs, provide real world experiences in international settings. Hawkins and Weiss (2005, p. 2) define a consulting practicum as an experience that "allows students to put concepts into practice through working with functioning businesses, governmental or non-governmental organizations". According to Akpan (2016, pp. 420-422), "[s]tudents taking part in the [practicum] can apply previously acquired knowledge and skills to solve real-life problems for clients… In all cases, students are active participants in the learning process as opposed to being passive recipients of theoretical knowledge". Much of the literature

(Hawkins & Weiss, 2005; Sherman, 1999) connects the practicum with John Dewey's experiential learning where workplace and classroom are combined and students solve real-world problems in groups under the guidance of a mentor.

Called "field casework" by Gundry and Buchko (1996), practica go beyond global awareness or global understanding (Sherman, 1999) to engage students in doing as a means to develop global competence. Comments by a student in Gundry and Buckho's (1996, p. 3) study summarize this well:

> The real learning came from making phone calls, working on spreadsheets, designing surveys, compiling, and analyzing results, and group discussion. Once I got involved with the case I found myself caring about the work we were doing. Fictitious cases and textbook problems don't supply that kind of emotion.

I was unable to find any literature using this term "practicum" outside of business or management. While most assessment of these programs, where it does exist (Hawkins & Weiss, 2005; Sherman, 1999), leans heavily towards anecdotal reviews or course evaluations with little analysis, the study by Gullekson et al. (2011) is an exception. In this paper, a pre-post study finds significant reductions in ethnocentrism, reductions in communication apprehension, and increases in intercultural awareness among 104 students in the treatment group (students on 16 day "Global Consulting Program" programs in one of ten countries) compared to no changes among 30 students in the control group (students doing a parallel program at their home university in the United States). The authors downplay the positive impact of the practica on students due to pre-test differences among the treatment and control groups. Regardless, the results are promising and the authors call for additional studies to build on their findings. The work presented in this paper aims to do just that through studying a practicum at the interdisciplinary intersection of business and engineering.

2.3. Related Work on International Engineering Programs

While the word "practicum" is not typically seen in engineering, experiential engineering programs share the "learn by doing" approach of practica. In this paper, I reserve the term "experiential engineering programs" to refer only to programs where students actively do engineering. Within

engineering, faculty-led short-term study abroad (FLSTSA) programs are in contrast to traditional semester or summer study abroad, comprehensive degree programs, specialized courses that consider a global context but may not require students to travel, international research, internships and co-op experiences, and international service learning opportunities (Besterfield-Sacre et al., 2013).

Within FLSTSA engineering programs, an extended field trip paired with reflection is the most cited model. In Parkinson's (2007) review of engineering study abroad programs, the main models for STSA are courses where students do site visits to multiple places and write about their experiences; this is called the "extended field trip" model (Parkinson, 2007). In Ventura's (2020) review of multiple FLSTSA engineering programs, the programs reviewed are also of the "extended field trip" model, where for example "[p]articipants visit contemporary buildings such as the Millennium Bridge, St. Mary Axe, etc." or "For 2 weeks, students are immersed in Chinese culture and experience numerous culturally significant sites, visit local universities, meet with alumni, etc." All programs from the 10 universities reviewed by Ventura (2020) engage students in the field-trip model while none have students doing engineering projects. Alexander et al.'s (2008) review of three programs follows this same pattern – all three center activities around company and site visits and attending culturally-significant events like soccer.

If FLSTSA engineering programs rarely have students doing engineering work on projects, on what types of programs do students do such work internationally? Of the 14 papers I found on specific international experiential engineering programs, most of the programs were either long-term (e.g., as part of a capstone class that lasts for a minimum of 10 weeks) or a domestic service-learning class with a short trip to the client as part of the class. The only two stand-alone FLSTSA experiential engineering program among those in Table (1) are the eight-week Thailand program (Demetry & Vaz, 2017) and the six-week capstone program in Mexico (Morkos et al., 2014).

TABLE (1)

INTERNATIONAL EXPERIENTIAL ENGINEERING PROGRAM

Paper Name and Citation	Location	Program Length
Influence of an Education Abroad Program on the Intercultural Sensitivity of STEM Undergraduates: A Mixed Methods Study (Demetry & Vaz, 2017)	Thailand	8 weeks
International Service Learning Design Projects: Educating Tomorrow's Engineers, Serving The Global Community, And Helping To Meet ABET Criterion (Budny & Gradoville, 2011)	Ecuador	Semester at home university + short trip to country
Educating Engineers for the Public Good Through International Internships: Evidence from a Case Study at Universitat Politécnica de Valéncia (Boni et al., 2019)	Latin America	2-5 months
Global Design Team: A Global Service-Learning Experience (Mohtar & Dare, 2012)	Various	Semester at home university + short trip to country
Service Learning through Global Engineering in Jabal Al-Natheef, Jordan: A Case Study (Frank & Rosenthal, 2012)	Jordan	Semester at home university + short trip to country
A Comparative Survey of Domestic and International Experiences in Capstone Design (Morkos et al., 2014)	Mexico	6 weeks
Evidence of intercultural competency from engineers without borders challenge projects (Abuodha et al., 2011)	Australia	1 semester
Impact of International Service Learning on Macro-Ethics: A National Study of Senior Engineering Students (Baugher et al., 2019)	Various	Various
Experiential Learning Abroad: A Critical Survey of Two Programs (Giudice et al., 2018)	Peru, Chile	Peru: 2 semesters at home + field trip in the middle Chile: "summer"
Urban Farming in Myanmar: An Experiential Learning Project for Engineering and Science Students from Hong Kong and Myanmar (Tam et al., 2018)	Myanmar	Included a trip to Myanmar of unspecified duration
International Capstone Student Projects Giving Real World, Global Team Experiences (Sanger et al., 2018)	Europe	1-2 semesters at home university + 2 exchange trips
Global Software Engineering Experience through International Capstone Project Exchanges (Knudson et al., 2018)	Various	1-2 semesters at home university + some have exchange trip

Experiential Learning with a Global Perspective: Overseas Senior Design Projects (Vaz & Pedersen, 2002)	Ireland, Denmark	10 weeks
Village Empowerment: International Service-Learning (Duffy, 2008)	Peru	Various

With *long-term* study abroad *experiential* programs and faculty-led *short-term extended field-trip* programs well-represented in the engineering literature, *short-term experiential engineering* programs are understudied. The work presented here aims to address this gap through studying the impact of a FLSTSA experiential program on students' views on cultural differences.

2.4. Related Work on Intercultural Learning and Global Competency

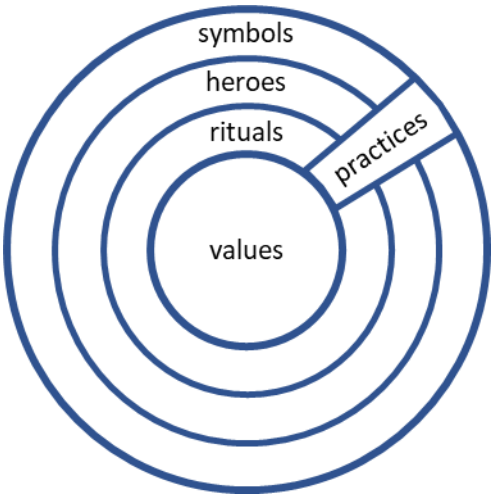
Prior research into the ability of people to work across cultures frames the topic around words like cross-cultural ability, intercultural sensitivity, global competence, global preparedness, intercultural learning, and intercultural competence. While these terms are not identical, they do share concepts related to increasing awareness of other cultures and using that increased awareness to act differently across cultural contexts (Niehaus et al., 2019).

Deardorff (2006) conducted a Delphi study to clarify the definition of intercultural competence using both university administrators and scholars as participants. The highest-rated definition of intercultural competence by scholars was "the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes." Administrators had a wider, more general view of intercultural competence which, notably, also included foreign language knowledge. Scholars focused on effective communication (independent of foreign language) and behaviors in intercultural situations. Deardorf found that assessment instruments for intercultural competence that are most agreed upon by scholars include mixing quantitative with qualitative measures, case studies, self-report instruments, narrative diaries, and observation by others. The use of quantitative measures in pre-post experiments was viewed with "skepticism" by the scholars while administrators agreed that they should be used. In the work presented here, I am focusing on self-report instruments to ensure I see how students think about their experiences in their own words.

Hofstede et al.'s (2010) layered "onion" model (Figure 1) represents the depth with which a person engages with a culture other than their own.

FIGURE (1)

HOFSTEDE'S LAYERS MODEL



SOURCE: HOFSTEDE ET AL. (2010)

At the outer layer, one only sees Symbols of other cultures such as words, gestures, and pictures; these symbols carry special meaning to those who share the culture. One layer in, Heroes represent idealized characteristics highly valued within a specific culture. Going deeper, Rituals are activities which are not necessary to perform certain tasks but are essential within a culture due to the meaning they carry. All three of these – Symbols, Heroes, and Rituals – are observable by people outside of a culture while their cultural meaning, which "lies in how these practices are interpreted by insiders" (Hofstede et al., 2010, p. 9), is invisible. At the center are Values, which are "broad tendencies to prefer certain states of affairs over others" (Hofstede et al., 2010, p. 9); these values are at the root of Rituals, are embodied by Heroes, and can be represented in Symbols.

The developmental model of intercultural sensitivity (DMIS) represents a progression of worldviews regarding cultural difference ranging from denying that cultural differences exist to centering one's self-identity around the ability to move between cultures (Hammer et al., 2003). The model is captured in six levels, three of which (Denial, Defense, Minimization) are categorized as ethnocentric and three (Acceptance, Adaptation, Integration) as ethnorelative. The ethnocentric levels err on the side of identifying superficial or simple

markers of a culture while the ethnorelative levels embrace richer, more complex views where patterns of behaviors can be appreciated within a distinct cultural context.

The DMIS is a model of worldview structures, not of specific behaviors or attitudes; "observable behavior and self-reported attitudes at each stage are indicative of the state of the underlying worldview" (Hammer et al., 2003, p. 423). Progress is generally considered to be unidirectional as the resolution of issues experienced at one level leads to the emergence of the next worldview orientation. That said, such resolution may not be complete and thus a single person's state may be spread across multiple DMIS levels.

The DMIS forms the theoretical basis for the Intercultural Development Inventory (IDI) (Hammer et al., 2003). The IDI uses responses to fifty items to generate a quantitative score of orientation towards cultural differences, mapping their score along a version of the DMIS.

A concern about FLSTSA programs is that they are not long enough to shift students from ethnocentrism towards ethnorelativism. A related concern, in terms of Hofstede's model is that students on FLSTSA programs can only experience the superficial practices of a different culture instead of the deeper value systems. This work aims to evaluate if and how these concerns bear out for a FLSTSA practicum-based engineering and business program.

3. Theoretical Framework and Research Approach

This work is based in a constructivist framework in that I focus on the words of students as representations of how they make meaning from their experiences (Van Note Chism et al., 2008). This framework was chosen due to the critical nature of reflection and meaning making in the process of learning from experiences. The research generally follows a Constructivist Grounded Theory approach: 1) it started without any codes and began with open coding, 2) final codes were developed through several iterative rounds by multiple raters, 3) axial coding was used to develop themes which connect the final codes, and 4) these themes related to each other through theories. I adopted an open coding approach where patterns could emerge that were not limited to one instrument or theory. That said, as the themes did emerge, the DMIS model, with

its focus on holistic worldview development stages, proved useful in grounding the findings to an established framework. The IDI instrument was not used due not only to the concerns raised by scholars (Deardorff, 2006) but also because it is better suited for a large sample study. The study here focuses on qualitative data so that I could explore the specific context of working with an international client. The Hofstede Layer Model also proved to be a complementarily useful framework as themes related to the symbolic and rituals practices and deeper understanding of values emerged from the data.

4. Positionality

The author is a faculty member in engineering who was the first person (in 2009) to run the program studied. I did not participate in the program during the year during which the data was collected for this study. I have deep familiarity with the program but no connection to this specific instance (e.g., the students, the projects, the experiences shared by faculty and students) of the program. The deep familiarity is important in interpreting certain experiences or places referenced in the responses of subjects. It also brings with it inherent biases; methods such as blind randomization of pre and post responses and the use of two raters to identify themes were used to mitigate the impacts of such biases.

5. The Program and Subjects

The program consists of thirty undergraduates and two faculty working for 2 weeks on client projects in Argentina. Those thirty students were selected from roughly 100 applicants based on a combination of essay questions, GPA, language skills, major, and a short video submission with their response to a case. Most students are engineering or business students in their junior or senior year. The course is not a required course for any program; students use the course to fulfil elective requirements. While most students had traveled abroad prior to this program, few had traveled to South America. Learning objectives focused on disciplinary content and knowing/applying intercultural learning. Approximately six hours of pre-departure meetings were held in the two months leading up to the program. Projects were at the intersection of information technology, engineering, and business. For the year under study, there were six different five-person teams, each working on a unique project

with a client. On workdays, teams spent four hours each day at the client site and three hours each day working away from the client site. There were three excursions during the program, but the bulk of cultural exposure was through client interactions and informal interactions navigating a city. The students received a talk on Argentine culture and another on presenting to an Argentine audience. Developing awareness of Argentine culture is supported through class discussions while acting on that emerging understanding of Argentine culture is embedded in client interactions and final client deliverables.

6. Methods

6.1. Subjects

Participation in the study was optional for the students on the program. Twenty-four of the thirty total students completed a questionnaire both before and after the program (Table 2).

TABLE (2)

TWENTY-FOUR SUBJECTS

Category	Location	Number
Gender	Female	14
	Male	10
Year	Junior	10
	Senior	14
Major	Business	10
	Engineering	12
	Other	2
Prior travel outside the U.S.	No	1
	Yes	23

6.2. Survey Questions

I am analyzing three specific questions from the questionnaire focused on the international nature of the client work. Students answered the question in the five weeks leading up to departure and again in the two weeks after the program.

- **International Client Question**: Are there certain skills / attitudes/ behaviors that are particularly important for someone working for an international (as opposed to domestic) client on a project? Why?
- **Cultural Differences Question**: How would you characterize key cultural differences between Argentina and the United States? Provide examples.
- **Advice Question**: What advice would you give to a person from the United States going to work for a client in Argentina on a project? Why would you give this advice?

6.3. Coding Process

All responses (both pre and post in one large group) were de-identified and randomly ordered for coding. Two raters conducted two cycles of reading the responses and then discussing codes. An initial set of codes emerged from this process that were tied to each question. After feedback from outside reviewers on these codes, one of the initial raters trained two additional people in how to rate the responses. After training the two new raters on twenty-four responses, the trainer and the two new raters updated the codebook to better distinguish the codes and also to converge onto a unified set of codes for all three questions. This final codebook has fourteen distinct codes. An analytical memo was kept throughout by the initial rater who trained the two new raters. The two new raters then coded all 144 responses (24 students, three questions each, pre and post) in a random order, with each response being coded as either matching a code or not. Interrater agreement was measured using Cohen's Kappa, which was 0.77. Of the total of 2,016 codes (144 responses*14 codes) the two raters reviewed 108 disagreements and triangulated to consensus on 102 of them. The remaining six were resolved by bringing in the trainer to make a final decision.

After coding, the number of responses representing each code before and after the program was tallied as were before and after pairings (Table 3). Finally, the responses were re-read after tallying the before and after pairings to look for commonalities and differences among the responses.

TABLE (3)

BEFORE AND AFTER PAIRINGS USED

Pairing	Pre- Program	Post-Program	Meaning
00	Code not present	Code not present	Code was never seen
01	Code not present	Code present	Code only seen after the program
10	Code present	Code not present	Code only seen before the program
11	Code present	Code present	Code always seen

7. Analysis and Results

7.1. Frequency of Themes and Codes

The fourteen codes that emerged, shown in Table (4), are grouped into five overarching themes.

TABLE (4)

THEME AND CODE DESCRIPTIONS

Theme	Code	Description	Example Responses
General	General Culture	Any non-specific statement about cultural differences	Make sure to understand cultural differences.
	General Language	Any general statement about language differences or communication differences	It is important to speak the same language.
Argentina-specific	Lower stress lifestyle	Argentines have a more relaxed and less stressful lifestyle. Less focus on hammering away at work and more on enjoying life.	People focus more on enjoying life.
	Slower pace	More explicit focus on slower pace in Argentina; things like meals taking longer, people arriving late to events or meetings.	Be ready for everything to take longer; you've got to be patient (also coded for Patience)
	Personal relationships	Argentines focus more on personal relationships instead of just "getting down to business."	Be aware of importance of relationships in business / aim to develop and spend time on getting to know your client.
	Less data focus	There is not as much focus on data.	It was so hard to get data – and that was because they didn't have much in the first place.

Actions	Learn about/ research a culture	Learn about the culture through books, online sources, and other methods of research.	Read up on greetings and expectations in client settings.
	Actively adapt to a culture during interactions	Actively read cultural cues from the client (e.g., using techniques such as mirroring and code-switching)	Notice what the client is doing and adapt; follow their lead…
	Bring gifts for clients	Any reference to bringing gifts to clients.	You should bring a gift to the clients.
Charact-eristics	Be Patient	Any reference to the need for oneself to be patient / not get frustrated if things take longer.	Your client may not want to talk about the project for a while and that takes patience.
	Be Open minded	Any general reference to the importance of having an open mind.	Go in open-minded. Be open to new experiences.
	Be Flexible	Any reference to the need to be flexible.	Things are so new and seem to change a lot – you really need to be flexible.
Reasons	To improve In-the-moment interactions	References the goal of learning about a culture being in the moment of the interaction: avoiding offending the client, an embarrassing moment, or an awkward exchange.	If you don't know how to greet someone properly, it can be a very awkward way to start.
	To build longer-term relationship	References the goal of learning about a culture being longer term aspects such as building trust, developing mutual respect, and building relationships with clients.	…make sure they are comfortable working with you and will trust your recommendations.

The five broader themes are:

- **General**: about culture or language generally
- **Argentina-specific**: particular characteristics that distinguish Argentine culture from U.S. culture
- **Actions**: different ways of gaining or showing intercultural knowledge/skills
- **Characteristics**: general mindsets to adopt when working across cultures
- **Reasons**: goals behind seeking intercultural knowledge/skills

The frequency of each code among the 24 subjects, both pre and post, is shown in Table (5).

TABLE (5)

CODE FREQUENCY PRE AND POST

Theme	Code	Pre	Post	00	10	01	11	Trend	p
General	General Culture	22	15	1	8	1	14	↓↓	*** 0.010
	General Language	14	12	7	5	3	9	↔	.56
Argentina-specific	Lower stress lifestyle	3	14	9	1	12	2	↑↑	*** 0.002
	Slower pace	6	17	6	1	12	5	↑↑	*** 0.003
	Personal relationships	8	19	5	0	11	8	↑↑	*** 0.003
	Less data focus	0	7	17	0	7	0	↑↑	*** .009
Action	Learn about / research a culture	11	2	12	10	1	1	↓↓	*** .008
	Actively adapt to a culture during interactions	5	6	13	5	6	0	↔	1.0
	Bring gifts for clients	7	1	17	6	0	1	↓	** .048
Characteristics	Be Patient	7	11	10	3	7	4	↔	.37
	Be Open minded	8	8	13	3	3	5	↔	1.0
	Be Flexible	4	8	15	1	5	3	↔	.32
Reasons	To improve in-the-moment interactions	5	3	16	5	3	0	↔	.70
	To build longer-term relationship	4	5	17	2	3	2	↔	1.0

**p≤0.05; ***p≤0.01; statistical results on the pre and post counts, with Fischer's Exact Test used except where both counts were 10 or greater, in which case a normal approximation was used.

Results show an increase in students commenting on Argentina-specific cultural differences and fewer students writing about culture in a general sense. Collectively, student responses after the program paint the picture of client interactions that were, compared to the U.S., more informal and people-oriented while also being less about efficiency and backing decisions with data. Prior to the program, comments about differences were less specific. About half cited something about language differences both before and after.

Before the program, eleven students cited the importance of doing research to learn how to work with an international client; after the program, only two cited such research as key. There was also a significant drop in students focused on the importance of bringing gifts to their clients.

Reasons for developing knowledge and skills for working with an international client were not commented on significantly either before or after the program. General characteristics like being flexible and patient show small increases but nothing that is statistically significant.

7.2. Exploring the Themes Through Qualitative Analysis

Post-program results show a deeper and more textured understanding of Argentine culture. From before to after the program, the subjects' advice they would give to someone working with an Argentine client moved away from the generic "do research on the culture" and "bring gifts" to specifics about the Argentine culture centered on the focus on relationships, the informality, and the relaxed lifestyle and slower pace. This move is seen across multiple codes (see Table 5) and is represented in the paired quotes (each row is a single subject) such as those shown in Table (6).

TABLE (6)

EXAMPLES OF HOW POST-PROGRAM RESPONSES ARE MORE SPECIFIC TO ARGENTINA

Before the program		After the program
I would advise them to do background research on cultural differences.	→	*I would advise them to be open minded, work philosophy is different in Argentina. They put more emphasis on relationships than efficiency*
Smile, be polite, and be patient, since that is all you need to be successful anywhere	→	*Don't rush, understand things take longer. Make friends, and network like the people are your family and not just business partners.*

Demonstrations of respect: Argentinian culture usually trades gifts at the beginning of a business relationship …	→	*Attitude towards work/life: Argentina is much more relaxed, and a lot less efficient than the U.S.*
Formality: … Argentinians are typically more formal and serious. This has a big impact on perceptions of professionalism.		*Interpersonal relationships at work: Argentines are very invested in having a personal relationship with the people that they are working with.*

In the top row, a very generic "do research" message from before the program shifts to a more contextually-aware insight that Argentines put more value on relationships and less on speed. In the second example, the subject states that being polite and friendly is "all you need" anywhere you go; such a statement minimizes the importance of cultural differences. After the program, their comments are focused more on the slower pace and the familial nature of business relationships. In the third example, the pre-response focuses on bringing gifts and the formality and serious tone of Argentine culture. The post-response shows a large shift – reflecting the more accurate representation that Argentina culture is more relaxed, moves at a slower pace, and is more focused on relationships.

While such dramatic changes are not seen for every single student, the examples in Table (6) do represent the general changes seen in the overall sample – changes from more generic (and sometimes incorrect) statements before the program to responses showing deeper knowledge about Argentina.

When referenced pre-program, markers of cultural differences (e.g., siestas, long dinners, greeting with a kiss), were more likely to be cited without any connection to underlying cultural values. For example, factual differences between the Argentina and the U.S. were identified before the program as shown in Table (7).

TABLE (7)

EXAMPLES OF HOW POST-PROGRAM RESPONSES FOCUS MORE ON CULTURAL VALUES

Before the program		After the program
In Argentina, people take breaks at work during the afternoon and come back later in the evening. In Argentina, they speak Spanish as opposed to English, and also use a different currency.	→	*Argentina is much more family oriented than the US. Every restaurant was crowded with families. When our clients hosted us for dinner, their entire families were there as well. The people in Argentina are much more focused on the present. No one rushes around or talks about being stressed out. The pace of life is much slower.*
- the culture around work is much different with the day split up by a siesta in the middle of the day… *- The language barrier may prevent good communication between the teams and the clients* *- the value of money will also be different between Argentina and the US. It is important to understand the value of money especially when trying to understand a business there.*	→	*-Time is not nearly as important in Argentina. Things take much longer (for example 3 hour lunches).* *-Attitude toward work. In Argentina it seems that people are more relaxed and in less of a rush to get things done* *- A lot more red meat, a lot more wine.* *- making a lot of money in Argentina is great, but people worry that bc of the economy that money will be worth almost nothing in the next few years. Current performance is therefore important and saving money and investing is not as important.*

Declarative statements such as “people take breaks at work,” “they speak Spanish,” and “the currency” dominate the responses prior to the program. After the program, such statements were more often paired with a connection to a broader cultural theme. The observable markers of culture such as entire families being at restaurants and the lack of people talking about stress are linked to the broader cultural values and trends of valuing time with family and a slower pace of life. In the post-program response in the second row, instead of focusing on the observation that siestas are taken in Argentina (as they do prior to the program), the student highlights that Argentines value time differently and are more relaxed at work (values that impact siestas and other aspects of work life). Additionally, their pre-program insight about the value of money is

richer after the program, showing awareness of the impact of high inflation on decision-making in businesses.

After the program, most judgments about cultural differences were in the positive spirit of “embrace the difference” and “work with what you have." The sentiment in the following answer was repeated in many answers citing the slower pace of business: Have patience: the pace of life there may feel frustrating at times but try to embrace it and work with it not against it.

The only exception to this positive judgment was around the lack of data which led to some frustration during the projects. While no comments directly spoke to the lack of data being “bad,” every comment about data was about the *lack* of it. This was viewed as a hindrance and challenge to making progress. “They did not even know the financial data.” “We had to ask about profits and costs several times and received different answers every time.”

It was very common for a response to follow the following pattern: “Argentine business culture is more X, so therefore you should do Y.” By commenting on what to do, the responses show a willingness to adapt: They put more emphasis on relationships than efficiency and sometimes that can be a very stark change. Being open to the way they do things and recognizing that putting pressure to make things more productive might not be the best approach to solving a problem with an Argentine client.

Other ways a willingness to adapt is expressed after the program include “go with the flow,” “tailor your skills to the new audience,” and “adjust to meet the client's expectations and conform to the culture.”

8. Discussion

The analysis of code frequency shows that students’ views on cultural differences move from broad generalities prior to the program to specific examples after the program. The qualitative analysis reinforces this trend while also revealing that students connect their observations to broader cultural values and to adapting their behavior.

8.1. Discussion in the Context of the Hofstede's Layer Model

In post-program answers, specific practices are commonly cited in the distinct cultural context of Argentina through connecting those practices to Values such as:

- A lower stress, more relaxed lifestyle,
- A slower pace where efficiency is secondary to other objectives,
- Spending time on and building personal relationships; and
- Judgment and experience being more valuable than data.

This is seen in the statistically significant results in Table (5) and qualitatively in Tables (6) and (7). This shift relates directly to Hofstede's Layer Model through showing that students recognize and articulate Values, not just Practices, after the program. After the program, students are more likely to make meaning of cultural differences through citing what Hofstede calls the "deepest manifestations of culture" (i.e., Values) instead of more "superficial" Practices such as Symbols and Rituals (Hofstede et al., 2010, p. 7). For example, Symbols such as the language, food, and currency being different are cited in isolation of deeper meaning more frequently prior to the program. In many ways, the large focus on learning about Argentina through research (e.g., books, online readings, videos posted online) seen prior to the program aligns with this focus on Symbols as such resources tend to emphasize surface-level differences. Also prior to the program, rituals such as trading gifts are statistically more common and rituals such as taking a siesta are referenced without making broader cultural connections. That is not to say that no Rituals are seen in responses from after the program– for example engaging with co-workers about personal life or seeing restaurants "crowded with families." After the program, though, it is more common that responses connect those Rituals to broader cultural Values; for example the siesta is connected to a more relaxed lifestyle that operates at a slower pace, talking about personal life in meetings is connected to the stronger focus on relationships, and seeing families out to dinner is connected to the importance of family.

8.2. Discussion in the Context of the DMIS

Results show a more ethnocentric view before the program. Worldview differences, which are central to the DMIS, are not commonly seen in responses prior to the program. Pre-program responses comment on

practices like taking a siesta and eating different foods but rarely make connections between those practices and worldviews. They are not exploring the contextual environment in which these practices exist *in Argentina*, but instead are viewing them from *their own worldview*. That is, the responses prior to the program are more ethnocentric. After the program, responses comment on practices *and* on the context within which those practices exist Argentina. For example, there are responses about how meetings start late and meals run long due to the worldview in Argentina that efficiency is not paramount. In some cases, pre-program responses exhibit Minimization from the DMIS through focusing on "superficial cultural differences such as eating customs, etc., while holding that the more important fact is that all human beings … need to eat" (Bennett, 2011). An example of Minimization from a response in Table (6) is "*Smile, be polite, and be patient, since that is all you need to be successful anywhere.*"

Results show a more ethnorelative view after the program. Through viewing practices seen in Argentina in the context of common dimensions of Argentine worldviews, students after the program take a more ethnorelative perspective. Statements such as "Argentina is much more family oriented than the US. Every restaurant was crowded with families." not only identify a difference but show understanding of worldviews from which that difference manifests. Such results demonstrate that not only were students seeing more Argentina-specific cultural differences after the program, but they were also connecting those observations to fundamental values and, importantly, "embracing those differences" instead of judging them negatively. That is, Acceptance and Adaptation DMIS levels are more commonly seen after the program. Many core values in Argentina – a lower stress and more relaxed pace, more focus on people than efficiency, and less reliance on data -- directly counter core values in the United States. To not judge those values shows a shift to ethnorelativism and a stronger tie to DMIS Acceptance where experiences of cultural difference are viewed as "existing in cultural context" (Bennett, 2011).

The transition from Acceptance to Adaptation is evidenced in many responses, too. DMIS Adaptation is about intentionally "shifting perspective and altering behavior" to work within another cultural context (Bennett, 2011). Many of the more detailed post-program responses spoke to not just observing and appreciating differences, but to acting on them through "being open to the

way they do things." For example, one subject wrote the following about how they adapted: "I tend to be a creature of habit, so adjusting … was a challenge for me, but staying open-minded and "going with the flow" significantly helped."

That said, responses do show DMIS "Defense" around the lack of data. Highlighting how a single person may not be fully at a single DMIS level, there are responses that show ethnocentric negative judgments of Argentine culture after the program. One's DMIS level can depend on the context of the situation and the cultural value. In working for Argentine business clients, the lack of data showed the most Defense. As detailed in the Results section, most comments about data were about the *lack* of it (implying that "more data is better") and how that lack was a hindrance to the team. These reactions could be characterized as natural, but only from the point of view of a culture where data is central. In the United States, people are accustomed to decisions being driven by data; the best decisions are "evidence-based." While the lack of data is tied to deeper cultural values, students did not make those connections. In that way, the student responses did not show a deep appreciation that, given the lack of focus on data, they needed evidence other than data to effect change with Argentine clients.

8.3. Discussion Regarding the Client Experience

While the purpose of the study is more descriptive than explanatory, explanation for the observed changes is hinted at by which experiences the students most often cite in their responses after the program.

The program's deep focus on a single relationship appears to be important. The students spend at least four hours per day with their clients. This gives them access to places where real people are behaving normally in their daily activities, which is in contrast to programs where students only attend talks or see local people at restaurants, museums, performances, or other tourist-oriented sites. For example, multiple students cite their client inviting them over to his house for a meal when referring to the importance of personal relationships in Argentina. Twenty-one of the twenty-four responses after the program about differences between Argentina and the United States focus at least in part on work culture or specifically on the client. The other three responses only reference things more easily viewed by any tourist such as siestas, staying out late, and slow service at restaurants. As a whole, this points

towards the centrality of the client experience in shaping student views about Argentine culture to connect with Values Hofstede layer model and to be more ethnorelative in the DMIS model.

9. Limitations

This study does focus on a relatively small group of students in one particular program. Additionally, the students were not randomly selected for the program and the twenty-four that responded to the surveys (out of the thirty on the program) self-selected. This presents the possibility that the students on this program that completed the surveys were pre-disposed to change/not change in particular ways. Caution should therefore be given in generalizing the work too widely. Further, I am basing this work only on answers to the survey. Additional work involving interviewing a subset of these participants to explore themes more deeply is underway. The lack of a control group opens the door to other possible explanations for the changes being seen/not seen. That said, the short duration of time between pre-test and post-test (about one month) limits threats from maturation (Hadis, 2005) and history. The author of this paper does have a history with the program being studied; he was not directly involved in this offering of this program. Measures taken (such as identifying themes with two raters and reviewing responses blind to students' names and also blind to if the response was from before or after the program) were aimed at minimizing the potential bias that such familiarity can bring.

10. Conclusion

This study focuses on how a short-term study abroad interdisciplinary practicum affected student's views of cultural differences. Evidence points towards a richer, more contextualized understanding of ways to work with an international client after the program. After the program, students show an understanding of cultural values and worldviews while pre-program responses focus on the surface of Hofstede's layer model. Students also show changes in perspectives towards more ethnorelative ways of thinking after the program. With these changes resulting from a two-week practicum program in Argentina, this work shows positive intercultural outcomes resulting from FLSTSA programs where students work closely with clients on experiential "learn by doing" projects.

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