The professional development of students through global experiences

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THE PROFESSIONAL DEVELOPMENT OF STUDENTS THROUGH GLOBAL EXPERIENCES

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Abstract

As globalization increases from advancing technologies and innovation, more businesses are entering the international market. With this, comes a demand for a culturally competent workforce. To possess cross cultural skills, college students must develop Cultural Intelligence. According to the Cultural Intelligence Center, Cultural Intelligence (CQ) is defined as the ability to relate and work effectively in culturally diverse situations. Research shows that college students who go abroad have a higher probability of standing out to employers due to the knowledge and risks associated with going global, and make further efforts to immerse themselves in cultures (10 Benefits to Studying Abroad).

Previous analysis of Cultural Intelligence Assessments in the College of Business at the University of Northern Iowa demonstrates a 10 percent increase in average scores from study abroad participants after their time abroad. The tests conducted in this research takes into account standard deviation and mean to determine if these changes are significant. To prove studying abroad develops and improves cultural intelligence, statistical tests on Cultural Intelligence Assessments were conducted to prove five research hypotheses. The objective is to measure development, encourage students to pursue experiences abroad, and project an understanding of the positive outcomes. In an economic period of declining public funding and increasing cultural integration, these quantitative findings provide some incentive to invest in more funding to increase study abroad participation. With more study abroad participation comes a higher population of college graduates with the skills to work effectively in a global environment.
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Introduction

The push to increase study abroad programs and participation is a trend that has been occurring for over a decade but the issue that many students run into regarding studying abroad are often not self-imposed obstacles. The demand for college graduates with intercultural skills is present within the job force but going abroad is much easier said than done. What is lacking is the funding and support from the same providers pushing to enact more programs worldwide. More than three-fourths of survey respondents (79 percent) reported that financial considerations were a significant barrier in the decision to go abroad. This included the cost of travel and lost income from learning a positions of employment (The Benjamin A. Gilman International Scholarship Program, 2016). For students to prioritize studying abroad in the four years they are at college, evidence of long term benefits must be made apparent.

The importance of obtaining the skills gained from international experience can directly mend issues that many firms are experiencing as they expand globally. More than one in five U.S. jobs depend upon international trade (Statistics). Skills such as multiple language fluency and knowledge of social norms and customs are highly sought after due to the impact they can have on a firm’s profitability and B2B relationships. Without the skills to assist in ease of doing business, U.S. firms would struggle to stay a dominant power in the international business world. In several lines, Senator J. William Fulbright sums up the importance of intercultural education,

“…By producing generations of leaders, especially in the big countries, who through the experience of educational exchange, will have acquired some feeling and understanding of other peoples’ cultures – why they operate as they do, why they think as they do, why they react as they do – and of the differences among these cultures. It is possible... that people find themselves, through
intercultural education's, the ways and means of living together in peace.”

(Jeffrey, 1987 p.193-194)

The correlation between intercultural skills and the need for international competency is easy to see but obtaining these skills is more difficult. Understanding that not all study abroad programs contribute to the intercultural development of students, the value of locating great programs can enhance a student’s capabilities. This contributes to the overall benefits of study abroad. How can one prove that global experiences contribute to these internal and external developments of the participant? In the past, there have been large scale studies to empirically demonstrate the educational benefits of study abroad. In each case, the study compares students who study abroad with students who do not study abroad. These cases run into the issue of whether the student development stemmed from their study abroad experience, or if the development is a result of the students’ inner characteristics. For this study, the growth in participants’ cultural intelligence is based off of their pre and post departure assessment scores. Comparing how each student individually grew from their time abroad and statistically testing this against other external factors provides evidence how certain programs stimulate different internal developments.

Research Question

Do global experiences increase Cultural Intelligence (CQ)? As previously stated, many studies have uncovered that there are advantages to going abroad. By going into further detail and analyzing not only the changes in Cultural Intelligence but each category that makes up CQ, educators and policymakers have further proof of the skills obtained while abroad in a quantitative format.
Purpose of the Study

The purpose of this study is to bring to light specifically how different global experiences can affect a participant strictly comparing CQ assessment scores to themselves and not one another. These CQ assessments can determine how different destinations, durations, and studies can assist in better tailoring these programs for maximum development while abroad. The long term goal would be to promote more customized and tailored programs to students where they can gain the most from their experience abroad. As the first quantitative study regarding study abroad through the college of business at UNI, this study acts as a channel into further testing of cultural intelligence.

Literature Review

It is important to understand the current status of study abroad enrollment and how it is perceived by the public. This chapter reviews literature pertaining to study abroad and factors associated with its importance. It is divided into four categories: 1) Study abroad endeavors within higher education, 2) Prior conclusions on study abroad benefits, 3) The reasoning behind employers’ demand for international experience, and 4) An explanation of Cultural Intelligence. The four categories covers the main research objective by highlighting the demand for international programs, the internal benefits, external benefits, and how global exposure influences students.

Study Abroad Endeavors within Higher Education

What used to be a selective educational endeavor has evolved to be an international educational opportunity open and marketed to all students. Increases in institutional support and government funding programs have been implemented to assist in attracting as many participants as possible. A goal administered in Lincoln Commission's final report was one million students
studying abroad annually by 2016-17 (cited in Salisbury, 2011). Currently, the nation stands at 304,467 students studying abroad annually. This represents just under 1.5 percent of all U.S. students enrolled at higher education institutions in the U.S. and about ten percent of U.S. graduates (Trends in U.S. Study Abroad, 2016).

As rising numbers of U.S corporations position themselves for international competition, the demand for cross-culturally competent employees is expected to increase. However, reports suggest that graduates of U.S business schools lack cross-cultural skills prompting employers to recruit international students (Kruse, L. Orchard, T. & Pearson, D. 2004). Foreign countries are making strong efforts to send their students to the U.S. and internationally. Research shows there are twelve times more Chinese students studying in the U.S. than Americans studying in China and over 900,000 foreign students studying in America in 2016 (Bidwell, A. 2014). For visual representation of annual study abroad growth, see Appendix A. Today’s companies are increasing the amount of business done in China, and without proper experience and understanding of the culture, this could be detrimental for U.S. firms. It is important to bridge the gap between cultures and strengthen U.S. and China relations (Students - U.S. China Strong Foundation, 2016).

Prior Conclusions on Studying Abroad Benefits

Assuming that students gain from their experiences abroad and take advantage of each opportunity offered, their time usually leads favorably toward an international dimension in a career path. Taken from the Gilman Scholarship Internship Evaluation Survey, general benefits from study abroad are foreign language skills, cross-cultural communication skills, experience working with diverse team members, knowledge of chosen career field, and abilities to adapt to new environments and handling difficult situations Of the 1,441 survey respondents who took
part in a global internship through the Gilman Scholarship program, 87 percent returned with a greater interest in cross cultural topics, and more than one-third chose an academic concentration with an international focus (The Benjamin A. Gilman International Scholarship Program, 2016). Specific to this study, advantages such as international immersion improves internal abilities such as psychosocial development and second language acquisition. Highlighting the internal beneficial growth to participants, this study shows that there is more to culture immersion than just the external benefits.

Several variables contribute to the degree a student develops abroad, but it can be generalized that psychosocial development happens for everyone. Going abroad is a way for students to discover themselves while gaining an understanding of a different culture. It tests their ability to adapt to diverse situations while being able to solve problems (10 Benefits to Study Abroad n.d). Neurologically, it disturbs normal neuronal patterns by building new ones through cultural engagement. According to research conducted by Yuliya Kartoshinkina, “Experiencing culture shock is the brain trying to use old neuron patterns to interpret a new environment. The more times a student spends in a new environment, the more the brain adapts and creates new neural patterns” (Fischer, 2013). Learning a new language also stimulates neural networks, and more networks are generated from each language acquired.

Forms of culture immersions such as language courses, staying with host families, or simply living and working in a country are considered the most effective ways to acquire a second language. Students can gain listening, reading, and oral proficiency by needing to communicate with locals every day. The logic is that “classroom drills cannot substitute for extended experience communicating with native speakers in natural settings about real-life matters” (Freed, 1995, p.37). To stay competitive in a global job market, having at least one
other language in one’s skill set, along with international experiences, adds value to a resume.

**Explanation of Cultural Intelligence**

In order to understand how participants grow from culture immersion, it is important to understand how CQ assessments measure Cultural Intelligence. Livermore (2015) defines it by saying “CQ predicts many important aspects of intercultural effectiveness, most of all intercultural adjustment and performance” (p.3). It can also be defined as a person’s capability to function effectively in a variety of cultural contexts—both internationally and domestically (What is CQ? n.d.). It is a reliable predictor of how a person leads across cultures. According to cross cultural psychologist David Matsumoto, “There is considerable evidence for the concurrent and predictive ecological validity of CQ with samples from multiple cultures” (Livermore, 2015, p.32). CQ is based on existing research on intelligence, including academic intelligence (IQ) and emotional intelligence (EQ) paired with survey responses from over 40,000 individuals across every major region of the world. The composition of the CQ tests consists of multiple choice questions asking about where the participant ranks themselves relative to others in different cross cultural settings. Results demonstrating high CQ contribute to profitability, better job performance, healthier well being, and cross cultural adjustments abilities. Four capabilities of culturally intelligent leaders were conceptualized from the research. This includes the categories of CQ Drive, CQ Knowledge, CQ Strategy, and CQ Action. These four concepts make up the foundation of Cultural Intelligence.

The first concept, CQ Drive is associated with motivation. It relates to having the confidence, interest, and drive to adapt to cross cultural situations. It is one’s ability to be personally engaged and to persevere through intercultural challenges. Low results in this category demonstrates a person who makes minimal efforts to immerse
themselves in new cultures when abroad. Leaders with high CQ drive make efforts to adapt to new cultures and learn from the community they are immersed in. An example of developing CQ drive includes trying new foods and interacting with people of that culture (Livermore, 2015). Strategies to improve one’s CQ Drive is to face biases, count the cost of cultural mishaps, and gain additional hands on experience.

The subcategories that make up CQ Drive are intrinsic interest, extrinsic interest, and self efficacy. Diving further in depth with the components that make up CQ Drive; Intrinsic interest is the internal desire to want to learn and understand a culture. Extrinsic interest is gaining benefits from culturally diverse experiences. Further, self-efficacy is encompassing the confidence to work effectively in diverse situations. Each of these categories are given a score in the assessment and the average of these numbers make up CQ Drive.

CQ Knowledge is defined as the understanding of intercultural norms and differences. This refers to being aware of cultural systems and values when in different societies and being open to what is considered normal in their culture. People with low scores in CQ Knowledge are unwilling to understand the differences in culture and often paired with an ethnocentric mindset. Believing that actions within their own culture are “normal” and everything else is “incorrect”. Leaders high in CQ Knowledge understand culture and the effects it has on the way people act (Livermore, 2015). Methods to improve CQ Knowledge includes knowing one’s personal culture, analyzing and determining if external forces one see is shaped by culture, or finding a culture coach.

The subcategories making up CQ Knowledge are business, values & norms, socio-linguistic, and leadership. In this scenario, business is referred to as knowledge about the economic and legal systems. Values & Norms is knowledge about social norms,
ways of interacting, and religious beliefs. Socio-linguistic scores determine a participant's knowledge of the language in the culture and communication norms such as volume, grammar, and style. The final sub-dimension is leadership. This is knowledge on how to manage people and relationships across cultures. An important aspect of leadership is knowing the work ethic of different cultures and how to use this knowledge to prevent issues and promote efficiency.

The third CQ characteristic is CQ Strategy. This applies to making sense of culturally diverse experiences, planning appropriate strategies, and accurately interpreting a situation. Leaders in this group are able to monitor, analyze, and adjust their actions to accomplish their objectives. For example, to do business in Asian societies, building relationships is key. If an American firm wants to do business with a Japanese firm, it is important to acknowledge and strategize how to proceed with meetings by building trust first. The ability to strategize is critical in any business setting but more important when working internationally. Cultural intelligence helps leaders make better use of team differences to build trust, reach targets, and accomplish results (Livermore, 2015). CQ Strategy can be increased by noticing cultural actions without holding judgements, planning culturally different encounters, and reflecting appropriately to determine what went well for future interactions.

Sub dimensions making up CQ Strategy are planning, awareness, and checking. High scores in these categories create an individual who are able to enhance strategies for effective interactions based off planning and experiences. Planning refers to strategizing before a culturally diverse encounter. Awareness is the ability to sense the perspectives of oneself and others. The final dimension, checking, is defined as testing assumptions and adjusting mental processes when they differ from what one expected.

The final concept is CQ Action. It measures one’s ability to notice verbal and nonverbal
behavior when interacting cross culturally. This includes being aware of cultural situations and knowing when not to adapt. Eye contact, facial expressions, distance are examples of nonverbal actions that could offend someone in a different culture. Verbal actions such as certain topics, and apologies are important to know in specific cultures. Too much adaptation can generate suspicion but also inflexible behavior is considered rude. Having strong CQ Action means that leaders know when to use appropriate gestures and are able to analyze a situation in their favor (Livermore, 2015). Enhancing CQ Action requires one to observe and record variations in verbal and nonverbal behaviors as well as practice implementing new behaviors. The final strategy is to adapt how you give instructions, foster interaction and provide feedback to subordinates.

**Reasoning behind Employers’ Demand for International Experience**

To improve a firm’s global stance, it must have a global understanding of the market. A student who obtains international experience may have an appreciation for cross-cultural differences and understands the global perspective. These attributes, along with others, contribute to the 97 percent of study abroad students that found employment within 12 months of graduation, compared to 49 percent of college graduates in the same period (IES Abroad). The reason why employers are interested in students with international experience is because they possess the ability to project the company to perform successfully at an international level. According to NAFSA: Association for International Educators (2016), “Almost 40% of companies surveyed missed international business opportunities because of a lack of internationally competent personnel”. Culturally intelligent leadership increases profits, reduces costs, and improves efficiencies when marketing and selling products in new markets. However, without the right strategy, large losses can occur which is why firms strive to attract and retain top talent.
This talent is present in most Global Leaders, which is defined as a leader with ability to read and adapt to cultures. Research by Livermore shows that 90 percent of leading executives from 68 countries identified cross cultural leadership at the top management a challenge for the next century (Livermore, 2015, p. 13). Unfortunately, cultural issues are the cause of 99 percent of early expatriate terminations during international assignments. Without competent leading executives, the advancement of firms entering global markets is hindered. It is predicted that the proportion of revenue coming from overseas markets is expected to jump by an average of 30-50 percent over the next three to five years (Livermore, 2015).

Three main selection criteria for most global companies encompass the aspects of CQ. The first criteria is intellectual skills including the ability to quickly analyze data, make objective decisions, and make connections between issues and application. This best relates to CQ Knowledge. The second criteria is motivation, evaluated in terms of the achievements and enthusiasm from the candidate, best correlated with CQ Drive. The third and most global criteria is a candidate’s interpersonal skills applying to being open minded, and respecting other cultures which is directly associated with CQ Action (Fischer, 2013). All attributes mentioned are acquired and improve from hands on international experience.

**Research Methodology**

After receiving IRB approval to use data acquired from the College of Business, the researcher was able to conduct analyses through SPSS. The primary goal of testing data obtained from CQ assessments was to examine the effect of global experiences on participants’ CQ based on duration abroad, country language, gender, and program vigor. To determine if there was significance, five hypotheses were tested. These were: 1) There is a significant increase in all categories of CQ from studying abroad, 2) Long term programs increase CQ more than Short
term programs, 3) Traveling to countries where English is not the first language improves one’s Socio-linguistic score, 4) Males and females show statistically different results in post CQ scores, and 5) Culture intensive programs have a higher impact on post CQ scores than regular study abroad programs.

**Population**

The target population of these hypotheses test include business students at the University of Northern Iowa who have studied abroad or obtained global experience through UNI. This is the target population because the College of Business is working towards influencing more students to take advantage of the study abroad programs offered. After removing results with missing values, there were 65 completed surveys used in the statistical analyses with programs ranging from one week to an entire school year. These test results were acquired from students who traveled between August 2015-March 2017 and range from freshman to senior standing. The results were acquired from students who not only participated in study abroad programs but also internships and trips through the College of Business. Shown in Table 1, the respondents accurately depict the general makeup of the College of Business study abroad programs at UNI. In comparison to national study abroad statistics, the College of Business study abroad male to female ratio corresponds in a similar direction to the national ratio with a higher percentage of females partaking in study abroad (See Table 2). According to research reported in the Chronicle of Higher Education, women account for two-thirds of participation in overseas study. For men, the study abroad decision is heavily impacted by peer influence, which is not the case for women who are more likely to be influenced by previous studies such as courses focused on different societies and cultures.
Table 1.  
*Sample Demographics*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>17</td>
<td>26</td>
</tr>
<tr>
<td>Female</td>
<td>48</td>
<td>74</td>
</tr>
</tbody>
</table>

**Length of Program**

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short term (One month &lt; )</td>
<td>55</td>
<td>80</td>
</tr>
<tr>
<td>Long term (One month &gt; )</td>
<td>11</td>
<td>20</td>
</tr>
</tbody>
</table>

Table 2.  
*National Demographics*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>103,427</td>
<td>33.4</td>
</tr>
<tr>
<td>Female</td>
<td>209,988</td>
<td>66.6</td>
</tr>
</tbody>
</table>

**Length of Program**

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short term (One month &lt; )</td>
<td>174,572</td>
<td>55.7</td>
</tr>
<tr>
<td>Long term (One month &gt; )</td>
<td>138,843</td>
<td>44.3</td>
</tr>
</tbody>
</table>
Design

The method used to acquire quantitative data was through pre and post CQ study abroad assessment scores. The online assessment, conducted through the College of Business, measures one’s capability for working and relating across cultures. The assessment is composed of 89 questions divided into four sections. Each section asks different questions relating to the participants values, beliefs, motivation behind study abroad, cultural diversity, and level of cultural skills. The questions are either multiple choice or a rating scale (see Appendix B). Results from these tests range from 1-100 percent relative to worldwide norms in each CQ category. Low scores are in the bottom 25 percent of worldwide norms, moderate scores are in the middle 50 percent of worldwide norms, and high scores are in the top 25 percentile of worldwide norms. These categories measure the amount of initiative taken by the participant when in a culturally different setting.

The objective is to prove the five hypotheses and determine if there is significance between cultural intelligence and spending time abroad. The analysis was conducted to determine the strength of growth between going abroad, short term vs long term, sociolinguistic skills from travelling to countries where English is not the first spoken language, males and females, and whether cultural intensive programs increase CQ more than normal study abroad programs. The results from this analysis may suggest where a student internally develops the most, which regions may have the most cultural effect on students as well as the difference between short term and long term immersion.
Results

The primary goal of these tests was to examine the effect of global experiences on participants’ Cultural Intelligence based on duration abroad, country language, gender, and program vigor. To address the main research question; “Does global experiences increase Cultural Intelligence?”. The researcher input the data into SPSS from 65 viable CQ assessments to run five tests corresponding with each hypothesis.

1) There is significant increase in all categories of Cultural Intelligence from studying abroad. The first hypothesis was tested using a paired samples t-test in SPSS to measure the CQ scores before a participant studied abroad and after to determine if there was significance. A paired samples t-test is defined as statistical procedure used to determine whether the mean difference between two sets of observations is zero (Paired Sample T-Test, 2017).

Table 3. Hypothesis #1- Fully Supported

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>T</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQ Drive Pre</td>
<td>77.985</td>
<td>12.754</td>
<td>-3.381</td>
<td>.001</td>
</tr>
<tr>
<td>CQ Drive Post</td>
<td>83.245</td>
<td>14.194</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CQ Knowledge Pre</td>
<td>45.062</td>
<td>16.980</td>
<td>-7.231</td>
<td>.000</td>
</tr>
<tr>
<td>CQ Knowledge Post</td>
<td>60.503</td>
<td>16.260</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CQ Strategy Pre</td>
<td>71.645</td>
<td>14.104</td>
<td>-4.979</td>
<td>.000</td>
</tr>
<tr>
<td>CQ Strategy Post</td>
<td>80.477</td>
<td>11.869</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CQ Action Pre</td>
<td>62.723</td>
<td>17.889</td>
<td>-4.687</td>
<td>.000</td>
</tr>
<tr>
<td>CQ Action Post</td>
<td>72.445</td>
<td>15.535</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 reveals that the results are significant at the .01 level. For this sample, all participants experienced a significant increase in their post departure scores from studying abroad in all 4 categories. It can be assumed that most individuals who obtain global experiences have improved functioning capabilities in international and domestic cultural contexts.

2) Long term programs increase Cultural Intelligence more than short term programs.

The second hypothesis was tested using an independent samples t-test to determine the
significance in scores between participants who were abroad short term versus long term. The Independent Samples t Test compares the means of two independent groups in order to determine if there is statistical evidence associated with the population means (SPSS Tutorials, 2016). Short term programs range from one week- four weeks. Long term programs take place for four weeks to one year. Duration was used as the grouping variable where short term programs were assigned the numerical 1, and long term, 2. Duration was tested against all four categories of CQ.

Table 4. Hypothesis #2 Partially Supported

<table>
<thead>
<tr>
<th></th>
<th>Duration</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>T</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>CQ Drive Post</td>
<td>Short</td>
<td>82.555</td>
<td>15.032</td>
<td>-.867</td>
<td>.389</td>
</tr>
<tr>
<td></td>
<td>Long</td>
<td>86.635</td>
<td>8.755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CQ Knowledge Post</td>
<td>Short</td>
<td>58.825</td>
<td>16.947</td>
<td>-2.542</td>
<td>.018</td>
</tr>
<tr>
<td></td>
<td>Long</td>
<td>68.273</td>
<td>9.498</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CQ Strategy Post</td>
<td>Short</td>
<td>80.870</td>
<td>12.016</td>
<td>.589</td>
<td>.558</td>
</tr>
<tr>
<td></td>
<td>Long</td>
<td>78.545</td>
<td>11.457</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CQ Action Post</td>
<td>Short</td>
<td>72.555</td>
<td>16.193</td>
<td>.125</td>
<td>.901</td>
</tr>
<tr>
<td></td>
<td>Long</td>
<td>71.909</td>
<td>12.430</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This hypothesis is partially supported due to statistically significant results in CQ Knowledge. The results prove that students who are abroad for a longer duration are have a better understanding of cultural differences and variations in a particular setting. Although the other categories did not demonstrate significant growth, there was a mean increase in CQ Drive and Knowledge as well. With a larger sample size, it is possible that these categories would demonstrate significance from long term programs as well.

3) Traveling to countries where English is not the first language improves one’s Socio-linguistic score. The third hypothesis was tested using an independent samples t-test with language as the grouping variable tested against post assessment socio-linguistic scores. Socio-linguistic is a subcategory of CQ Knowledge and is more specifically defined as knowledge.
about language and communication norms. The purpose of testing Socio-Linguistic against English and non-English speaking countries is to determine whether participants who travel to countries that speak a foreign language have higher scores.

Table 5. Hypothesis #3- Failed to Support

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>T</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociolinguistic Pre Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>20.181</td>
<td>20.831</td>
<td>-.208</td>
<td>.835</td>
</tr>
<tr>
<td>Non-English</td>
<td>21.648</td>
<td>21.423</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociolinguistic Post Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>34.818</td>
<td>29.832</td>
<td>-.140</td>
<td>.889</td>
</tr>
<tr>
<td>Non-English</td>
<td>36.167</td>
<td>38.988</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This test failed to prove the hypothesis; however, the means show a trend towards larger scores.

If the sample size was larger, it is very possible the results would be different. The average difference in scores for travelers to foreign countries was 15.091 points.

4) Males and females show statistically different results in Post CQ scores. The fourth hypothesis was tested using an independent sample t-test using the entire sample. Gender was the grouping variable with males assigned 1, and females assigned 2. This was compared against all CQ category means to determine whether post assessment scores vary between males and females.

Table 6. Hypothesis #4 Failed to Support
There is no statistical significance indicating a difference in post results between genders. The conclusion that can be made from this test is that males and females are learning equally from international experiences.

5) Culture intensive programs have a higher impact on post CQ scores than regular study abroad programs. The fifth hypothesis was tested using an independent samples T test program with vigor as the grouping variable tested against all 4 CQ categories, in addition to Values & Norms. In this test, two types of programs were compared regarding cultural intensity. Programs considered “culturally intensive” encompassed heavy immersion with the locals and preparation courses prior to departure. General education programs have higher emphasis on learning about historical sites and attractions within an area. There is more movement to different cities and countries within these programs.

Table 7. Hypothesis #5 Partially Supported
The results show that students who partake in culture intensive programs score higher in CQ Action which can be translated as a higher ability to understand verbal and nonverbal actions. Analyzing the means, post assessment scores from students in culturally intensive programs have an overall higher mean than educational tourism programs.
Conclusion

It is undeniable that the demand for college graduates with intercultural skills is necessary in today’s global society. To increase the number of students obtaining these skills, evidence of growth through a study abroad experience is imperative for policy makers and educators to advocate for more funding advocating international exposure. This research is one of the few that analyzes the effects of study abroad using quantitative measures to compare individual growth from international experience. Using data obtained from the College of Business at the University of Northern Iowa, the results show there is a statistically significant increase in all CQ categories from studying abroad, long term programs increase CQ Knowledge significantly more than short term programs, and participants of culturally intensive programs have a better understanding of verbal and nonverbal actions upon their return (See Appendix C for summary). These empirical findings simply provide evidence for what previous qualitative methods have already concluded. This research acts as a baseline for possible future studies in the international education field.

Limitations

Aside from the conclusions the researcher was able to find, there were several limitations that could have caused a different outcome if not present. Access to a larger sample size and reliable data were the two main limitations of this study. The sample size was small due pre-and post-CQ assessments being a new requirement of studying abroad through the College of Business at UNI. Acquiring data from short term programs was much easier than long term programs because more students are available to travel short term. The data included every person who travelled through the College of Business whether it be study abroad program, internship, or school trip to get a broad scope of experiences. A larger number of
CQ Assessment participants allows for a more accurate representation of how international experiences affect students. Considering that the data acquired is from solely business students, if taken by all study abroad participants, there would have been a greater chance of improvement in other categories of CQ as well. Suggestions for future research with a larger sample size would be whether long term programs in foreign speaking countries improve sociolinguistic scores and how post assessment results differ between study abroad programs and internship abroad.

The second limitation is the uncertainty of reliable data. The CQ Assessment is circumstantial on where the participant views themselves relative to their peers, thus leaving room for differences in opinion depending on the person. For example, if the question asked whether the participant believes they are exposed to many cultures in comparison to their peers, this depends on who they associate themselves with. There is not a standard for comparison leaving room for error in CQ calculations. This cannot be overcome because this is the assessment structure. Another circumstance regarding reliable data is that students may not have answered to the best of their ability. There were several tests that were noticeably inadmissible due to having the same score throughout the entire assessment. These tests were not used in the study. It is possible there were other students who did not answer truthfully but it is difficult to determine whether the student put in the effort when answering questions.

**Implications for Research**

As the first quantitative study regarding study abroad through the College of Business at UNI, this study will hopefully act as a channel into further tests of CQ. This also acts as a baseline for future students interested in finding how global experiences can benefit themselves. As more data is acquired and becomes readily available, further tests can be conducted to solidify the fact that global experiences increase a participant's ability to cross
culturally make decisions and act in new environments. As stated in the limitations section, with a larger sample, additional tests to prove sociolinguistic improvements and learning amongst different majors and ages could be useful in the customization of future programs.

The push to study abroad has increased over the years, but advocates have only asserted the educational benefits through mainly qualitative data. The lack of evidence supporting these benefits have restricted universities and governmental bodies to contribute large-scale financial actions to increase study abroad enrollment. In an economic period of declining public funding, these quantitative findings provide some incentive to invest in more funding to increase study abroad participation. By creating more intentionally cultural experiences before, during and after studying abroad, this ensures higher engagement and CQ growth. Using CQ assessments to determine how different destinations, durations, and studies can assist in better tailoring these programs for maximum development and learning while abroad.
Appendix A. U.S. Study Abroad Statistics

![Bar graph showing the number of students studying abroad from 2000 to 2015.](chart)

- **American Students Abroad**
  - 2000: 150,000
  - 2005: 220,000
  - 2010: 270,000
  - 2015: 304,450

- **Foreign Students in America**
  - 2000: 550,000
  - 2005: 500,000
  - 2010: 750,000
  - 2015: 875,000
Appendix B. CQ Assessment Format

**CQ Assessment Format**

- **Rating Scale**
  - Given a choice, I prefer working with people from different cultural backgrounds
  - Strongly Disagree → Strongly Agree

- **Multiple Choice**
  - In culturally diverse situations, do you rely primarily on your
  - Cultural Knowledge
  - Technical Knowledge
Appendix C. Hypotheses Key Takeaways

Summary of Hypotheses

H1 | Fully Supported
   | • There is significant increase in all categories of CQ from studying abroad.

H2 | Partially Supported
   | • Long term programs increase CQ Knowledge significantly more than short term programs.

H3 | Failed to Support
   | • For the sample tested, sociolinguistic levels remained unchanged when studying in English and non-English speaking countries

H4 | Failed to Support
   | • Males and females learn equally when studying abroad

H5 | Partially Supported
   | • Participants of culture intensive programs are able to strongly adapt appropriately to cross cultural situations
References


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