ONLINE INTERNATIONAL LEARNING COLLABORATIONS: EXPERIENCES OF UNDERGRADUATE STUDENTS IN CHILE, CHINA, AND THE UNITED STATES

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ONLINE INTERNATIONAL LEARNING COLLABORATIONS: EXPERIENCES OF UNDERGRADUATE STUDENTS IN CHILE, CHINA, AND THE UNITED STATES

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TABLE OF CONTENTS

Page

ACKNOWLEDGMENTS v

LIST OF TABLES x

LIST OF FIGURES xii

ABSTRACT xiv

CHAPTER

1. INTRODUCTION 1

    Problem Statement 5
    Purpose 6
    Rationale 7
    Significance 9
    Scope 10
    Definitions 11

2. CONCEPTUAL FRAMEWORK 13

    Humanistic Geography 16
        Understanding Place in Humanistic Terms 17
        Defining a Sense of Place 19
        Sense of Place and Research Implications 20
    Social Geography: From 'Roots to Routes' 21
        A Global Sense of Place 22
        Approaching a Global Sense of Place with the CGGE Modules? 23
    Global Perspectives and Global-mindedness 24

3. LITERATURE REVIEW 28

    Internationalization in Higher Education 28
        The English Language and Internationalization 33
        Internationalization in China and Chile 34
    Globalization and Global Education 37

International Learning and Teaching Collaborations 40
Intercultural Communication 46
Intercultural Communication in the Online Learning Environment 49
The Center for Global Geography Education 51
Synthesizing the Conceptual Framework and Literature Review 55

4. RESEARCH DESIGN 57

Research Questions 57
Research Methods 58
Qualitative and Quantitative Methods Evaluation Criteria 60
Case Study Sites 62
Data Collection 64
Instrumentation 66
Pre-Trial Survey 66
Post-Trial Survey 67
Student Interview and Focus Group Schedules 67
Facilitator Questionnaire 69
Sampling 70
Comparison Classes 72
Observations 72
Data Analysis 73
Quantitative Analysis 74
Global-mindedness Survey Analysis 74
Post-Survey Items 76
Qualitative Analysis 77
Overview of Qualitative Data Coding 78
Open-ended Items 83
Discussion Boards 84
Reflective Essays 85
Interview and Focus Group Transcripts 86
Ethical Considerations 87
Assumptions and Limitations 88

5. RESULTS 90

Research Participants 90
Observations 99
Observations in China 100
Observations in Chile 103
Global-mindedness Survey Results 104
Scale Reliability 104
Factor Analysis 105
Factor Analysis: U.S. Comparison Classes 105
Factor Analysis: Case Studies 108

Factor Analysis: International Comparison Classes 108
Non-Parametric Statistical Analysis 108
Item-level Statistical Analysis 111
Post-Trial Survey Items 130
Content Analysis Results 143
Discussion Board Analysis 143
Analysis of Open-Ended Items 146
Reflective Essay Analysis 153
Interview and Focus Group Transcript Analysis 156
Analysis of Written Responses to Interview Guide Questions 170
Facilitator Questionnaires 171
Data Summary 173

6. DISCUSSION 175

First Research Question 175
Second Research Question 178
Contextual Contribution 182
Future Research 184
Conclusion 187

APPENDIX 1: CONSENT FORM (ENGLISH) 189

APPENDIX 2: CONSENT FORM (CHINESE) 191

APPENDIX 3: CONSENT FORM (SPANISH) 192

APPENDIX 4: STUDENT PRE-TRIAL SURVEY (ENGLISH) 193

APPENDIX 5: STUDENT PRE-TRIAL SURVEY (CHINESE) 199

APPENDIX 6: STUDENT PRE-TRIAL SURVEY (SPANISH) 205

APPENDIX 7: STUDENT POST-TRIAL SURVEY (ENGLISH) 213

APPENDIX 8: STUDENT POST-TRIAL SURVEY (CHINESE) 219

APPENDIX 9: STUDENT POST-TRIAL SURVEY (SPANISH) 224

APPENDIX 10: FACTOR ANALYSIS FOR U.S. COMPARISON CLASSES 231

APPENDIX 11: FACTOR ANALYSIS FOR CASE STUDIES 233

APPENDIX 12: FACTOR ANALYSIS FOR INTERNATIONAL COMPARISON CLASSES 235

WORKS CITED 239

LIST OF TABLES

Table **Page**

1. Five Dimensions of a Global Perspective (Hanvey 1982).....25

2. Previous Empirical Research of CGGE Materials.....54

3. Comparison of Evaluation Criteria adapted from Lincoln and Guba (1986, 76-77) and Patton (2002, 544-547).....61

4. Beginning International Collaboration Interview and Focus Group Prompts, Rationales, and Question Types.....68

5. Ending International Collaboration Interview and Focus Group Prompts, Rationales, and Question Types.....69

6. Initial Interview Invitations and Emails with Interview Guide Questions 72

7. Independent Variables and Statistical Tests 76

8. Overview of Codes Applied to Qualitative Data 79

9. Qualitative Coding Categories based on Hanvey (1976, 1982) and Hett (1993) 81

10. Illustrative Excerpts and Qualitative Coding Categories.....82

11. Interview and Focus Group Participants.....87

12. Overview of Research Participants.....90

13. Global-mindedness Sub-scales 107

14. Global-mindedness Scale Results on the Pre- and Post-Surveys.....109

15. Parameters of the Low, Medium, and High Global-mindedness Categories.....110

16. Language Fluency Mann-Whitney *U* Test Results.....113

17. Foreign Travel Mann-Whitney *U* Test Results.....116

18. International Experience Mann-Whitney *U* Test Results 119

19. International Career Goal Mann-Whitney *U* Test Results.....121

20. Case Study Class Kruskal-Wallis Results (df=3) 124

21. Case Study Class Games Howell Results 127

22. Post-Trial Survey Items Kruskal-Wallis Results (df=2).....136

23. Post-Trial Survey Items Games Howell Results.....137

24. China-New York Case Study Discussion Board Overview.....144

25. Chile-Texas Case Study Discussion Board Posts Details.....145

26. Codes Applied to Discussions 146

LIST OF FIGURES

Figure **Page**

1. The Cognitive, Skills, and Affective Domains and the Development of a Global Perspective 14

2. Contributions of Foundational Literature to the Conceptual Framework....15

3. Stages of Data Collection....65

4. Total Number of Students, Research Participants, and Participants with Matched Pre- and Post-Surveys 91

5. Ages of Research Participants by Location 92

6. Degrees Sought by Research Participants by Location 93

7. Academic Level of Research Participants by Location 94

8. Majors of Research Participants by Location 95

9. Number of Successfully Completed University-Level Geography Courses 96

10. Language Fluency, International Career Goals, and International Experience of Research Participants....98

11. Prior Travel Experiences of Research Participants....99

12. Categorized Global-mindedness Scores 111

13. Responses to Post-Trial Survey Items from Research Participants in China 132

14. Responses to Post-Trial Survey Items from Research Participants in New York 133

15. Responses to Post-Trial Survey Items from Research Participants in Chile 134

16. Responses to Post-Trial Survey Items from Research Participants in Texas 135

17. Reports of Global-mindedness Change 138

18. Actual Changes to Global-mindedness.....139

19. Students Represented in the Data Sources based on Proportion of Class Enrollment.....174

ABSTRACT

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by

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Texas State University-San Marcos

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This study investigates the experiences of undergraduate students involved with cross-linguistic international collaborations using online curricula designed to internationalize geography in higher education. The two primary research questions address the students' perceived value of international learning collaborations and students' changes in international perspectives. A mixed methods approach was used, based on a conceptual framework derived from the humanistic geography, social geography, and global education literatures. Undergraduate students in the United States collaborated with their peers in China and Chile using materials from the Association of American Geographers' Center for Global Geography Education in two separate five-week case studies involving a total of 154 research participants. Pre-trial and post-trial surveys, discussion board postings, reflective essays, and observations, along with interviews and focus groups with a sample of students, comprise the sources of data. Findings suggest that research participants valued the experience although poor communications stymied the

international collaborations. While changes to students' international perspectives are less clear, the research findings contribute to an understanding of the development of an international perspective through international collaborative learning. Influential factors include students' personal backgrounds, their goals and motivations, and their group, class, school, and national cultures. Hegemonic tensions within these cultures are mediated by the third space learning environment, which creates flexible cultural expectations on behalf of the students. Across all four classes, the majority of students reported that they were more interested in study abroad programs as a result of their international collaborations. This result provides support for strengthening study abroad programs with international learning collaboration projects.

CHAPTER 1

INTRODUCTION

Notions of *perspective* pervade the discipline of geography and the interrelated field of geographic education. In the global education literature, the development of an *international perspective* is a common learning outcome. This research centers on this learning goal in undergraduate students involved in international learning collaborations. It first considers the importance of perspective to defining and teaching geography and then contemplates what it means to have an international perspective in order to understand how students may achieve this learning goal. Throughout the study, an underlying goal is to consider how the discipline of geography could uniquely contribute to international perspective taking through its deep understanding of scale and an appreciation of students' attachments to and conceptualizations of place.

Perspective is a common idea in many definitions of the discipline of geography. Consider the following quotes:

> Geography's relevance to science and society arises from a distinctive and integrating set of perspectives through which geographers view the world around them. (National Research Council 2007, 22)

> Geography is a perspective; a way of thinking, a way of analyzing virtually everything that is distributed across space. (Brown 1994, 16)

> Geography is the sequence of ideas or concepts which develop into a coherent subject looking at the world from a point of view.
>
> (Scarfe 1965 cited in Morris 1968, 1)

In many ways, the term perspective undergirds the discipline and in order to evaluate the development of a geographic perspective, educators must gauge how conceptions, opinions, and assumptions provide evidence of deeper ways of thinking and contribute to students' perspectives (Hanvey 1976, 6). Geography educators have defined perspective as "a framework to be used to interpret the meanings of experiences, events, places, persons, cultures, and physical environments" that provides "a frame of reference for asking and answering questions, identifying and solving problems, and identifying the consequences of alternative actions" (Geography Education National Implementation Project 2012, 19). One's point of view, or perspective, is relevant to learner-centered educational theories that emphasize connecting the educational outcomes to the learner's experiences. Personal experiences impact how a person evaluates his or her world to develop a set of values and attitudes that form a perspective (Klein 1993, 20-21). When discussing the influences of globalization on geographic education, Gerber (2003, 27) explains that globally oriented curricula must link students' varied experiences to the wider world.

Understanding one's perspective is necessary for becoming geographically and scientifically literate. Morrill (1993) states that:

> A geographically informed person looks at the world from a variety of perspectives. Thus, such a person:
>
> - knows that each individual has personal points of view and unique life experiences;
> - accepts the existence of diverse ways of looking at the world;
> - understands how different perspectives develop;
> - is aware that perspectives incorporate values, attitudes, and beliefs;

- considers a range of perspectives when analyzing, evaluating, or trying to solve a problem; and
- knows that perspectives are subject to change (cited in Natoli 1996, 6).

Bednarz and Bednarz (1996, 53) write that "geography is not just a body of content to learn, it is a way of approaching problems, of seeing the world, and of applying a range of skills to answer questions and develop new understandings."

Literature on global education and internationalization emphasize the importance of students taking on an international perspective and the related concept of *perspective taking*—being able to understand another person's perspective (Marshall 1973; Hanvey 1976; Tye and Tye 1992; Gacel-Ávila 2005; Balistreri et al. 2011)—yet clear-cut definitions of an international perspective are largely absent. Often, an international perspective is portrayed as a collection of national perspectives as in a compendium of research articles from scholars in different countries publishing in a book of international perspectives. An international perspective can also imply a global perspective—a viewpoint that supersedes perspectives from individual countries. Although important differences in connotation and meaning exist, this research uses the terms global perspective and international perspective interchangeably and follows Hanvey's (1976) framing of a global perspective as a viewpoint that is composed of many dimensions, allows for an understanding of alternate viewpoints, and considers issues at multiple scales.

Given that a main contribution of the discipline of geography is its understanding of the relationship among scales (McKeown-Ice 1994), geographers should offer insights in the concept of an international perspective. The formulation of an international perspective requires consideration of viewpoints beyond the local and, because scale is an

intricate component to a geographic perspective, geographers indeed offer nuanced ideas about local-global contrasts. For instance, Howitt (2003) and Sayre (2009) argue that scale is relational—not simply a matter of size or level—and Marston (2000) discusses the social construction of scale. Following Smith's (1992, 73) questioning of how geographers conceptualize, arbitrate, and translate within scales, Harvey (1996, 203) is critical of a "nested hierarchy of scales" given the limitations of this approach. A relational understanding of scale takes into consideration the influence of interacting factors (e.g., geopolitics, culture, history, etc.) on geographical phenomena (Howitt 1998).

Aitken (1999) argues that geographic educators should explicitly address how scales are demarcated for specific outcomes. By critically addressing how the world—at a multitude of scales—is represented, Del Casino (2004, 334) indicates that students are presented with novel ways of understanding their everyday experiences. While scalar boundaries are useful for some studies, they are not a requirement for understanding a place (Massey 1994, 154). In the educational context geographers are concerned primarily with how students understand issues of scale, such as linkages across scales, the social construction of scale, and spatial interdependencies and interrelations (Bale 1996; Bednarz and Bednarz 2003; Gerber 2003). Birdsall (2004) problematizes the scale differential between many American undergraduate students' limited direct experiences with people and places outside of the United States and the global nature of the course content in world geography. He suggests that educators emphasize why learning about the world in a geography class matters to students, which suggests the utility of student-centered geography pedagogy.

To explore the development of international perspectives in undergraduate students, this research utilizes curricula available from the Association of American Geographers' Center for Global Geography Education (CGGE), which is rooted in social constructivist theory (Zimmerman and Solem 2010). This student-centered learning theory posits that knowledge is actively acquired, socially constructed, and created or recreated (Phillips 1995). The CGGE materials are designed to facilitate the exchange of international perspectives among students through international collaborative projects wherein students in different countries work together online (Zimmerman and Solem 2010). The modules are written by teams of geographers and educators from different countries in order to create resources that contain international perspectives. And, each module contains several case studies that focus on an issue at a particular regional, national, or international scale.

Problem Statement

Economic interdependencies, migration patterns, and environmental concerns are a few of the important global issues that provide justification for undergraduate geography curricula that aim to develop students' international perspectives. The Association of American Geographer's Center for Global Geography Education (CGGE) offers internationalized curricula that bring together undergraduate students in different countries to work collaboratively. Internationalized curricula have the educational aim to develop students' international perspectives in a number of ways, including broadening their understandings of global systems and increasing their intercultural awareness. The research investigated the perspectives of a sample of CGGE student participants through

survey instruments, reflective essays, interviews, and observations. Employing a mixed methods approach, this research focuses on the international perspectives of students involved in two CGGE international collaborations.

Two research questions are derived from a conceptual framework that is anchored by an understanding of place in humanistic terms, elucidated by the global sense of place concept, and operationalized by an instrument designed to measure global-mindedness. The first research question asks: to what extent do CGGE student participants value their international learning collaborations in terms of their personal and academic goals? This research question aims to understand students' experiences using the CGGE modules and whether or not students deem international collaborative learning as a meaningful contribution to their undergraduate education. The second research question explores if and how CGGE student participants' international perspectives change as a result of participating in an international learning collaboration. This research question evaluates how internationalized curricula achieves its intended learning outcomes in the knowledge, skills, and affective domains. It is postulated that:

- Knowledge related to the development of international perspectives includes an understanding of global issues and an awareness of the interconnectedness of global systems,
- Intercultural and collaborative skills contribute to an international perspective, and
- Responsibility, empathy, and concern reflect the intersection of the affective domain and international perspectives.

Purpose

Based on a survey of full-time members of the Association of American Geographers, Ray and Solem (2009) report that academic geographers are more likely to

participate in international collaborations when the perceived benefits to their teaching and research are clear. This suggests a need for internationalized curricula materials that are proven to be effective for developing international perspectives in undergraduate students so that they are prepared to live and work in the current era of globalization. Given that students that utilized the CGGE modules in their courses have demonstrated content knowledge gains (Klein and Solem 2008; Ray et al. 2012), there is a need for research to holistically address the affective learning outcomes that play a role in the development of international perspectives. This research informs facilitators[1] who implement international learning collaborations in their courses by providing insights into the development of international perspectives in undergraduate students.

Rationale

The literature offers several reasons for research related to undergraduate students' international perspectives in the context of online, intercultural, and cross-linguistic learning environments. Gerber and Lidstone (1996, 4) argue that cross-cultural research is important "as people seek to understand better an international perspective on particular aspects of knowing, learning, teaching, curriculum development, change and policy development in geographical education." Wihlborg (2009, 117) calls for more qualitative studies on students' and teachers' perspectives related to the internationalization of higher education. In particular, there are few research studies that emphasize how internationalization efforts are implemented and how educational contexts affect implementation. Deardorff (2006) identifies a need for further research

[1] Following a constructivist approach to education, educators using the CGGE materials are identified as facilitators who guide students' learning experiences.

related to how internationalization strategies impact students' development as global citizens, which is particularly important given the ubiquitous and perhaps vacuous use of the term global citizen in university mission statements (Levintova et al. 2011).

While numerous organizational models have been put forward that generalize the roles of administrators, faculty as researchers, and faculty as teachers related to political, economic, academic, and socio-cultural goals of the process of internationalization (cf. Rudzki 1995; de Wit 2002; Jiang 2008), there is a dearth of empirically-based research on the implementation of internationalized curricula and its impact on teaching and learning (Svensson and Whilborg 2010). Several authors identify the need for research on internationalized curricula with a focus on pedagogy, content, and learning outcomes (Eisenchlas and Trevaskes 2003; Stier 2004; Hellstén and Reid 2008; Sanderson 2008; Kreber 2009; Wihlborg 2009; Svensson and Wihlborg 2010). The lack of a curricular focus has meant that few studies question the degree to which intercultural competencies are relevant to students (Svensson and Whilborg 2010) or have identified what methods are effective for ensuring the relevancy of internationalization to students (Kreber 2009). Tange (2010) calls for the development of international pedagogies for classrooms with internationalized curricula and an international student body and Dunne (2011) questions how the implementation of intercultural curricula can be successful in the absence of a sound model for doing so. A lack of research surrounding pedagogy for managing culturally diverse students means that university facilitators may be unprepared to teach in new ways (Teekens 2003).

Crichton and Scarino (2007) note that while many authors indicate that internationalization processes include an "intercultural dimension," few directly address

language and cultural issues beyond research associated with the use of the English language. The learning environment—including the learners' prior experiences, attitudes, expectations, and capabilities—is of critical importance in understanding internationalization (Svensson and Whilborg 2010). In earlier work, Mason (1998) argued that research on culture and global education was surficial and Wild (1999) addressed the need to investigate the relationship between online learning and cultural diversity. Of particular relevance to this research, Klein and Solem (2008) call for a systematic investigation into the cultural differences discovered in the first phase of the CGGE. In addition, research focusing on student mobility in internationalization has found that this has not necessarily resulted in cross-cultural interactions, which is why Leask (2004) suggests the use of information and communication technologies to facilitate the implementation of student learning outcomes related to internationalization. Without empirically-based studies on the use of online learning environments, efforts to internationalize higher education may be misguided.

Significance

This research contributes to the growing literature that addresses the implementation of internationalized curricula in online, intercultural, and cross-linguistic learning environments. One consideration is the continued increase of the international student body (Huang 2006; Haigh 2009; Childress 2010). In the United States alone, there are more than 600,000 international students who, with their dependents, contribute an estimated $17 billion to the economy (NAFSA 2010). Another consideration relates to the desired outcomes of internationalized curricula, including the global knowledge,

intercultural communication skills, and the development of international perspectives. Skills for international collaborative work are necessary considering that:

> As producers of knowledge in a globalized society, scientists and scholars must reckon with a world where economies are increasingly connected, where country boundaries are ever shifting, where communication technology enables information to traverse the globe with great speed, where workplaces are increasingly distributed internationally, and where cities and towns are growing in ethnic and racial diversity (Solís, Solem and Martínez 2009, 350).

The National Science Board confirms this position in its 2008 report on international science and engineering partnerships when it discusses how solutions to global problems require a workforce adept at understanding international and cross-cultural issues (National Science Board 2008, 7-8). This research contributes to an understanding of how international collaborative skills are valued and attained by undergraduate students, which is an important pedagogical consideration (Svensson and Whilborg 2010). Beyond strictly utilitarian viewpoints, this research explores the concept of a global sense of place in order to determine if and how CGGE student participants connect their identities to places at different scales, from the local to global.

Scope

The scope of the proposed research is limited to geography education at the tertiary level and relates solely to the implementation of CGGE materials as the curricular vehicle for internationalization in the context of two case studies. Given the wide array of variables (e.g., language spoken, level of education, experience in geography courses, etc.), the findings will not be generalizable to other curriculum internationalization projects. Further, the focus of this research is on learner-to-learner interactions and

therefore the facilitators' experiences with the modules will not be investigated beyond how it directly relates to the students' experiences.

Definitions

To clarify the meanings of the terms used, the following definitions are provided:

Global education – Learning activities involving "(1) the study of problems and issues which cut across national boundaries, and the interconnectedness of cultural, environmental, economic, political, and technological systems, and (2) the cultivation of cross-cultural understanding, which includes development of the skill "perspective-taking"—that is, being able to see life from someone else's point of view" (Tye and Tye 1992, 87).

Global learning – "A student-centered activity in which learners of different cultures use technology to improve their global perspectives while remaining in their home countries" (Gibson, Rimmington, and Landwehr-Brown 2008, 11).

Global-mindedness – "A worldview in which one sees oneself as connected to the world community and feels a sense of responsibility to its members" (Hett 1993, 89).

Instructor – A generic term for professor, lecturer, faculty member, etc. While the term instructor connotes a didactic form of teaching, for the purposes of this work instructor is viewed from a student-centered teaching framework wherein the role of the teacher is likened to a facilitator, guide, or consultant for learning. Following the terminology used by the Center for Global Geography Education, the term facilitator will be used when describing the instructors who implemented an online learning collaboration in their course.

Internationalization – The process of integrating international and intercultural perspectives into the teaching, research, and service functions of higher education (Van Der Wende 1997; Knight 2006).

Intercultural awareness – "A conscious understanding of the role culturally based forms, practices and frames of reference can have in intercultural communication, and an ability to put these conceptions into practice in a flexible and context specific manner in real time communication" (Baker 2011, 202).

International collaboration – An educational activity that brings together students in more than one country to learn together. Muniz-Solari and Coats (2009) distinguish among different types of e-learning relevant for international collaborations. Students develop from the individual construction of knowledge to the socially embedded construction of knowledge as they progress from the level of interaction, to the level of

cooperation, and then to the highest level of collaboration, wherein students are interdependent members of a team.

International perspective – A viewpoint composed of many dimensions that considers issues at multiple scales and allows for an understanding of alternate viewpoints (Hanvey 1976). For this research, international perspective is synonymous with global perspective.

Perspective – "A framework to be used to interpret the meanings of experiences, events, places, persons, cultures, and physical environments" that provides "a frame of reference for asking and answering questions, identifying and solving problems, and identifying the consequences of alternative actions" (Geography Education National Implementation Project 2012, 19).

Tertiary level – Synonymous with higher education; also termed post-secondary education.

CHAPTER 2

CONCEPTUAL FRAMEWORK

The main research objective is to understand the experience of undergraduate students using the Center for Global Geography Education (CGGE). In order to uncover the broader impact of the CGGE modules—how students' understanding of their "place" in the world changes—this research engages in a conceptual framework rooted in the concept of a global sense of place. In many ways, a global sense of place advances the concept of sense of place for the contemporary era of globalization, where interconnections and interdependencies are prevalent. While studies of sense of place have conceptualized and reconceptualized notions of one's attachment to a place, few geography education studies utilize sense of place and a global sense of place as a foundation for understanding students' experiences.

This research uses the global sense of place concept as a backdrop for understanding how geographers currently conceive of scale, the construction of scale, and the reimagining of scale as a vehicle for contextualizing how internationalized curricula—in this case an international collaboration using the CGGE modules—alter, or fail to alter, students' international perspectives in the cognitive, skills, and affective domains. Considering the educational focus of this research, Figure 1 attempts to link the relationship of the learning domains described by Bloom (1965) and Krathwohl, Bloom,

and Masia (1964)—which are commonly utilized by educators—to ideas presented in the conceptual framework and the literature review. The figure serves as a starting point for understanding the possible connection between the development of a global perspective and educational outcomes; the actual relationships may not take a linear form. Given the particular importance of students' unique experiences, special attention is paid to how students themselves perceive the value of international collaborative learning.

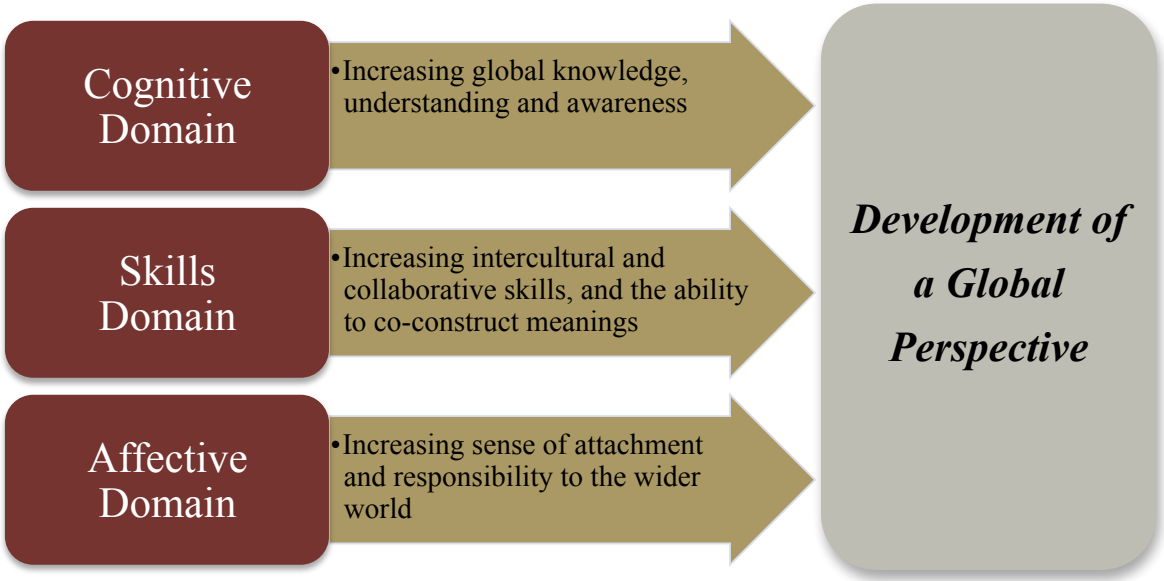

Figure 1. The Cognitive, Skills, and Affective Domains and the Development of a Global Perspective

To operationalize the research questions, this study threads together literature from geography and education in order to generate a sound, expansive, and meaningful portrayal of students' experiences in their international learning collaborations (Figure 2). The humanistic geography literature offers a way of approaching research participants in a way that emphasizes their unique experiences and offers the basis for the sense of place

concept. Social geography provides the foundations for the global sense of place concept, which conveys how a diverse group of student participants may experience and conceptualize the world around them. This research links the sense of place concept in humanistic geography to the global sense of place concept in social geography. Both concepts provide inherently geographic perspectives on students' connections with place, which should be of interest to geography educators yet little engagement with either concept has occurred in previous research. In drawing from these ideas, this investigation begins with a starting point for understanding how internationalized curricula and peer-to-peer interactions with students in other countries may affect student learning outcomes. Literature from global education offers key concepts such as global perspective and global-mindedness as a way to measure and evaluate the concepts in a concrete way. While a global sense of place is not synonymous with a global perspective, both constructs converge on the idea that one's perspective is relational, in flux, and multi-faceted.

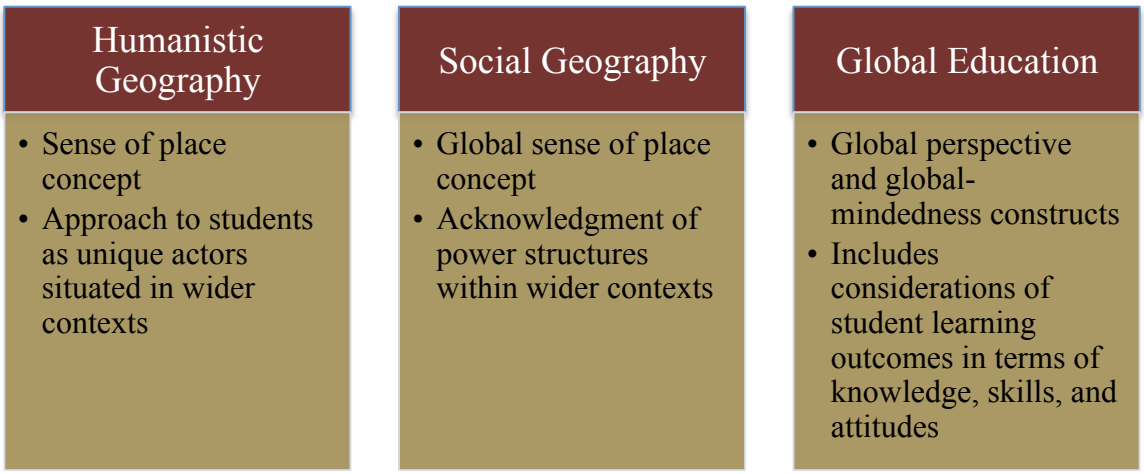

Figure 2. Contributions of Foundational Literature to the Conceptual Framework

Humanistic Geography

Criticism of the quantitative revolution and the resultant confidence in positivism compelled some geographers to integrate humanistic thinking into their work (Martin 2005). Although the beginnings of humanistic geography trace to the late 1960s (Peet 1998), Yi-Fu Tuan did not coin the term "humanistic geography" until 1976 (Cloke, Philo, and Sadler 1991). Humanistic geography closely aligned with behavioral geography in the early years, however growing critiques of behavioral geography's assumptions of objectivity led humanistic geographers to detach from behaviorists (Martin 2005). When describing humanistic geography Johnston and Sidaway (2004, 217-218) write that it

> treats the person as an individual constantly interacting with the environment and with a range of communities, thereby continually changing both self and milieu. It seeks to understand that interaction by studying it, as it is represented by the individual and not as an example of some scientifically define model of behavior. And then by transmitting that understanding, it seeks both to reveal people to themselves, enabling them to develop the interactions in self-fulfilling ways, and to promote their appreciation by others.

In humanistic geography, each of the themes of human geography—population, economy, history, politics, development, and so on—are understood from a vantage point that values individual experiences. Slater (1992, 104) explains how within the paradigm of humanistic geography there is a valuing of personal understandings, individual meanings, and interpretations.

Phenomenology and existentialism are the main philosophical underpinnings of humanistic geography (Ley and Samuels 1978; Cloke, Philo, and Sadler 1991; Peet 1998) although humanistic geographers have employed numerous philosophies toward their research interests (Entrikin 1991). Phenomenology stresses that "no object is free of

subject; whether in thought or action each phenomenon is part of a field of human concern" (Ley and Samuels 1978, 11). The foundational question of phenomenology is "what is the meaning, structure, and essence of the lived experience of this phenomenon for a person or group of people?" (Patton 2002, 104). Existentialism is concerned with the inward understandings of humans and "knowledge by participation rather than observation" (Peet 1998, 36). In any of the philosophies employed by humanistic geographers, the emphases remain on uncovering human experiences and meanings (Entrikin 1991), which is a central concern for this investigation.

Understanding Place in Humanistic Terms

Place is a seemingly simple concept—at its heart a place is a location—however the general public uses the word to mean "a psychological state (I'm not in a very good place right now), social status (people should know their place), the location of something in one's mind (I can't quite place it)" (Steele 1981, 5). The conceptualizations of place by Lukermann (1964) and Agnew (1987) seem to be most cited by humanistic geographers. Lukermann (1964, 169-170) identified six characteristics of place: it has a location (including site, situation, and relative location), it is unique, it is interconnected with other places, it is a localized piece of a greater whole, it has both a history and an emerging future, and it has meaning. Agnew (1987) discussed place in terms of its three components: locale (socio-cultural setting), location (specific coordinates), and sense of place (emotional attachment to a place).

From these starting points, geographers diverge on definitions of place. Place can be a social construct (Harvey 1996, 293), a process (Agnew 1987; Massey 1994), a

creation (Tuan 1977), or a way of seeing (Gibson-Graham 2002, 32). Staeheli (2003) discusses how conceptualizations of place as a social process emphasize interconnections among different scales more than conceptualizations of place as a physical or cultural location. Cresswell (1996, 157) puts forward a humanistic geographer's definition of place "as a phenomenological-experiential entity that combines elements of nature (elemental forces), social relations (class, gender, and so on), and meaning (the mind, ideas, symbols)." Steele (1981, 9) writes of place as "an object of people's interest" which complements Tuan's (1977, 161) notion that "place is whatever stable object catches our attention."

Scholars of existentialism and phenomenology both emphasize experience when conceptualizing place. Existentialism addresses the transformation of space into places of multiple meanings (Ley and Samuels 1978). "Of particular importance is 'existential' or 'lived' space, for this seems to be especially relevant to a phenomenological understanding of place" (Relph 1976, 8). The importance of the diversity of experience within humanistic geography is demonstrated by the definition of experiential space as

> the space human beings actually experience before it is passed through the filters of scientific analysis. It embraces all the intuitive, unanalyzed, unexamined, or unarticulated forms of spatial understanding, including the practical, commonsense understanding of space in everyday life, the imperfect but growing understanding of the infant and the small child, that of the disabled, that of the alien culture, the tribe that time forgot. Experiential spaces also include the contemplative kinds of spatial experience inherent in the apperception of sacred and mythical spaces, as well as the aesthetic experience of symmetry, proportion, balance, and so on that is central to the creation and appreciation of art (Couclelis 1992, 229).

Tuan's (1977, 8) definition of experience as "a cover-all term for the various modes through which a person knows and constructs a reality" makes apparent the

connection between experience and meaning, which is part of a constructed reality. These notions of place are helpful precursors to the understanding of the concept of sense of place, as are the historical precedents discussed in the next section.

Defining a Sense of Place

Simply stated, sense of place is one's attachment to, or feeling toward, a place. A more descriptive definition of sense of place is offered by Castree (2003, 170): sense of place is "how different individuals and groups, within and between places, both interpret and develop meaningful attachment to those specific areas where they live out their lives." Geographers understand places as "aspects of human life that carry with them all the hopes, accomplishments, ambiguities, and even horrors of existence" and geographers employ a broader and less idealistic version of sense of place than do architects, artists, environmentalists, and economists (Relph 1997, 208). Tuan (1977, 149) poses the key questions asked by humanistic geographers interested in sense of place when he writes, "Attachment to the homeland can be intense. What is the character of this sentiment? What experiences and conditions promote it?"

In the 1970s, Tuan introduced thought about sense of place into the domain of geography. Noting that his classic *Topophilia* was his greatest success, Tuan (2002, 331) writes that it is "a systematic study of how people come to be attached to place" and that it was published "at a time when the environmental movement needed a work in the tradition of humane letter to complement the flood of publications that poured out of the factories of applied science." Perhaps more than any other humanistic geographer, Relph (1976, 1997, 2006) has added to the sense of place literature in terms of defining types of

sense of place. He discusses different versions of a sense of place, including authentic, contrived, and artificial senses of place (Relph 1976) and he describes a poisoned sense of place as one that "carries within itself a blindness and a tendency to become a platform for ethnic nationalist supremacy and xenophobia" (Relph 1997, 222).

Sense of Place and Research Implications

The concept of sense of place pervades humanistic geography but has limited engagement with geographic education in the United States. Articles published in the National Council for Geographic Education's *Journal of Geography* directly address sense of place as a concept for use by geographic educators (Jablonsky 1986; Peterson and Saarinen 1986; Smith and Brown 1996; Ostapuk 1997; Saunders 1999; DeChano and Shelley 2004) yet these articles provide examples of lessons that integrate sense of place only in specific contexts. Articles found in environmental education journals similarly address the sense of place concept (Sanger 1997; Lindholdt 1999; Mueller and Abrams 2001), but seem to understand sense of place as more integral to the work of environmental educators. Worster and Abrams (2005) note the importance of sense of place to environmental education, which may have resulted from the movement toward place-based environmental education (cf. Meichtry and Smith 2007; Smith 2007). Moreover, scholars investigating the geography of children are more inclined to consider children's sense of place (Valentine 2000; Jones, Williams, and Fleuriot 2003) than are geographic educators.

Social Geography: From 'Roots To Routes'

A brief overview of social geography provides the disciplinary basis for the concept of global sense of place. Social geography, broadly defined, is "the study of the geography of social structures, social activities and social groups across a wide range of human societies" (Hamnett 1996, 3). While social geography is largely absent in the United States until at least the mid-1980s (Johnston 1986), Eyles (1986) explains that the field was led by British scholars since its modern roots in the early 1960s. Peet's review of geographical thought from the 1960s to the 1990s and Gaile and Willmott's compendium of Association of American Geographers' specialty group papers demonstrate the limited engagement of geographers in the U.S. with social geography (Peet 1998; Gaile and Willmott 2003). Although the 1980s brought a "reassertion of space in critical social theory" (Soja 1989, 6), postmodern, postcolonial, and poststructuralist theory in general seemed to sway attention away from the social, or at the very least these theories reapportioned social geography during the 1990s (Gregson 2003; Jackson 2003).

Several ideas of social geographers help to contextualize how students experience their world. Jackson (2003, 38) discusses how questions of what is 'social' led to a "rethinking of space. Like society, space is no longer adequately theorized in a static or bounded sense but is increasingly understood in relational terms." Ley (1977, 505) explains that "meanings are rarely fully private, but are invariably shared and reinforced in peer group action." Ley (1977, 504) writes:

> As social geography follows its agenda and dips beneath spatial facts and the unambiguous objectivity of the map, it encounters the same group-centered world of events, relations and places infused with meaning and

> often ambiguity. Husserl, in his later writing, characterized this realm as the life-world.

The life-world concept is relevant to this research on student experiences in that it makes clear that "each individual has a history and a geography which imposes constraints within his life-world" (Ley 1977, 506).

A Global Sense of Place

In her book entitled *Space, Place, and Gender*, Massey (1994) describes a global sense of place. This new conceptualization of sense of place calls for understanding place "as open and hybrid – a product of interconnection flows – of routes rather than roots" (Cresswell 2004, 53). Massey (1994) challenges the assumptions that globalization and so-called time-space compression occurs equally to all people in all places. Massey (2005) questions the idea that cultures converge into homogeneity through inevitable globalization processes. Moreover, Massey (1994, 149) argues that there is a "power geometry" that dictates how individuals and social groups are influenced by the flows and interconnections of globalization in vastly different ways. Massey's notion of power geometries is particularly relevant for this research in that e-learning environments "are involved in a complex nexus of power structures and relations" (Koutsogiannis and Mitsikopoulou 2004, 83) that may facilitate the creation of neocolonial situations (Hay 2008). Further, the global sense of place concept provides insights on transnational communications technologies as "mechanisms for interconnectivity on one hand and a device for propagating pro- and anti-globalization messages on the other" (Rodgers 2004, 289).

After describing places as processes, Massey (1994, 156) writes of a progressive construction of place that provides "a global sense of the local". A global sense of place provides a counter-position to the processes of glocalization, which Flusty (2004) identifies as a method transnational firms utilize to penetrate new markets. The global sense of place concept continues to provide scholars with a fulcrum to debate the influence of neoliberal processes on distinct places (cf. Thornton 2000; Miller 2005; Lepofsky 2007; Rofe 2009; Gille 2010). In a published interview, Massey (2009) emphasized that a key consideration of global sense of place is the importance of rethinking place. She affirmed the unboundedness of place while recognizing the need to make delineations. In her reimagining of place, the place inside the boundary does not need to be conceived as antagonistic to the place outside the boundary.

Approaching a Global Sense of Place with the CGGE Modules?

This research investigates the learning experiences of undergraduate students who participate in international collaborations using the CGGE modules. In doing so, the research findings will look beyond immediate learning outcomes to potentially uncover the broader impacts of the CGGE modules. This research begins to explore students' conceptualizations of place (their sense of place, or potentially, their global sense of place), their role in the wider world (their understanding of Massey's power geometry), and their feelings of ethics and responsibility to the world in which they live. Massey (2005, 186) explains that

> Whatever the routes through which it has arrived, there is a persistent Russian-doll geography of ethics, care and responsibility: from home, to local place, to nation. There is a hegemonic understanding that we care

> first for, and have our responsibilities towards, those nearest in. It is a geography of affect which is territorial and emanates from the local.

Massey (2005, 186) argues that migration and the Internet disrupt the assumption of a geography of ethics' course from the near to the far.

> There is, in these terms, a localization of ethical commitment at the very moment of increasingly geographically expansive interconnectedness. It raises the question of whether, in a relational and globalised spatiality, 'groundedness', and the search for a situated ethics, must remain tied to notions of the local (Massey 2005, 187).

This research explores students' understandings of their senses of place to uncover the complexities of students' attachments to place across scales.

Global Perspectives and Global-mindedness

Smith (1994) suggests that the work of Hanvey (1976, 1982) provides a clear framework for examining global perspectives and is commonly referred to in the global education literature (cf. Miller 1991; LeSourd 1997; Hassard and Weisberg 1999; Solem 2002; Kitsantas 2004; Gacel-Ávila 2005). Alternative conceptions to Hanvey's global perspective includes the idea of a global mindset motivated by international business goals in the global economy (Srinivas 1995; Gupta and Govindarajan 2002; Levy et al. 2007), and an early paper in the *Journal of Social Psychology* states that world-mindedness is restricted to a value orientation (Sampson and Smith 1957). Hanvey's approach to a global perspective provides researchers with a framework that is both focused on education and inclusive of cognitive, skills, and affective outcomes even though others have suggested that a global perspective is limited to the cognitive domain (Farmer 1993).

The five dimensions of a global perspective proposed by Hanvey (1976, 1982) are: perspective consciousness, state of the planet awareness, cross-cultural awareness, knowledge of global dynamics, and awareness of human choices (Table 1). It is worth noting that Hanvey's framework specifically addressed K-12 education before the digital era.

Table 1. Five Dimensions of a Global Perspective (Hanvey 1982)

Dimension	Summary
1. Perspective Consciousness	An awareness that worldviews are not universally shared and that perspectives are diverse and malleable (162).
2. State of the Planet Awareness	An understanding of current conflicts, population changes, economic conditions, political developments, resource use, science and technology, etc. (163).
3. Cross-Cultural Awareness	An awareness of cultural diversity and an understanding of how one's own culture is viewed from other cultures (164).
4. Knowledge of Global Dynamics	An understanding of theories and concepts related to major world systems (e.g., political, social, environmental) and how systems change through time (165).
5. Awareness of Human Choices	An understanding that as global knowledge expands, so do human choices (165-166).

This research utilizes the global-mindedness scale developed by Hett (1993) in order to determine if the CGGE international collaboration affected the participants' international perspectives. The scale provides a valid way of exploring components of an international perspective. The global-mindedness scale is one of many methods used to empirically measure one's orientation to global issues (Vassar 1997). Building on earlier work in the field (cf. Lentz 1950; Sampson and Smith 1957; Kenworthy 1970; Glick 1974; Der-Karabetian, Shang, and Hsu 1983), Hett (1993, 89) defines global-mindedness

as “a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility to its members”. The global-mindedness scale consists of thirty Likert-based items on five sub-scales: Responsibility, Cultural Pluralism, Efficacy, Globalcentrism, and Interconnectedness. Each item of the scale is scored, with a maximum score of 150 representing high levels of global-mindedness. Hett (1993, 143) provides the following definitions for each of these components of global-mindedness:

- *Responsibility* – A deep personal concern for people in all parts of the world which surfaces as a sense of moral responsibility to try and improve conditions in some way.
- *Cultural Pluralism* – An appreciation of the diversity of cultures in the world and a belief that all have something of value to offer. This is accompanied by taking pleasure in exploring and trying to understand other cultural frameworks.
- *Efficacy* – A belief than an individual’s actions can make a difference and that involvement in national and international issues is important.
- *Globalcentrism* – Thinking in terms of what is good for the global community, not just what will benefit one’s own country. A willingness to make judgments based on global, not ethnocentric, standards.
- *Interconnectedness* – An awareness and appreciation of the interrelatedness of all peoples and nations, which results in a sense of global belonging or kinship with the “human family”.

Researchers have employed the global-mindedness scale in a variety of settings with mixed findings. Kehl (2005) surveyed 520 university students at three Christian universities in the United States and found no significant differences between students who completed a short-term study abroad program and those who plan to study abroad in the future. Kehl (2005) also found that longer periods of study abroad resulted in higher levels of global-mindedness. Based on surveys of study abroad participants, students enrolled in a diversity course, and a control group, Hansen (2010) found that scores on the global-mindedness scale remained flat for study abroad participants while scores on the scale showed gains for the other students. Likewise, Golay (2006) found no significant differences between study abroad participants and non-study abroad students.

In a study of pre-service and in-service teachers, Duckworth, Walker Levy, and Levy (2005) did not find significant correlations between global-mindedness scores and gender, age, ethnicity, fluency with multiple languages, and international experiences. Likewise, Zong's (1999) study of pre-service teachers did not significant differences on the scale. Walton's (1997) study of elementary teachers however, found that global-mindedness is influenced by age, history of travel or international residency, education, and religion. Students in an international business course with an online multicultural supplement had statistically significant gains on the global-mindedness scale when compared to students without the supplement (Fluck, Clouse, and Shooshtari 2007). In a study of agricultural extension agents, Smith (2008) found that international experience did positively influence global-mindedness scores.

CHAPTER 3

LITERATURE REVIEW

The Center for Global Geography Education (CGGE) and the curricula it offers are situated in the wider context of internationalization in higher education, which is both influenced by and an influence on present-day globalization. The literature review addresses the internationalization of higher education—with emphases on the use of the English language and internationalization processes in the United States, China, and Chile—in order to provide an understanding of externalities that influence student learning. In terms of the CGGE's learner-centered pedagogy, issues related to the online learning environment affect each stage of the learning progression. The implementation of the CGGE's internationalized curricula (the learning content), the collaborative projects rooted in constructivist educational philosophy (the learning method), and intercultural communication among students in different countries (the learning process) may foster the development of a global perspective.

Internationalization in Higher Education

Internationalization is the process of integrating international and intercultural perspectives into the teaching, research, and service functions of higher education (Van Der Wende 1997; Knight 2006). The internationalization process may be driven by

governments, academic institutions, or individual departments and may include such diverse activities as international faculty exchanges, overseas joint teaching programs, and international collaborative research (Altbach 2006, 123). Rationales for the internationalization of higher education vary from intercultural understanding and citizenship development to national security and economic competitiveness (de Wit 2002), however internationalization research couched in terms of economic globalization dominates the literature (Cantwell and Maldonado-Maldonado 2009; Kreber 2009; Svensson and Wihlborg 2010; Bourn 2011). Leask (2004, 349) provides a Venn diagram that joins internationalization outcomes, the curriculum framework, and information and communication technologies and argues that the intersection of all three components are needed for internationalized curriculum models.

Kerr (1990, 18) notes that in the 2,500-year history of higher education, from 2,000 years of "wandering scholars" to the most recent 500 years of scholarship within a framework of nation-states, higher education institutions are "inherently international." Ruther (2002) and Altbach (2006) indicate that internationalization efforts have expanded in recent decades, however, given the increasing interconnectedness of social, political, and environmental systems through globalization processes. Within geographic education in the United States, attention to international issues fluctuate with political events (Hill and LaPrairie 1989) or the release of media surveys of geographic knowledge that show poor performance by American students compared with students in other countries (Stoltman 1992).

Institutional internationalization efforts include international marketing, promoting notions of graduates as global citizens, developing offshore campuses, and

fostering international exchanges (Pandit 2009; Bourn 2011). Motives for internationalization include financial gain, competition, and prestige (Huang 2003; Teekens 2003; Gacel Avila 2007; Jiang 2008; Kreber 2009; Takagi 2009). Pandit (2009) warns that in the rush to internationalize, many institutions have compromised their core academic mission and Schapper and Mayson (2004, 191) caution that—to its detriment—some internationalization efforts have standardized curricula in an effort to reach a broad audience of students. In an effort to distance global learning efforts from the economic imperative proposed in the literature, Jones (2000) suggests the term internationalism to describe the processes that develop international community and cooperation. To further illustrate the varied perspectives provided for in the literature, it is important to recognize that Gunesch (2004) advocates for cosmopolitanism over internationalism because cosmopolitanism—in his account—transcends national boundaries and addresses transcultural and transnational concerns.

Haigh (2008) discusses the contradictory motives—monetary gain versus planetary citizenship—of the internationalization of higher education. Yang (2002) argues that the true rationale for internationalization is the universality of the advancement of knowledge. While in ideal terms this rationale supports a sense of global community, its critics note that predominant flows of knowledge and technology from developed to developing countries favor Western goals and values (Stier 2004; Jiang 2008; Shome 2009). Altbach (2006) argues that the internationalization of higher education curricula moves in most part from the ‘North’ to ‘South’. Strong Western influences on internationalization and inequalities in universities between the Global North and Global South have the potential to neo-colonialize higher education (Jiang

2008, 352). Hay (2008) cautions against this flow when writing about the International Network for Learning and Teaching Geography in Higher Education (INLT). Hay (2008, 16) identifies the INLT's dominance by geography education scholars in the United States, the United Kingdom, Australia, and New Zealand, which limits the intellectual vitality of an internationally-focused network at best and leads to "educational and cultural colonization" at worst. Bourn (2011, 17) argues for transformational and counter-hegemonic perspectives that go beyond current internationalization efforts.

In the United States, internationalization varies widely across college campuses (Green, Luu, and Burris 2008; Theobald 2008). Likewise, the internationalization of geography in higher education differs extensively within and among different countries (Haigh 2002; Li, Kong, and Peng 2007; Ray and Solem 2009). Green and Olson (2003, 57) contend that curricular change is the foundation for internationalization, which "requires new pedagogies and ways of learning (for example, experiential, service, and collaborative learning), which enable students to fully experience how other cultures and belief systems work."

One component of internationalization is global learning, which "is a student-centered activity in which learners of different cultures use technology to improve their global perspectives while remaining in their home countries" (Gibson, Rimmington, and Landwehr-Brown 2008, 11). Initiatives such as the CGGE provide global learning opportunities for students in geography and related disciplines (Ray et al. 2012). Global learning supports students' understandings of their own identities, which are "shaped by the currents of power and privilege…within an interconnected and unequal world" (Hovland 2005, 1). Teekens (2003) notes that while global learning focuses on global

issues and pedagogies, it occurs within specific local contexts that influence its implementation. Välimaa (2004) and Douglass (2005) also emphasize the importance of local systems and processes in understanding reforms in higher education.

Haigh (2009, 271) makes the distinction between curricula that have international content and curricula that are based on "other-cultural foundations"; truly internationalized curricula challenge learners to question their own culture's presuppositions—which may be met with resistance—and challenge educators "to develop courses and curricula that embed and validate the thought of cultures other than the Western and present them to local learners without making them seem exhibits in a museum." Crichton and Scarino (2007) explain that infusing an intercultural dimension into internationalized curricula is not simply a matter of adding content or a set of tasks but rather it requires educators and students to engage in a reflexive process. Lee et al. (2011) suggest that cross-cultural communicators need to exhibit humility in their understanding of the "other".

While many scholars espouse the benefits of collaborative practices in the online environment, including: promotion of critical thinking, active engagement of students, and increased learning when compared to traditional pedagogy (Palloff and Pratt 2005; Roberts 2005; Miyake 2007), challenges related to learners' motivation, and preparation for online learning exist (Phillips 2003). Wang and Reeves (2007) note that research is needed to understand how cultural differences affect online education.

The English Language and Internationalization

Yang (2001) and Doiz, Lasagabaster, and Sierra (2011) discuss how the English language currently dominates the internationalization of higher education in China and parts of Europe, respectively, which is reflective of the dominance of English in academic publishing, the Internet, and international organizations (Yang 2001; Cantwell and Maldonado-Maldonado 2009; Shome 2009). Doiz, Lasagabaster, and Sierra (2011) discuss perceptions of language imperialism through the introduction of foreign languages in the Basque educational context while noting that surveyed professors indicate the advantage of English language capabilities to find online resources. Svensson and Whilborg (2010, 18) stress that to counter English language hegemony, it is important that educators focus on meanings rather than forms of expression.

Citing examples, such as the use of English as the official language of the Association of South East Asian Nations, Yang (2001) argues that the use of English is not indicative of Western hegemony. This is not to say that English is universally accepted as a global language or that English is not a tremendous obstacle for many (Yang 2001). Yang also points out that many Chinese academics interviewed in a study of English learning and teaching reported that native English speakers have an unfair advantage and that contemporary Chinese scholarship is ignored by the global community. While English—like all languages—is not culturally neutral, it may be conceived as not one monolith but rather as existing in multiple forms (Svensson and Wihlborg 2010; Baker 2011). Citing Singapore as an example, Grimshaw (2007) explains how pragmatic instrumentalists who adopt the English language based on needs and goals criticize the idea that the use of the English language is akin to linguistic imperialism.

Another consideration of English language use is that even for multilingual speakers, the use of non-native languages confines an ability to communicate details and subtleties (Tange 2010, 142). In the context of higher education in the United Kingdom, Henderson (2009, 400) notes that native English speakers have both power and agency and that these speakers have a variety of responses to working in local groups with non-native English speakers including fascination, rejection, and frustration.

Internationalization in China and Chile

When researching university students, it is important to understand both social and institutional contexts (Tu 2011). Kreber (2009) argues that curriculum includes not only learning within classrooms but also the broad learning environment as experienced throughout campus, which underscores the importance of understanding how each university has a distinct culture (Dunne 2011). While a full investigation of the socio-cultural contexts of each of the four campuses is beyond the scope of this research, a general understanding of the intersection of internationalization and higher education in each country provides pertinent insights into students' undergraduate experiences.

The findings of a survey of 745 higher education administrators and academic organization representatives from six different world regions demonstrate how internationalization priorities differ worldwide (Beelen 2011). Latin American respondents indicated a lower priority on strengthening international/intercultural content of curriculum than did their North American counterparts (Beelen 2011). Notwithstanding problems of world regional groupings (e.g., combining Western and Eastern European responses) as indicated by Beelen (2011), the survey shows that while

differences in the priority to internationalize curricula differ by region, the amount of institutional resources provided for this remains low in each region. And, with more than 1,200 and 6,000 higher education institutions in China and the United States (Huang 2006; U.S. DOE 2011), respectively, internationalization efforts are difficult to summarize (Huang 2006). However, the loss of cultural identity due to the tides of globalization and resulting internationalization are concerns expressed in both the Asian and Latin American higher education contexts (Gacel Avila 2007; Gu 2009). Enders and Fulton (2002) argue that for many developing countries internationalization brings about challenges to contend with outside influences at a time of the nationalization of higher education systems.

The English-language literature discusses how higher education in China has rapidly transformed. Recent internationalization efforts have been met with varying degrees of support, which is not unlike the experience in other countries. Departures from similarities with other countries includes the use of the phrase "internationalization with Chinese characteristics" (Wang 2011). After noting discourse to protect Chinese culture from foreign influences, Gu (2009) supports preparing Chinese students for dialogue, critical thinking, and self-awareness in cross-cultural encounters fostered by transnational education.

The mass expansion of higher education, also termed the massification of higher education, began in the late 20th century (Altbach 1999; Yang 2005; Brandenburg and Zhu 2007) as a mechanism to increase economic growth, which allowed increasing numbers of students access to higher education institutions (Guri-Rosenblit, Sebková, and Teichler 2007) and spurred many changes including increased student diversity as ethnic

minorities have enrolled in mainstream universities in increasing numbers (Altbach 1999; Zhao and Postiglione 2008). Since 1993, higher education in China has undergone a phase of internationalization marked by the increase of international student flows and the import of foreign textbooks (Huang 2003, 2006). Huang (2006) cautions that to understand the impact of incoming international students, it is important to realize that some institutions in China do not have authorizations to recruit international students. At institutions that do recruit international students, they often enroll in programs with classes separate from the regular student body, which limits cross-cultural interactions (Huang 2006). The competition for placement at national universities along with government and public sector financing spurs Chinese students to study abroad (Huang 2003).

The English language literature provides limited insights into internationalization in Latin America in general, and in Chile in particular. In Latin America, internationalization efforts are impeded by a lack of long-term institutional funding and are typically encapsulated in study and faculty mobility (Gacel Avila 2007). Internationalization programs are aimed at individuals rather than at institutions (Gacel Avila 2007). Virtual mobility through the use of technologies is extremely scarce (Gacel Avila 2007, 404). The lack of foreign language skills hinders Latin American graduates' international competencies (Gacel Avila 2007). In recent decades, Chilean higher education has neoliberalized and transformed into a more market-oriented system (Dickhaus 2010), which has resulted in deep funding cuts (Lebeau 2012) and subsequent student protests (Downie 2011; Burton 2012). The strike during data collection at the

case study institution in Chile were driven by students frustrated by funding cuts and the lack of administrative transparency, among other issues.

Globalization and Global Education

Globalization—"the increasing interconnectedness of people and places throughout the world through converging processes of economic, political, and cultural change" (Rowntree, et al. 2006, 644)—is the force behind current manifestations of internationalization. Green and Olson (2003, 3) explain that:

> Globalization and internationalization are clearly linked—but not synonymous—concepts. Some contend that globalization has provided greater impetus for internationalization: As increased technology and travel, economic integration, and environmental interdependence diminish the barriers among nation-states, the imperative to know about other societies and cultures increases. Others see globalization and internationalization as distinct—with the former primarily an economic phenomenon and the latter tied to more traditional concepts of national culture, politics, and history.

The impact of globalization on higher education, and thus global education and internationalization, is widespread. Evidence of globalization include increased demands for higher education worldwide, English language use in the scientific community, cross-border flows of students and scholars, the increasingly international labor market and perhaps most significantly, the use of information technology to facilitate communication, the dissemination of knowledge, and e-learning academic programs (Altbach 2006; Altbach and Knight 2007). While varying definitions of global education are available in the literature, most definitions indicate that global education involves the study of the interconnectedness of cultural, environmental, economic, political, and

technological systems with a focus on fostering cross-cultural understanding (Tye and Tye 1992, 87).

Views toward globalization in higher education are divisive and political in nature (Dodds 2008). Rather than the oft-cited motive to achieve global understanding, Mason (1998) submits that falling national financial support for higher education catalyzes globalizing forces in higher education. Scott (1998) discusses the intersection of politics, higher education, and the push for national competitiveness in the lens of present-day globalization. Dodds (2008) argues that rather than higher education institutions reacting to the forces of globalization in a one way process, higher education institutions themselves work to promote globalization.

In their edited book entitled *Internationalising Higher Education*, Brown and Jones (2007, 1) make a bold assumption that "good practice for internationalisation is good practice for all students." Fullinwider explains how assumptions such as this one may be seen as controversial:

> Global education is "charged with promoting moral relativism and undermining national citizenship…to speak, thus, of "world citizen" seems to suggest that each person stands to all others in the *world* as a *political* equal, deserving that his interests be accorded equal weight in deliberation. This apparent broadening of the civic tie would seem to weaken, if not abolish, the special tie of national citizenship (1994, 23-24).

Kehm and Teichler (2007, 262) underscore the political nature of global education and internationalization, noting that internationalization demonstrates inequalities among countries and world regions.

Based on his case-study research of global education programs in higher education and business, Mason (1998, 11) highlights five components of global

education, with the caveat that not all institutions practicing global education engage in all five areas, which include: cross-national communications among teachers and students, explicit goals to increase international participation, course content designed for transnational participation such as the CGGE modules, institutional and technological support structures for a student body located around the world, and large scale programs that include multiple disciplines. While Mason's delineation of global education takes a programmatic focus, Tye and Tye (1992) offer a definition of global education based on educational objectives and learning outcomes. Tye and Tye (1992, 6) include studies related to "problems and issues that cut across national boundaries, and the interconnectedness of the systems involved—economic, environmental, political, cultural, and technological; [and] the cultivation of cross-cultural understanding, which includes development of the skill of perspective-taking—that is being able to see life from someone else's point of view" in their definition of global education.

The motivations and educational goals behind global education programs and internationalization efforts vary significantly depending on the individuals, institutions, and other entities involved. International teaching and learning collaborations are examples of an internationalization strategy in tertiary geography education. Mason (1998, 6) indicates that "a good many areas of the curriculum are inherently global in nature and some particularly lend themselves to course development on an international scale, providing students with a much broader perspective than a course presented by a single lecturer." A number of studies provide examples of how academic geographers recognize the "global nature" of geography and have undertaken international teaching and learning collaborations (cf. Warf, Vincent, and Purcell 1999; Vanneste 2000;

Durham and Arrell 2007; Klein and Solem 2008). DiYanni (2007) posits that the increase of cultural geography course offerings in U.S. colleges and universities reflect an effort to internationalize the curriculum through general education course requirements, which many institutions view as supportive to success in students' majors and future careers (Hanstedt and Rhodes 2012).

International Learning and Teaching Collaborations

International learning and teaching collaborations involve students in different countries working together to achieve learning outcomes. Typically, international collaborations occur in an online learning environment. There is considerable diversity in international learning and teaching collaborations depending on the time spent and the nature of student interactions. The successful implementation of international teaching and learning collaborations depends on several factors, including faculty expertise at managing collaborations and student engagement within the online learning environment. International learning and teaching collaborations are not widespread in geography (Ray and Solem 2009), perhaps due to a perceived lack of evidence indicating that these efforts improve student learning (Stohl 2007). While international collaborations in geography and other disciplines have research-based evidence of student learning (Klein and Solem 2008; Hastie et al. 2010), these findings may not be well known to faculty. Higgitt and Haigh (2006) argue for additional examples of international collaborations to be published in the *Journal of Geography in Higher Education*. Students can, in theory, develop an international perspective through instructional experiences that equip them with geographic knowledge while engaging them directly in intercultural learning via

collaborative activities with peers in different countries. This is what the CGGE modules are designed to do. Stier (2004, 92) addresses that from an educationalist standpoint—one that values internationalization for lifelong learning aims—online learning has an important role to play in facilitating intercultural interactions especially for students unable to have direct experiences in international locales.

Drawing from the work of Albrecht and Tillmann (2004), Muniz-Solari and Coats (2009) distinguish among different levels of knowledge construction related to social learning. Beginning with interaction, students make contact with each other but the construction of knowledge remains at the individual level. Next, student interactions become more meaningful as students learn through cooperation in a group. At the highest level, the collaboration level, students co-construct knowledge and groups become teams in that they are interdependent on each other (Godar and Ferris 2004).

Across academic disciplines, instructors focus on facilitating meaningful student interactions in successful online learning communities (Roberts 2005). Ware (2005) clarifies dual concerns of online interactions: students are concerned about the meaning and motives of words in the specific context of the group assignment; and students are concerned about how those words relate to the interpretation framework within one's larger cultural context. Careful facilitation of student interactions includes "explaining the relevance of the work to students, helping them set realistic expectations, and creating diverse and collaborative groups," as well as monitoring student discussions, offering advice, modeling conflict resolution, and providing feedback (Fisher, Thompson, and Silverberg 2004-2005, 218).

In a review of literature related to instructors' intercultural experiences and their abilities to translate them into inclusive teaching practices, Schuerholz-Lehr (2007) reports that the process of integrating intercultural sensitivity and world-mindedness into college classrooms often requires deliberate preparation by instructors including reflective professional development. Higgitt et al. (2008) write that instructors must have an understanding of intercultural differences when managing international collaborations. Haigh (2002) points out that many university-level instructors have limited experience with people of cultures outside of their home country. Moreover, few professors have lived as a 'social minority' (Haigh 2002, 54), notwithstanding the increasing number of foreign-born geography scholars working in the United States (Foote et al. 2008). Professional development of instructors related to international collaborations is needed to allay potential collaboration problems (Ray and Solem 2009). For example, Liu (2007) argues that online instructors, as well as students, need to be aware of cultural differences in the online learning environment.

This research addresses several tensions that are inherent to online cross-cultural learning such as those between internationalization/multilingualism and globalization/monolingualism (Svensson and Whilborg 2010). The literature provides other tensions that are worth noting in order to understand the contested spaces of international collaborative learning. For example, tensions exist between differing ideas of what the process internationalization should advance (Pandit 2009), from balancing national security aims and fostering global citizenry (Tanock 2007), to understanding the deep roots of diversity versus viewing globalization in "a flat world" and internationalization as "ageographical" (Jiang 2008). Stier (2004) presents the main

tensions within internationalization starting from its conceptualization (state, process, or doctrine), form issues versus content issues, and ideologies (idealist, instrumentalist, or educationalist). Tensions identified in the report by the International Commission on Education for the Twenty-First Century include global-local, universal-individual, tradition-modernity, and competition-equality of opportunity (Delors 1996). And, Yang (2002) discusses the polarity between local and global knowledge.

Facilitators of online learning collaborations operate within these tensions and must take steps to match the student learning outcomes with the wider goals of fostering global perspectives and global-mindedness. Crichton and Scarino (2007, 13) include assuming a responsibility to respecting multiple perspectives as a principle of intercultural learning, which serves as important foundation for international learning collaborations. Of particular importance to this research and its conceptual connections to the global sense of place concept, Rizvi (2007, n.p.) calls for a critical approach to international education that involves:

> Students considering the contested politics of place-making, the social constructions of power differentials and the dynamic processes relating to the formation of individual, group, national and transnational identities, and their corresponding fields of difference.

In order to meet this ideal of international learning collaborations, instructors must be prepared to teach in the online learning environment.

High levels of social presence—the involvement and sense of community among online learners—enhance student learning (Tu 2002; Tu and McIsaac 2002; Palloff and Pratt 2005; Johnson, Hornik, and Salas 2008; Kehrwald 2008; So and Brush 2008). Several factors influence social presence, including cultural differences, individual differences, technology accessibility, language capability, and previous educational

experiences (Boehm and Aniola-Jedrzejek 2005). Barab, Thomas, and Merrill (2001) argue that facilitators who create a supportive online learning environment are then able to motivate students, support students' co-construction of knowledge, and encourage students' personal growth and discovery. Beyond the fostering of social presence, instructors should design collaborative learning activities that promote both individual accountability and positive team member interdependence (Moallem 2002).

Several authors indicate that online discussions in international collaborations offer students clear learning benefits. Vrasidas and Zembylas (2003) evaluate international collaborations among three countries and find that the time lapse between online interactions offers students a time to reflect, which is not afforded in face-to-face interactions; however, too much time between online interactions impedes student learning (Klein 2005). Cazden (2001, 111) writes that "theoretically, it seems possible that students will be more apt to actively struggle with new ideas…when they are spoken by (less authoritative) peers than by the (more authoritative) teacher." Likewise, student interactions may provide students with "alternate viewpoints and perspectives that may question beliefs unchallenged in the domestic environment" (Rich, Robinson, and Bednarz 2000, 266). Vrasidas and Zembylas (2003, 283) expand these ideas and suggest that students involved with international learning collaborations have an opportunity to question their subjectivity and "discard fixed notions of identity." In a study involving international collaborations with students from 18 countries found that synchronous peer-to-peer interactions expanded cross-cultural understanding and the formation of positive attitudes towards other cultures. In contrast, other research studies investigate the challenges and possible negative impacts of facilitating international online learning

collaborations. Ware (2005) addresses students' in low functioning groups and how there are missed learning opportunities in online discussions.

When considering the overall goal of this study—to evaluate the effect of the CGGE phase two modules on students' international perspectives—understanding the diversity of student participants and their respective educational backgrounds and contexts is paramount. Completion of geography courses at the secondary level varies tremendously by country, as do assessment forms, the course focus (physical, human, regional, or a combination), and the nature of the course (theoretical or applied) (cf. Bednarz and Bednarz 2004; Kulke 2004; Muñiz 2004; Rawling 2004; Kim and Ryu 2006). The number of university-level geography courses completed by participants in the CGGE phase one evaluation varied as well. For example, the majority of phase one student participants from the United States had never taken a university-level geography course, whereas 89% of German students and 53% of Chinese students completed four or more university-level geography courses (Klein 2005). Beyond quantifying student participants' previous experience in geography courses, considerations related to students' experience with different types of pedagogy (didactic or student-centered) and format (face-to-face or online) potentially affect student participants' comfort with the hybrid online inquiry-based format of the CGGE modules (Liu 2007; Olaniran 2007; Klein and Solem 2008). Language issues also influence the engagement of students with international collaborations (Shepherd, Monk, and Fortuijn 2000; Boehm and Aniola-Jedrzejek 2005; Schleicher 2006; Klein and Solem 2008). Outside of the language learning literature, which tends to focus on the linguistic interactions of native speakers

versus non-native speakers (cf. Lee 2004; Tudini 2003), issues about language differences have received scant attention (Xia 2007).

Intercultural Communication

Dunne (2011) argues that the intercultural component is central to curricular internationalization while Teekens (2003) states that internationalization integrates the international and the intercultural. Intercultural communication is the process of stimulating meaning through the use of symbols among people of diverse cultures, subcultures, or subgroups (Jandt 2010). In general terms, intercultural communication skills include awareness of one's own communication styles and patterns, understanding others' communication styles and patterns, and exhibiting flexibility in communication (Martin and Nakayama 2008). The development of these skills leads to self-awareness and respect for cultural differences, which is termed intercultural communication competence (Jandt 2010). Allahwerdi and Rikkinen (2003) emphasize that intercultural understanding has been a long-term goal of international education efforts. Bélisle (2007) points out that intercultural competence is not only being able to communicate with others but also understanding how language is socially embedded. Leask (2008, 19) explains that intercultural communication requires an understanding of how language and culture influence the thoughts, values, actions, and feelings of others and ourselves.

Although incoming college students in the United States are more racially and ethnically diverse than in previous generations (Broido 2004), the K-12 school experience for many students limits intergroup contact (Logan 2002). Intercultural learning is not an automatic by-product of placing diverse students together, rather it is

achieved deliberately (Teekens 2003). Further, a study of the ethnic diversity in university geography departments in the United States finds that African-Americans and Hispanics remain underrepresented (Estaville et al. 2008), which may limit undergraduate geography students' development of intercultural communication skills. Given that many students in the United States fail to gain intercultural communication skills in college (Hayward 2000), international collaborations with the CGGE modules may offer students unique opportunities to develop their intercultural communication skills.

Moon (2008) reviews how culture has been conceived in the field of intercultural communication and notes that prior to about 1980, culture is seen through numerous lenses (e.g., race, gender, social class), and after 1980 conceptions of culture are reduced to the nation-state and is operationalized in positivistic research. Scholars argue that all individuals are multicultural and culturally unique, and that to some degree all communication is intercultural (Kim 1988; Singer 1998; Boylan 2006; Dunne 2011). Howitt and Stevens (2008, 31) posit that most research in human geography—whether understanding one's constructions of place or how one interprets cultural landscapes—is cross-cultural in nature even when the research is conducted in the researcher's own home city or country. Moon (2008) points out the potential contribution of critical and feminist scholarship for intercultural communication research. First, feminist scholars emphasize how gender, class, race, and so on contribute to one's identity in overlapping and interlocking ways. Second, critical and feminist scholars reject the notion that research subjects are "fixed, and thereby indifferent to context and history" (Moon 2008, 17).

Based on a review of studies that demonstrate the complexities of intra- and intercultural interactions—which make cultural dualisms contentious concepts—Bandura (2002, 276) explains that "human behavior is socially situated, richly contextualized and conditionally expressed." O'Brien and Eriksson (2008) question the commonly used binary descriptions of cultures (such as individual versus collective cultures) and encourage open discussions of cultural differences free from stereotypes. Although an understanding of cultural norms is useful as a starting point for understanding intercultural interactions, cultural generalizations are problematic given international migration and cultural hybridization (Rimmington and Alagic 2008). Weaver (2000) explains these common horizontal models of culture (e.g., individualistic-collectivistic) are generalizations that provide a baseline for comparing different cultures. Further, Moon (2008, 17) argues that when studies focus on dyads, the research participants are seen as "disembodied, ahistorical beings." Tafoya (1984), cited in Tanno (2008), questions research that claims to view culture and identity pluralistically yet the same research results in the labeling of specific cultural characteristics.

Several intercultural communication researchers make statements directly related to the power-geometries discussed by Massey (1994). Moon (2008, 16) emphasizes that the "interplay of power relations" is neglected in many intercultural communication studies of the 1980s and 1990s. Asante, Miike, and Yin (2008, 4) address the importance of considering how power and privilege are embedded in intercultural communication. For example, "much intercultural communication research deals with non-Western cultures as targets for analysis and critique, but not as resources for theoretical insight" (Asante, Miike, and Yin 2008, 3).

Intercultural Communication in the Online Learning Environment

Numerous studies across disciplines investigate the use of the Internet to facilitate intercultural learning (St.Amant 2007) and Bélisle (2007) argues that e-learning provides an environment suitable for the development of intercultural competence. Termed 'third place learning' (Rimmington and Alagic 2008) or 'communicating in the third space' (Ikas and Wagner 2009), intercultural learning in the online environment has prompted new pedagogies (cf. van der Schee 2003) and conceptualizations in geography (cf. Soja 2009). Using data from the implementation of the Soliya Connect Program in Palestine and Italy, Helm, Guth, and Farrah (2012) document how within cultural, linguistic, and technological hegemonies—and the conflicts that arise from them—a third space is created for learning that is fluid in that it is not predetermined by cultural influences. Furthermore, students' unique backgrounds, experiences, and motivations all play a role in the successes and failures of intercultural online learning and their ability to engage in cross-cultural dialogue and co-construct meanings in the third space.

Productive interactions among students are the key to successful online international collaborative learning (Roberts 2005). These interactions are mediated by the intercultural skills of students that enable them to effectively communicate across cultures (Olson and Kroeger 2001). Empirical research is needed to understand how cultural differences affect online educational outcomes and pedagogy (Wang and Reeves 2007). Lajoie et al. (2006) note the cultural and linguistic challenges of facilitating online international learning collaborations in higher education, such as differences in levels of group cohesion and teacher involvement in the online learning environment.

Impediments to intercultural communication in the online learning environment include students' apprehension, fear of rejection, lack of commitment, and cultural norms that discourage the expression of personal opinions (Skinner 2007; Klein and Solem 2008). Research on undergraduate international learning collaborations by Koehler (2004) confirms that cultural communication norms play a significant role in the success or failure of internationally distributed teams. Furthermore, although "specific knowledge of or experience in a different culture may be useful, it does not itself guarantee intercultural competence" (Ledwith and Seymour 2001, 1293).

Researchers have utilized concepts developed by the organizational psychologist Hofstede or the cultural anthropologists Hall and Hall (cf. Hall and Hall 1989; Hofstede 2001) to frame much of the analysis of online intercultural communications. Numerous authors address the limitations of these frameworks, including their "essentialist" bounding of culture as values, beliefs, and patterns of learned behavior (Reeder et al. 2004, 89) and their neglect of attention on power relations (Ikas and Wagner 2009). Within the context of technology-rich educational systems, Khalsa (2007, 311) suggests that due to the prevalence of students' technology use, "cultural influences have become less stagnant and stereotypical" thereby calling into question how far cultural influences can explain students' online interactions. Tarsiero (2007) notes the utility of these earlier studies of culture to help frame current research studies even though methodological and transferability concerns remain. For example, Xia (2007) presents research on an online collaboration among college students in China and the United States and finds that Chinese cultural values, including collectivism and understanding of authority, affected the students' communication. Although the Chinese students exhibited more direct

communications in the online environment than in face-to-face interactions, these students were polite, made the consideration of others a priority, and were more inclined to communicate about others rather than themselves (Xia 2007, 67).

The Center for Global Geography Education

The CGGE vision is to internationalize geography in higher education through international collaborations that promote active learning and cross-cultural student inquiry and discovery (CGGE 2009). The aims of the CGGE are to:

1. Provide open access to teaching and learning materials that foster awareness of and reflection about international contemporary geographic issues,
2. Engage higher education students and educators in global learning and teaching collaborations resulting in more diverse geography education networks, and
3. Promote international cooperation for the teaching and research of geography in higher education (CGGE 2009).

Initially, each of the CGGE modules was co-authored by a team of scholars from the United States and two other countries in order to diversify the scope and geographic content. Following this model of multi-country authorship, subsequent workshops in Singapore, India, and Japan expanded the initial content of the CGGE modules. The CGGE is founded on the idea that international, intercultural, and geographic knowledge, skills, and values are necessary for today's college and university students to succeed in a globalized world.

The CGGE modules provide academic geographers and scholars in related disciplines with materials proven to engage students productively in intercultural online learning. Based on nine international collaboration trials in ten countries, Klein and Solem (2008) report that the phase one CGGE modules improved students' knowledge of

skills. Based on their evaluation of the phase one CGGE modules, Klein and Solem (2008) developed several recommendations for improving future international collaborations, such as increasing social presence through informal introductions, developing open-ended discussion prompts, and allowing instructors more flexibility when using the CGGE modules. These refinements along with structural changes to improve the usability of the CGGE materials were enacted in the phase two modules, which replaced the phase one modules.

The CGGE began with a prototype *Migration* module reviewed by Solem et al. (2003). CGGE project directors and CGGE module developers have published empirical research related to the three phase one CGGE modules (*Nationalism*, *Population*, and *Global Economy*) and the six phase two CGGE modules (*National Identity*, *Population & Natural Resources*, *Global Economy*, *Migration*, *Water Resources*, and *Global Climate Change*) (Table 2). Keane (2005) reports that many student participants demonstrated increases in content knowledge and awareness of cultural differences. Arrowsmith (2006) finds gains in students' content knowledge and minor positive changes to students' attitudes toward online international collaborations. Based on an international collaboration among students in China and Germany, Schleicher (2006) indicates that the German student participants appreciated the opportunity to collaborate internationally although the bilingual learning posed challenges. Language-related disadvantages identified by the German students included the inability to express opinions correctly and the feeling that their translations from German to English distorted the meaning of their thoughts (Schleicher 2006, 400). Ray (2007) finds content knowledge gains for student participants even though students identified time delays and language barriers as

disadvantages to their learning. Muniz (2009) discusses the challenges of student online communications when collaborators speak different languages. Muniz-Solari and Coats (2009) indicate that student interactions and cooperation were hindered by technological constraints. Baiio and Ray (2011) employed a modified Likert-based instrument based on Klein and Solem (2008) and found that while students' attitudes remained positive about the international collaboration, language differences and collaboration brevity were identified by students as obstacles.

Also, using modified Likert-based items from Klein and Solem (2008), Conway-Gómez and Araya (2011) found that an international collaborative experience positively influenced U.S. students' attitudes towards concepts related to sustainable development and negatively influenced Chilean students' attitudes towards obtaining an awareness about the world, which may be related to their feeling that they are distant from and have little influence on global issues. Based on the phase two module trials, Ray et al. (2012) reported that students achieved content knowledge learning outcomes in both international collaboration courses and in courses that utilized the CGGE modules without international collaborations. Based on student and facilitator feedback at the end of the phase two module trials, which included data from the China-U.S. and Chile-U.S. case studies along with two other international collaborations, Ray et al. (2012) provide recommendations for future international learning collaborations.

Table 2. Previous Empirical Research of CGGE Materials

Publication	CGGE Module	Overview
Solem et al. (2003)	*Migration* (pre-Phase 1 prototype)	Two collaborations (Canada-U.S., Australia-U.S.) with 312 students
Keane (2005)	*Nationalism* (Phase 1)	Northern Ireland-U.S. collaboration with sixty-six undergraduate students
Arrowsmith (2006)	*Population* (Phase 1)	Australia-Netherlands collaboration with ninety-six undergraduate students
Klein and Solem (2008)	All Phase 1 Modules	Synopsis of Phase I summative evaluation
Schleicher (2006)	*Population* (Phase 1)	China-Germany collaboration with approximately sixty undergraduate students
Ray (2007)	*Population* (Phase 1)	China-Germany-U.S. collaboration with approximately seventy-six undergraduate and graduate students
Muniz Solari (2009)	*Population* (Phase 1)	Chile-China collaboration with approximately forty undergraduate students
Muniz-Solari and Coats (2009)	*Population* (Phase 1)	China-U.S. collaboration with fourteen graduate students
Baiio and Ray (2011)	*Nationalism* (Phase 1)	Papua New Guinea-U.S. collaboration with forty-six undergraduate students who collaborated using airmail and fax
Conway-Gómez and Araya (2011)	*Population* (modified from Phase 1)	Chile-U.S. collaboration with sixty-four undergraduate students
Ray et al. (2012)	Phase 2 modules	Phase 2 module trials with a total 439 students (of which 231 were involved with international collaborations) from Australia, Chile, China, Northern Ireland, Spain, Singapore, and the United States[1]

[1]The China-U.S. and Chile-U.S. international collaboration case studies in this research are a component of the phase 2 module trials.

Synthesizing the Conceptual Framework and Literature Review

Quoting from Peters inaugural lecture at the University of London Institute of Education, Slater (1992, 98) provides a perspective on the metaphorical notion that "to be educated is not to have arrived at a destination; it is to travel with a different view" (Peters 1965). In exploring the metaphor, Slater (1992) considers the different approaches that have influenced geographic education historically: the shift from a descriptive approach to the scientific approach in the 1960s, the humanistic approach—centered on personal experiences and place feeling—drew the attention of geographic educators in the 1980s, and questions presented by radical geographers concerning power and social relations. For example, a radical geographer might question who gets to travel and at what social cost when considering the 'different view' metaphor. Slater (1992, 102) continues the discussion by relating geographic paradigms and educational ideologies to values and explains that "ideologies might be understood by geographers as environments of thought and beliefs which the mind inhabits. Ideologies inform our attitudes and values and have much to do with forming and informing our reactions and opinions."

In broad terms, this research investigates students' international perspectives and seeks to uncover students' ideologies related to internationalized geography curricula. The study utilizes a conceptual framework informed by both humanistic and social geography. Humanistic geography offers an emphasis on personal experience as a way for understanding students' international perspectives. Social geography provides a basis for critiquing and exploring students' valuing of international learning collaborations. Massey's (1994) global sense of place concept provides a way of understanding students'

sense of attachment and responsibility to the world in which they live. The global education literature provides Hanvey's (1976, 1982) global perspective construct and Hett's (1993) global-mindedness scale as a way to concretely evaluate shifts in students' understandings resulting from their international collaboration experiences.

Returning to Peters' metaphor, this study explores if and how students travel with a different view as a result of their participation in an international learning collaboration using one of the CGGE modules. Key considerations of this research include linguistic and cultural barriers that may impede the development of students' international perspectives. Hanvey's (1982, 162-166) five dimensions of a global perspective—perspective consciousness, state of the planet awareness, cross-cultural awareness, knowledge of global dynamics, and awareness of human choices—provide a framework for analyzing students' experiences with the CGGE modules. The global sense of place concept intersects and, in some ways, expands upon Hanvey's (1982) five dimensions of a global perspective. Hanvey (1982) writes about an awareness of human choices, which may be extended to include Massey's (2004) geographies of responsibility, wherein the personal and political are interwoven (Sparke 2007).

CHAPTER 4

RESEARCH METHODS

Research Questions

The following two research questions drive the research methods selected for this study:

1. To what extent do CGGE participants value their international learning collaborations in terms of their personal and academic goals?

2. How do CGGE participants' international perspectives change as a result of participating in an international learning collaboration?

To address these research questions, mixed methods designed for research in an intercultural context were employed. Hofstede (2001) reviews the methodological challenges common in international research and the mixed methods design addressed these challenges. Greene (2007) argues that mixed methods enhance the credibility of the research findings because conclusions are drawn from the integration of quantitative and qualitative measures. Gerber (1999) provides several suggestions for cross-cultural research, such as the use of triangulation methods to increase the validity of generalizations. Furthermore, the qualitative component of this research complements approaches in the field of intercultural communication, which often utilize Likert-based instruments (cf. Bhawuk and Brislin 1992; Olson and Kroeger 2001; Hammer, Bennett,

and Wiseman 2003) with potentially dubious administration in multiple languages and across differing cultural contexts (Greenholtz 2005).

Research Methods

While the international nature of this research confounds attempts to control for all relevant variables, the research design follows a mixed methods triangulation approach through analytic induction in order to provide a comprehensive analysis of diverse research participant experiences. The mixed methods triangulation design utilizes a convergence model wherein qualitative and quantitative data are analyzed separately and then compared and contrasted in order to develop valid and credible conclusions (Creswell and Clark 2007). The global-mindedness scale developed by Hett (1993) provides a surrogate measure of students' international perspectives. The global-mindedness scale analysis provides a starting point for discerning how students' international perspectives change as a result of their international collaborations. The analysis of each of the qualitative data sources allows for an understanding of how students value their international collaborations. By balancing the quantitative and qualitative analysis, the findings provide a foundation for exploring the complexities of international collaborative learning.

Throughout the research process analytic induction served to develop key understandings of the relationships among the variables studied in order to refine the findings based on newly emerging themes—themes that may extend beyond the initial bounds of the conceptual framework. For example, a new theme surfaced in the analysis of the open-ended survey items when two research participants expressed criticism of

their own countries—an idea not explicitly addressed in Hanvey (1982) or Hett (1993). Hanvey's attainable global perspective emphasizes the importance of understanding how one's own country is viewed by others but does not address the relative importance or unimportance of critical views of one's own country. Hett's (1993) globalcentrism construct emphasizes the judgment of issues based on a global standard, however it is unclear what those standards might be and if criticizing one's own country is evidence of their use.

The mixed methods design balances strengths of quantitative and qualitative methods while addressing the weaknesses in both. For instance, criticisms of survey-based research in the field of education posed by Cambridge (2007)—including false assumptions of explanatory variables and mismatch of interpretations among the researcher and respondents—are allayed to some extent through the inclusion of qualitative research methods. And, the inclusion of quantitative analysis of survey data provides evidence that either supports or challenges qualitative findings. Triangulation research designs often test whether different data collection methods lead to the same result, however Patton (2002) explains that triangulation methods are beneficial even when it produces diverging results. Schostak (2002) argues that triangulation methods highlight data inconsistencies that serve to reveal differing perspectives that provide a more complete picture of the phenomena under study. For these reasons, it is important to note that although qualitative researchers borrowed the term triangulation from land surveying, it is not meant to result in one "solution" and the term triangulation is often used metaphorically (Patton 2002).

The research design is based on data collected during two case studies: one international collaboration between students in New York and China using the CGGE *Population & Natural Resources* module and one international collaboration between students in Texas and Chile using the CGGE *Migration* module. There are several qualities of case study research appropriate for cross-cultural research, including the emphasis of understanding real world contexts (Gillham 2000). The use of two distinct case studies serves to improve the value of the research findings (Yin 1994).

Qualitative and Quantitative Methods Evaluation Criteria

Prior to addressing the research design specifics, the following discussion presents an overview of how to evaluate the findings of quantitative and qualitative research. To clarify the terms used in this subsection, positivistic, logico-deductive, and traditional scientific research are general synonyms for quantitative research, and naturalistic, interpretivist, and constructivist are loose synonyms for research using a qualitative approach. The research design incorporates both types of research in order to understand the students varied experiences with the CGGE modules.

Patton (2002) compares the evaluation criteria typically used in positivistic research to evaluation criteria typically used in "interpretivist" research and Lincoln and Guba (1986, 76-77) suggest analogs for the evaluation criteria of traditional scientific and naturalistic approaches (Table 3). These scholars argue that qualitative research should be evaluated using different criteria than quantitative research because the underlying philosophies and axioms of both types of research differ. In general terms, research within a positivistic framework focuses on the objectivity of the inquirer, validity of the

data, methodological rigor, reliability, and generalizability (Patton 2002, 544). In contrast, the evaluation criteria for "interprevist" research acknowledge the researcher's subjectivity and focus on trustworthiness, authenticity, reflexivity, and particularity (Patton 2002, 544).

Table 3. Comparison of Evaluation Criteria adapted from Lincoln and Guba (1986, 76-77) and Patton (2002, 544-547)

Quantitative Research	Qualitative Research
Objectivity of the inquirer	Subjectivity acknowledged
Internal validity	Credibility
External validity	Transferability
Reliability	Dependability
Rigor	Trustworthiness and authenticity

The following definitions of the evaluation criteria for qualitative research help to clarify how qualitative research findings should be judged.

Credibility	"The plausibility of an interpretation or account of experience" (Hay 2005, 279)
Transferability	The "extent to which the results of a study might apply to contexts other than that of the research study" (Hay 2005, 296)
Dependability	The "minimization of variability in interpretations of information gathered through research" which "focuses attention on the researcher-as-instrument and the extent to which interpretations are made consistently" (Hay 2005, 280)
Trustworthiness	Naturalistic analog for rigor in traditional scientific research that includes an evaluation of the research in terms of credibility, transferability, dependability, and authenticity (Lincoln and Guba 1986)
Authenticity	"Reflexive consciousness about one's own perspective,

> appreciation of the perspectives of others, and fairness in depicting constructions in the values that undergird them" (Patton 2002, 546)

Qualitative methods allow for attention to the cultural milieu and support a holistic approach to research, which is useful for exploring meanings that are not only in flux but also malleable depending on specific contexts (Ezzy 2002, 3). Furthermore, when comparing positivist and interpretivist approaches to geography education research, Stimpson (1996) indicates that controlled learning experiments are difficult to attain in cross-cultural research. In some disciplines, online learning research increasingly utilizes mixed methods and qualitative approaches to address research questions about students' experiences and perspectives. For example, Kern, Ware, and Warschauer (2004, 244) document the shift in online language learning research from initial quantitative studies that focused on the amount of student interactions to qualitative studies that focused on sociocognitive factors of learning that considered how instruction and student learning is embedded in a social structure that influences changes in students' cognitive structures. More recent studies on online language learning focus on collaborative projects, cultural learning, social discourses, or critiques of communication and intercultural competence in online language learning (Kern, Ware, and Warschauer 2004).

Case Study Sites

The case studies were selected based on the availability of CGGE module developers to engage in an international collaboration using the CGGE modules. Concerns about scheduling and access weighed into the selection of the case study sites, as is necessary in case study research (Mertens 2005). The case study sites were selected

based on the feasibility of the researcher to conduct research overseas and the willingness of the academic departments to host this research. Both overseas universities offered office space for the duration of the data collection.

The China-New York case study included students enrolled in a sophomore-level geography of culture and geography course at SUNY Oneonta and geography majors at Beijing Normal University who self-selected to join this program. Prior to this research, the professor of the SUNY Oneonta students participated in a CGGE workshop and co-authored a CGGE case study but had not previously offered an international learning collaboration using the CGGE materials. The CGGE program at Beijing Normal University was led by a CGGE module developer who had previous experience with CGGE international collaborations. The host at Beijing Normal University received a campus-based grant to provide on-campus housing for the researcher. Another CGGE module developer at Beijing Normal University offered a data collection opportunity in a geography education course so that the global-mindedness surveys were administered to students who did not participate in the international collaboration.

The Chile-Texas case study included students in the dissertation research advisor's junior-level population geography course at Texas State University-San Marcos. The research advisor is a CGGE director who has offered CGGE international collaborations while based in the United States and Chile. The Chilean students were enrolled in a first-year social geography course taught by a former student of the research advisor at the University of La Serena. The professor offered another geography education course for global-mindedness survey administration as did a University of La Serena colleague who participated in a CGGE workshop.

Data Collection

Data collection occurred in three stages—before the trial, during the trial, and after the trial—between March and May 2011 (Figure 3). The researcher spent five weeks in residence at Beijing Normal University during the China-New York case study and five weeks in residence at the University of La Serena for the Chile-Texas case study. Sources of data include: student pre- and post-trial surveys, facilitator questionnaires, student interviews or focus groups, reflective essays, interview transcripts, and observation notes. The consent form, pre- and post-trial surveys, and reflective essay prompt were provided in the language of instruction at the participants' respective universities. All interviews were conducted in English except for interviews with Chilean students, which occurred with the support of an interpreter. Observations occurred throughout the collaboration at the international location. Due to the simultaneous use of the CGGE modules by students in both countries of the international collaborations, interviews and focus groups with sampled students in China and Chile occurred face-to-face, and interviews with sampled students in the United States occurred via online video conferencing using Skype.

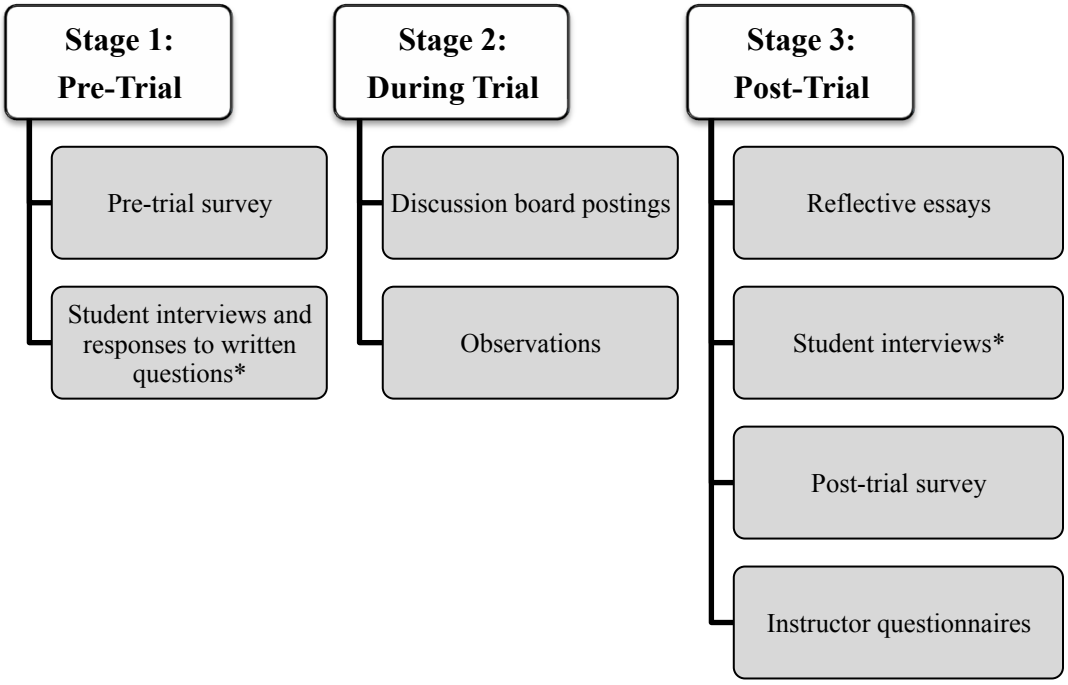

Figure 3. Stages of Data Collection
*Sampled students

During the final week of data collection at the University of La Serena, the students in the History and Geography department voted to go on strike and join the response to President Sebastian Pinera's efforts to liberalize higher education and the lack of transparency on the university campuses[2]. Days later the student body of the university went on strike and blockaded one of the campuses. The University of La Serena students remained on strike with higher education students through much of 2011. The strike prevented the international collaboration participants' completion of reflective essays.

[2] The national strike and the students' demands received international media attention and several BBC News stories chronicled these events.

Instrumentation

The instruments for data collection are pre-trial surveys, post-trial surveys, pre-trial and post-trial student semi-structured interview guides, and a facilitator questionnaire. Before completing the pre-trial survey, research participants read the consent form, which defined the research purpose, invited their participation, delineated their voluntary involvement, and discussed confidentiality, risks and benefits, and their right to withdraw from the study (Appendixes 1, 2, and 3).

Pre-Trial Survey

The first part of the pre-trial survey contained the consent form agreement. The second part of the pre-trial survey contained fifteen items related to the students' educational background, international experiences, and academic and professional goals (Appendixes 4, 5, and 6). This section of the pre-trial survey was pilot tested in English and Spanish by Ray (2009a) during a trial collaboration with ninety-eight student participants in three countries using the *National Identity* module. Additional pilot studies with approximately 500 students in ten countries using the beta-versions of the CGGE modules were conducted from Fall 2009-Spring 2010. Part three of the pre-trial survey contained the thirty Likert-based questions of the global-mindedness survey developed by Hett (1993). The fourth section of the pre-trial survey included four open-ended items to gauge student interest in and expectations for the CGGE international collaboration. The final pre-trial survey question asked students if they would be willing to participate in an interview. Part four of the pre-survey was omitted for the comparison classes because these questions did not apply.

Post-Trial Survey

The post-trial survey consisted of three sections (Appendixes 7, 8, and 9). The post-trial survey began by asking students to confirm their agreement to participate in the research. Three questions asked students to self-report their anticipated course grade, grade point average, and interest level in geography. One question asked students to indicate whether they were more interested, indifferent or neutral, or less interested in six different activities as a result of their CGGE international collaboration. These activities include: travel to foreign countries, study abroad, work in a foreign country, learn a foreign language, read/watch international news, and talk with others from diverse backgrounds. The next section of the post-trial survey contained the global-mindedness survey items. The final section asked eight open-ended questions about the international collaboration experience, including perceived benefits and criticisms. The last post-survey question provided Hett's (1993, 89) definition of global-mindedness and asked students to indicate whether or not their global-mindedness had changed as a result of the international collaboration and to explain their response.

Student Interview and Focus Group Schedules

In order to elucidate the opinions, beliefs, and experiences of the research participants, interviews and focus groups followed semi-structured schedules at both the beginning and conclusion of the international collaborations. The use of semi-structured schedules allowed for some flexibility in responding to participant's responses while providing the researcher with a tool to guide the interviews and focus groups (Brown and Rogers 2002; Dunn 2005). The semi-structured schedule allowed for questions to be

reworded based on students' understanding and the positing of secondary, or follow up, questions to clarify meanings and invite additional responses (Dunn 2005). Tables 4 and 5 present the prompts, rationales, and question types for the interviews and focus groups conducted at the beginning and conclusion, respectively, of both case studies. Additional questions were asked based on the participants' location. For example, a program goal for the students in China was to improve English skills, so one of the post-trial interview questions asked the Chinese participants to reflect on whether or not this program goal was achieved.

Table 4. Beginning International Collaboration Interview and Focus Group Prompts, Rationales, and Question Types

Prompt	Rationale	Question Type[1]
What are your first impressions of the CGGE international collaboration process?	To understand how the start of the international collaboration has occurred.	Descriptive; opinion; leads to storytelling through secondary questions such as "tell me how the process has started"
If you have talked about the CGGE project with your friends or family, what have you told them about it? What has their reaction been?	To glean how students view the international collaboration.	Behavior
What reasons do you think geography professors have for including a CGGE international collaboration in their classes?	To encourage reflection on the value of international collaboration.	Opinion; values
The CGGE program uses online discussions where students work together in online teams. Is this something that you have done in the past?	To understand prior experience with online learning.	Background
Do you have any questions for me?	To provide an opportunity to share additional ideas.	Open-ended

[1] Classification based on Patton (2002) and Dunn (2005).

Table 5. Ending International Collaboration Interview and Focus Group Prompts, Rationales, and Question Types

Prompt	Rationale	Question Type[1]
Tell me about your experience with the CGGE module.	To understand the success and/or problems of the international collaboration.	Descriptive; storytelling
How would you evaluate the online team interactions?	To assess online communication.	Opinion
How would you evaluate your overall experience with the CGGE module?	To assess the impact of the international collaboration.	Opinion
Do you think your perspectives about the [collaborating country] have changed as a result of the CGGE program? If yes, in what ways did they change?	To encourage reflection.	Reflective
Do you think the [collaborating] students' perspectives about your country have changed as a result of the CGGE program? If yes, in what ways do you think they changed?	To encourage reflection.	Opinion
Did you talk with you classmates or group members about the international collaboration? What were their comments about it?	To glean how students view the international collaboration.	Descriptive; storytelling
Do you have any questions for me?	To provide an opportunity to share additional ideas.	Open-ended

[1] Classification based on Patton (2002) and Dunn (2005).

Facilitator Questionnaire

The facilitator questionnaire is composed of eight open-ended items that prompt facilitators to: (a) report on the specifics of the implementation of the CGGE module in his or her course; (b) comment on the perceived benefits of the CGGE module, (c)

identify any factors that blocked the successful implementation of the module, and (d) provide additional feedback on the international collaboration. The questionnaire was pilot-tested with faculty members during the CGGE phase 2 research (Ray et al. 2012). The eight items on the facilitator questionnaire include:

1. Describe how you implemented the CGGE module in your course (e.g., supervised students at a computer lab, discussed module during lecture time, assigned out-of-class work).
2. How did using the CGGE module differ from how you normally teach about the topic?
3. Please describe any issues regarding logistics or specific events that occurred that you believe may have affected your students' perceptions of the experience (either positively, negatively, or both).
4. What factors contributed to the project's success?
5. What factors, if any, blocked that success?
6. Are you planning on using the module in an upcoming course? Why or why not?
7. What recommendations do you have for professors who are starting an international collaboration using a CGGE module?
8. Do you have any other comments or concerns about the CGGE module?

Sampling

The sampling strategy for inviting students to participate in interviews and focus groups at the start of the international collaborations initially followed a pragmatic sequential mixed-methods research design, wherein findings from one data source guides the data collection for another source (Mertens 2005, 297). Participants were invited to participate to allow for the maximum variation based upon the global-mindedness survey pre-survey instrument. While there is no rule for sample size in qualitative inquiry Patton (2002), six to ten interviews per class was deemed a useful goal for providing a depth of understanding of students' experiences.

The global-mindedness pre-survey instruments were scored and then the students in each class were ranked based on their global-mindedness scores. Participants in three categories—low, medium, and high global-mindedness relative to their classmates based on the first third, second third, and final third rankings—were invited by email to participate in interviews and the interviews were announced by the researcher directly to the students in China and Chile. Table 6 shows the number of students from each class invited to interview. Given the difficulty of obtaining interview and focus group participants, the initial sampling strategy changed to a sample of convenience. Additionally, students in each class were emailed the interview guide questions and some students responded to the questions in written form. For the China-New York case study—the first case study of this research—students were invited either to an interview or to respond to written questions. For the Chile-Texas case study students who did not respond to the initial invitation to interview were sent the interview guide questions. The sampling strategy was effective in obtaining participants in China with a range of global-mindedness scores, but the relatively few participants from New York, Chile, and Texas who responded to the interview invitation or the written questions tended to score higher on the global-mindedness survey.

Table 6. Initial Interview Invitations and Emails with Interview Guide Questions

Class	Number of Students Invited to Interview			Number of Students Accepting Interview Invitation			Number of Students Sent Interview Guide Questions via Email			Number of Students Responding to Interview Guide Questions via Email		
	L	M	H	L	M	H	L	M	H	L	M	H
China *n*=32	4	4	3	4	3	3	8	6	6	6	3	2
NY *n*=24	6	5	5	0	0	2	3	5	5	0	1	1
Chile *n*=38	5	4	5	0	0	1	7	8	8	2	1	3
Texas *n*=45	9	7	8	0	0	2	13	16	10	1	0	1

[1] "L" designates relatively low global-mindedness, "M" designates relatively medium global-mindedness, and "H" designates high global-mindedness.

Comparison Classes

In order to improve the rigor of the quantitative analyses, several comparison classes of students who did not participate in the international collaborations completed the pre- and post-surveys. In the United States, 446 world regional geography students at five universities completed both the pre and post-test surveys (Ray and Muñiz-Solari 2012). At Beijing Normal University, 40 students in a third-year geography education course completed both the pre- and post-surveys. At the University of La Serena, 39 students in two geography education classes (one second-year class and one fourth-year class) completed the pre-survey but, due to the student strike, no students completed the post-survey.

Observations

Observations of student groups using the modules online and student discussions were conducted through passive participation, which is typified by a researcher who does

not interact with the research participants (Mertens 2005). Klein and Solem (2008, 260) note that the observations and interviews at selected trial sites during the CGGE phase one evaluation provided meaningful insights into the student and facilitator responses on survey instruments. As suggested by Patton (2002), the observation reports in the researcher's notebook included notes describing the physical environment, the social environment, observed informal interactions, and nonverbal communication. The data collected through observations provided a context for understanding the students' experiences with the international collaboration from inter-group dynamics to the development of discussion board postings. Given the bias inherent in observational data (Brown and Rodgers 2002), the researcher considered her own "reflective screens" such as culture, age, and gender, and acknowledges the subjectivity of her observation notes.

Data Analysis

The goal of the data analysis is to provide a rich description of the international collaborative experience. Each source of data will be analyzed individually, and then triangulated with the other sources of data to increase the credibility of the findings. Triangulation of the multiple data sources allows for the findings to be tested for consistency (Patton 2002). The data analysis consists of: discussion board analysis, content analyses of reflective essays, interview transcripts, open-ended items on survey instruments, observation notes, and facilitator questionnaires.

Quantitative Analysis

Global-mindedness Survey Analysis

Factor analysis searches for correlations between observed variables and latent variables through a model containing regression coefficients (Everitt 2006). Confirmatory factor analysis determined whether or not the data reflects the five theoretical dimensions of global-mindedness identified by Hett—responsibility, cultural pluralism, efficacy, globalcentrism, and interconnectedness. The data underwent confirmatory, rather than exploratory, factor analysis because this factor analysis type provides a method for comparing the dataset to the existing understanding of the factors examined in Hett's scale (Gerber and Finn 2005). The analysis method used in SPSS was principal components analysis, which analyzes the responses in order to explain the maximum variance based on the fewest number of factors (Hinton et al. 2004, 341). Varimax rotation with Kaiser normalization was utilized to simplify interpretation as this rotation does not produce correlated factors (Hinton et al. 2004, 346).

There are two main components of non-parametric statistical analysis. For each of the statistical tests, each item and scale sum on the pre-survey and post-survey was analyzed. The first component of data analysis included statistical tests that compared changes to the overall pre-survey and post-survey scores using the Wilcoxon signed rank test. This component tested the null hypothesis that global-mindedness scores will not show differences from the pre-surveys to post-surveys (Hypothesis 1). The Wilcoxon signed rank test statistic was calculated to determine if there were significant differences between the global-mindedness scores on the pre-surveys and post-surveys. The Wilcoxon signed-rank test—essentially a non-parametric version of the paired-samples *t*

test—was selected because it is not assumed that the data follow a normal distribution. The Wilcoxon test ranks data of at least ordinal level to determine whether or not the pre-test and post-test responses have the same distribution (Cronk 2006).

The second component included statistical tests of pre-survey and post-surveys scores based on the independent variables (Table 7). This component tested the hypothesis that global-mindedness scores and sub-scale scores will differ based on research participant's personal and academic backgrounds (Hypothesis 2). For independent variables with two categories the Mann-Whitney test was used and for independent variables with three or more categories the Kruskal-Wallis test was used. Significant results on Mann-Whitney *U* tests and Kruskal-Wallis tests demonstrate that the two groups are different by replacing item scores with their rank in the dataset and then calculating an analysis of variance (Cronk 2006; de Sá 2007). SPSS reports Kruskal-Wallis results as the Chi-Square statistic, which is used to determine if the score rankings are different based on the probability value (Hinton et al. 2004). When the Kruskal-Wallis test yielded statistically significant results, one-way ANOVA was performed with the Games-Howell post hoc test. This post hoc test is utilized to determine differences among groups when equal variances are not assumed and sample sizes are unequal (Toothaker 1993).

Table 7. Independent Variables and Statistical Tests

Independent variable	Statistical test
Language fluency	Mann-Whitney U
Foreign travel	Mann-Whitney U
International experience[1]	Mann-Whitney U
International career goal	Mann-Whitney U
Case study class	Kruskal-Wallis

[1] International experience is defined as being born, having lived, studied abroad, or worked in a country other than their home country.

Several null hypotheses were generated based on the independent variables:

$H_{0\text{-}2a}$: There will be no difference in global-mindedness scores between monolingual and multilingual students.

$H_{0\text{-}2b}$: There will be no difference in global-mindedness scores between students with foreign travel experience and students without foreign travel experience.

$H_{0\text{-}2c}$: There will be no difference in global-mindedness scores between students with international experience and students without international experience.

$H_{0\text{-}2d}$: There will be no difference in global-mindedness scores between students with an international career goal and students without an international career goal.

Post-Survey Items

In addition to the global-mindedness scale items, the post-survey included items that asked students whether or not they were more interested, indifferent/neutral, or less interested in travel to foreign countries, study abroad, work in a foreign country, learn a foreign language, read/watch international news, or talk with others from diverse backgrounds as a result of the international collaboration. To determine if there were any differences across the four case study classes, this data was analyzed using the Kruskal-

Wallis test with the Games Howell post hoc test. Data from the two case studies was also compared to the comparison classes using Mann-Whitney *U* tests. The final post-trial survey item provided students with Hett's (1993) definition of global-mindedness and asked students to explain whether or not they thought their global-mindedness had changed as a result of the international collaboration. The open-ended responses were coded into nine broad categories: global orientation, perspective, action, equity, value, questioning, survey, judgment, and new experience. This component of the research is included in the subsequent section on qualitative analysis.

Qualitative Analysis

Content analysis of open-ended survey items, reflective essays, and interview transcripts were analyzed based on emerging themes, with a focus on the assumptions, beliefs, and meaning-making structures within each document (Love 2003). Allan (2007) rightfully points out that qualitative research follows a logical path to identifying emergent themes. For this research, the content analysis looked for ideas expressed by students that relate to a global sense of place (Massey 1994), Hanvey's (1976, 1982) five dimensions of an attainable global perspective, and global-mindedness (Hett 1993), as well as student expressions of values and reflections. Interviews were transcribed, coded, and analyzed for emerging themes as delineated by Patton (2002). Each item of the facilitator questionnaires was synthesized into an overall summary, as were the observations from the researchers' notes.

Overview of Qualitative Data Coding

The analysis of qualitative data resulted in 25 codes: 10 codes were applied to the final item on the post-trial survey that probed participants' perceived change to their global-mindedness, 23 codes were applied to the open-ended items on the pre-trial and post-trial surveys, 17 codes were applied to the reflective essays, and 13 codes were applied to the interview and focus group transcripts (Table 8). Through an iterative process, these qualitative data sources were analyzed for evidence of all 25 codes but not all codes were present in every source perhaps due to the differing prompts provided to the research participants. Each of the applied codes reflect either one or more of the conceptual framework concepts derived from Hanvey (1976, 1982) and Hett (1993), Massey's (1994) global sense of place concept, newly emerged themes, or practical considerations regarding participants' international collaboration experiences. A code was applied whenever the excerpt related to one of the conceptual constructs and does not imply that the excerpt is a positive representation of the construct. For example, an excerpt coded as perspective may represent either a broad, international perspective or a narrow, ethnocentric perspective. The codes were grouped into six broad categories: perspective taking, valuing and affective domain, critical thinking and cognitive domain, cultural issues, experience and mechanics of the international collaborations and research, and barriers to successful international collaborations. Additionally, six codes were applied to the discussion boards that were distinct from the other qualitative data due to the nature of the discussion board postings (i.e., students prompted to complete assignments and interact with their international peers).

Table 8. Overview of Codes Applied to Qualitative Data

	Open-ended Response to Final Question on the Post-Survey (Perceived Change to Global-mindedness)	Open-ended Items	Reflective Essays	Interview and Focus Group Transcripts
Perspective Taking				
Perspective	✓	✓	✓	✓
Global orientation	✓	✓	✓	✓
Dual international identity			✓	
Valuing and Affective Domain				
Values	✓	✓	✓	✓
Equity	✓	✓		
Empathy		✓	✓	
Action	✓	✓	✓	
Efficacy		✓		
Goals		✓		
Study abroad, graduate study, or work in U.S.		✓	✓	✓
Travel		✓	✓	
Critical Thinking and Cognitive Domain				
National criticism		✓		
Judgment	✓	✓		
Questioning	✓			
Global issues		✓		✓
Scale		✓		✓
Cultural Issues				
Language		✓	✓	
Class/cultural comparisons		✓	✓	✓
Pride		✓	✓	
Experience and Mechanics of the International Collaborations and Research				
New experience	✓	✓	✓	✓
Suggestions for future collaborations		✓	✓	✓
Survey	✓	✓	✓	✓
Liked idea of international collaboration		✓	✓	✓
Barriers to Successful International Collaborations				
Poor communication		✓	✓	✓
Unclear assignments		✓	✓	✓
Total Number of Codes Applied	**9**	**23**	**17**	**13**

Table 9 cross-references the coding scheme with the constructs developed by Hanvey (1976, 1982) and Hett (1993). In some cases, the code related to both an attainable global perspective and global-mindedness (e.g., the *perspective* code relates to both perspective consciousness and interconnectedness). In other cases, the code was not represented by both an attainable global perspective and global-mindedness (e.g., global orientation relates to globalcentrism but not to any of the dimensions of an attainable global perspective). For the *critical thinking and cognitive domain* category, each code is associated with two dimensions of an attainable global perspective: the state of the planet awareness and the knowledge of global dynamics. Three codes relate to Massey's (1994) global sense of place concept: dual international identity; scale; and study abroad, graduate study, or work in the United States. Codes that emerged from the data set include travel and national criticism. The remaining codes dealt with the experience and mechanics of the international collaborations and research as well as the barriers to successful international collaborations. The skills domain appears across multiple qualitative coding categories: students' ability in perspective taking, and students' valuing of the international collaboration to build international competencies for their future schooling and careers. Table 10 includes illustrative excerpts of each of the codes applied to the qualitative data.

Table 9. Qualitative Coding Categories based on Hanvey (1976, 1982) and Hett (1993)

	An Attainable Global Perspective Constructs (Hanvey 1976, 1982)	**Global-mindedness Constructs** (Hett 1993)
Perspective Taking		
Perspective	Perspective Consciousness	Interconnectedness
Global orientation		Globalcentrism
Valuing and Affective Domain		
Values		Interconnectedness
Equity		Responsibility
Empathy		Interconnectedness
Action	Awareness of Human Choices	Efficacy
Efficacy	Awareness of Human Choices	Efficacy
Goals		Globalcentrism
Critical Thinking and Cognitive Domain		
Judgment	State of the Planet Awareness Knowledge of Global Dynamics	
Questioning	State of the Planet Awareness Knowledge of Global Dynamics	
Global issues	State of the Planet Awareness Knowledge of Global Dynamics	
Cultural Issues		
Language	Cross-Cultural Awareness	Cultural Pluralism
Class/cultural comparisons	Cross-Cultural Awareness	Cultural Pluralism
Pride	Cross-Cultural Awareness	Cultural Pluralism
Nationalism	Cross-Cultural Awareness	Cultural Pluralism

Table 10. Illustrative Excerpts of Qualitative Coding Categories

Code	Excerpt
Perspective Taking	
Perspective	*I have experienced a new way of learning, and realized that we need to analyze many issues from global perspective, not only from single, unilateral perspective.*
Global orientation	*This project helped me understand the various ways population growth can impact our surroundings. It should be a global concern.*
Dual international identity	*I realized that I am not only a Chinese citizen, but also a world citizen.*
Valuing and Affective Domain	
Values	*I can't say that my values have changed regarding global geographic issues because that was already something that I found important.*
Equity	*The things I do here might effect people negatively in other places and that's not fair.*
Empathy	*The international collaboration project was also a success in my mind because it increased my level of concern for many different issues affecting not only the United States but also the rest of the world.*
Action	*After learning about all of this I have become more aware of the problems in the world, and have been thinking about the types of things I can do to help.*
Efficacy	*I think as a member of global citizens, I should do my part to protect the environment, which is a way to show responsibility. Maybe (what I can do) is not much, but could be meaningful.*
Goals	*I'm interested in using the technology platform. I think that is necessary and very important to have these skills now so that I can master this tool as a professional teacher.*
Study abroad, graduate study, or work in U.S.	*I major in geography information systems and I know that America has the biggest company, ESRI, and I want to go to America and learn more.*
Travel	*I believe this assignment fueled quite a bit of interest in possibly traveling to Chile in the future.*
Critical Thinking and Cognitive Domain	
National criticism	*I approve the CGGE's efforts to eliminate cultural boundaries, since we live in an ignorant country.*
Judgment	*I only communicated with Chileans not a melting pot of the world community.*
Questioning	*How can we unite the world and conquer all the environmental issues plaguing the planet when few people in each country care to put forth any effort?*
Global issues	*I was unaware that there was an issue of deforestation in the central highland area of Vietnam until we did the collaboration project.*
Scale	*The example is about Vietnam, though it is not quite near us, it is not in our daily life, some of the situations, I can relate it with our situation. The situation of our country, so it is sort of, although it is distant, it is not that difficult.*

Table 10. Illustrative Excerpts of Qualitative Coding Categories, *continued*

Cultural Issues	
Code	Excerpt
Language	*One thing that I had to learn to deal with was the communication boundaries because I am not able to speak the slightest bit of Spanish, so I had to translate many of the responses into English. Also I tried to keep my writing simple so not to cause confusion.*
Class/cultural comparisons	*After doing this project I feel that I have a new perspective on other students around the globe, they seem to be more like us then I originally thought.*
Pride	*Texas is the best.*
Experience and Mechanics of the International Collaborations and Research	
New experience	*I liked participating with the others students, never I have I done something like this before.*
Suggestions for future collaborations	*I would like to suggest a few changes and or modifications to the CGGE project. First, I would suggest that it last the entire semester the 4- 5weeks was a bit short and a little rushed.*
Survey	*I thought the questionnaire that you gave us was cool. I don't remember much of it but I remember getting really involved in it.*
Liked idea of international collaboration	*Going into this collaboration I was excited to be communicating and working with students from another part of the world.*
Barriers to Successful International Collaborations	
Poor communication	*Unfortunately, communication between our group and the Chinese students broke down towards the end of the collaboration.*
Unclear assignments	*I also did not quite understand what our actual assignments were at times, and have no idea how it will be graded.*

Open-ended Items

The pre-survey and the post-survey posed questions related to the research participants' expectations and evaluations of the international collaborations. This qualitative data was coded based on conceptual structures of Hanvey's global perspective, Hett's global-mindedness, and Massey's global sense of place concept. Of the total number of 25 codes, 23 codes were applied to 304 excerpts. Codes included mention of language, values, goals, efficacy, global issues, perspective, empathy, pride, and suggestions for future collaborations.

Discussion Boards

The discussion boards acted as the mechanism for student communications in the two case studies. Both case studies began with a Virtual Tour icebreaker collaborative project, wherein local groups prepare a document explaining where they would take their international team members during a hypothetical weekend visit. Following a classification developed for international collaborations in foreign language learning, the Virtual Tour served as an information exchange task among the international teams (O'Dowd 2011). In both case studies, students completed two additional collaborative projects. In the China-U.S. case study, the second collaborative project required students to research neighboring forests, share their findings with their international teammates, and then to discuss the similarities and differences in the relationships among forests, population change, and land use. This comparison and analysis task involved more than basic information exchange as students were prompted to think critically. The third and final China-U.S. case study collaborative project was an information exchange task that asked students to discuss their opinions on whether or not population change is an issue that warrants international attention and cooperation. The second collaborative project in the Chile-U.S. case study was a comparison and analysis task that involved students conducting interviews of migrants, sharing their results with their international teams, and discussing the similarities and differences of their findings. In the final Chile-U.S. collaborative project—a comparison and analysis task—students were asked to select a country and gendered migration theme, to write a faux online news article on the country and theme, to share it with their international team members, and then to critique the articles.

Ray (2009a) evaluates discussion board coding schemes developed by Curtis and Lawson (2001), Garrison et al. (2001), and Liaw (2006) in a pilot study involving ninety-eight students using the CGGE *National Identity* module. Based on this evaluation, a new coding scheme with six categories was employed. The six categories are:

1. Seeking input from others,
2. Receiving a response to a posting that sought input,
3. Divergence with the group,
4. Convergence with the group,
5. Perspective change, and
6. Social interaction unrelated to the group's task.

The divergence and convergence with the group categories are derived from Garrison et al. (2001). Divergence with the group occurs when a group member contradicts another group member's ideas. Convergence with the group indicates that group members are in agreement. The perspective change category includes indications that a student changed his or her point of view as a result of the online discussion. For example, Ray (2009a, 192) offers this example of a student's discussion board posting that would be categorized as a perspective change: "My first impression of Mt. Rushmore was that it is a national symbol...but, after having the discussion, I now can see that it may not represent the same ideals of other Americans." Student discussion board postings may be classified in multiple categories.

Reflective Essays

Internationalized curriculum should allow for students to reflect on their own identity (Cranton 2001; Eisenchlas and Trevaskes 2003; Sanderson 2008; Bourn 2011) and recognize that all identities are "situated" (Hellstén 2008). The reflective essays

provide insights into how the students' international collaboration experiences are valued. The reflective prompt was as follows:

> Please take a moment to think about your CGGE [country-country] international collaboration. Reflect on how this experience has changed your knowledge, skills, and values regarding important global geographic issues. Write a brief essay that presents your ideas.

To allow for more in-depth responses, the reflective essay prompt indicated that students in China and Chile could respond in Chinese and Spanish, respectively.

After receiving the English language translations of the ten reflective essays written in Chinese, the reflective essays were imported into the online qualitative analysis software program Dedoose[3]. Each essay was read once before coding began. Excerpts of the reflective essay were assigned to one or more of the seventeen codes that were developed based on the conceptual framework (e.g., value, empathy, perspective) and on emerging themes (class/cultural comparisons). A total of 17 codes were assigned to 208 excerpts the reflective essay text.

Interview and Focus Group Transcripts

Similar to the open-ended items, interview and focus group transcripts were coded based on emerging themes along with ideas related to Hanvey's global perspective, Hett's global-mindedness, and Massey's global sense of place concept. A total of 13 codes were applied to 135 excerpts; the data did not provide evidence for the other 12 qualitative data codes. Overall, the most commonly codes were discussion of perspective and the value of international collaborations followed by poor communications. Additional codes included discussion of working or studying in the United States,

[3] Eli Lieber and Thomas Weissner. Sociocultural Research Consultants, LLC, http://www.dedoose.com/

comparing home countries to the international collaboration country, global issues, excitement about engaging in a new way to learn, and language.

The goal of having six to ten interviewees per class was reached only in the case of the Chinese students (both pre-collaboration and post-collaboration) and the Chilean students (post-collaboration) (Table 11), which poses a challenge to the trustworthiness of the findings contributed to this research by the interview and focus group transcript analysis. The analysis of the written responses to the pre-collaboration interview guide questions served to shore up the findings of the transcript analysis.

Table 11. Interview and Focus Group Participants

	China-New York Case Study		**Chile-Texas Case Study**	
	China Count *(% of class total)*	**New York** Count *(% of class total)*	**Chile** Count *(% of class total)*	**Texas** Count *(% of class total)*
Pre-Collaboration	10 (30%)	2 (7%)	1 (2%)	2 (3%)
Post-Collaboration	10 (30%)	0 (0%)	14 (32%)	0 (0%)

Ethical Considerations

The primary ethical considerations are maintaining confidentiality of the research participants and adhering to local standards of ethical research practice. In addition to the coding of the research participants to prevent a loss of confidentiality, reporting of the research findings has been done so that research participants may not be identified. Discussions with the international collaborative partners informed the research process, which was one way to ensure adherence to local ethical standards (Mertens 2005). More

general ethical considerations included maintaining informed consent, not exposing research participants to harm, and not invading research participants' privacy (Dowling 2005). This research was approved by the Institutional Review Board of Texas State University-San Marcos under application number 2010C2673.

Assumptions and Limitations

Martin, Craft, and Tillema (2002) outline challenges to educational research focused on international collaboration, including language, cultural norms, structural differences, and interpersonal factors. For example, language issues arise in translations, communications, and in the limitation of this research to English language literature. Another pertinent limitation is that affective outcomes, such as significant changes to values and attitudes, are typically not achievable in short time frames. While affective outcomes are achievable in the online learning environment (Simonson and Maushak 2001; Woods and Ebersole 2003), this research assumes that significant changes to values and attitudes are difficult to attain in the relatively short five-week duration of the international learning collaborations (Martin and Briggs 1986).

Translation is an ongoing challenge in the internationalization of academia (Shome 2009). Harris (2009, 224) argues that the act of translation is not only a technical endeavor but also calls into question the nature of meaning. Saito and Standish (2010, 427) explain that language is in perpetual need of translation—even when communicated by speakers of the same language. Thus, the predominance of English in global communications creates "a blindness to differences". Furthermore, good translations

require a contextual understanding along with insights into the worldview of the speaker or writer (Harris 2009, 227).

Citing the lack of practical advice for novice cross-cultural researchers, Wesche et al. (2010) provide several recommendations for data collection that are relevant to this research. First, the researcher worked closely with the Chinese and Spanish translators prior to data collection in order to ensure that translated words and concepts are clearly understood as much as possible. Second, the researcher worked within the existing CGGE network in order to facilitate individual and institutional support for the data collection process. CGGE module authors hosted the researcher in Beijing and hosts in La Serena were a former student of the researcher's advisor and a CGGE workshop participant. Third, the research was discussed with the collaborating professors to address potential barriers to successful data collection. Fourth, the researcher kept a field journal that includes notes from interviews and observations, as well as reflections on her personal experiences, informal interactions, and thoughts during the data collection process.

CHAPTER 5

RESULTS

Research Participants

A total of 173 students participated in one of the international collaborations, of which 89% consented to this research (Table 12). Of the consenting students in each class, fewer students completed both pre- and post-surveys (Figure 4).

Table 12. Overview of Research Participants

	China-New York Case Study		**Chile-Texas Case Study**		
	China Count *(% of class total)*	**New York** Count *(% of class total)*	**Chile** Count *(% of class total)*	**Texas** Count *(% of class total)*	**Total** Count *(% of all classes total)*
Total Number of Students	34	27	55	57	173
Total Number of Research Participants	34 (100%)	24 (89%)	43 (78%)	53 (93%)	154 (89%)

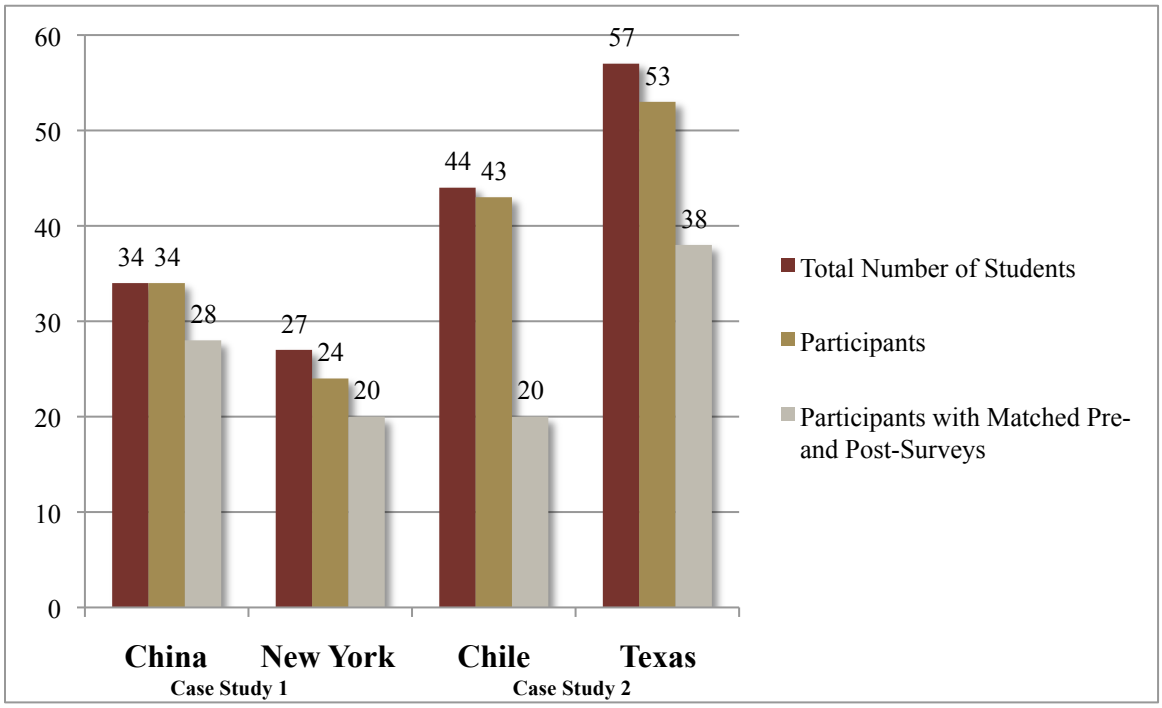

Figure 4. Total Number of Students, Research Participants, and Participants with Matched Pre- and Post-surveys

The majority of research participants (77%) were age 18-22 at the time the pre-trial survey was administered (Figure 5). In both China and Chile, the vast majority of students were between 18 and 22 years old (97% in China and 90% in Chile). In New York and Texas, there were more students across the age ranges specified on the pre-trial survey. In New York, 79% of the students were between 18 and 22, 13% of the students were between the ages of 23 and 28, and 8% of the students were older than 29. In Texas, 50% of the students were between 18 and 22, 40% of the students were between the ages of 23 and 28, and 10% of the students were older than 29.

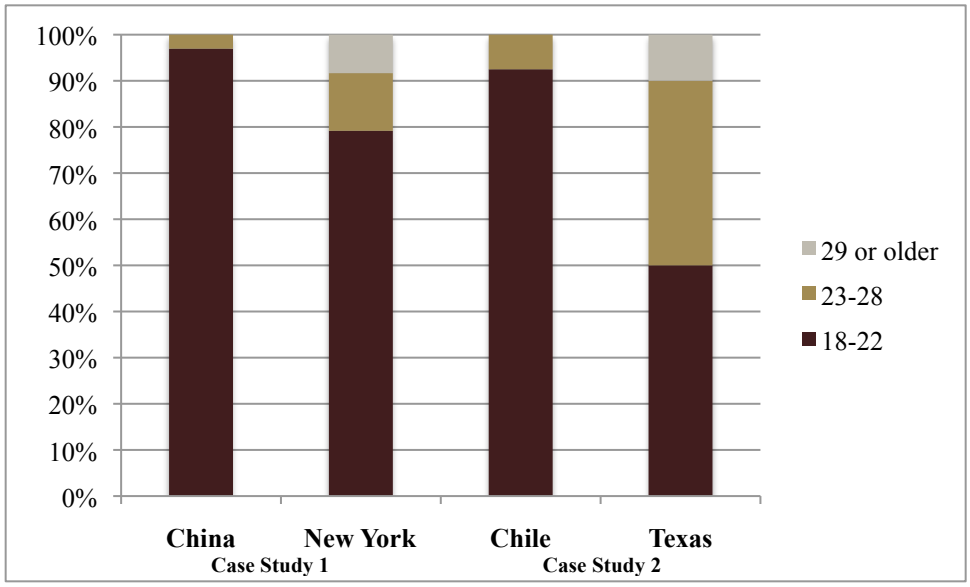

Figure 5. Ages of Research Participants by Location

All of the research participants were undergraduate students; all of research participants in China reported that they were working towards a Bachelor of Arts degree and all of the research participants in Chile reported that they were working towards a Bachelor of Education degree (Figure 6). In New York, 17% of research participants reported they were working toward a Bachelor of Arts degree, 41% reported working toward a Bachelor of Science degree, 21% reported working toward a Bachelor of Education, and 21% reported working toward another degree. In Texas, 46% of research participants reported they were working toward a Bachelor of Arts degree, 48% reported working toward a Bachelor of Science degree, and 6% reported working toward another degree.

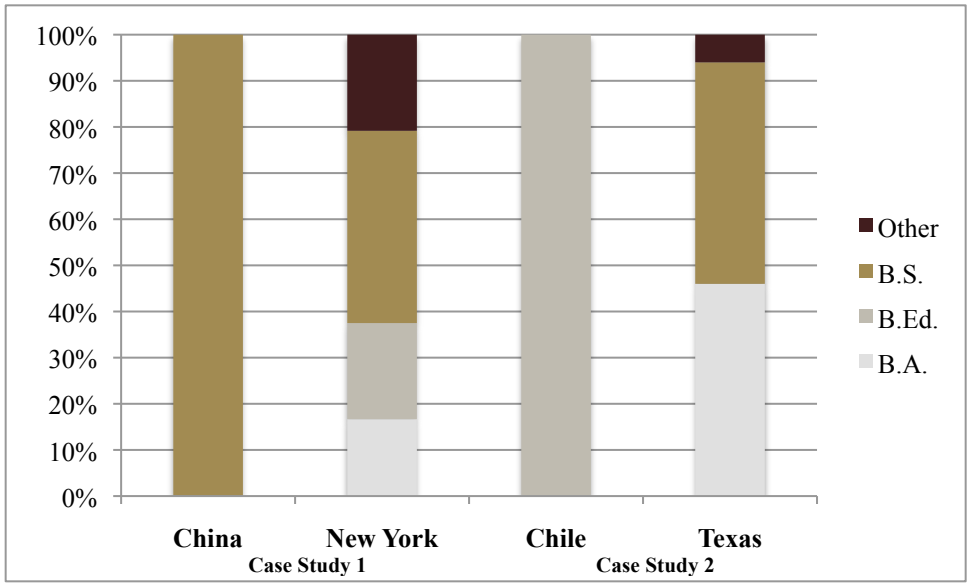

Figure 6. Degrees Sought by Research Participants by Location

The research participants in China were either in their second or third year of study, 82% and 18%, respectively (Figure 7). In New York, 4% of research participants were freshmen, 38% were sophomores, 38% were juniors, and 20% were seniors or above. The research participants in Chile were either in their first or second year of study, 88% and 12% respectively. In Texas, 4% of research participants were freshmen, 10% were sophomores, 40% were juniors, and 46% were seniors or above.

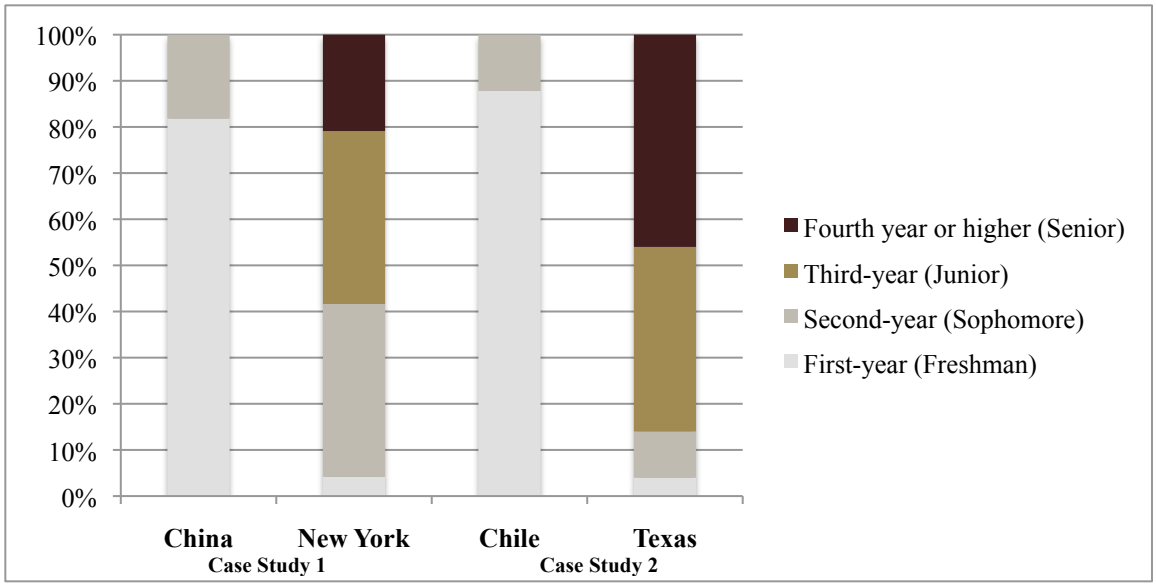

Figure 7. Academic Level of Research Participants by Location

In China, the research participants were geography or geographic information systems majors (Figure 8). Most students there (77%) were studying to become geography teachers. In New York, 38% of the research participants were geography or geographic information systems majors, of which about half had double majors and 42% were education majors. The remaining research participants in New York had a variety of majors including international relations, physics, and fine arts. Research participants in Chile were history and geography pedagogy majors. In Texas, more than half of the research participants (61%) were geography or geographic information systems majors, 15% were international studies majors, 4% were undeclared, and the remaining students had a variety of majors such as health sciences, criminal justice, and international business.

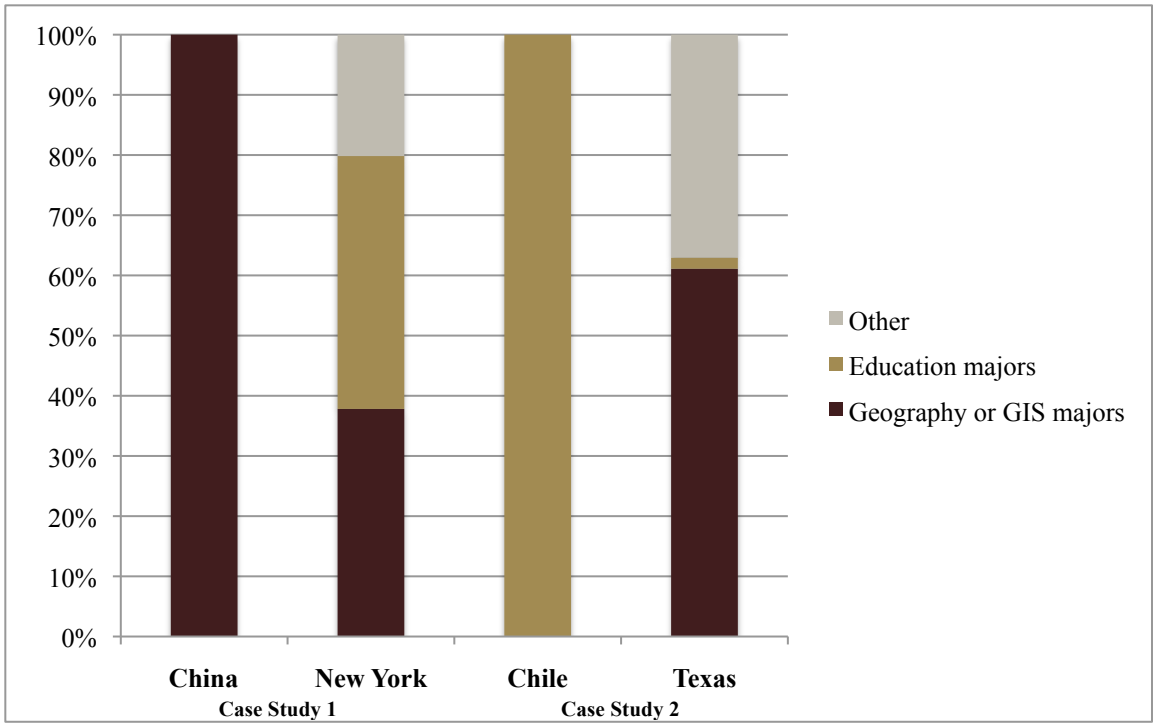

Figure 8. Majors of Research Participants by Location

The range of academic levels and respective majors helps to explain the range of successfully completed university-level geography courses (Figure 9). In China, all research participants reported having successfully completed four or more geography courses. In New York, 8% of research participants had not successfully completed a geography course, 50% had completed one course, 25% had completed two to three courses, 4% had completed four to six courses, and 13% had completed more than seven courses. In Chile, the majority of research participants had not completed a geography course (68%) while 15% had completed one course, 10% had completed two to three courses, and 7% has completed seven or more courses. In Texas, 2% of research participants had not completed a geography course, 6% had completed one geography

course, 34% had completed two to three courses, 32% had completed four to six courses, and 26% had completed seven or more courses.

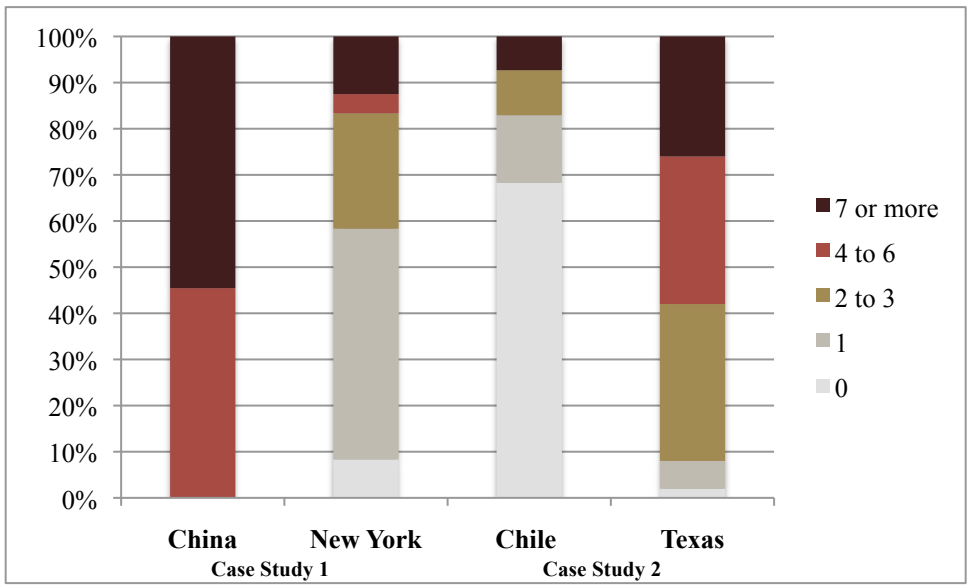

Figure 9. Number of Successfully Completed University-Level Geography Courses

The academic and personal information section of the pre-trial survey asked students about their language fluency, career goals, and prior international experiences. International experience is defined as having been born in a country other than the current country of residence, considering a country other than the current country of residence as the home country, or having lived or worked outside of the current country of residence. When considering these student characteristics combined, the diversity of research participants' prior international experience and orientation to future international experiences becomes evident. Of the total number of research participants (n=148), 60% reported being monolingual and 40% reported being able to read, write, and speak two or more languages. One-quarter of research participants indicated that working in another

country was one of their career goals and 10% of research participants had prior international experience. Research participants in China had the highest level of bi- and multi-lingualism (Figure 10), which is expected given the self-selection of students into the program with a goal to improve their English ability. In Chile, 29% of the research participants are fluent in more than one language. Research participants in New York and Texas have the lowest levels of bilingual and multilingualism, 21% and 20% respectively. At 26%, the highest percentage of research participants with prior international experience are found in Texas, followed by 4% in New York. None of the research participants in China and Chile reported having prior international experience. Nearly half (49%) of the research participants in Chile indicated that working another country is one of their career goals, while 24% of research participants in Texas, 8% of research participants in New York, and 7% of research participants in China indicated that working in another country is a career goal.

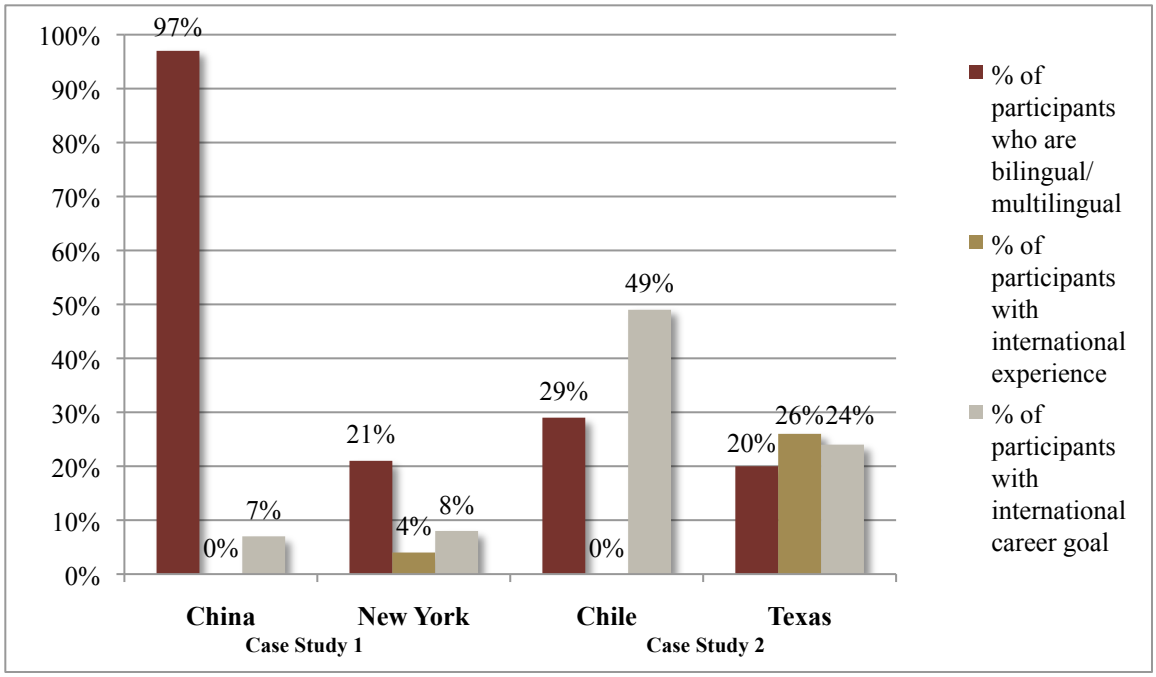

Figure 10. Language Fluency, International Careers Goals, and International Experience of Research Participants

Only 6% of the students in China had traveled internationally compared to 83% in New York, 22% in Chile, and 84% in Texas (Figure 11). Students in China traveled to Australia and Japan. Of the students in New York who had traveled internationally, 60% went to Canada, 40% went to Europe, 35% went to the Caribbean, 20% went to Latin America (including Mexico), and 5% went to Southwest Asia. Chilean students who had traveled visited Argentina, Brazil, Paraguay, Peru, and Uruguay. Of the students in Texas who had traveled internationally, 76% went to Mexico, 55% went to Europe, 36% went to the Caribbean, 33% went to Canada, 21% went to Latin America (excluding Mexico), 14% went to East Asia, 12% went to Southeast Asia, 5% went to Southwest Asia, 5% went to Australia and New Zealand, and 2% went to South Asia.

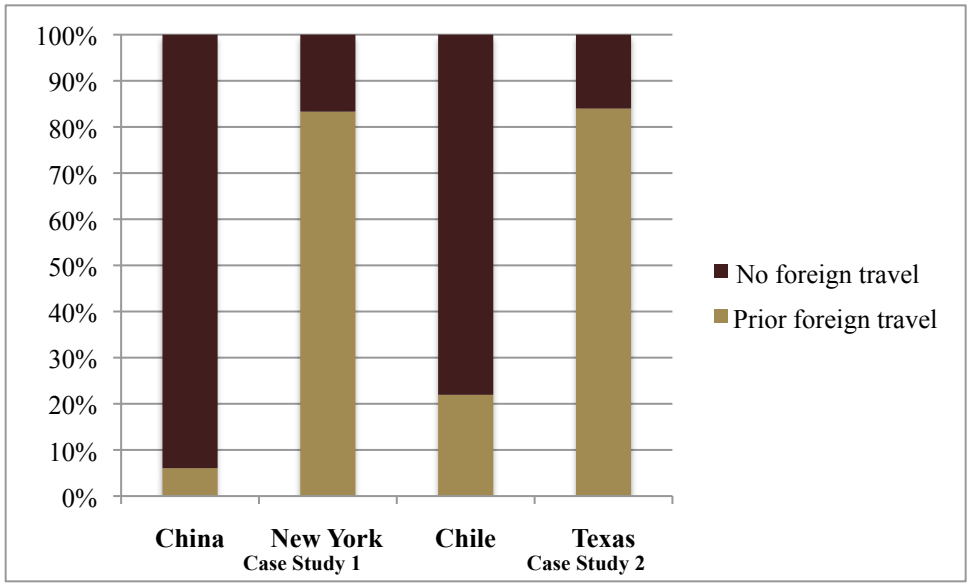

Figure 11. Prior Travel Experiences of Research Participants

Observations

Notes from the researchers' observations were taken during weekly program meetings with the students and the facilitator in China and during weekly meetings during lecture and laboratory periods with students and the facilitator in Chile. The observations serve three key purposes. First, the observation notes present a baseline for understanding the learning context in each research site. Second, the observation notes provide information on the international collaboration experience for students, including logistical challenges for both student and facilitator. Third, the observations allowed for the researcher to recognize and reflect on her own misconceptions about the student participants. Because students and facilitators spoke partly in Chinese and mostly in Spanish during observation periods, the researcher later asked students and facilitators for clarifications on comments and actions that seemed relevant to the experience. For

example, during two separate student interviews, the researcher inquired about a students' comment that seemed to draw an acute reaction from fellow students in China.

Observations in China

The first meeting of the CGGE program in China began as an informational session to provide details about the planned international collaboration. As were the subsequent weekly meetings, the initial session was held in a lecture classroom at 9 p.m. on a Monday. In English, the researcher presented an overview of the process to the 61 students. The researcher asked for questions from the students and the students seemed hesitant to respond so the facilitator provided more information in Chinese. Several students asked logistical questions. For example, a student asked about the number of case studies that would be used and another student asked if the students in New York and China would use the same materials. The facilitator announced that if students do not have enough English skills or if they do not have much interest in the program, they should decline to participate and those students were dismissed. Thirty-four students remained in the room.

After students read and signed the consent form, and the administration of the pre-survey, the facilitator announced that the students needed to introduce themselves in a unique way and she asked them how they should proceed. One student suggested that they break up into their groups first. After receiving no response about how the smaller groups should be devised, the facilitator noted that there were four to five times more female participants than male participants and suggested that each of the male students be the leader for the group and work with the female students sitting near to them. The

students had fifteen minutes to introduce themselves to their group members and devise a plan to creatively introduce themselves to the entire class. The first group introduced themselves by explaining the parts of the rooster—the shape of the Chinese map—that they are from. Then each student said one letter in the word geography and then in unison, they said geography makes the world a better place. The second group introduced themselves by province and each said what they were interested in about this program. Two group members said they wanted to practice English, one said they want to think independently, a few said they want to work on teamwork, several students said they wanted to make friends. The third group introduced themselves by distance to Beijing. Two students gave their English names. A few students indicated that they wanted to make friends. The fourth group drew a map of China on the board and they did a relay race with the chalk. They finished with a heart shape over the map. The student group leader said they open their hearts to the world.

The students then organized themselves into their collaboration groups and the facilitator reviewed the tasks for next week. After submitting their information to the facilitator, the students were dismissed. Upon leaving, one student asked the researcher if they would be able to exchange instant messages with the students in New York. Another student asked if there would be an exam at the end of the international collaboration.

The second meeting involved planning for the international collaboration tasks. After reviewing the upcoming tasks, students seemed hesitant to raise their hand to ask questions so the facilitator organized them into their small groups. Students then asked questions about the first collaboration project, the Virtual Tour icebreaker. Questions related to logistics as well as content. One student group asked about how to make their

presentation interesting and another expressed concern about raising taboo topics. After about twenty minutes of group discussions, the facilitator told the researcher that the students were not focused during their "free talk". The facilitator brought the class together as a whole and indicated that each week groups should prepare a presentation in English that covers the one of the learning objectives identified in the CGGE *Population & Natural Resources* module conceptual framework or case study. Different groups each week would be assigned to make a presentation to the class. The session ended with a request that the students select their group leaders and notify the facilitator who was chosen.

The following sessions involved students' group presentations of the CGGE content. Typically, a different student presented a part of their PowerPoint presentations. In one group, two students presented their section as a faux news team. At times, the audience members seemed to be focusing on their own presentations. A few student presenters apologized for their poor English speaking skills and one indicated that they "had to say it with simple words" because of their limited English ability. At the end of the presentations, the facilitator and researcher provided feedback. There was limited discussion, perhaps in part because of students' hesitation to pose questions in English and also the late hour. After one session, a student expressed that she wished there was more time for discussions. The sessions also included a time for responding to logistical questions about the international collaboration. Students reported that their international collaboration members had not responded to their posts.

Observations in Chile

Similar to the first session in China, the first session in Chile involved a presentation by the researcher, administration of the consent form and pre-survey, and logistical questions from the students. The sessions took place either in a lecture room or a computer lab depending on the course schedule. The computer labs were offered twice in one afternoon so the whole class was divided at that time. Initially, the students were assigned groups but during the initial session, students reformulated their groups. This meant that group members were split among the computer lab sessions.

Student groups were required to create and present summaries each week during the lecture period. Each group was evaluated based on presentation style and content. The presentations were conducted in Spanish although there was an earlier discussion that students could present in English because of the Preliminary English Test (PET) required to be taken by pre-service teachers in Chile. While some presentation text was in English, the vast majority of students made their presentations in Spanish.

Observation notes during the computer lab sessions documented that while most students seemed to be on task, some students lagged in updating their student profiles and did not use the time to work on the international collaboration project. Confusion about the tools of the CGGE Moodle site was apparent. For example, one student made a blog post instead of a post within a discussion forum and seemed unclear as to why her group members in Texas did not respond. Although attendance at both the lecture and laboratory sessions was not perfect, many of the students seemed engaged in the project, especially in the computer lab. When students in Texas posted in English, the Chilean

students used online translators, asked the researcher for word meanings, and consulted with their peers who were fluent in English.

In one session, the researcher spoke with a student who was surprised about a post made by a student in Texas. The international teams were to select an Asian country and a topic related to gendered migration so that they could prepare a magazine article to share in a discussion forum. After proposing female labor migration out of the Philippines, the student in Texas wrote (in English):

> *However, I feel as if you guys may not be exposed to this topic and may not find info on this through the Internet. Info is available through scientific publications (and I could even provide them for our use if this is the case because I have perused through them in the past) but apart from that may not be available in other forms as readily. How were you going to find sources/ info on human trafficking in Thailand?*

The student in Chile asked the researcher why the student in Texas thought that the Chilean students did not have access to information. He seemed perplexed and offended at the suggestion that they had limited educational resources. The Chilean student made this response to the post (in Spanish):

> *With respect to information access, our university library can access virtual documents and books on migration in the country.*

Global-mindedness Survey Results

Scale Reliability

In order to test the internal reliability of the global-mindedness scale, Cronbach's alpha was calculated using SPSS. This statistical analysis tests whether or not a participant's score would be the same if the scale were divided in two; it is presumed that

the score would be the same for both halves on a reliable scale. The Cronbach's alpha calculation is essentially the average of the correlation coefficients when the scale is divided in two in all possible ways (Field 2009). Cronbach's alpha for all thirty items for the pre-survey global-mindedness scale was .83 (n=147) and .89 (n=111) for the post-survey global-mindedness scale. The global-mindedness scale is above a common benchmark of .70, so Cronbach's alpha confirms that the scale is reliable (Hinton et al. 2004).

Factor Analysis

Unlike the U.S. comparison world regional geography courses (n=446), the principal components analysis with Varimax rotation of the responses from the students in the China-New York and Chile-Texas case studies (n=149) did not reflect the dimensions proposed by Hett. In order to determine whether or not the inclusion of international respondents caused the utility of the theoretical dimensions to explain the data, responses from participants in China and Chile combined with the Chinese and Chilean comparison classes underwent principal components analysis with Varimax rotation (n=163). Items did not load on the same underlying factors as for the Hett's original research or the U.S. comparison class's dataset.

Factor Analysis: U.S. Comparison Classes

The confirmatory factor analysis for the U.S. world regional geography comparison classes did not perfectly match Hett's theoretical dimensions (Appendix 10). Based on the U.S. comparison classes, three of the five sub-scales were modified for this

research. The *responsibility* and *efficacy* sub-scales remained the same, and two items were removed from the *cultural pluralism* sub-scale and one each was added to the *globalcentrism* and the *interconnectedness* sub-scales. These modifications improved the reliability of the sub-scales; Cronbach's alpha on the post-test sub-scales were: .67 for the *interconnectedness* sub-scale; .72 for the *globalcentrism* sub-scale; .75 for the *efficacy* sub-scale; .78 for the *responsibility* sub-scale; and .83 for the *cultural pluralism* sub-scale. Although the reliability of the *interconnectedness* sub-scale is lower than a common benchmark of .70, these results provide confirmation that the scale and sub-scales are reliable (Hinton et al. 2004). To calculate the sub-scale scores, each response is scored one (strong disagreement) to five (strong agreement). Table 13 presents the number of items, item numbers, maximum and minimum possible scores, and a sample item for each of the sub-scales.

Table 13. Global-mindedness Sub-scales

Sub-scale	Number of items	Pre/post-test item numbers[2]	Maximum possible score	Minimum possible score	Sample item
Responsibility	7	2, 7, 12, 18, 23, 26, 30	35	7	When I see the conditions some people in the world live under, I feel a responsibility to do something about it.
Cultural Pluralism[1]	6	1, 3, 8, 13, 19, 24	30	6	The United States is enriched by the fact that it is comprised of many people from different cultures and countries.
Efficacy	5	**4**, **9**, 15, 20, 28	25	5	I am able to affect what happens on a global level by what I do in my own community.
Globalcentrism[1]	6	**5**, **10**, 14, **16**, **21**, **29**	30	6	My opinions about national policies are based on how those policies might affect the rest of the world as well as the United States.
Interconnectedness[1]	6	6, 11, 17, 22, **25**, **27**	30	6	In the long run, America will probably benefit from the fact that the world is becoming more interconnected.

[1] Sub-scale modified from original by Hett (1993).
[2] Items in **bold-faced** type are reverse-scored.

Factor Analysis: Case Studies

While the U.S. comparison classes aligned with Hett's theoretical dimensions, data from the China-New York and Chile-Texas case studies did not. Only six of the thirty variables had factor loading above .70, which indicates an overall weakness of the data to explain the underlying dimensions of global-mindedness (Appendix 11). The analysis resulted in the extraction of four components. And, only seven variables matched the theoretical dimensions proposed by Hett using a lower factor loading threshold of .50. Three items on the *globalcentrism* sub-scale aligned with Hett's research (items 5, 16, and 19) and two items on the *efficacy* sub-scale aligned (items 20 and 28).

Factor Analysis: International Comparison Classes

Factor analysis of global-mindedness surveys completed by the international comparison classes in China and Chile ($n = 79$) did not yield factor loadings similar to Hett's sub-scales. The principal components analysis with Varimax rotation resulted in twelve items loading on the same factor using a threshold of .05 (Appendix 12). A total of nine components were extracted. Thirteen items did not have a factor loading above .49. Items 16 and 29 loaded onto the same component, which aligns with the *globalcentrism* sub-scale. There were no other sub-scales that had matching components.

Non-Parametric Statistical Analysis

The global-mindedness scale results are presented in Table 14. Based on the Wilcoxon signed rank test calculation ($W = -243$, $Z = -3.46$, $p < 0.001$) only the mean global-mindedness of research participants in China showed a statistically significant

difference from the pre-survey to post-survey. While slight losses were found in the global-mindedness of research participants in New York, Chile, and Texas, these differences were not statistically significant based on the Wilcoxon signed rank test statistic. Therefore, null hypothesis 1, which stated that global-mindedness scores will show no difference from the pre-surveys to the post-surveys, is only partially rejected.

Table 14. Global-mindedness Scale Results on the Pre- and Post-Surveys

		Pre-Survey (n=147)	Post-Survey (n=111)	Difference (n=96)
Case Study 1	China	n=33	n=28	n=24
	Mean	112.5	116.3	5.0
	Maximum	136	131	14
	Minimum	98	100	-4
	Standard Deviation	9.0	7.8	5.2
	New York	n=24	n=20	n=19
	Mean	113	111.4	-.32
	Maximum	135	127	15
	Minimum	84	79	-19
	Standard Deviation	10.82	10.77	8.2
Case Study 2	Chile	n=41	n=20	n=15
	Mean	123.3	122.1	-3.4
	Maximum	142	146	24
	Minimum	104	61	-65
	Standard Deviation	9.6	18.4	19.5
	Texas	n=49	n=43	n=38
	Mean	117.1	116.8	-1.0
	Maximum	138	146	43
	Minimum	88	86	-24
	Standard Deviation	11.6	14.1	11.8

In order to utilize the global-mindedness scale in the qualitative analyses, raw scores were categorized as low, medium, and high based on a quartile calculation (Table 15). Figure 12 shows that a larger percentage of research participants in Chile (49%) were categorized as having high global-mindedness. The largest percentage of research

participants in China (56%) and New York (50%) were categorized as having medium global-mindedness, while the largest percentage of research participants in Texas (51%) were categorized as having low global-mindedness.

Table 15. Parameters of the Low, Medium, and High Global-mindedness Categories

	Low Global-mindedness	Medium Global-mindedness	High Global-mindedness
Raw score	≤ 108	109-122	≥ 123
Quartiles	≤ 25%	26%-74%	≥ 75%

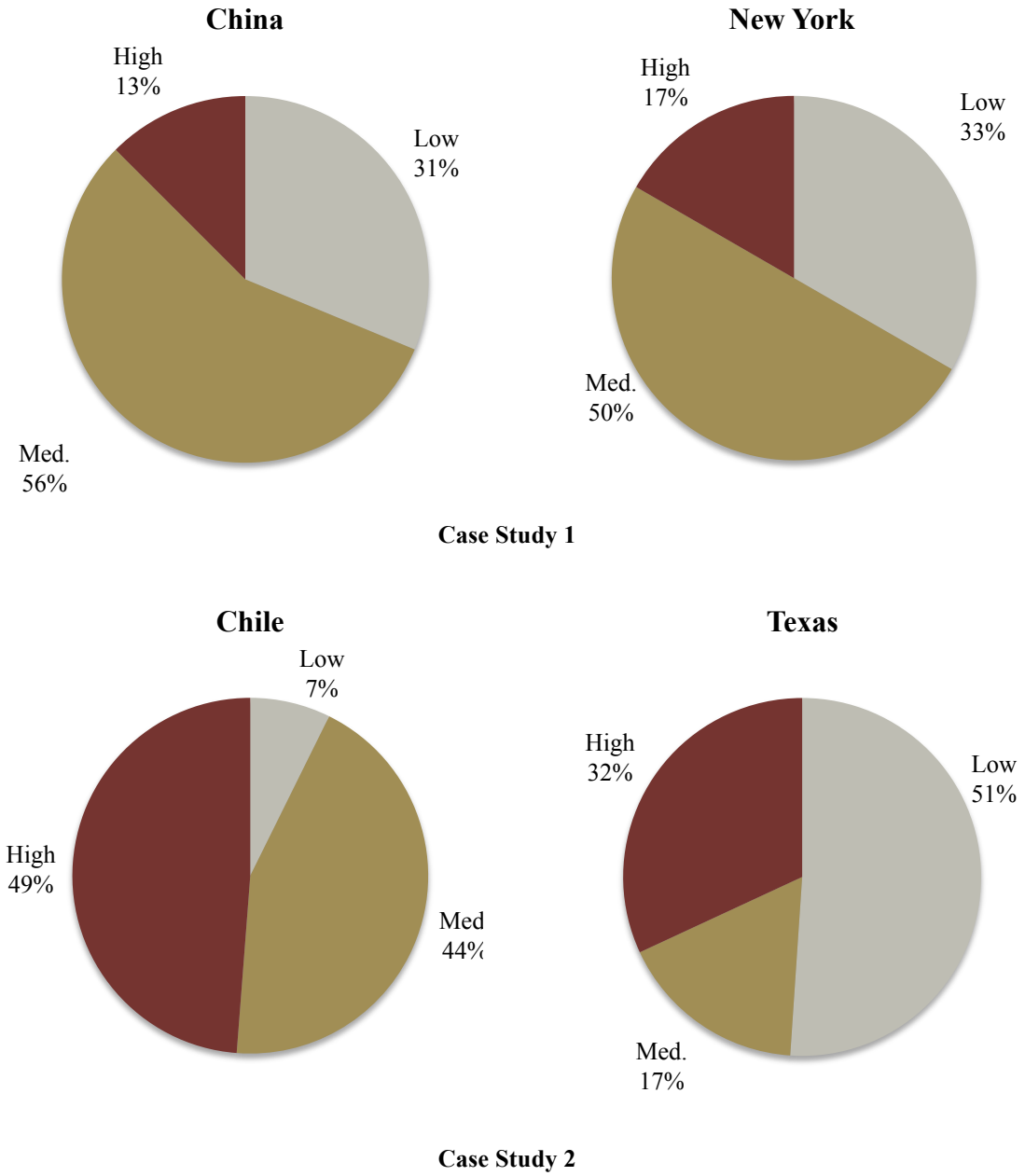

Figure 12. Categorized Global-mindedness Scores

Item-level Statistical Analysis

The Mann-Whitney *U* tests revealed significant differences for students who were monolingual as compared to bilingual and multilingual students (Table 16). The results show that bilingual and multilingual students overall had higher increases in global-

mindedness scores than the monolingual students. On both the pre-survey and post-survey instruments, bilingual and multilingual students responded more favorably to Item 22 "*I feel a strong kinship with the worldwide human family*" than monolingual students and Item 12 "*When I see the conditions some people in the world live under, I feel a responsibility to do something about it*". Null hypothesis 2a, which states that bilingual and multilingual students will show no differences in global-mindedness scores is rejected. Item-level analysis of the results, however, demonstrates that the differences are not uniform.

Table 16. Language Fluency Mann-Whitney *U* Test Results

	Mann-Whitney *U*	Z	Bi- or Multi-lingual	Mono-lingual
Pre-Survey Item			(*n*=59)	(*n*=88)
6. I often think about the kind of world we are creating for future generations.	1934.0[2]	-2.839	3.98	4.32
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	2094.5[1]	-2.134	4.17	3.77
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	1935.5[2]	-2.845	4.00	4.41
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	1975.5[2]	-2.713	4.12	4.51
22. I feel a strong kinship with the worldwide human family.	2123.0[1]	-1.976	3.78	3.49
27. I have very little in common with people in underdeveloped nations.[RS]	2121.5[1]	-1.978	3.92	3.49
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.[RS]	1831.0[2]	-3.133	2.86	3.49
Post-Survey Item			(*n*=59)	(*n*=46)
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	999.5[2]	-2.582	4.46	4.15
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	1047.0[1]	-2.133	4.04	3.71
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as [country of residence].	1063.0[1]	-2.070	4.13	3.85
22. I feel a strong kinship with the worldwide human family.	835.0[3]	-3.577	3.91	3.25
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.[RS]	988.5[1]	-2.464	3.04	3.58
Pre-Post Survey Difference	708.5[2]	-2.997	2.88	-1.76

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

Results on some of the pre- and post-surveys items are somewhat surprising. The reverse scored Item 29 "*I sometimes feel irritated with people from other countries because they don't understand how we do things here*" showed lower scores for bilingual and multilingual students on both the pre-survey and post-survey. This suggests that

bilingual and multilingual students are generally less tolerant of foreigners in their own countries. Similarly, bilingual and multilingual students' pre-survey score on Item 19 "*It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds*" was lower than monolingual students which suggest that bilingual and multilingual students are less supportive of multicultural programming. Based on the pre-survey results on Item 6 "*I often think about the kind of world we are creating for future generations*" and Item 15 "*It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations*", bilingual and multilingual students seem to have less of a future-orientation than monolingual students. On the pre-survey, bilingual and multilingual students responded more agreeably to the reverse scored item 27 "*I have very little in common with people in underdeveloped nations*".

The aforementioned items that were statistically significant on the pre-survey but not on the post-survey imply that the international collaboration experience changed student attitudes on specific topics so that one's fluency in multiple languages becomes less significant at the end of the collaboration even though bilingual and multilingual students showed increases in overall global-mindedness scores. Two post-survey items help to clarify how bilingual and multilingual students become relatively more global-minded than their monolingual peers. Item 11 "*I think of myself, not only as a citizen of my country, but also as a citizen of the world*" and Item 14 "*My opinions about national policies are based on how those policies might affect the rest of the world as well as*

[country of residence]" on the post-survey resulted in stronger agreement for bilingual and multilingual students than monolingual students.

Students with foreign travel experience showed a statistically significant decrease on their overall global-mindedness scores when compared to students without foreign travel experience (Table 17). Null hypothesis 2b, which states that there will be no difference between students with foreign travel experience and students without foreign travel experience, is rejected. The item-level analysis depicts nuanced changes from the pre-survey and post-survey that reinforces the notion that tourism often results in shallow intercultural experiences (Hofstede 2001). For instance, several items that were statistically significant on both the pre-survey and post-survey suggest that students with foreign travel experience are less empathetic about global issues than students without foreign travel experience. Students with foreign travel experience were less agreeable on Item 7 "*When I hear that thousands of people are starving in an African country, I feel very frustrated*", Item 12 "*When I see the conditions some people in the world live under, I feel a responsibility to do something about it*", and Item 18 "*The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me*". In contrast, two other items that were statistically significant on both the pre and post-survey instruments—Item 14 "*My opinions about national policies are based on how those policies might affect the rest of the world as well as [country of residence]*." and reverse scored Item 16 "*[Country of residence's] values are probably the best*"—suggest that students with foreign travel experiences are more globally-oriented and less ethnocentric than those students who have not traveled to foreign destinations.

Table 17. Foreign Travel Mann-Whitney *U* Test Results

	Mann-Whitney *U*	Z	With travel	Without travel
Pre-Survey Item			(*n*=73)	(*n*=74)
3. The [country of residence] is enriched by the fact that it is comprised of many people from different cultures and countries.	2086.5[2]	-2.589	4.37	4.01
6. I often think about the kind of world we are creating for future generations.	2227.0[1]	-1.993	4.32	4.05
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	1940.0[3]	-3.200	3.89	4.43
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	1952.5[2]	-3.122	3.67	4.19
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as [country of residence].	2226.0[1]	-2.024	4.16	3.86
16. [Country of residence's] values are probably the best.[RS]	1982.0[2]	-2.975	3.70	3.30
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	2183.0[1]	-2.228	3.90	4.27
20. I think my behavior can impact people in other countries.	2149.0[1]	-2.274	3.86	3.57
Post-Survey Item			(*n*=51)	(*n*=54)
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	1008.5[2]	-2.640	3.69	4.14
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	1028.0[1]	-2.416	3.85	4.37
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	906.0[3]	-3.217	3.59	4.14
13. I enjoy trying to understand people's behavior in the context of their culture.	1084.5[1]	-2.134	4.24	4.53
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as [country of residence].	1061.0[1]	-2.209	3.78	4.18
16. [Country of residence's] values are probably the best.[RS]	993.5[2]	-2.583	3.69	3.27
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	1083.5[1]	-2.100	3.96	4.27
22. I feel a strong kinship with the worldwide human family.	958.0[2]	-2.850	3.30	3.80
23. I feel very concerned about the lives of people who live in politically repressive regimes.	1053.5[1]	-2.240	3.67	4.12
26. I sometimes try to imagine how a person who is always hungry must feel.	965.0[2]	-2.820	3.33	3.90
Pre-Post Survey Difference	831.5[1]	-2.144	-1.60	2.47

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

Several items on the post-test resulted in lower scores for students with foreign travel experience. Based on post-survey Item 2 "*I feel an obligation to speak out when I see our government doing something I consider wrong*", Item 23 "*I feel very concerned about the lives of people who live in politically repressive regimes*", and Item 26 "*I sometimes try to imagine how a person who is always hungry must feel*", students with foreign travel experience responded that they felt less concerned for people living in other parts of the world than did students without foreign travel experience. The results for Item 13 "*I enjoy trying to understand people's behavior in the context of their culture*" reveal that students with foreign travel experience are less culturally pluralistic than students without foreign travel experience. Students with foreign travel experience indicated that they were less interconnected than students without foreign travel experience based on the results from Item 22 "*I feel a strong kinship with the worldwide human family*".

Students with international experience—having been born, lived, studied, or worked in a country other than their home country—were more globally-minded than those without international experience based on the results of both the pre-survey and post-survey global-mindedness scores (Table 18). Null hypothesis 2c, which states that students with international experience will not have different global-mindedness scores than students without international experience, is rejected with a cautionary note that only fourteen research participants reported that they had international experience and further research is warranted to strengthen this finding. Pre-survey and post-survey results for three items—Item 1 "*I generally find it stimulating to spend an evening talking with people from another culture*", reverse scored Item 16 *"[Country of residence's] values*

are probably the best", and Item 20 "*I think my behavior can impact people in other countries*"—suggest that students with international experience are more culturally plural, globalcentric, and believe in their own efficacy respectively, than their peers without international experience.

Table 18. International Experience Mann-Whitney *U* Test Results

	Mann-Whitney *U*	Z	International experience	No international experience
Pre-Survey Item			(*n*=14)	(*n*=133)
1. I generally find it stimulating to spend an evening talking with people from another culture.	579.5[2]	-2.569	4.79	4.31
8. [People in country of residence] can learn something of value from all different cultures.	616.0[2]	-2.587	5.00	4.60
13. I enjoy trying to understand people's behavior in the context of their culture.	631.0[1]	-2.219	4.71	4.31
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as [country of residence].	605.5[1]	-2.363	4.50	3.96
16. [Country of residence's] values are probably the best.[RS]	440.0[3]	-3.460	4.29	3.41
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	605.5[1]	-2.376	4.79	4.31
20. I think my behavior can impact people in other countries.	284.0[3]	-4.539	4.71	3.61
22. I feel a strong kinship with the worldwide human family.	645.0[1]	-1.995	3.86	3.17
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.[RS]	623.0[1]	-2.106	3.86	3.17
Pre-Survey Score	571.0[1]	-2.377	123.64	116.42
Post-Survey Item			(*n*=11)	(*n*=94)
1. I generally find it stimulating to spend an evening talking with people from another culture.	323.0[1]	-2.234	4.64	4.12
5. The needs of the [country of residence] must continue to be our highest priority in negotiating with other countries.[RS]	294.0[1]	-2.419	3.55	2.67
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	349.0[1]	-1.966	4.55	4.26
16. [Country of residence's] values are probably the best.[RS]	214.5[3]	-3.325	4.36	3.38
20. I think my behavior can impact people in other countries.	334.5[1]	-2.049	4.18	3.63
Post-Survey Score	324.5[1]	-2.016	124.64	115.44

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

There were fewer global-mindedness post-survey items with statistically significant differences between students with and without international experience than on the pre-survey. This suggests that the international collaboration diminished the impact of international experience on students' global-mindedness, notwithstanding the smaller sample size of students with international experience. The two post-survey items that resulted in statistically significant results, reverse scored Item 5 "*The needs of the [country of residence] must continue to be our highest priority in negotiating with other countries*" and Item 11 "*I think of myself, not only as a citizen of my country, but also as a citizen of the world*", implies that students with international experience are more globalcentric and interconnected than their peers without international experience.

As expected, students who responded that one of their career goals was to work in another country scored higher on the global-mindedness pre-survey and post-survey (Table 19), so null hypothesis 2d is rejected. Fifteen out of thirty items were statically significant on both the pre-survey and post-survey with higher mean scores for students with an international career goal. These items represent each of the theoretical dimensions conceived by Hett (1993). Four items (7, 12, 23, 26) on Hett's responsibility sub-scale, four items (4, 9, 15, 20) on Hett's efficacy sub-scale, three items (6, 11, 22) on Hett's interconnectedness sub-scale, and two items each (19, 27, and 21, 29, respectively) on Hett's cultural pluralism and globalcentrism sub-scales were statistically significant on both the pre-survey and post-survey.

Table 19. International Career Goal Mann-Whitney *U* Test Results

	Mann-Whitney U	Z	International career goal	No international career goal
Pre-Survey Item			(*n*=36)	(*n*=109)
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	1164.5[3]	-3.987	4.53	3.94
4. Really, there is nothing I can do about the problems of the world.[RS]	1297.5[3]	-3.244	4.25	3.81
6. I often think about the kind of world we are creating for future generations.	1047.0[3]	-4.539	4.67	4.03
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	1535.0[1]	-2.121	4.39	4.07
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.[RS]	1353.0[2]	-2.998	4.39	3.87
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	1385.5[2]	-2.860	3.78	3.18
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	1285.5[3]	-3.413	4.58	4.12
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	1075.5[3]	-4.373	4.47	3.73
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	1145.5[3]	-4.082	4.72	4.10
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	1219.0[3]	-3.774	4.78	4.23
20. I think my behavior can impact people in other countries.	1396.0[2]	-2.757	4.08	3.61
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.[RS]	1143.0[3]	-3.926	4.42	3.71
22. I feel a strong kinship with the worldwide human family.	1447.0[2]	-2.487	3.97	3.48
23. I feel very concerned about the lives of people who live in politically repressive regimes.	1254.0[3]	-3.502	4.39	3.84
25. It is not really important to me to consider myself as a member of the global community.[RS]	861.0[3]	-5.332	4.58	3.63
26. I sometimes try to imagine how a person who is always hungry must feel.	1445.0[1]	-2.523	4.06	3.60
27. I have very little in common with people in underdeveloped nations.[RS]	1482.0[1]	-2.312	3.97	3.55

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

Table 19. International Career Goal Mann-Whitney *U* Test Results, *continued*

	Mann-Whitney *U*	Z	International career goal	No international career goal
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.[RS]	1352.5[2]	-2.889	3.72	3.06
Pre-Survey Score	877.0[3]	-4.968	125.53	114.31
Post-Survey Item			(*n*=21)	(*n*=83)
1. I generally find it stimulating to spend an evening talking with people from another culture.	524.0[2]	-3.092	4.62	4.06
4. Really, there is nothing I can do about the problems of the world.[RS]	598.5[1]	-2.379	4.14	3.84
6. I often think about the kind of world we are creating for future generations.	524.0[2]	-3.091	4.62	4.06
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	595.0[1]	-2.415	4.48	4.01
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.[RS]	557.5[2]	-2.723	4.48	3.88
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	578.0[1]	-2.471	3.86	3.25
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	634.5[1]	-2.144	4.52	4.23
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	450.5[3]	-3.626	4.43	4.23
13. I enjoy trying to understand people's behavior in the context of their culture.	562.5[2]	-2.845	4.71	4.30
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	539.5[2]	-2.901	4.62	4.05
16. [Country of residence's] values are probably the best.[RS]	578.5[1]	-2.491	3.95	3.36
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	516.5[2]	-3.135	4.67	4.10
20. I think my behavior can impact people in other countries.	560.0[2]	-2.709	4.14	3.58
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.[RS]	479.5[3]	-3.324	4.38	3.59
22. I feel a strong kinship with the worldwide human family.	586.0[1]	-2.450	4.00	3.42

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

Table 19. International Career Goal Mann-Whitney *U* Test Results, *continued*

	Mann-Whitney *U*	Z	International career goal	No international career goal
23. I feel very concerned about the lives of people who live in politically repressive regimes.	586.5[1]	-2.489	4.24	3.80
26. I sometimes try to imagine how a person who is always hungry must feel.	610.5[1]	-2.252	4.05	3.49
27. I have very little in common with people in underdeveloped nations.[RS]	576.5[1]	-2.514	4.14	3.59
28. I am able to affect what happens on a global level by what I do in my own community.	436.5[3]	-3.915	4.19	3.47
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.[RS]	610.5[1]	-2.187	3.81	3.22
Post-Survey Score	417.5[3]	-.870	125.86	114.01

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

The results revealed statistically significant results on the overall pre-survey and post-survey global-mindedness scores among the four classes that composed the two case studies (Table 20). There were fewer item-level differences by class on the post-survey (19 items) than on the pre-survey (24 items). Additionally, the pre-survey score resulted in a higher level of statistical significance (.001) than did the post-survey score, and while seventeen items on the pre-survey resulted in statistical significance at the .001 level, only six items on the post-test did. These results suggest that the four classes became more similar on the global-mindedness scale as a result of the international collaboration experience.

Table 20. Case Study Class Kruskal-Wallis Results (df=3)

Pre-Survey Item	Chi-Square (*n*=147)
1. I generally find it stimulating to spend an evening talking with people from another culture.	23.657[3]
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	22.585[3]
3. The [country of residence] is enriched by the fact that it is comprised of many people from different cultures and countries.	24.475[3]
4. Really, there is nothing I can do about the problems of the world.[RS]	27.864[3]
5. The needs of [country of residence] must continue to be our highest priority in negotiating with other countries.[RS]	15.906[2]
6. I often think about the kind of world we are creating for future generations.	28.748[3]
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	15.930[2]
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.[RS]	16.072[2]
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	21.973[3]
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	29.996[3]
13. I enjoy trying to understand people's behavior in the context of their culture.	26.499[3]
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	37.641[3]
16. [Country of residence's] values are probably the best.[RS]	24.361[3]
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	13.391[2]
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	40.793[3]
20. I think my behavior can impact people in other countries.	14.928[2]
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.[RS]	28.877[3]
22. I feel a strong kinship with the worldwide human family.	13.690[2]
23. I feel very concerned about the lives of people who live in politically repressive regimes.	20.511[3]
24. It is important that we educate people to understand the impact that current policies might have on future generations.	25.764[3]
26. I sometimes try to imagine how a person who is always hungry must feel.	28.888[3]
27. I have very little in common with people in underdeveloped nations.[RS]	17.411[2]
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.[RS]	24.553[3]
30. [People in country of residence] have a moral obligation to share their wealth with the less fortunate peoples of the world.	15.000[2]
Pre-Survey Score	24.493[3]

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

Table 20. Case Study Class Kruskal-Wallis Results (df=3), continued

Post-Survey Item	Chi-Square (*n*=111)
1. I generally find it stimulating to spend an evening talking with people from another culture.	16.396[2]
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	13.641[2]
3. The [country of residence] is enriched by the fact that it is comprised of many people from different cultures and countries.	8.586[1]
5. The needs of [country of residence] must continue to be our highest priority in negotiating with other countries.[RS]	12.874[2]
6. I often think about the kind of world we are creating for future generations.	19.403[3]
8. [People in country of residence] can learn something of value from all different cultures.	8.516[1]
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.[RS]	7.920[1]
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	10.209[1]
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	25.365[3]
13. I enjoy trying to understand people's behavior in the context of their culture.	12.941[2]
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	20.604[3]
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	9.296[1]
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	21.193[3]
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.[RS]	13.577[2]
22. I feel a strong kinship with the worldwide human family.	13.608[2]
24. It is important that we educate people to understand the impact that current policies might have on future generations.	9.445[1]
26. I sometimes try to imagine how a person who is always hungry must feel.	17.827[3]
27. I have very little in common with people in underdeveloped nations.[RS]	8.096[1]
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.[RS]	18.046[3]
Post-Survey Score	8.386[1]
Pre-Post Survey Difference	10.826[1]

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

The statistically significant items for the Kruskal-Wallis one-way analysis by ranks underwent the Games Howell post hoc test, which revealed how the classes responded differently to the global-mindedness pre- and post-surveys overall (Table 21).

To interpret the pre-survey Item 1 "*I generally find it stimulating to spend an evening talking with people from another culture*" results on Table 19, students in China scored lower than students in Texas and Chile and there were no statistically significant differences between students in China and New York. Chilean students had higher global-mindedness scores on the pre-survey than did students in China, New York, and Texas, although no statistically significant differences were calculated on the post-survey global-mindedness scores. Of the twelve items that showed statistically significant differences on both the pre-survey and post-survey, four items (5, 16, 21, 29) were on Hett's (1993) globalcentrism sub-scale, three items (12, 18, 26) were on Hett's responsibility sub-scale, two items (3, 19) were on the cultural pluralism sub-scale, two items (6, 22) were on the interconnectedness sub-scale, and one item (15) was on the efficacy sub-scale.

Table 21. Case Study Class Games Howell Results

	Case Study 1		Case Study 2	
Pre-Survey Item (*n*=147)	PRC (*n*=33)	NY (*n*=24)	CHL (*n*=41)	TX (*n*=49)
1. I generally find it stimulating to spend an evening talking with people from another culture.	< TX[2] < CHL[2]		> PRC[2]	> PRC[2]
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	< CHL[2]	< CHL[2]	> PRC[2] > NY[2] > TX[1]	< CHL[1]
3. The [country of residence] is enriched by the fact that it is comprised of many people from different cultures and countries.	> CHL[3]	> CHL[3]	< PRC[3] < NY[3] < TX[3]	> CHL[3]
4. Really, there is nothing I can do about the problems of the world.[RS]	< CHL[3]	< CHL[1]	> PRC[3] > NY[1] > TX[3]	< CHL[3]
5. The needs of [country of residence] must continue to be our highest priority in negotiating with other countries.[RS]	> CHL[2]		< PRC[2] < TX[2]	> CHL[2]
6. I often think about the kind of world we are creating for future generations.	< CHL[3] < TX[3]		> PRC[3]	> PRC[3]
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	> TX[1]	< CHL[1]	> NY[2] > TX[1]	< NY[2] < PRC[1]
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.[RS]		< CHL[2]	> NY[2]	
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	< CHL[1]	< CHL[2]	> PRC[1] > NY[2] > TX[2]	< CHL[2]
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	> NY[3] > TX[3]	< PRC[3] < CHL[3]	> NY[3] > TX[3]	< PRC[3] < CHL[3]
13. I enjoy trying to understand people's behavior in the context of their culture.	< CHL[2]	< CHL[3] < TX[2]	> PRC[3] > NY[2]	> NY[2]
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	< NY[3] < CHL[3] < TX[1]	> PRC[3]	> PRC[3] > TX[2]	> PRC[1] < CHL[2]
16. [Country of residence's] values are probably the best.[RS]	< TX[3]		< TX[2]	> PRC[3] > CHL[2]
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	> TX[3]		> TX[2]	< PRC[3] < CHL[2]
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	< NY[2] < CHL[3] < TX[3]	> PRC[2] < CHL[2]	> PRC[3] > NY[2] > TX[2]	> PRC[3] < CHL[2]
20. I think my behavior can impact people in other countries.	< TX[3]			> PRC[3]
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.[RS]	< CHL[3]	< CHL[1]	> PRC[3] > NY[1] > TX[3]	< CHL[3]
22. I feel a strong kinship with the worldwide human family.	> NY[2]	< PRC[2] < CHL[1] < TX[1]	> NY[1]	> NY[1]

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

Table 21. Case Study Class Games Howell Results, *continued*

	Case Study 1		Case Study 2	
Pre-Survey Item (*n*=147)	PRC (*n*=33)	NY (*n*=24)	CHL (*n*=41)	TX (*n*=49)
23. I feel very concerned about the lives of people who live in politically repressive regimes.	< CHL[3]	< CHL[3]	> PRC[3] > NY[3] > TX[1]	< CHL[1]
26. I sometimes try to imagine how a person who is always hungry must feel.	< CHL[3]	< CHL[3]	> PRC[3] > NY[3] > TX[3]	< CHL[3]
27. I have very little in common with people in underdeveloped nations.[RS]	< NY[3] < TX[3]	< PRC[3] < CHL[1]	> NY[1]	< PRC[3]
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.[RS]	< NY[2] < CHL[1] < TX[3]	> PRC[2]	> PRC[1]	> PRC[3]
30. [People in country of residence] have a moral obligation to share their wealth with the less fortunate peoples of the world.	> NY[2]	< PRC[2] < CHL[2]	> NY[2]	
Pre-Survey Score	< CHL[3]	< CHL[2]	> PRC[3] > NY[2] > TX[1]	< CHL[1]
Post-Survey Item (*n*=111)	PRC (*n*=28)	NY (*n*=20)	CHL (*n*=20)	TX (*n*=43)
3. The [country of residence] is enriched by the fact that it is comprised of many people from different cultures and countries.	> NY[1]	< PRC[1]		
5. The needs of [country of residence] must continue to be our highest priority in negotiating with other countries.[RS]	> CHL[1]		< PRC[1] < TX[1]	> CHL[1]
6. I often think about the kind of world we are creating for future generations.	< CHL[1]		> PRC[1]	
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	> NY[3] > TX[3]	< PRC[3] < CHL[3]	> NY[3] > TX[2]	< PRC[3] < CHL[2]
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	< CHL[2]		>PRC[2]	
16. [Country of residence's] values are probably the best.[RS]	< TX[1]			> PRC[1]
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	> NY[3] > TX[3]	< PRC[1]		< PRC[1]
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	< CHL[2]		>PRC[2]	
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.[RS]			> TX[1]	< CHL[1]
22. I feel a strong kinship with the worldwide human family.	> NY[1] > TX[2]		< PRC[2]	< PRC[1]

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

Table 21. Case Study Class Games Howell Results, *continued*

	Case Study 1		Case Study 2	
Post-Survey Item (*n*=111)	PRC (*n*=28)	NY (*n*=20)	CHL (*n*=20)	TX (*n*=43)
24. It is important that we educate people to understand the impact that current policies might have on future generations.	>TX[1]			> PRC[1]
26. I sometimes try to imagine how a person who is always hungry must feel.	< CHL[1]	< CHL[1]	> PRC[1] > NY[1] > TX[3]	< CHL[3]
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.[RS]	< TX[3] < CHL[3]		> PRC[3]	> PRC[3]

[RS] Item is reverse scored. [1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

One item (5) on the globalcentrism sub-scale and two items (12, 26) on the responsibility sub-scale showed the same pattern of class differences on the pre-survey and post-survey. Chilean students scored lower than students in China and Texas on reverse scored globalcentrism Item 5 "*The needs of [country of residence] must continue to be our highest priority in negotiating with other countries*". Chilean students scored higher than students in New York and Texas on efficacy Item 12 "*When I see the conditions some people in the world live under, I feel a responsibility to do something about it*" and Item 26 "*I sometimes try to imagine how a person who is always hungry must feel*".

Eight items that were statistically significant on both the pre-survey and post-survey showed more differences between classes on the pre-survey. For three of these items, Chinese students scored higher than the Chilean students: Hett's (1993) interconnectedness sub-scale Item 6 "*I often think about the kind of world we are creating for future generations*", Hett's efficacy sub-scale Item 15 "*It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations*", and Hett's cultural pluralism sub-scale Item 19 "*It is important that*

[country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds". For two of these items, Chinese students scored higher than students in New York and Texas: Hett's responsibility sub-scale Item 18 "*The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me*" and Hett's interconnectedness sub-scale Item 22 "*I feel a strong kinship with the worldwide human family*". Students in China scored lower than students in Texas on Hett's reverse scored globalcentrism sub-scale Item 16 "*[Country of residence's] values are probably the best*". Students in China scored lower than students in Texas and Chile on Hett's reverse scored globalcentrism sub-scale Item 29 "*I sometimes feel irritated with people from other countries because they don't understand how we do things here*". Students in Chile scored higher than students in Texas on Hett's reverse scored globalcentrism sub-scale Item 21 "*The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest*".

POST-TRIAL SURVEY ITEMS

Six items on the post-trial survey asked research participants to report whether, as a result of the CGGE international collaboration, they were more interested, indifferent/neutral, or less interested in traveling to foreign countries, studying abroad, working in a foreign country, learning a foreign language, reading/watching international news, or talking with others from diverse backgrounds. A total of 111 research participants completed this section of the post-trial survey, including 28 students in China

(representing a 85% response rate), 20 students in New York (74% response rate), 20 students in Chile (45% response rate), and 43 students in Texas (75% response rate).

As shown in Figure 13, an overwhelming majority of research participants in China who completed the post-trial survey reported that they were more interested in learning a foreign language (96%), talking with others from diverse backgrounds (96%), and traveling to foreign countries (93%). Many research participants in China indicated that they were more interested in studying abroad (86%) and reading or watching international news (82%). Almost half (43%) of research participants in China were more interested in working in a foreign country as a result of their international collaboration. In the pre-trial survey, 7% of research participants in China reported that working in a foreign country was a career goal. In one category, reading or watching international news, 2% of research participants in China reported that they were less interested as a result of their international collaboration.

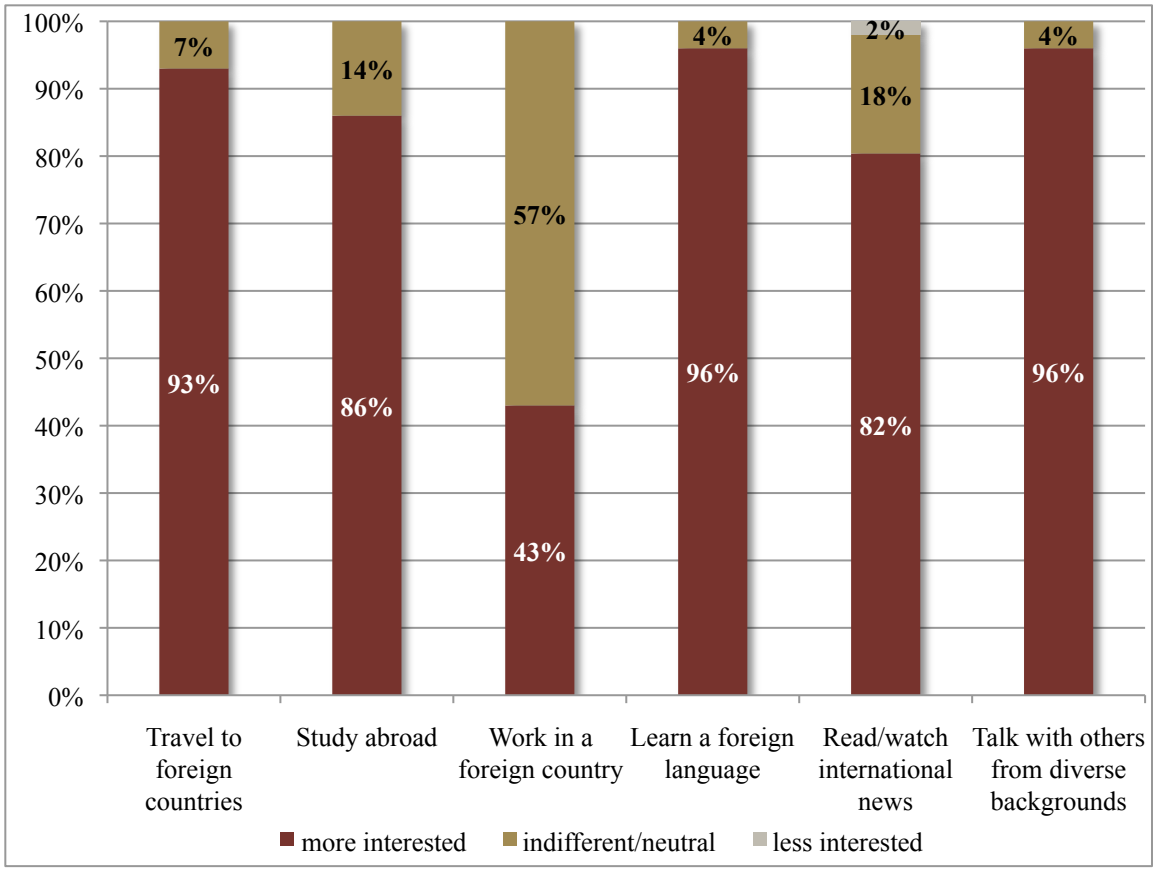

Figure 13. Responses to Post-Trial Survey Items from Research Participants in China*
* Totals may not equal 100% due to rounding.

A majority of research participants in New York who completed the post-trial survey reported increased interest in talking with others from diverse backgrounds (65%), traveling to foreign countries (60%), learning a foreign language (60%), and studying abroad (55%) (Figure 14). About one-third of research participants in New York indicated that they were more interested in working in a foreign country (35%) and reading or watching international news (30%) as a result of their international collaboration. In the pre-trial survey, 8% of research participants in New York reported that working in a foreign country was a career goal. Some research participants in New York reported a decrease in interest in studying abroad (50%), working in a foreign

country (15%), traveling to foreign countries (5%), and reading or watching international news (5%).

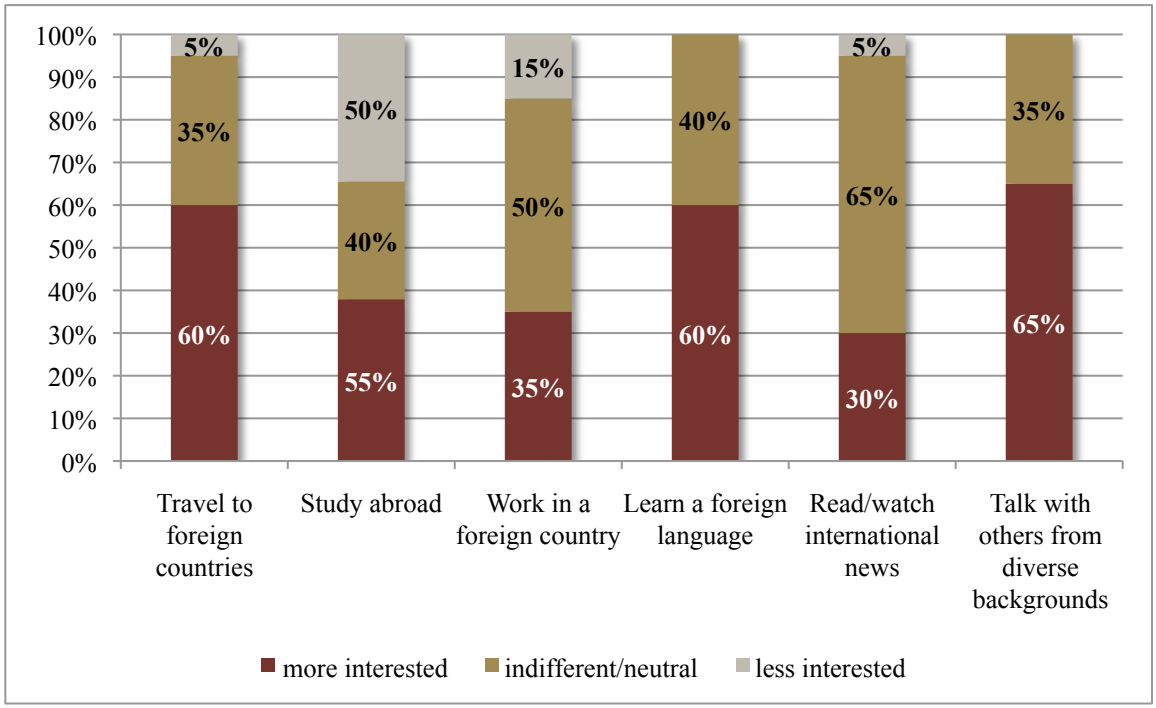

Figure 14. Responses to Post-Trial Survey Items from Research Participants in New York*

* Totals may not equal 100% due to rounding.

The majority of Chilean research participants who completed the post-trial survey reported that they were more interested in each of the six categories queried on the post-trial survey (Figure 15). All of the Chilean research participants (100%) reported that they were more interested in learning a foreign language. The majority of research participants were more interested in traveling to foreign countries (95%), talking with others from diverse backgrounds (85%), studying abroad (80%), and reading or watching international news (80%). Sixty-five percent indicated that they were more interested to

work in a foreign country, while 49% of research participants in Chile reported in the pre-trial survey that working in a foreign country was a career goal. Some Chilean research participants were less interested in talking with others from diverse backgrounds (15%), studying abroad (10%), reading or watching international news (10%), and working in a foreign country (5%) as a result of their international collaboration.

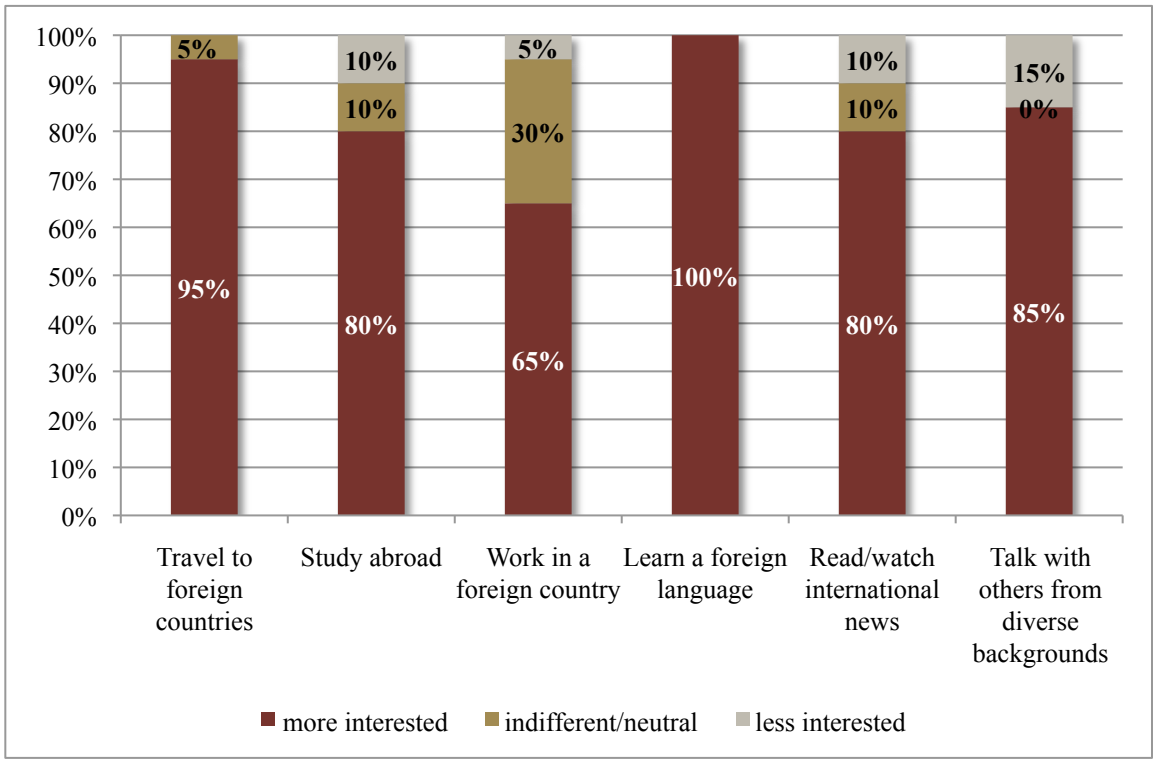

Figure 15. Responses to Post-Trial Survey Items from Research Participants in Chile*
* Totals may not equal 100% due to rounding.

A majority of research participants in Texas who completed the post-trial survey indicated that they were more interested in talking with others with diverse backgrounds (74%), traveling to foreign countries (67%), learning a foreign language (58%), reading or watching international news (56%), and studying abroad (54%) (Figure 16). Nearly

half (47%) reported an increased interested in working in a foreign country. In the pre-trial survey, 24% of research participants in Texas reported that working in a foreign country was a career goal. Some research participants in Texas reported being less interested in each of the categories queried, including 2% who were less interested in traveling to foreign countries, studying abroad, and talking with others from diverse backgrounds, 5% who were less interested in learning a foreign language and reading or watching international news, and 7% who were less interested in working in another country.

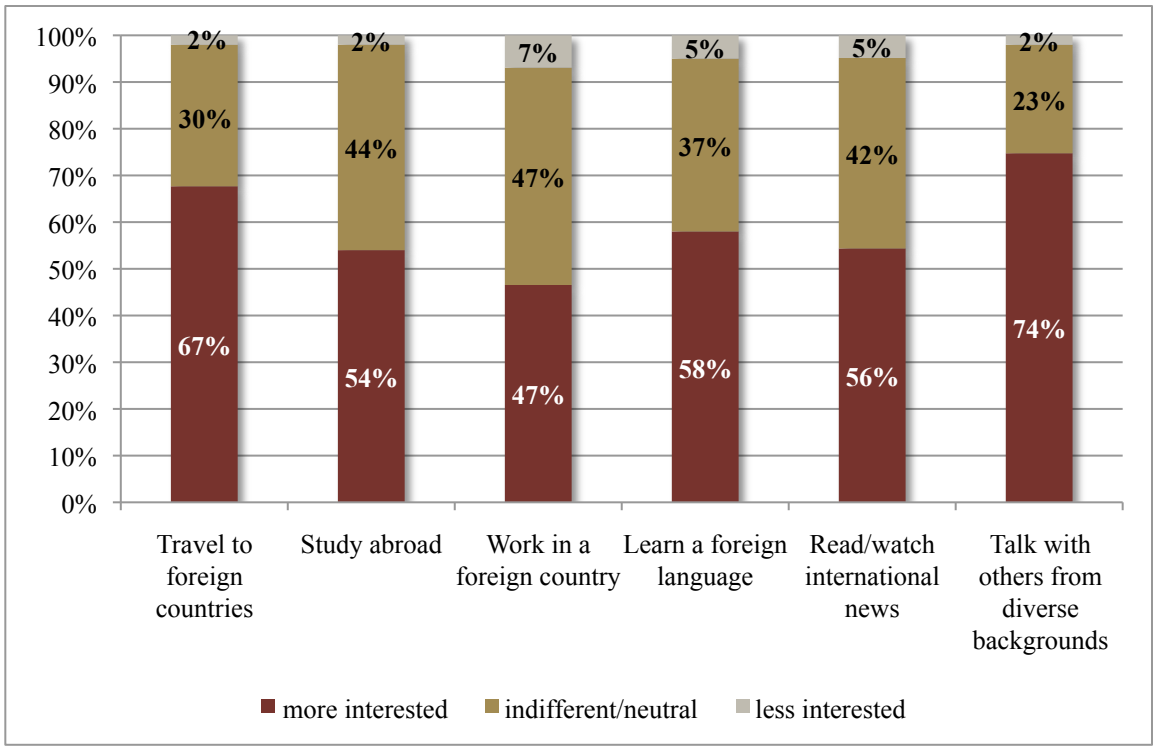

Figure 16. Responses to Post-Trial Survey Items from Research Participants in Texas*
* Totals may not equal 100% due to rounding.

In order to determine if there were any statistically significant differences among the four classes, Kruskal-Wallis tests and Games Howell post hoc tests were performed (Tables 22 and 23). Differences were detected in all of the post-test items except for the work in a foreign country item. As a result of the CGGE international collaboration, students in the United States were more favorable towards learning a foreign language and reading or watching international news than students in China. Students in Texas were more favorable towards traveling to foreign countries than students in China or Chile and more favorable towards studying abroad and talking with others from diverse backgrounds than students in China.

Table 22. Post-Trial Survey Items Kruskal-Wallis Results (df=2)

	N More interested	N Indifferent /Neutral	N Less interested	Chi-Square
Travel to foreign countries	86	23	3	10.047[2]
Study abroad	74	33	5	10.388[2]
Work in a foreign country	52	52	8	1.865
Learn a foreign language	84	25	3	20.702[3]
Read/watch international news	68	38	6	8.291[1]
Talk with others from diverse backgrounds	89	18	5	8.183[1]

[1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

Table 23. Post-Trial Survey Items Games Howell Results

	Case Study 1		Case Study 2	
	PRC	NY	CHL	TX
Travel to foreign countries	< TX[1]	> CHL[1]	< NY[1] < TX[2]	> PRC[1] > CHL[2]
Study abroad	< TX[2]			> PRC[2]
Work in a foreign country				
Learn a foreign language	< NY[1] < TX[3]	> PRC[1] > CHL[2]	< NY[2] < TX[3]	> PRC[3] > CHL[3]
Read/watch international news	< NY[2] < TX[1]	> PRC[2]		> PRC[1]
Talk with others from diverse backgrounds	< TX[1]			> PRC[1]

[1] $p \leq .05$ [2] $p \leq .01$ [3] $p \leq .001$

Mann-Whitney *U* tests were performed to determine if the case study classes differed from the comparison classes in terms of their interests in the six activities surveyed. Three comparisons were made: all case study participants (*n*=155) to non-case study students i.e., those who did not participate in an international collaboration (*n*=291), case study students in China (*n*=34) to their comparison class (*n*=56), and the case study students in New York and Texas (*n*=77) to the world regional geography students (*n*=235). No statistically significant tests resulted from these calculations.

The final questions of the post-trial survey provided students with Hett's (1993, 89) definition of global-mindedness, asked them to report whether or not their global-mindedness had changed as a result of the international collaboration, and asked them to explain their response. A total of 112 research participants responded to one or both of these questions with responses from 28 students in China, 20 students in New York, 21 students in Chile, and 43 students in Texas. Students in China and Chile were more likely to report that their global-mindedness had changed as a result of the international collaboration (Figure 17). Students in New York and Texas were more likely to be unsure

if their global-mindedness changed. Figure 17 shows that nearly 80% of the Chinese students showed increases on their global-mindedness scores compared to approximately 50% of students in Chile, New York, and Texas who had their scores increase or decrease.

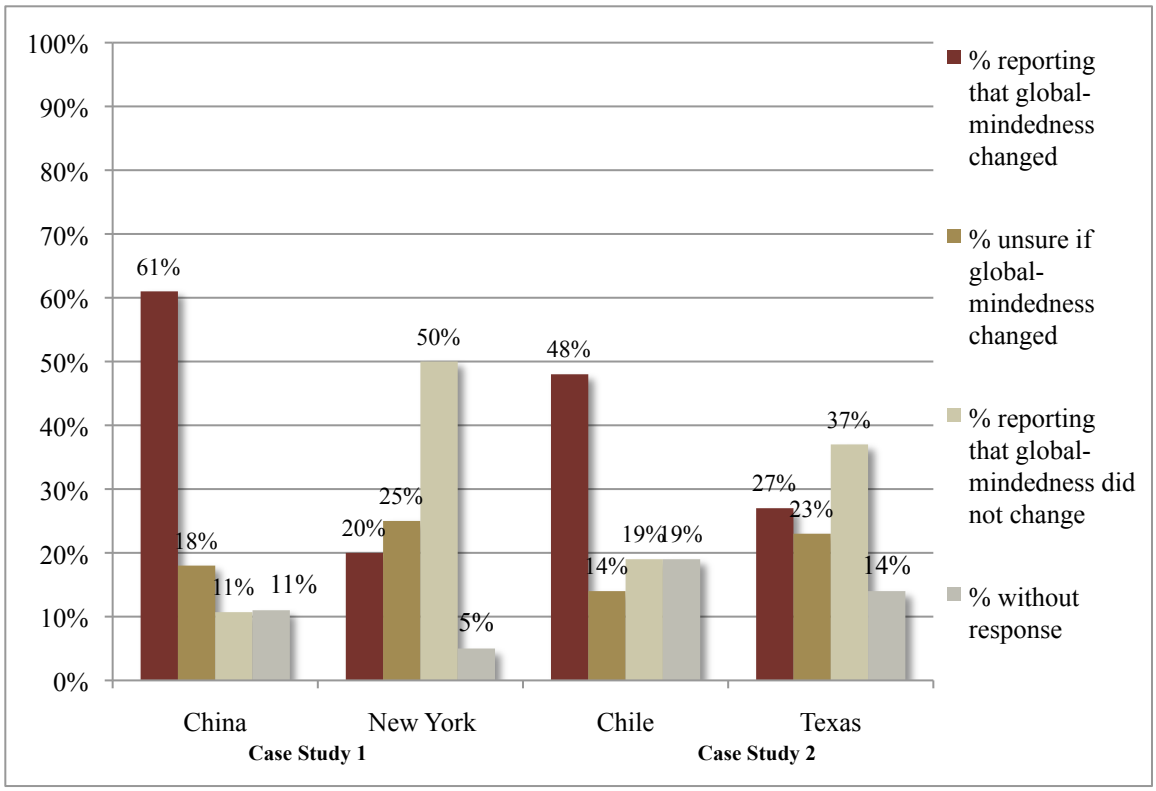

Figure 17. Reports of Global-mindedness Change

To compare whether or not research participants perceived actual changes to their global-mindedness based on the pre-trial and post-trial survey score differences, those with matched surveys (*n*=96) were graphed (Figure 18). Students who reported that their global-mindedness was unchanged had both increases and decreases on their global-

mindedness scores. Likewise, students who reported that their global-mindedness had changed had both increases and decreases on their global-mindedness scores.

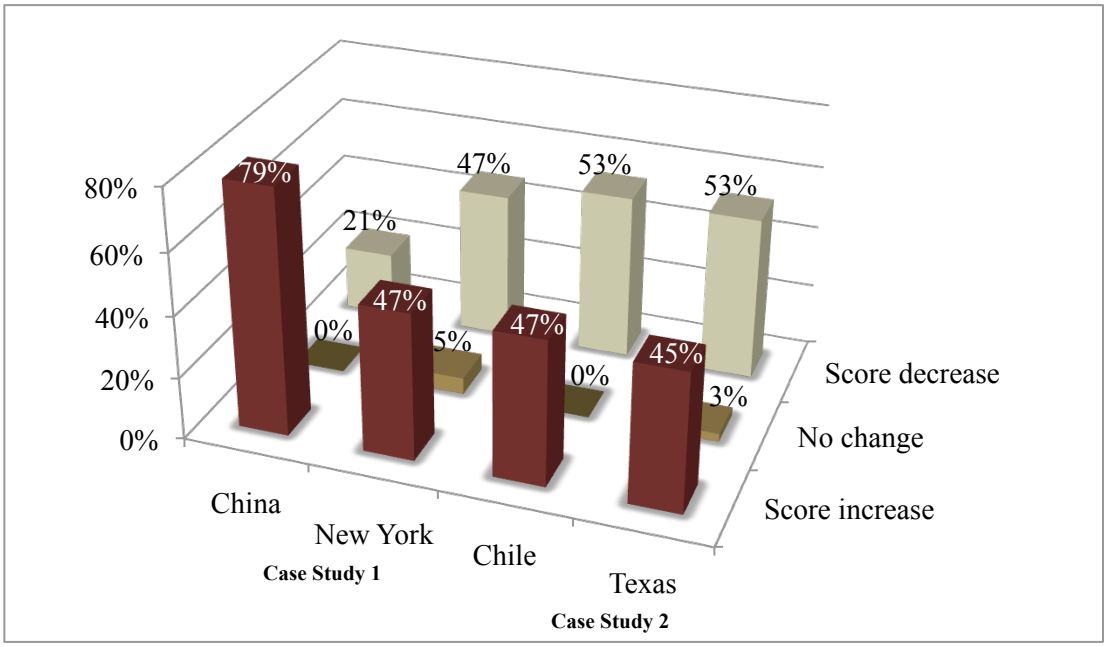

Figure 18. Actual Changes to Global-mindedness

Research participants' written explanation of whether or not their global-mindedness had changed provides insights into how they value their international collaborative learning experience. Responses from 68 students (China: $n = 25$; New York: $n = 12$; Chile: $n = 6$; Texas: $n = 25$) were coded into ten broad categories: global orientation, perspective, action, equity, value, nationalism, questioning, survey, judgment, and new experience. Codes represent three of the broad qualitative research coding categories: perspective taking, valuing and affective domain, and critical thinking and cognitive domain. This suggests that overall the research participants' international

collaborative experience encompassed multiple learning domains and prompted reflection on their global-mindedness.

Students' reflections on their global-mindedness provide insights into how students conceptualize the term and whether or not they few themselves as global-minded. Several research participants expressed that they already felt global-minded:

> *I have always felt a connection to the global community.*
> Research participant in New York with relatively medium global-mindedness

> *I like to think that I am globally oriented already as a third culture kid, and a recent immigrant myself.*
> Research participant in Texas with relatively high global-mindedness

> *I think global consciousness is complex, it is a concept that can't be quantified. At certain level, our global consciousness is linked to the experience each individual and relationships with natural resources, peace, or development. While in some aspects, it is not a simple process to change.*
> Research participant in China with relatively medium global-mindedness

> *I have always tried to view the world from more than one perspective. I think the idea that all humans no matter what race or culture have the right to live a happy safe life.*
> Research participant in Texas with relatively high global-mindedness

> *I think I have always had these kinds of thoughts, but did not comb them or have a clear or mature idea. Maybe CGGE help me reflect and clear my thoughts. I am not sure if I can call it intensified. If so, there is a theory that when there are many independent factors, it is hard to say which leads to the change of the dependent factor. So it is hard to draw a conclusion.*
> Research participant in China with relatively medium global-mindedness

Other students discussed how limitations to the international collaboration did not influence a change in their global-mindedness:

> *I only communicated with Chileans not a melting pot of the world community.*
> Research participant in Texas with relatively low global-mindedness

> *I feel like a lot of the questions didn't have anything to do with what we specifically dealt with in the module. I can't really say whether my answers were affected or not.*
> Research participant in Texas with relatively medium global-mindedness

> *The activities didn't really seem to involve both my group here and the Chinese group. I didn't feel like we were working with them in any way. Therefore my global-mindedness didn't really change.*
> Research participant in New York with relatively high global-mindedness

Responses from research participants in China and Chile displayed how the international collaboration, while not affecting change in their view, sparked reflection, critical thinking, or expansion of their perspectives:

> *As I have investigated and enriched with new knowledge I have, consequently, a more critical view of the subject.*
> Research participant in Chile with relatively high global-mindedness

> *Before I joined the CGGE project, I had had the global consciousness, and thought everyone is citizen on the Earth, should be responsible for it. After finishing the project of CGGE, my view does not change, but realized that all of us have to unite so our cooperation will make its best impact.*
> Research participant in China with relatively medium global-mindedness

Research participants in New York and Texas stated that the international collaboration experience specifically influenced their global-mindedness:

> *Getting to connect in real time with other geography students added to a feeling of connectedness.*
> Research participant in Texas with relatively low global-mindedness

> *It opened me up to another culture and now I'm hungry for more.*
> Research participant in Texas with relatively high global-mindedness

> *I think learning about problems in other countries opened my eyes more to what is going on in the world.*
> Research participant in New York with relatively medium global-mindedness

> *I had this view before the CGGE, it did strengthen though.*

Research participant in Texas with relatively high global-mindedness

One student demonstrated an international perspective through perspective-taking:

> *Originally, did not quite understand the U.S. policy on population, now understand I should analyze and think in their shoes.*
> Research participant in China with relatively low global-mindedness

Approximately 16% of research participants specifically addressed the issues of responsibility and efficacy in their open-ended responses:

> *Global consciousness improved. I think as a member of global citizens, I should do my part to protect the environment, which is a way to show responsibility. Maybe (what I can do) is not much, but could be meaningful.*
> Research participant in Texas with relatively high global-mindedness

> *My world view is constant. As a member in the human being family, (we should) be responsible for what we do. Each Earth citizen should have responsibility and sense of mission.*
> Research participant in China with relatively high global-mindedness

> *I didn't really feel as if it's my duty to help things in China. They must take responsibility.*
> Research participant in New York with relatively medium global-mindedness

> *I feel that Americans should help fellow Americans that are struggling before other countries.*
> Research participant in New York with relatively low global-mindedness

> *Overall, I feel my values have remained relatively constant. I feel that education of cultures other than our own is a priority and that individuals can make change on a local scale if they choose to do so.*
> Research participant in New York with relatively medium global-mindedness

> *I've always felt that I should identify as a human being first and an American second because I think we should all help and support each other and our environment. The things I do here might affect people negatively in other places and that's not fair.*
> Research participant in New York with relatively high global-mindedness

Content Analysis Results

Discussion Board Analysis

Neither case study generated robust online discussions among international team members. An average of 26% of discussion threads in the China-New York case study and 32% of discussion threads in the Chile-Texas case study included international interactions (Tables 24 and 25). Significant lag time between discussion posts occurred during both case studies. A comparison of team members' relative global-mindedness scores revealed that members with low global-mindedness scores were less likely to participate in the discussions, however each team has members with low, medium, and high global-mindedness scores. However neither Team 7 members from Chile or Texas had high global-mindedness, yet their discussion had the highest percentage of international interactions when compared to the other teams.

Table 24. China-New York Case Study Discussion Board Overview

	Discussion 1: Virtual Tour Icebreaker		Discussion 2: Population and local forests		Discussion 3: Population change and international cooperation		All discussions
	Posts	Time (days)	Posts	Time (days)	Posts	Time (days)	% of Threads with International Interactions
Team 1	3	7	3	2	1	1	20%
Team 2	1	1	5	20	4	19	33%
Team 3	3	16	4	16	2	2	13%
Team 4	2	7	5	13	3	11	17%
Team 5	3	15	5	12	1	1	10%
Team 6	4	10	7	14	1	1	33%
Team 7	13	5	7	11	12	8	78%
Team 8	2	7	12	22	11	6	0%
Average	4	9	6	14	4	6	26%

Table 25. Chile-Texas Case Study Discussion Board Posts Details

	Discussion 1: Virtual Tour Icebreaker		Discussion 2: Migrant Interviews		Discussion 3: Gendered migration topic selection		All discussions	
	Posts	Time (days)	Posts	Time (days)	Posts	Time (days)	% of Threads with International Interactions	Posts in Spanish and English
Team 1	23	12	7	9	2	1	89%	
Team 2	5	8	5	8	2	4	20%	Yes
Team 3	5	3	4	14	5	8	30%	Yes
Team 4	13	14	6	7	1	1	10%	Yes
Team 5	14	11	10	12	2	2	21%	Yes
Team 6	16	14	14	8	2	3	67%	Yes
Team 7	6	15	3	11	1	1	11%	
Team 8	7	8	13	8	7	3	23%	Yes
Team 9	7	11	3	11	0	n/a	13%	Yes
Team 10	8	6	5	5	3	16	56%	Yes
Team 11	5	5	3	7	2	4	13%	
Average	10	10	7	9	2	4	32%	

Six codes were applied to discussion board excerpts in order to classify the nature of student interactions online (Table 26). For both case studies, the most commonly applied code was "seeking input" from international team members. Examples of this include student posts such as "*What do you think of this problem?*" and "*Could you please elaborate on that more?*". Of those discussion posts that sought input from international team members, less than one-third received a response from an international team member for both case studies. Convergence, or agreement of ideas among international team members, was more apparent in the China-New York case study with Chinese participants' excerpts coded as converging twice as often as the New York

students. In both case studies, few discussion posts were coded as divergent, presenting a perspective change, or evidence of social interaction.

Table 26. Codes Applied to Discussions

	China-New York Case Study	Chile-Texas Case Study
Seeking Input	46	14
Receiving Response	13	4
Convergence	12	1
Divergence	1	1
Perspective Change	2	1
Social Interaction	1	0

Analysis of Open-Ended Items

Open-ended items on the pre- and post-surveys prompted research participants to address their expectations and evaluations, respectively, of their international collaboration experiences. Twenty three codes were devised and applied to 301 excerpts from the pre- and post-surveys. While responses to open-ended items varied, students expressed ideas along four key themes: enthusiasm for the international collaboration, the value of the international collaboration to enhance their perspectives, that communication problems hindered the success of the international collaboration, and that they were able to make informed comparisons between their own experiences and those of their international peers. Responses to open-ended items were classified across all of the broad qualitative research coding categories: perspective taking, valuing and affective domain, critical thinking and cognitive domain, cultural issues, experience and mechanics of the

international collaborations and research, and barriers to successful international collaborations.

On the pre-survey, some research participants expressed enthusiasm for their pending international collaborations:

> *I am really excited to get to talk to people from China and learn about them and their country.*
> Research participant in New York with relatively low global-mindedness

> *I'm really excited to participate and very happy to see more international interaction going on in the classrooms!*
> Research participant in Texas with relatively high global-mindedness

> *This is probably one of my most anticipated assignments that I have been involved with so far as a student.*
> Research participant in New York with relatively high global-mindedness

> *I am very curious about the differences of the thinking styles and values between foreigners' and ours. Knowing them can help me communicate with people from other cultural backgrounds.*
> Research participant in China with relatively medium global-mindedness

Research participants expressed an interest of how the international collaboration would broaden their own perspectives, or contribute to their understanding of other perspectives on the pre-survey:

> *It will give me, as well as my classmates, the opportunity to learn other viewpoints from people outside the United States.*
> Research participant in New York with relatively low global-mindedness

> *I anticipate learning about an entirely different culture from my own; not being able to somewhat understand my global community outside of the small box of knowledge that I am presently living in.*
> Research participant in New York with relatively high global-mindedness

> *I'd like to know their viewpoints on global population and resources problem as well as their ideas to solve it. I hope I can gain foreigner's ideas different from our people's education in China. That could help me have broader viewpoints to see these problems. Through communication with people from different background, I can view international issues*

> *more thoroughly, and think about big issues deeper. At the same time, one more perspective means one more solution.*
>
> Research participant in China with relatively high global-mindedness

> *I believe students in different countries have different ideas of the same issue because of different regional factors and cultural backgrounds. Through this kind of international communication, I can hear different ideas, which broadens my thoughts. International cooperation is the trend of decision-making on hot issues. I believe it is of great help to join it.*
>
> Research participant in China with relatively high global-mindedness

> *I'll learn to think like a internationalist, not in a pattern of Chinese thinking.*
>
> Research participant in China with relatively medium global-mindedness

> *I want to learn how Americans think, not from the government's viewpoints based on foreign policies, but the thoughts of common people, and based on that understanding, I want to contrast it with other data to formulate a definitive opinion on them.*
>
> Research participant in Chile with relatively high global-mindedness

> *I hope to learn about their culture, their modes of life, their customs, their way of seeing the world, their perspectives on current issues, and so on.*
>
> Research participant in Chile with relatively high global-mindedness

> *I am interested to learn about how American students as they work, and if they really are up intellectually in comparison with us.*
>
> Research participant in Chile with relatively high global-mindedness

These initial thoughts on their impending international collaborations provide evidence that although students' situated learning contexts are varied, they have similar expectations and personal learning goals.

On the post-survey, many research participants expressed that the lack of communications among international group members hindered the success of the international collaborations:

> *I would have felt more comfortable initiating dialogue if others had as well.*
>
> Research participant in New York with relatively medium global-mindedness

Little to no interaction involved limited learning causing the program to be viewed as a failure by me. I was looking forward to discussing things with them but never got the chance.

Research participant in New York with relatively medium global-mindedness

Re-evaluate assignments so they involved more discussion between the students instead of just evoking "responses". These assignments should help foster dialogue between the two groups in order to gain the most from this experience.

Research participant in Texas with relatively high global-mindedness

My group wasn't very active :(

Research participant in Texas with relatively high global-mindedness

The time difference meant we did not have more communication. It is a pity.

Research participant in China with relatively medium global-mindedness

If we want to develop geography education, we should focus more on communication. If possible, not only through the Internet, but also face-to-face communication opportunities.

Research participant in China with relatively medium global-mindedness

I thought at first that their interaction with us would be greater, I sincerely believe that we found ourselves more interested in learning and performing the activities than them.

Research participant in Chile with relatively high global-mindedness

Research participants mentioned that language barriers made communications difficult:

It is difficult to communicate with people whom do not speak the same language.

Research participant in Texas with relatively high global-mindedness

I did not learn much because their work was in Spanish and I could not understand it.

Research participant in Texas with relatively low global-mindedness

One research participant in Chile expressed frustration towards his or her international peers:

We spent time in making our work and in translating their work. The work of students in the U.S. reflected less commitment and a complete disregard for our language.

Research participant in Chile with relatively high global-mindedness

Research participants also expressed that the assignments and tasks were confusing, which hindered communications:

> *The websites a little confusing and hard to navigate. It took me a while to figure it out where the right case study/forum was.*
> Research participant in New York with relatively medium global-mindedness

> *The organization was a little confusing. I came across two different assignments for the conceptual framework, on two separate documents.*
> Research participant in Texas with relatively medium global-mindedness

Although comments on poor international communication were common among post-survey responses, numerous students mentioned the benefit of the international collaboration in terms of broadening their perspectives:

> *I think you should continue it in geography classes. It opens peoples' eyes to new things.*
> Research participant in New York with relatively low global-mindedness

> *I learned that other students from different countries are interested in learning about my country, which in turn makes me more interested in where they are from. I learned from my fellow team members what they think is important to show others from different countries about ourselves.*
> Research participant in New York with relatively high global-mindedness

> *When the U.S. students did their virtual trip, they did it in their eyes, while we mainly did ours by downloading from mainstream media, so I think I learned to view the world differently: in my own eyes.*
> Research participant in China with relatively high global-mindedness

Some research participants also indicated that the international collaboration experience was worthwhile:

> *I found it to be very interesting, I've never done anything like this and the experience was very good. I wish that it might be longer to learn more about our U.S. peers.*
> Research participant in Chile with relatively high global-mindedness

> *It was a very good platform, besides the module we studied, other modules (e.g. Migration) could help us to think internationally.*

Research participant in China with relatively medium global-mindedness

The only way we can begin to bridge gaps between cultures is through education and interaction and I think this gives students an opportunity to reach beyond the classroom.

Research participant in Texas with relatively high global-mindedness

I think the things the CGGE is doing are. Keep it up. Things like this are slowly changing the world.

Research participant in Texas with relatively high global-mindedness

The biggest achievement is that my English got improved, I got to know people's life, their way of thinking and about education systems from different parts of the world.

Research participant in China with relatively medium global-mindedness

It was a nice experience, was the first time that I had to do work with colleagues from elsewhere in the world where we live. I would like to repeat the project. Also, I think is very good are these projects for future generations.

Research participant in Chile with relatively medium global-mindedness

I found it to be a nice experience I hope it repeats because it helps us understand that we are not alone.

Research participant in Chile with relatively high global-mindedness

These comments demonstrate some students' global orientation and valuing of international collaborative work.

Several research participants indicated that they learned that the experiences and perspectives of their international peers were similar to their own:

I learned that their population and problems are similar and very different at the same time.

Research participant in New York with relatively low global-mindedness

Other cultures are similar to us…we learn on the same level.

Research participant in New York with relatively medium global-mindedness

They are very different in culture but still very similar.

Research participant in Texas with relatively high global-mindedness

The type of life that they have is very similar to our own.

Research participant in Texas with relatively medium global-mindedness

I learned that although they come from completely different backgrounds their views on pressing world topics is very similar.
Research participant in Texas with relatively medium global-mindedness

It changed the way I see it, I learned that in reality they are much like us.
Research participant in Chile with relatively medium global-mindedness

One research participant in Texas commented on differences that were apparent to them during the international collaboration:

They are far more passionate about education that the average American students. I wish we'd given them more as partners.
Research participant in Texas with relatively high global-mindedness

These comments suggest that changes to students' international perspective that may then foster empathy towards another culture.

The post-survey responses revealed students' perspectives on their own country and that of their international group members. A few research participants made comments that demonstrate their own biases or questioned the bias of their international peers:

The students seemed very loyal to the Chinese government and I wonder if that's the result of the strict net regulations or their personal political opinion.
Research participant in New York with relatively medium global-mindedness

Of course, I know how in developing countries getting a university level education is very complicated. For that reason those students tend to care more and put more effort into the things they do.
Research participant in Texas with relatively high global-mindedness

Two students, one in New York and one in China, were critical of their own country:

I approve the CGGE's efforts to eliminate cultural boundaries, since we live in an ignorant country.

Research participant in New York with relatively medium global-mindedness

> *There is an insufficient and predatory natural resources model in China. It brings serious ecological damage. People who live there their basic human rights can't be ensured (tough work conditions, water quality, air pollution and so on). It becomes even worse because of public medias' injustice and the unsound legal system.*
>
> Research participant in China with relatively high global-mindedness

Reflective Essay Analysis

A total of 56 reflective essays between one and six paragraphs long were submitted at the end of the international collaboration, representing about one-third of all research participants. The number of reflective essays received from participants in China was 14, which constitutes about 40% of all research participants there. The number of reflective essays received from participants in New York was 21, which represents nearly 88% of all research participants there. The number of reflective essays received from participants in Texas was 21, which represents approximately 40% of all research participants there. Reflective essays were not received from the Chilean research participants due to the strike, which closed campus during the final days of data collection. To determine if those with relatively high global-mindedness were more inclined to complete the reflective essay, the relative post-survey global-mindedness (or pre-survey global-mindedness if the post-survey was not completed) of the reflective essay authors was analyzed. The relative global-mindedness of the reflective essay authors who submitted either pre-surveys or post-surveys (n=54) is similar to the spread of three levels prescribed: 20% of reflective essay authors had relatively high global-mindedness, 52% had relatively medium global-mindedness, and 28% had relatively low

global-mindedness. The absence of the Chilean students' reflective essays limits the degree to which the qualitative analysis provides insights to their experiences.

Two of the Chinese research participants identified taking on dual perspectives as a result of the international collaboration.

> *As Chinese, we are responsible to protect our environment and facilitate development. However, as a world citizen, we need to pay more attention to protect the beauty of the world.*
> Research participant in China with relatively medium global-mindedness

> *I have experienced a new way of learning, and realized that we need to analyze many issues from global perspective, not only from single, unilateral perspective.*
> Research participant in China with relatively medium global-mindedness

The duality expressed by these students provides insights into how students may develop a global sense of place as a result of an international learning collaboration. At the very least, these comments indicate students' increased skills at perspective taking.

A common theme that appeared only in the U.S. research participants' reflective essays is comparisons between the two countries involved in the international collaboration.

> *Going in to this experience I had always believed that cities in the United Stated were the most technologically advanced in the world. However, after viewing the images of Chinese cities, primarily Beijing, I have come to the realization that this assumption is false.*
> Research participant in New York with relatively high global-mindedness

> *After doing this project I feel that I have a new perspective on other students around the globe, they seem to be more like us then I originally thought.*
> Research participant in Texas with relatively medium global-mindedness

> *To interact with the Chilean students was a good experience for me to really see that they aren't that much different from American students after all.*
> Research participant in Texas with relatively high global-mindedness

When I stepped back and looked at the environmental problems Vietnam, China and the United States were having, it made me realize that we are similar.

Research participant in New York with relatively medium global-mindedness

The issues discussed between the groups made me understand that we have most of the same issues as they do. It makes me more worried and aware that the issues such as deforestation, desertification, erosion, and many others are world-wide and are much more urgent than I have believed they were.

Research participant in New York without completed global-mindedness survey

I really like how they are an entire different culture but they are really just like us. They have similar interests and concerns and they are learning about the world and it's issues just like I am.

Research participant in Texas with relatively high global-mindedness

What was the most interesting thing was the ability to see that my peers in Chile were struggling to complete the assignments on time as much as my American group members were. I had not considered that students at university in other parts of the world would have similar life issues.

Research participant in Texas with relatively low global-mindedness

Going into this collaboration I was excited to be communicating and working with students from another part of the world. These students lived in a totally different society and had a very different culture. I will start by saying I was a little disappointed with the communication it seemed to be very unorganized and did not work very well. I feel that in the future there needs to be set times that each party goes on to communicate whether it is in class or out of class. Besides for that I felt that I gained a lot of important and interesting knowledge from working with these students and I am sure they gained the same amount from me. They helped me to realize the environmental issues they face every day and that we are not the only country facing problems with the environment. The case studies also helped because both groups had their thoughts and experiences and shared with each other. This is an experience I will remember through the knowledge I gained.

Research participant in New York with relatively low global-mindedness

By getting a taste of international collaboration with the virtual tour section, I feel better equipped to understand the promptness and preparedness that goes into being a professional and having colleagues around the globe that will be depending on the professional abilities learned in this international collaboration.

Research participant in Texas with relatively high global-mindedness

A student in China, when commenting on the global-mindedness survey, acknowledged misconceptions that others have about China:

> *From the questionnaire, I realized that in the U.S., people do not know much about China, and have some extreme views. For example, some questions describe about very sympathetic cases that human being all share same thoughts, and ask if we feel "grieved" sort of question. Come on, there is no doubt we feel like this. Although we are a developing country, we still care about international situation and care about people who live in extreme misery. These are basic humanistic feelings.*
>
> Research participant in China with relatively low global-mindedness

The comments from the research participants in the United States reveal how students often link cognitive gains—for example, understanding deforestation in different places—to the development of an international perspective. The comments also suggest that their international collaboration experiences helped to allay national stereotypes, a precursor to the development of an international perspective.

Interview and Focus Group Transcript Analysis

Interviews and focus groups garnered insights into participants' perspectives on the learning environment and how they value their international collaboration experiences. Participants expressed the novelty of the program, which provided an understanding of the students' previous learning contexts. Interviewees and focus group participants addressed several components of the learning environment, including the CGGE module content and collaborative projects.

Participants indicated that the international collaboration component on the project was new: a student in China expressed that it was "fresh", a student in New York said it was "like a higher version of a pen pal", and a student in Chile expressed that they

were "amazed" by the unique opportunity. Several interviewees provided more detailed commentary on the international collaboration experience:

> *I've never done anything like this so mostly it's just been interesting like I guess this is where we are in 2011 where we can interact with kids from another country.*
>
> Research participant in Texas with relatively high global-mindedness

> *In fact, it is the first time I have attended this kind of program. When my classmates told me that we have a chance to study online and collaborate with the American students and I think I was excited at that time because usually here we do not have this chance for this kind of program. I think I can learn something from this program not only collaborating with the American students but also to learn some knowledge about geography.*
>
> Research participant in China with relatively low global-mindedness

> *I think the experience was super interesting. Because we could look at the point of view of others about the different themes of migration. It was interesting to see the virtual tour, to get to know them, to learn more about their city, and the history there. So, yes, I thought it was interesting.*
>
> Research participant in Chile with relatively high global-mindedness

> *At first, I heard it from our teacher I thought it was really something new because I never, I've never took part in anything like this before, and I get to cooperate with students from overseas so it's, so the first impression is very new. The example is about Vietnam, though it is not quite near us, it is not in our daily life, some of the situations there, I can relate it with our situation. The situation of our country, so it is sort of, although it is distant, it is not that difficult. And I thought that it really is a precious chance so I should, do my best to participate.*
>
> Research participant in China with relatively low global-mindedness

Participants in China explained that although many international students visit their campus, unless they are part of a student association that offers cross-cultural programs for these students, they have limited opportunities for interaction with them because international students are often part of separate academic programs.

Most interview participants indicated a lack of experience with online discussions in the academic environment, except for students in Texas who reported regular use of online discussion forums in their classes. Students in China indicated that they regularly

use short message services (SMS) to communicate with group members for their classes but only one indicated that she had experience using an online course management system previously. A student in Chile indicated that he had used online communications tools informally with friends but never to discuss social problems.

Participants in both Texas and New York expressed confusion about using the online collaboration tools and what tasks they were to work on next. One student participant in China said that he was unable to access the CGGE websites from the school computer lab, but that he was able to do so from his own computer. One student participant in New York explained that fellow local group members had difficulty logging-in to the Moodle website, which caused problems initially.

Interview participants provided varied views on the content of the CGGE modules and collaborative projects. Students in China indicated that they were familiar with the population theories presented in the *Population & Natural Resources* module or that they would take a course on population later in their university studies. Students in China also indicated that global issues, especially related to the environment, were common topics in their geography classes. A student in New York indicated that the international learning collaboration fit well into the geography of culture and environment course. A student in China expressed that because her major is geography, the collaboration offers an opportunity to gain more information. A student in Chile said:

> *This kind of interaction with another country, it can offer something new to students in Latin America. Much of what we learn is really general. Really, this can influence how we understand geography.*
>
> Research participant in Chile with relatively medium global-mindedness

Another student in Chile expressed that the content had a real-world application in migration issues, which contributed to the overall positive experience. The following

from a third Chilean participant illustrates how the content of the module focusing on gendered migration in particular was viewed as worthwhile especially because the online interactions were abbreviated:

> *In the first place, my opinion is that it's really interesting to have interactions with students in another country. I think it's a good model for being able to interact with them, it had good information with respect to the theme, I think the diversity of opinion is important for discussing the topics is valuable. It was interesting to hear the opinion of another people. I think there was something a little bad about the interaction, I think that not all of the interactions were good. Therefore, to have a full opinion of the project we would have to have more contact, to continue the project. And, in respect to the theme, there was a lot of information about migration and concepts about it, it was good to learn about the reality of other countries…for example, in the case of Asia. Looking at the migration of women to Japan. The status of women who migrate there, their impermanent status. The labor that the women do when they migrate. Another theme, for the case study project, looked at violence against women, this is an important topic to know in my opinion, there was a lot of discussion in my group about this here, but I didn't see a response from there. In another case, also, in many cases, many students looked at violence against women in Asia, it is important to know the experience of women in the countryside. I think though, that the project served me well, especially in terms of the information related to the migration theme.*
>
> Research participant in Chile with relatively low global-mindedness

Many research participants commented that there were limited online interactions with their international team members, communications waned after that icebreaker activity, or that only one international team member responded to their posts. Several participants attributed the poor online communications to the brevity of the experience. In a focus group in China, cultural differences surrounding the ages of their international team members surfaced:

> Research Participant 1: *Maybe it is not so easy for us to begin to communicate with older people in New York.*
> Research Participant 2: *I think it is the Chinese culture maybe. In China, I think in the U.S. the older and the younger study together—this is common I think. But in China if one person 40 years old and we us are 20 years old we may feel…*

Research Participant 1: *A little uncomfortable.*
1: Research participant in China with relatively high global-mindedness
2: Research participant in China with relatively medium global-mindedness

A few interviewees reported positively when prompted during the interview to evaluate the online interactions. A student in Chile responded:

> *It was good, yes, it was super good. Because we were in contact a lot, [my group leader] was always telling us "Get online!" "Get online!". So I got online with the students there. And my team member [in Chile] asked a question about the history of Texas, and things like that, and they responded. So it was super good. I didn't have any problems. It was cool. It was a good cultural experience.*
>
> Research participant in Chile without completed global-mindedness survey

When asked about their previous experiences with collaborative projects in their classes, several students in China expressed that group projects were common and that they often had a designated group leader. Two participants expressed that the CGGE experience differed from previous group work in terms of responsibilities, opportunities to work creatively, and the benefit of working with students outside of their grade and major. In a separate interview, another interviewee confirmed that there was value to working with students not in the same level and major. In contrast, another participant expressed that the group work was similar to previous work in terms of responsibilities and that the CGGE did not offer a new way of working in groups.

Interview and focus groups in China discussed the value of participating in an English program, which helps to explain their motivation for joining the project. Multiple Chinese participants expressed an interest in studying in the United States for a graduate degree although some students expressed that was not an opportunity for them because they would be required to teach upon completion of their Bachelor's degree. Chinese

participants also expressed that they seldom have opportunities to speak in English even though they view English as important for not only study abroad but also for job prospects within China. One participant indicated that English is an important communication tool "for us to learn about other countries or other technology and other things more, more deeply" (research participant in China with relatively low global-mindedness). Another participant emphasized the importance of knowing not only English for graduate study but also Japanese and German because of the advanced technologies of Japan and Germany.

While many Chinese participants indicated that English language fluency is beneficial for them, they also indicated that the time taken to conduct research in English and translate materials stifled online interactions.

> *I think the biggest problem for most of the Chinese students are the language. Yeah. Because the have to focus on translation yet and even though they have much source to tell you, they want to tell you, and they have to translate it into English and if it is too difficult they just tell the simple things instead.*
>
> Research participant in China with relatively medium global-mindedness

Participants in Chile echoed the challenges of communicating in English and often relied on local group members with better English skills. One participant explained that:

> *We, the group communicated in English and the reason was that although communicating in English was much more difficult and more complicated, we used a translator and it was better to be able to get across the main ideas. But is was very difficult to communicate. When they responded in English it was more work for us.*
>
> Research participant in Chile with relatively medium global-mindedness

In contrast, the participants in the United States said that:

> *I feel like it is a good idea to, you know, to culture us and let us know how easy it can be to communicate with people in other countries and things like that.*
>
> Research participant in Texas with relatively high global-mindedness

> *My major concern and their major concern was, is if there was going to be a language barrier, but that's not a factor, so that's kind of cool.*
>
> Research participant in New York with relatively medium global-mindedness

When asked to explain reasons for a professor to integrate an international collaboration in one of his or her courses, Chilean interview participants in particular highlighted the value of multiple perspectives:

> *It helps the experience of seeing how different parts understand concepts in general in geography. Sharing this distinct experience, it's not only in the local context like a concept or definition or a conceptualization of a theme that is really general, it applies to the world, this is good.*
>
> Research participant in Chile with relatively high global-mindedness

> *I think it's important for sure. Because they have direct contact with the culture. And you don't hear an individual perspective, but for me, you here several perspectives about the culture. If you hear from just one professor, you get their cultural perspective. This is my vision, is that it is better. It's really important to have direct contact with students in the United States.*
>
> Research participant in Chile without completed global-mindedness survey

> *Because you will have more points of view of each country. For example, you would have just one idea from the professor. The Chilean point of view.*
>
> Research participant in Chile with relatively high global-mindedness

One Chilean student expressed that exposure to new perspectives could influence her own points of view:

> *It is really interesting because the students in another country, in another sector, they have a different point of reality and we normally only read it in a book. But with this you can write them directly, you know? And so this point is interesting. It gives a different perspective than your place and it can change your view, too.*
>
> Research participant in Chile with relatively high global-mindedness

A participant in China provided a similar response when asked about the CGGE experience:

> *I think it is good way to broaden our horizons and establish our ability to think a different* perspective.

Research participant in China with relatively high global-mindedness

Another Chinese participant indicated that the international collaboration experience developed her skills at considering other viewpoints and expressing her own viewpoints:

> *I think more about what other people care about and what other people may think. Before maybe we just concentrated on what we are thinking about, what our ideas are, and now maybe we will think more about what their ideas are and how to share points with them.*
>
> Research participant in China with relatively high global-mindedness

Another Chinese student emphasized how multiple perspectives are important for problem-solving:

> *I think the aim for this program is to provide opportunities for students that come from different countries to deliver the comments and views on certain global issues. And geography is known for its multi-perspectives and peoples in different locations and have different religious beliefs they form a global social system therefore I realize they are closely related to each other so varying changes occurring on Earth so I think effective communications and possible discussions to solve certain problems is necessary…I think as we all geography has three main branches: human geography, economy geography, and physical geography. So, in recent years, GIS, RS and GPS technology make geography play a more and more important role in the social economic issues such as natural disaster management and global climate change and so on. But I think providing a multi-perspective which we'll think about the varying changes occurring on Earth is more important. Um, and we can find possible solutions to solve these problems and related issues. Everyone.*
>
> Research participant in China with relatively high global-mindedness

In all three countries, participants planning to become teachers articulated that they were interested in using the online learning technologies in their future careers. A few participants expressed an interest in offering international collaborations to their students when they become teachers. One participant discussed teaching at the secondary level and said:

> *I think it very necessary for the students to have this aspect to understand nationalism in other countries and the practical way of living in other countries, and to know the people of another country is positive and really*

> *interesting. It breaks up the routine with the teacher and opens the world to the students. It's a form of teaching that is really different and can change students' perspectives and the students are very active.*
>
> Research participant in Chile with relatively medium global-mindedness

Participants provided varying indications of how the international experience changed their perspectives of their own country or of their collaborating country.

Chilean participants tended to express that their perspectives of the United States had not changed and that their international peers had learned about Chile and the Coquimbo region specifically. Several Chilean participants suggested that their own virtual tours provided more historical information than their counterparts in the United States. Participants in Chile voiced how the experience changed misconceptions that students had about their collaborating country. Many Chilean participants discussed issues surrounding inferiority and superiority:

> *My perception only, no I don't think it changed. But, I do have a different form of an idea, I always hear of it like the first world, there is a vision that the United States is better than the second world or the third world, but from this experience. No. The United States is like other parts of the world, for me. Because I associate conflict with the United States, war and the United States, but always the U.S. is never like the rest of the world. So this is what I thought, my point of view. But my vision didn't change...I think the students in the USA's perspectives of Chile changed because of all of the information that we talked to them about. They saw how civilized we were. Their tour had picture of the mall and the university, but ours had an in-depth tour of important sites. The quality of their perspectives improved.*
>
> Research participant in Chile without completed global-mindedness survey

> *My perception about the United States did not change. The students in America thought that we were like African students, you know, poor people without Internet, without all the communication tools that we have here. I still think that, well, that I thought in the beginning that the students in the United States would have a superior attitude, that they felt superior to us, and that didn't change with the work that they did with the people in the United States.*
>
> Research participant in Chile with relatively high global-mindedness

It was very interesting. In the first aspect, the virtual tour was interesting. And, it was interesting to meet with the students in Texas. Usually we see California or New York, so it was interesting in that respect. And, also communicating with a stranger. Then, because we speak Spanish I thought it would be very difficult to converse with them. But actually it was really good. And many of the themes were really interesting, migration in Chile and the U.S. Also, learning about the different reasons, the economy, and they were also really similar. The USA—it's a rich country and other people do not think the people live in the USA similar to here but it is not so superior.

Research participant in Chile with relatively medium global-mindedness

I think the students in the U.S. took a very good impression of Chile but there weren't many things that were discussed. We showed them places they were unfamiliar with like the Valley of the Moon. I think they had a lot of respect for the touristic places, the natural places, and I think it changed their opinion because their perceptions were that we are in the third world and then working with us in this country we were able to show them more. I think it changed their opinion in this respect. There was a lot of commentary like this in the virtual tour "it's interesting" and this. There's this idea that they would be superior to us so it was surprising to them because they got to know new information about here from border to border.

Research participant in Chile with relatively medium global-mindedness

I think their perspectives were something, something less for this country. They didn't have a grand idea of this country before, I think their perspective changed. I think it now represents how the country actually is.

Research participant in Chile with relatively medium global-mindedness

I don't know if it changed, it changed in what I knew about their form of education, but I think I thought it was much superior than ours but the university in Chile is not less than theirs. It is on par with theirs. Then, in this way, my point of view has changed. I don't think their superior anymore. This changed…. I think because their view before they thought that we didn't have money, Internet access, or a library with good resources, I think this changed for them because when they saw our work. And they responded positively to it - you have a good library, good Internet access, good information from your online library - Then I think their point of view changed.

Research participant in Chile with relatively high global-mindedness

I think the students in Texas opened their boundaries with respect to what they think about our students, the Chilean students. We thought the students of the USA were going to see us with inferiority and a more minor level but

> *we did a much better work, far better and the students in the USA recognized that and they say "oh, this is much better than what we did".*
> Research participant in Chile with relatively high global-mindedness

Some Chilean students reported that their overall perspectives of the United States did not change, but that they did learn new information:

> *I have many ideas about the United States already, they didn't really change. I learned more about Texas, though. I learned more about their social issues.*
> Research participant in Chile with relatively medium global-mindedness

> *Never before did my view of the United States come from the ability to have an online chat with someone from there. But in the case of these interactions in particular, I don't think my vision has changed. I think I had a good vision already. The online project began with some interaction that was interesting. And I received some new information that widened my understanding but my overall vision is the same. In this hour, I don't have a different vision of the United States because of this interaction.*
> Research participant in Chile with relatively low global-mindedness

> *I don't think my opinion changed in a big way, we discussed just a part of the United States, the economy, migration, but my view didn't really change. They were really interesting topics and I learned new things. In the first part, the virtual tour, much of what was showed was touristic and it was very positive, very good, and there were many things shown like there were malls, pubs, things like this and it was not a very grand vision including the culture or history. It showed some new technologies, some natural things like the river, but it not talk about its history. I wanted to learn about the prehistoric cultures of Texas, but that history wasn't included at all.*
> Research participant in Chile with relatively medium global-mindedness

Chinese participants expressed that their perspectives of the United States had changed little as a result of the international collaboration, in part due to their experience with media from the United States.

> *My perspective of the United States, it's not changed because it's always what we see in our daily life in the TV, on the Internet, but there is one thing that is very impressive, I think. It's very tidy and clean. Because we have so many people, every time we go anywhere you can see many people. But in their virtual tour, I mean in the pictures, I didn't see many people*

> *and the environment is good, and I think they have much more spaces then we do.*
>
> Research participant in China with relatively medium global-mindedness

This participant went on to say that the virtual tour that they prepared for their international team members:

> *Didn't introduce every perspective of China, or of Beijing. It just introduced, two places of Beijing and some food in Guangdong. And, I don't think that will change their perspectives a lot. Because in many places in U.S.A. with Guangdong restaurants…because once I watched a soap opera, the Gossip Girl and there's one scene that they are having some Guangdong breakfast.*
>
> Research participant in China with relatively medium global-mindedness

In a focus group, one Chinese participant related how she was unsure of what her international team members thought of China but that an English teacher:

> *Often told us something about that. Uh, some, they said some Americans didn't know China very much. But some of them care about China now.*
>
> Research participant in China with relatively medium global-mindedness

The other participant in the focus group explained that:

> *As far as I am concerned, before was I high school student I know a man from Canada and we has a foreign teacher and also he said before he came to China even he don't know that we cars today. All he thinks about is the bicycle, the bicycles on the road. And I think maybe most of the Americans or Canadians or other countries people do think about China they don't know how we developed now. And other things maybe. Now, some of the Americans other foreigners, they begin to be interested in Chinese culture and begin to mention to begin to care, just like she said, begin to care about what Chinese is like now. So, but I don't think most of them know about it.*
>
> Research participant in China with relatively high global-mindedness

When asked what reasons Americans have for being more interested or caring about China, the two focus group participants indicated it is because China's economy is developing, more Chinese people, especially good students, go to the United States. A Chinese interviewee expressed how the American perspective of China is changing:

> *The history left them a very bad image of China. So it takes time for them to change. But I think in the recent years great changes have happened in China and I think you know China is better such as the Olympics and the Shanghai Expo…I think there's still much difference between us and the U.S. The custom and the tradition and the education we receive. Maybe the way think about things is so different. But it's okay we are becoming more and more open.*
>
> Research participant in China with relatively medium global-mindedness

He goes on to explain how Americans have more choices than the Chinese:

> *They can choose to do or not to do. And they can chase their dreams. And maybe we don't, I don't know, because of family, because of the traditional ideas, we students have a lot of responsibilities we have to consider. A lot. Yeah but the Americans, the parents tell them you can do what you want. You can go for dreams. I think that's good.*

When asked how he knows about what American parents tell their kids, he replied that he watches a lot of American television programs like *Desperate Housewives* and *Gossip Girl*.

Similar to the Chinese participants, a Chilean participant discussed how American media had influenced his perceptions of the United States:

> *The young people of the United States that I saw in the movies are different than the students in Texas. I had a vision that students in Texas were wild, go to parties, like the American style we can see one television. But it's not like they show it on TV. It's like we are. We are normal people who want to share a subject or an idea or just to speak.*
>
> Research participant in Chile with relatively high global-mindedness

While the Chinese and Chilean participants expressed a familiarity with American culture, a participant in Texas explained that:

> *I've been trying to open a forum for my classmates in general because we've been having really heated debates because we're interested about it but we really don't know. We don't know much of what's happening outside of the United States, which is really funny. We know general issues but we don't know what people think. I think it's pretty interesting.*
>
> Research participant in Texas with relatively high global-mindedness

Interview and focus group participants shared their suggestions for future international collaborations. Participants expressed that the CGGE websites could be more engaging with videos. One participant suggested that the students would benefit on going on an academic travel trip together. Another participant mentioned that many students study abroad in the United States and they could participate introduce a CGGE program when they return because they will already know students in the United States that she could link with students in China. Several students suggested that the collaboration should be long-term because the five-week collaborations seemed hurried. To improve communications, participants suggested having dedicated schedules to be on the Internet at the same time and using video-conferencing technologies. In terms of content, one participant suggested that:

> *You can give more information about the topics and also raise the new topics not the classic topics. The classic topics have already been proved or how to say it, people have already analyzed the classic examples the topics. And we should raise the new topics and make the students think. Give tips how to think not the details…we should have new examples to think about it. Not those examples we already have people have gave their opinions.*
> Research participant in China with relatively medium global-mindedness

Two focus group participants suggested incorporating urban field studies for the CGGE collaborative projects to generate new information and learn in new ways.

Each interview provided the participants to pose a question to the researcher. For students in China and Chile, students commonly asked the researchers' perspectives about their countries. A Chinese participant mentioned reading online articles that indicated that scholars in the United States think that Chinese students take too many courses and do not learn from studying so many subjects at once. One participant in China asked "what is your first impression of China?" at the initial interview and at the

closing interview asked “So what do you think, the difference before you come here and after?” Another student in China said “in America, I want to know by what means citizens can put up their own solutions for the government. A participant in Chile was interested in learning the results of this research because:

> *I want to learn about the opinions of the Texas students about the work that they did and the perceptions that the students in the United States have so I can understand their levels of tolerance.*
> Research participant in Chile with relatively medium global-mindedness

Analysis of Written Responses to Interview Guide Questions

Many of the same themes from the interviews appeared in the written responses to the interview guide questions. Respondents expressed their interest in participating in the international collaboration, and that it was both novel and somewhat confusing at first. Trepidation about language differences, intrigue about using technologies for academic purposes, and interest in studying abroad were additional ideas shared by respondents.

Most commonly the responses addressed how the international collaboration will provide different points of view and it is a new way to get knowledge.

> *I think the most important reason for the CGGE program is that it will let us learn a different thinking model and knowledge system. For a subject like geography, it’s a basic ability to analyze a question spatially. American students received a quite different geography education from us, so we may get the ability from this international collaboration process somehow. Secondly, it’s a good way to improve students’ collaboration ability. We learn to work with peers from different culture background and know how to understand each other. Thirdly, we get some academic information from international students, which can broaden our horizons.*
> Research participant in China with relatively medium global-mindedness

> *Geography is a subject concerned with the globe. Working with international student can help students understand global problems better. It often said that it is necessary for China's 21st century students to have an international viewpoint.*

Research participant in China with relatively medium global-mindedness

Two participants in Chile linked issues of globalization with the need for tolerance.

> *Well, I have been thinking, starting to think how the planet is globalized and we rarely have the option of being in this type of work, and it is nice. The other impression is that we need tolerance, collective, international tolerance (of all) to make this work.*
>
> Research participant in Chile with relatively high global-mindedness

> *Globalization and migration are the current context in which we are living especially since both countries are international. The United States and Chile are growing increasingly more xenophobic and intolerant. It is the duty of those who study these global processes to teach people the importance of knowing other cultures. For students studying geography we should understand these processes not just in theory but by establishing communication with foreigners and we are doing this in the project.*
>
> Research participant in Chile with relatively medium global-mindedness

Facilitator Questionnaires

The facilitator questionnaires provide insights into the implementation of the learning collaborations. While all four facilitators indicated that they would plan to implementing the module in an upcoming course, each indicated that poor online communications blocked the success of the international collaborations. Each of the facilitators identified different reasons for the successful components of the collaborations, including: the opportunity for international cooperative learning about global geographic issues, the novel online learning platform, friendly online relationship among students, time spent practicing English, strength of CGGE conceptual framework and case studies, facilitator guidance, and offering extra credit points. The facilitators indicated how the international collaboration differed from how they typically teach about the topic and each facilitator offered a different response. Online international communications, collaborative projects, depth of content covered, and less lecturing were

the responses provided by the facilitators. The difference in responses from the facilitators underscores the varied learning and teaching contexts that comprise this research.

When asked for their recommendations for future online international collaborations, the facilitators mentioned several ideas that would encourage student communications. Facilitators recommended making a clear calendar of collaborative project deadlines, providing detailed information of how students would be evaluated, and encouraging student participation. One recommendation indicated that both facilitator and students should be familiar with the online tools prior to the start of the international collaboration. Another recommendation was for facilitators to monitor student activities several times a week and to keep in regular contact with the collaborating facilitator. Interestingly, the facilitators did not make recommendations that specifically address the cross-linguistic challenges of the international collaborations.

When asked for other comments or concerns about the international collaboration, facilitators provided several ideas, many of which echo the recommendations of the student participants. The design of the CGGE websites was identified as challenging to those who are new to the international collaboration and online learning process. Video conferencing and facebook were suggested as possible ways to support student communications. Additionally, a facilitator made the suggestion that students generate case studies to provide student ownership of the content.

Data Summary

Individually, the primary sources of data provide for a comprehensive understanding of research participants' experiences in their international collaborations. The item-level statistical analysis of the global-mindedness scale, the analysis of the post-survey items related to students interests in study abroad, foreign travel, and other activities, and the analysis of qualitative data based on key themes related to the development of international perspectives all contribute to a fine-grained analysis of research participants' international collaborative learning. Following Lincoln and Guba's (1994) constructivist paradigm, which is not to be confused with the constructivist theory in education, the data synthesis aims to establish overarching and informed constructions of research participants' experiences. In doing so, it is important to highlight both commonalities and differences in findings developed from individual data sources. This is particularly necessary given the uneven amount of data collected for the two case studies. Figure 19 presents the number of students represented in the data sets as a proportion to the number of students in their classes. This shows that pre-survey data across all four groups of students is proportionally high compared to group size. In contrast, the lack of post-collaboration interviews and focus groups with students in New York and Texas shows an imbalance in the dataset. Findings from the data synthesis should also be tempered by acknowledging the independent variables included in the study (e.g., prior experience with geography, international experience, language fluencies, etc.) with those that were not included (e.g., class heterogeneity, facilitator background, grading etc.). In addition to the primary sources of data, the facilitator

questionnaires and observation notes provide valuable contextual information for addressing the research questions.

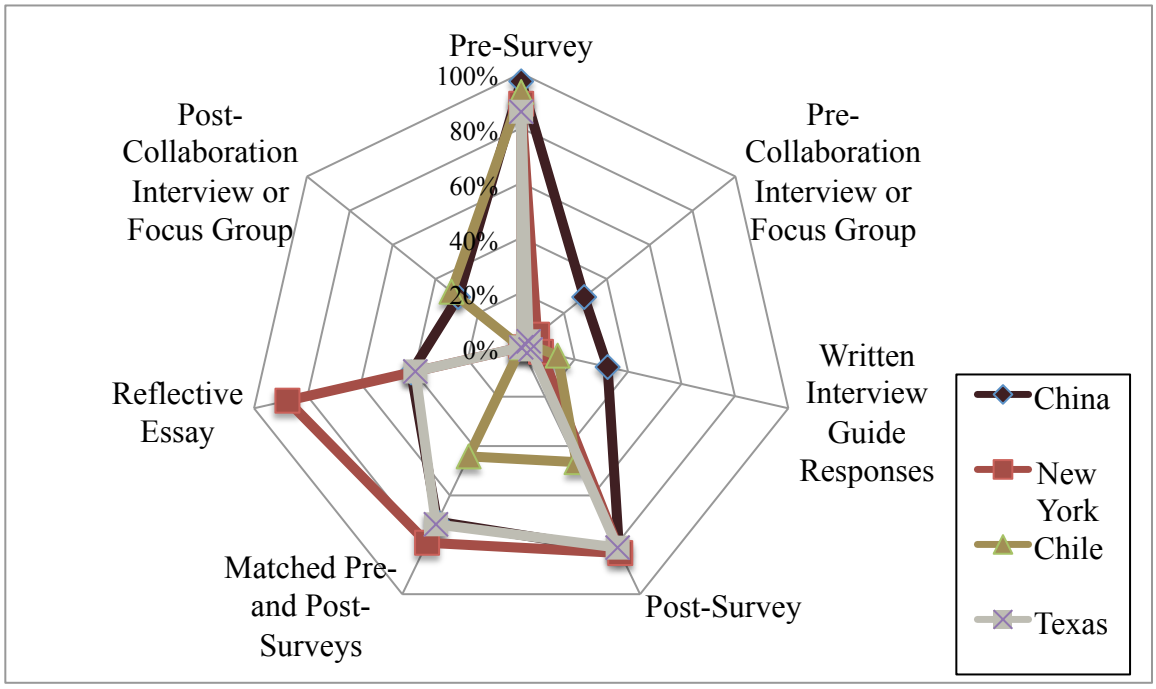

Figure 19. Students Represented in the Data Sources based on Proportion of Class Enrollment

CHAPTER 6

DISCUSSION

This study utilized mixed methods to understand the impact of international collaborative learning on undergraduate students in the Chile, China, and the United States. The research approached students' from a framework that is rooted in the geography and global education literatures. It presents the complexities of online international collaborative learning with diverse participants and both quantitative and qualitative data. Specific factors affecting the development of a global perspective include initial global-mindedness, language fluency, previous foreign travel experiences, and international experiences. The research demonstrates how international collaborative learning using online materials created from a geographic perspective shapes the development of a global perspective.

First Research Question

The first research questions asked to what extent do CGGE participants value their international learning collaborations in terms of their personal and academic goals. Although the lack of discussion board exchanges in both case studies impeded the overall experience, research participants expressed a range of reasons for valuing international learning collaborations. At the start of the international collaborations, research

participants in all four classes expressed similar expectations and personal learning goals even though they have diverse backgrounds and are situated in varied learning contexts. For example, many geography and international studies majors in the United States and GIS and geography education majors in China and Chile indicated that international collaborative learning is well suited to their academic pursuits. Research participants also expressed that the international collaboration is a new and intriguing component of their university studies. This excitement for international peer-to-peer interaction was offset by unclear assignments and challenges with navigating the online learning tools. Even so, this study documents that the participants value the broadening of perspectives that result from international interactions—students often used the metaphor that the experience "opened their eyes".

Pertinent to this discussion is the acknowledgment that international perspectives take on a personal relevance that goes beyond the potential of one five-week learning experience. Skelton (2007, 380), who utilizes Gardner's (1981) notion that human development progresses as egocentrism declines, describes international-mindedness as a continuum in the development of "self"[4]. Skelton (2007) goes on to argue that the personal and emotional contribution to international-mindedness should not be overlooked. Fantini (1995, 13) writes that gaining intercultural competence through contact with different worldviews may cause perspective changes that are akin to personal transformation.

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[4] Although the literature does not provide a uniform definition of international-mindedness (Cause 2011), it is often used by the International Baccalaureate curriculum (International Baccalaureate 2008) and contains overlapping concepts with the term global-mindedness. McLean, Parkison, and Sorgman (2008), however, note that definitions of both international mindedness and global mindedness differ within and across disciplines.

For those in China, the value of the international collaboration related to one of their program goals. Research participants expressed the necessity of improving English language skills for study abroad programs in the United States and for careers in both the United States and China. Some research participants acknowledged that being able to read English language resources on the Internet improved their understanding of important geographic issues. While some could argue that these students are subject to Western cultural hegemony, Grimshaw (2007) counters this notion and questions dominant discourses surrounding language practices in international education. Even when one reframes the discourse to show that use of the English language does not diminish the research participants' agency, concerns related to the use of English remain. Numerous authors stress the importance of dialogue to achieve intercultural learning and global learning outcomes (Crichton and Scarino 2007; Andreotti and de Souza 2008; Dunne 2011) but this interaction may be difficult to attain with English language learners. Leask (2004) notes that students involved in cross-cultural online learning interactions must not only have the technical skills but also the writing skills to express their ideas. Again, this is difficult for English language learners or for students dependent on online language translators. This demonstrates the importance of understanding students' goals for international learning collaborations and for developing strategies to support cross-linguistic online dialogue.

Research participants in all classes commented on the value of learning new information on global issues. This implies that students value international collaborative learning for increasing their state of the planet awareness—one of the dimensions of a global perspective discussed by Hanvey (1982). The international collaborations also

influenced some research participants' understanding of the places of their counterparts. For example, some students in the New York and Texas described the similarities that they found between the United States and China and Chile, respectively. And some students in Chile and China expressed that through the international collaboration they were able to demonstrate to their team members in the United States that their countries are not inferior. These findings convey that international collaborative learning alters contrived senses of place and that international peer-to-peer interactions diminish national stereotypes.

Second Research Question

The second research question asked how do CGGE participants' international perspectives change as a result of participating in an international learning collaboration. While not universal, evidence of changes to research participants' international perspective emerged in both case studies. The following two quotes from reflective essays demonstrate the variety of how students conceptualized changes to their own perspectives.

> *In thinking back on this project I have learned that living here in the United States sometimes one only thinks of migration in terms of illegal immigrants. In the United States the media tends to focus much of their attention on border relations between the U.S. and Latin America. This has caused the citizens to of this nation to become kind of one sided on the issue. This project has really opened up my mind to the struggles going on in other nations and has given my great insight on the reasons why people relocate in other places.*
>
> Research participant in Texas with relatively medium global-mindedness

> *I wouldn't say that I have become more open and accepting after this experience but I would state that my curiosity for other cultures has greatly increased.*
>
> Research participant in New York with relatively high global-mindedness

The global-mindedness survey served as a quantitative way to measure change in perspectives. Except for the research participants in China, research participants' global-mindedness survey scores did not show statistically significant gains from the pre-survey to the post-survey. However, differences to global-mindedness scores were detected when the data was analyzed based on four other independent variables. When comparing classes, there were fewer statistically significant differences on the post-survey global-mindedness scale items than on the pre-survey, which suggests that the international collaborative experience diminished divergent opinions related to global-mindedness. Additionally, several comments made by research participants in Chile address the issue of English language hegemony, which may provide insights into why the Chilean research participants scored lower on some of the global-mindedness scale items. For example, research participants in Chile may have a clearer understanding of how the use of English contributes to the power geometry discussed by Massey (1994) as it relates to this hegemony and therefore the Chilean research participants are less likely to demonstrate globalcentrism if they equate this construct with the dominance of the English language.

More research participants in China and Chile reported that they thought that their global-mindedness changed as a result of the international collaboration even though changes on the global-mindedness scale were detected in all classes. Analysis of the qualitative data demonstrated that research participants in all classes identified ways in which the international collaboration expanded their international perspectives or prompted reflection of their international perspectives. This suggests that even though research participants in each class may not have detected substantial changes to their

international perspectives, the international collaboration altered their international perspectives to some degree.

A majority of respondents in all classes indicated that they were more interested in traveling to foreign countries, studying abroad, learning a foreign language talking, and with others with diverse backgrounds as a result of the international collaborations. This suggests that students have an increased willingness to engage with other cultures, which is a precursor to the development of the cultural pluralism component of Hett's (1993) global-mindedness construct and Hanvey's (1982) cross-cultural awareness dimension of a global perspective. The finding related to an increase in interest in studying abroad provides support for strengthening study abroad programs with international learning collaboration projects. For instance, Edwards (2008) discusses the desired learning outcomes from study abroad experiences—including knowledge, skills, and perspective—and considers ways in which study abroad students can continue to develop their global perspectives once they return home. She writes:

> If our investment in education abroad is based on the assumption that this kind of perspective is not just a nice enhancement, but an essential attribute for a graduate in the age of globalisation, then we would consider it, like good writing or scientific literacy or ethical analysis, to be an important part of an undergraduate education. If that is the case, then the question of how to recognise and foster this perspective in the home classroom becomes a legitimate one (122-123).

Biles and Lindley (2009) delineate the pitfalls of study abroad programs that serve to commodify higher education and reinforce uneven patterns between the Global North and Global South. Online learning collaborations may face the same criticisms unless opportunities to cross the digital divide are expanded and opportunities for international professional research, teaching, and learning projects are supported.

A repeated theme in the research findings is the power of international learning collaborations to counter media narratives that Hanvey (1976) describes as event-centered, culture-bound, and culture-generating. Chew (2006, 184) discusses national stereotypes from the age of Herodotus to the 21st century, and two of his main arguments related to national stereotypes are germane to this research. First, regional characteristics are often elevated to national stereotypes that remain durable due to their repetition in media. Second, in the centre-periphery model one perceives central places as modern and dynamic while peripheral places are deemed old-fashioned and static. In several instances, the data analysis showed how participants' misconceptions about their collaborating countries were diminished by their peer-to-peer interactions. Some research participants used the metaphor that the international collaboration "opened their eyes" to other cultures and they made comments indicating that they found unexpected similarities in their educational levels, access to resources, environmental concerns, and lifestyles.

The contact hypothesis proposes that to build productive relationships between different cultural groups requires equal status, egalitarian culture, shared goals, opportunities for friendship, and positive inter-group interactions (Allport 1954; Pettigrew and Tropp 2005; Dovidio, Gaertner, and Kawakami 2003; Harrison and Peacock 2010). Interestingly, Mendeloff and Shaw's (2009, 29) analysis of an international collaboration among American and Canadian students resulted in a proposal that future international collaborations would benefit from having students who are culturally distinct. The research found that perceived cultural differences did influence some participants' experiences in the international collaboration and that positive inter-group interactions, especially on the Virtual Tour collaborative project, were cited by

participants as important to their overall learning. While the research documents degrees of change in international perspectives in some research participants, the findings call into question whether the conditions for productive cross-cultural relationships are easily attainable in brief cross-linguistic online learning collaborations.

Contextual Contribution

By researching international learning collaborations while in China and Chile, this research contributes to the understanding of the diverse contexts in which this new pedagogy is implemented. The literature offers differing viewpoints on the culture of learning in China compared with Western countries. Dunne (2011) poses a question about whether students from high-power distance cultures are comfortable with taking on new roles in the learning process. Kelly and Ha (1998) argue that e-learning technologies are implemented differently in Asia where the "Chinese Confucian Heritage Cultures" differ from Western constructivist notions of the teacher as facilitator.

Some scholars advocate for a new way to explore cultural differences in the research context. Wihlborg (2009) argues for a non-dualistic relational perspective when conducting cross-cultural research. Teekens (2003, 114) notes that when different cultures come in contact in an international classroom, it may not be helpful to anticipate behaviors based on cultural knowledge because the individual students "are looking for practical solutions to problems that result from unfamiliar situations and personal confrontations". Furthermore, Teekens (2003, 115) argues that in classrooms with domestic and international students, lecturers overemphasize cultural differences while neglecting personal and social learning needs. In a study of business, design, and

engineering undergraduates, Montgomery (2009) found that students' disciplines and approaches to completing tasks had a larger impact than their culture when discussing the value of internationalized learning.

This research supports the idea that international learning collaborations offer a "third space" (Rimmington and Alagic 2008) that creates flexible cultural expectations on behalf of the students. In the case of students in China, this research documented students' creativity and willingness to engage in new ways of learning, which may be reflective of wider cultural change in China. At their worst, Chinese from the "post-1980" generation are viewed as individualistic and electronic-media dependent with weak values (Xiao 2008; Tu 2011). Cao (2009) explains that although individualism is associated with selfishness and that collectivism is valued in China, the expansion of Chinese higher education, industrialization, and consumerism has resulted in a younger generation that exhibits individualistic qualities, which complicates the use of the collectivist-individualistic dichotomy in cross-cultural research in the Chinese context. A study of nearly 2,000 university students in China found that students not only have a strong national identity but also social justice concerns about a range of topics from the education of migrant workers' children, women's rights, and economic inequalities (Tu 2011).

The research findings contribute to an understanding of the development of an international perspective through international collaborative learning. Influential factors include the students' personal experiences (e.g., language fluency, foreign travel experiences, international experiences), their goals and motivations (e.g., desire to study abroad, goal to utilize digital technologies in their future classrooms), and their group,

class, school, and national cultures. Within these cultures may lie hegemonic tensions which are mediated by the third space learning environment. By increasing knowledge (e.g., global knowledge, scalar understanding), skills (e.g., perspective taking and intercultural communication skills), and positive affect (e.g., interconnectedness and feelings of responsibility to the wider world), students may become practitioners of an evolving international perspective wherein they have a sustained global orientation. Other pertinent factors in this process include faculty capabilities to facilitate global learning, along with international media events and student familiarity with online learning tools.

Future Research

There are many avenues for future research on international learning collaborations in post-secondary geography. Studies that investigate how third space learning lessens cultural constraints and diffuses or reshapes the power geometries discussed by Massey (1994) will provide a rich contribution to the understanding of international collaborative learning. Research is also needed to explore how facilitators prepare for and implement international learning collaborations in their classes. The role of higher education institutions to support and advance international learning collaborations is another area of future research. Additionally, there are opportunities for research to address international learning collaborations that cross the digital divide (Baiio and Ray 2011). Based on the outcomes of this study, future research on online international learning collaborations may need to utilize multiple methods of analysis to address undergraduate students' experiences in terms of culture, interpersonal experiences, and intrapersonal experiences.

There are extensive opportunities for research on the way in which students in different countries navigate learning in the third space of international learning collaborations. Routledge (1996) describes third spaces as having fluidity between two sites with possibilities for unexpected interactions and transformations. Further research may reveal the relationships among student interactions, learning outcomes, and the development of international perspectives in this dynamic third space. Previous research on educational third spaces provides different approaches to investigating third space. For example, Johnston (2009, 33) employs the third space concept to her own undergraduate teaching and finds that teaching and learning in the third space transcends curricular essentialism and classroom power dynamics. Bretag's (2006) analysis of email communications in a graduate business communication course for international students found that not all students engage in the third space in the same way.

The analysis of qualitative data did not elucidate the results of the global-mindedness survey related to the uneven item-level analysis for bilingual and multilingual students or the overall decrease in global-mindedness scores for students with international travel experience. Cazden (2001) offers one framework that deals with methods of data analysis, which may be useful for future research on online international learning collaborations. One way to reconcile dissonance within the data set is to translate the nested contexts of student interactions and their prescribed methodological approaches to the online learning environment. Cazden (2001) proposed three contextual layers—discourse/cultural, narrative/interpersonal, and voice/intrapersonal—that can be consonant or dissonant with each other. The method associated with discourse is critical discourse analysis and the method linked to narrative is sociolinguistic analysis. Both

phenomenological and narrative analyses are proposed methods for understanding voice. This framework demonstrates that future researchers may need to utilize multiple analysis methods in order to understand students' experiences on multiple levels.

The understanding of international collaborative learning would benefit from research using alternative frameworks and approaches to student groupings. For example, Bhagat et al. (2002) provide a model for understanding how knowledge is transferred in international contexts. Research in this area that utilizes non-Western conceptual frameworks is also needed to fully understand the international collaborative experience. A comparison of team members' relative global-mindedness scores revealed that members with low global-mindedness scores were less likely to participate in the discussions, however each team has members with low, medium, and high global-mindedness scores. There is an opportunity for future research to focus on how the characteristics of students within groupings impact the achievement of cognitive, skills, and affective learning outcomes. Given that the literature is unclear about whether random selection or selecting students based on some measure of homogeneity or heterogeneity has a positive influence on student learning outcomes (cf. Huxham and Land 2000; Mahenthiran and Rouse 2000; Roberts and McInnerney 2007), future studies could utilize student groupings based on global-mindedness scores in order to detect differences in student learning in online international collaborations.

The literature offers several insights on the importance of understanding how faculty members influence internationalization on campus. Although lecturers are central to the implementation of internationalized curricula (Childress 2010; Dunne 2011), they may not themselves have the skills they are meant to teach (Odgers 2006). Leask (2008)

argues that faculty must be introspective, question their worldview, and consider their own assumptions in order to develop innovative internationalized curricula. Petocz and Reid (2008) provide a framework for educators' evaluation how they view the relationship between their teaching and internationalization.

There is limited research on faculty roles and responsibilities in implementing internationalized curricula (Dewey and Duff 2009). In their study of architecture faculty at a U.S. university, Dewey and Duff (2009) report that faculty members are hesitant to introduce new, internationalized curricula in a crowded syllabus and the introduction of new courses is in competition with existing ones. Dunne (2011) raises concerns about how best to assess the desired outcomes of intercultural competence when considerations of lecturers' workloads are made. Dewey and Duff (2009) report that some faculty members see internationalization as irrelevant to their scholarship and teaching, which is a concern repeated by Childress (2010).

In addition to research on faculty members, the literature calls for attention to the institutions role in advancing internationalization efforts with a focus on student learning outcomes. Dunne (2011) argues that intercultural curricula must be aligned to institutional objectives. Pragmatically, Dewey and Duff (2009) categorize virtual learning opportunities as requiring some level of resource, support, and investment placed between individual and institutional responsibilities.

Conclusion

Using mixed methods with two case studies, this research examined how online international learning collaborations are valued by undergraduate students and the extent

to which their international perspectives changed as a result of their collaborations. By investigating the impact of online international learning collaborations, the research findings contribute to the development of a comprehensive understanding of how internationalization processes influence students' learning called for by Reid and Hellstén (2008). While intercultural research often surficially investigates the values and attitudes of participants' reaction to specific intercultural situations (Svensson and Whilborg 2010), this research utilized multiple sources of data to account for the nuanced experiences of students participating in online international collaborations. Hobson (2007) and others predict that e-learning technologies will significantly change higher education as we know it. This research tempers these notions in the context of online global learning where further research is needed to develop worthwhile pedagogies.

APPENDIX 1

CONSENT FORM (ENGLISH)

Consent Form

Please read this consent form carefully before you decide to participate in this study.

This study is part of doctoral research in geographic education at Texas State University-San Marcos. If you have any questions about this study, please contact the researcher at:

Waverly Ray, Doctoral Research Assistant
Texas State University-San Marcos
Department of Geography, 601 University Drive
San Marcos, TX 78666, USA

email: waverly@txstate.edu
phone: 512-245-2170
fax: 512-245- 8353

You may also contact the researcher's Advisor and Dissertation Committee Chairperson at:

Dr. Osvaldo Muniz, Associate Professor
Texas State University-San Marcos
Department of Geography, 601 University Drive
San Marcos, TX 78666, USA

email: os14@txstate.edu
phone: 512-245-0375
fax: 512-245- 8353

Project Title: Evaluating the Center for Global Geography Education Modules

Research Purpose: This research will evaluate the impact of the Center for Global Geography Education modules on student learning and perspectives.

Invitation to Participate: You are being asked to participate since you are enrolled in a course where the Center for Global Geography Education modules are being used or developed. Your participation will allow the researcher to evaluate the quality of both the geography module and the processes by which the learning experience takes place.

What you will be asked to do in the study: You will be asked to complete an online survey of approximately 40 questions, to provide written feedback about your learning experience, and you may be asked to participate in focus groups or interviews. Also, your work and communications for the Center for Global Geography Education module will become part of the researcher's data. Your involvement will last the duration of your use of the Center for Global Geography Education module, which is approximately two months.

Confidentiality: Your identity will be kept confidential to the extent provided by law. Your name will not be used in any report.

Risks and Benefits: There are no foreseeable risks involved with this study. Benefits include the opportunity to reflect on the impact of the Center for Global Geography modules to further your understanding and strengthen your perspective.

Voluntary participation: Your participation in this study is completely voluntary and **your decision to participate does not impact the grade you receive in this course**. There is no penalty for choosing not to participate. At any time during the study, you may refuse to answer any of the questions I ask you. **There is no compensation for your involvement in this study.**

Right to withdraw from the study: You have the right to withdraw from the study at anytime without consequence.

Minors: If you are 17 years old or younger, you will not be asked to participate in this study.

APPENDIX 2

CONSENT FORM (CHINESE)

全球地理教育中心

协议书

请在接受此项调查之前仔细阅读协议书

此项调查是Texas State University-San Marcos地理教育专业的一项博士研究课题，如有任何疑问请通过以下方式联系研究者：

Waverly Ray,博士研究助教　　电子邮件：waverly@txstate.edu
Texas State University-San Marcos　　电话：512-245-2170
Department of Geography, 601 University Drive　　传真：512-245-8353
San Marcos, TX 78666, USA

你还可以通过以下方式联系研究者的导师以及论文答辩委员会主席：

Osvaldo Muniz,副教授　　电子邮件：os14@txstate.edu
Texas State University-San Marcos　　电话：512-245-0375
Department of Geography, 601 University Drive　　传真：512-245-8353
San Marcos, TX 78666, USA

项目名称：全球地理教育中心模块评估

研究目的：此项研究主要是为了评估全球地理教育中心模块对学生学习和认识观的影响。

参与方式：你可以通过在使用全球地理教育中心模块的地方注册一门课程来参与，研究者将通过你的参与来评估地理模块的优劣以及学习经验过程的质量。

此项调查中你将要完成的任务：首先，你要完成一份包含40个问题的调查问卷，提供一些关于你学习经验的书面反馈；其次，你可能还要参与小组学习或面试；最后，你在全球地理教育中心模块所做的工作与交流将成为研究者的一部分数据。你的参与时间是你持续使用全球地理教育中心模块的时间，将大约持续两个月。

保密协议：你的身份将在法律保护范围内处于高度保密状态，并且你的名字不会被任何报告使用。

风险与机遇：此项调查不会涉及任何不可预见的风险，与此同时，你还能通过参与全球地理教育中心模块的机会来加深你的理解并增强你的认识观。

自愿参与：此次调查为自愿参与，你决定参与与否不会影响你这门课的成绩。不参与本次调查也不会有任何惩罚。此次调查的任何时间内你都可以拒绝回答任何一个问题。同时，参与此次调查也不会有任何奖励。

弃权：你有权在任何时候退出此项调查。

APPENDIX 3

CONSENT FORM (SPANISH)

Formulario de Consentimiento

Haga favor de leer este formulario de consentimiento antes de decidir si va a participar en este estudio.

Este estudio es parte de una investigación doctoral de educación geográfica en la Universidad del Estado de Texas en San Marcos. Si usted tiene cualquier pregunta sobre este estudio, haga favor de comunicarse con la investigadora en seguida:

Waverly Ray, Doctoral Research Assistant
Texas State University-San Marcos
Department of Geography, 601 University Drive
San Marcos, TX 78666, USA

correo electrónico: waverly@txstate.edu
teléfono: 011-01-512-245-2170
fax: 011-01-512-245- 8353

También puede comunicarse con consejero de la investigadora y el presidente del comité de tesis doctoral en seguida:

Dr. Osvaldo Muniz, Associate Professor
Texas State University-San Marcos
Department of Geography, 601 University Drive
San Marcos, TX 78666, USA

correo electrónico: os14@txstate.edu
teléfono: 011-01-512-245-0375
fax: 011-01-512-245- 8353

Título del Proyecto: Evaluar los Módulos del Centro de Educación de Geografía Global

Propósito de la investigación: Esta investigación va a evaluar el impacto de los módulos del Centro de Educación de Geografía Global sobre el aprendizaje y perspectivos de los estudiantes.

Invitación para participar: Se le invita a participar porque usted está inscrito en un curso donde los módulos del Centro de Educación de Geografía Global se están utilizando o desarrollando. Su participación va a permitir que el investigador evalúe la calidad de tanto el módulo de geografía como el proceso por cual la experiencia de aprendizaje toma lugar.

Lo que se le va a pedir en el estudio: Se le pedirá que complete una encuesta de aproximadamente 40 preguntas por Internet, para aportar información por escrito sobre su experiencia de aprendizaje y tal vez se le pida que usted participe en grupos de análisis o entrevistas. También su trabajo y comunicación con el modulo del Centro de Educación de Geografía Global se harán parte de los datos del investigador. Su participación sigue por la duración de su uso del módulo del Centro de Educación de Geografía Global, el cual es aproximadamente dos meses.

Confidencialidad: Su identidad se mantendrá confidencial hasta el punto que lo permite la ley. Su nombre no se utilizará en cualquier informe.

Riesgos y Beneficios: Los riesgos no son provistos con este estudio. Los beneficios incluyen la oportunidad para reflejar sobre el impacto que tienen los módulos del Centro de Educación de Geografía Global para avanzar su comprensión y fortalecer sus perspectivas.

Participación voluntaria: Su participación en este estudio es completamente voluntaria y su decisión para participar no impacta la calificación que usted recibe en este curso. No hay consecuencias negativas por elegir no participar. A cualquier tiempo, usted puede rehusar contestar cualquiera de las preguntas que le hago. No hay remuneración por su participación en este estudio.

Derecho de retirarse de este estudio: Usted tiene el derecho de retirarse de este estudio a cualquier tiempo sin consecuencias.

APPENDIX 4

STUDENT PRE-TRIAL SURVEY (ENGLISH)

Part 1. Consent Form Agreement

Agreement: I have read the consent form. I voluntarily agree to participate and I have received a printed copy of the consent form.

To agree, please check the appropriate boxes below and write your name and email address in the space provided.

☐ I agree to participate.

☐ I am 18 years old or older.

☐ I am younger than 18 years old. (Minors will not be asked to participate in this study).

Name: _____

Email address: _____

Part 2. Academic and Personal Information

In order to know more about students who use the CGGE modules, please answer the following questions.

1. What is your age?

☐ 17 or younger ☐ 18-22 ☐ 23-28 ☐ 29-39 ☐ 40 or older

2. What is your major? *(for example, political science or secondary education)*

_____

3. What degree are you currently working toward? *(check all that apply)*

☐ Bachelor of Arts (B.A.) ☐ Bachelor of Education (B.Ed.)

☐ Bachelor of Science (B.S.) ☐ Bachelor of Applied Science (B.A.S.)

☐ Other, please write: _____

4. What is your year of university-level study?

☐ First-year ☐ Second-year ☐ Third-year ☐ Fourth-year

☐ Other, please write: _____

5. How many languages can you read, write, and speak fluently? ☐ One ☐ Two ☐ Three or more

6. How many university-level geography courses have you successfully completed?

☐ None ☐ 1 ☐ 2-3 ☐ 4-6 ☐ 7 or more

7. What are your career goals? *(check all that apply)*

☐ I don't know
☐ Work in education (become a teacher or professor)
☐ Work in business or private industry
☐ Work for the government
☐ Serve in the military
☐ Work for a non-profit organization
☐ Work in another country
☐ Other, please write: _____

8. In which country were you born? _____

9. In which country do you currently live? _____

10. Which country do you consider to be your home country? _____

11. Have you traveled outside of your home country? ☐ Yes ☐ No

If yes, please indicate where you have traveled: _____

_____

12. Have you lived outside of your home country? ☐ Yes ☐ No

If yes, please indicate where you have lived and for how long: _____

_____

13. Are you **currently** an international exchange student or in a study abroad program? ☐ Yes ☐ No

If yes, please indicate the start and end dates of your program: _____

14. Have you ever studied outside your home country during high school or university study? ☐ Yes ☐ No

If yes, please indicate where and for how long you studied abroad: _____

_____

15. How familiar are you with the topic of *[CGGE Module Title]*?

- ☐ Very familiar, I have studied the topic in another class.
- ☐ Somewhat familiar, I have learned mostly from news or other types of media.
- ☐ Not at all familiar.
- ☐ Other, please write: _____

Part 3. Global-Mindedness Survey

Please read each statement and decide whether or not you agree with it. Circle the response that most accurately reflects your opinion. There are no "correct" answers.

1. I generally find it stimulating to spend an evening talking with people from another culture.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
3. The United States is enriched by the fact that it is comprised of many people from different cultures and countries.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
4. Really, there is nothing I can do about the problems of the world.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
5. The needs of the United States must continue to be our highest priority in negotiating with other countries.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
6. I often think about the kind of world we are creating for future generations.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
8. Americans can learn something of value from all different cultures.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree

10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
13. I enjoy trying to understand people's behavior in the context of their culture.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as the United States.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
16. American values are probably the best.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
17. In the long run, America will probably benefit from the fact that the world is becoming more interconnected.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
19. It is important that American universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
20. I think my behavior can impact people in other countries.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree

22. I feel a strong kinship with the worldwide human family.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
23. I feel very concerned about the lives of people who live in politically repressive regimes.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
24. It is important that we educate people to understand the impact that current policies might have on future generations.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
25. It is not really important to me to consider myself as a member of the global community.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
26. I sometimes try to imagine how a person who is always hungry must feel.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
27. I have very little in common with people in underdeveloped nations.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
28. I am able to affect what happens on a global level by what I do in my own community.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
30. Americans have a moral obligation to share their wealth with the less fortunate peoples of the world.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree

Part 4. Center for Global Geography Education Questions
In this section, you will be asked to briefly answer questions about the upcoming Center for Global Geography Education (CGGE) international collaboration. **Please respond honestly and thoughtfully. Do not leave any answers blank.**

1. What interests you the **most** about the CGGE module?

_____

_____

_____

_____

2. What interests you the **least** about the CGGE module?

3. What do you anticipate you will learn by working directly with your peers in [*country name]*?

4. Is there anything else you would like to share in regard to the Center for Global Geography Education (CGGE)?

5. Would you be willing to participate in an interview? ☐ Yes ☐ No

Thank you for participating in this research!

APPENDIX 5

STUDENT PRE-TRIAL SURVEY (CHINESE)

第1部分：同意表协议

未成年人: 如果你的年龄在18岁以下，你无须参加此次调查。

协议：我已阅读此协议书。我自愿参与此次调查并 **已收到协议书文本一份**。 你在本项目网站中也可下载此表：http://globalgeography.aag.org。

如果同意参加此次调查，请勾选下侧方框并在空白处填入你的姓名。

☐ 我同意参加

☐ 我已满18岁

姓名： _____

电子邮件： _____

第2部分：学术信息和个人信息

为了了解更多使用全球地理教育中心模块的学生，请你认真回答以下问题。

1. 你的年龄

☐ 未满18 ☐ 18-22 ☐ 23-28 ☐ 29-39 ☐ 40 及以上

2. 你的专业 *(例如,政治学或中等教育)*

_____

3. 你正在攻读的学位 *(多选)*

☐ 文学学士 (B.A.) ☐ 教育学学士 (B.Ed.)

☐ 理学学士 (B.S.) ☐ 应用科学学士 (B.A.S.)

☐ 其他，请填写: _____

4. 你现在就读大学几年级？

☐ 一年级 ☐ 二年级 ☐ 三年级 ☐ 四年级

☐ 其他，请填写： _____

5. 你所掌握的语言 ☐ 一种 ☐ 两种 ☐ 三种或以上

6. 您已修完多少个大学地理课程？

☐无 ☐1 ☐2-3 ☐4-6 ☐7或以上

7. 你的职业目标 *(多选)*

☐不知道
☐教育业 (成为教师或教授)
☐公司或私人企业
☐政府公务员
☐军队
☐非盈利机构
☐其他国家
☐其他，请填写: _____

8. 你出生的国家 _____

9. 你现在居住的国家 _____

10. 你的祖国_____

11. 是否曾出国旅行 ☐是 ☐否

如果是的话，请列出你去过的国家: _____

_____

12. 是否曾在外国居住 ☐是 ☐否

如果是的话，请列出你曾居住过的国家及时间: _____

_____

13. 你**目前**是否是国际交换学生或正在国外学习 ☐是 ☐否

如果是的话，请列出此项目开始和结束的日期: _____

14. 在高中和大学期间，你是否在国外学习 ☐是 ☐否

如果是的话，请列出你曾留学的国家和时间: _____

_____

15. 你对人口和自然资源的了解程度

☐非常熟悉，我曾研究过此论题

☐比较熟悉，我曾在新闻和其他媒体对此论题有所了解

☐一点儿也不熟悉

☐其他，请填写: _____

第3部分：全球意识调查
请阅读每句话，并确定您是否同意。选择最能准确反应您的观点的那句。没有“正确”答案。

1. 通常我都觉得与来自另一个文化的人夜谈很刺激。
非常不同意　不同意　不确定　同意　非常同意

2.当我看到我们的政府正在做我认为错误的事情时，我觉得有义务说出来。
非常不同意　不同意　不确定　同意　非常同意

3. 实际上很多来自不同文化和不同国家的人让中国变得更丰富。
非常不同意　不同意　不确定　同意　非常同意

4. 实际上对于全球问题，我无能为力。
非常不同意　不同意　不确定　同意　非常同意

5. 与其他国家谈判时，必须始终优先考虑中国的需求。
非常不同意　不同意　不确定　同意　非常同意

6. 我经常思考我们在为下一代创造什么样的世界。
非常不同意　不同意　不确定　同意　非常同意

7. 当我听到非洲国家成千上万的人处于饥饿时，我感到难过。
非常不同意　不同意　不确定　同意　非常同意

8. 中国人能从不同的文化学到有价值的东西。
非常不同意　不同意　不确定　同意　非常同意

9. 通常来说，个人力量太小，无法对生态系统产生重大影响。
非常不同意　不同意　不确定　同意　非常同意

10. 如果中国人能承担的生活水平对环境不会产生重大不利影响，就应该允许他们追求这样的生活。
非常不同意　不同意　不确定　同意　非常同意

11. 我觉得我自己不仅是我们国家的公民，也是全世界的公民。
非常不同意　不同意　不确定　同意　非常同意

12. 当我看到世界上一些人生活贫困时，我觉得自己有责任做些什么。
非常不同意　不同意　不确定　同意　非常同意

13. 我喜欢试图透过人们的文化背景来理解他们的行为。
非常不同意　不同意　不确定　同意　非常同意

14. 我对国家政策的观点是基于这些政策对中国和世界其他国家的影响。
非常不同意　不同意　不确定　同意　非常同意

15. 选择职业对我来说，最重要的是这个职业能让我对下一代的生活质量带来正面影响。
非常不同意　不同意　不确定　同意　非常同意

16. 中国人的价值观念可能是最好的。
非常不同意　不同意　不确定　同意　非常同意

17. 长远来说，世界的联系日益密切这个事实会让中国从中受益。
非常不同意　不同意　不确定　同意　非常同意

18. 孟加拉国的水灾夺去了50,000人的生命，这一事实让我感到悲痛。
非常不同意　不同意　不确定　同意　非常同意

19. 中国各大学和学院提供的课程旨在促进不同种族和文化背景的学生间的相互了解。
非常不同意　不同意　不确定　同意　非常同意

20. 我认为我的行为能影响其他国家的人。
非常不同意　不同意　不确定　同意　非常同意

21. 应保持当前世界的财富和资源分配，因为这样能促进适者生存。
非常不同意　不同意　不确定　同意　非常同意

22. 我觉得与全球人类家庭的关系十分密切。
非常不同意　不同意　不确定　同意　非常同意

23.我非常关心生活在政治压迫政体下的人们的生活。
非常不同意　不同意　不确定　同意　非常同意

24. 重要的是我们应教导人们理解现行政策对下一代的影响。
非常不同意　不同意　不确定　同意　非常同意

25. 将我自己视为全球社区的成员对我来说实际意义不大。
非常不同意　不同意　不确定　同意　非常同意

26. 有时候我会试图去想一个总是处于饥饿的人会有什么样的感觉。
非常不同意　　不同意　　不确定　　同意　　非常同意

27. 我与不发达国家的人没有什么共同点。
非常不同意　　不同意　　不确定　　同意　　非常同意

28. 我在我自己社区里所做的事情能影响全球所发生的事情。
非常不同意　　不同意　　不确定　　同意　　非常同意

29. 有时我会对其他国家的人感到生气，因为他们不理解我们这的做事方法。
非常不同意　　不同意　　不确定　　同意　　非常同意

30. 中国人在道德上有义务与世界上的贫苦人民分享他们的财富。
非常不同意　　不同意　　不确定　　同意　　非常同意

第4部分：全球地理教育中心的问题

在这一部分，请简要地回答几个关于即将到来的全球地理教育中心国际协作的问题。
请仔细思考后诚实作答，请不要留有空白。

1. 关于全球地理教育中心的人口与自然资源模块，你最感兴趣的是？

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

2. 全球地理教育中心的人口与自然资源模块中，你最不感兴趣的是？

3. 您希望从与美国同龄人直接共事中学到什么？

4. 关于全球地理教育中心（CGGE），您还有其他能分享的吗？

5. 您愿意参与简短访问吗？

十分感谢你的参与！

APPENDIX 6

STUDENT PRE-TRIAL SURVEY (SPANISH)

Parte 1. Formulario de Consentimiento

He leído el formulario de consentimiento anterior. Voluntariamente estoy de acuerdo en participar en el procedimiento y he impreso una copia del formulario de consentimiento. El formulario de consentimiento también va a estar disponible [wr1016@txstate.edu].

Marque con una "x" la respuesta apropiada en cada entrada y escriba su nombre y dirección email en el espacio provisto.

☐ Acepto este acuerdo.

☐ Tengo 18 años o más.

☐ Tengo 17 años o menos. (Si usted tiene 17 años de edad o menos, no se le pedirá participar en este estudio).

Nombre: _____

Correo electrónico: _____

Parte 2. Información Académica y Personal

Para saber más sobre los estudiantes que utilizan los módulos del Centro de Geografía Educacional Global (CGGE en sus siglas en inglés), conteste por favor a las preguntas siguientes.

1. ¿Cuál es su edad?

☐ 17 o menos ☐ 18-22 ☐ 23-28 ☐ 29-39 ☐ 40 o más

2. ¿Cuál es la carrera de estudio y área de interés principal y área de especialización secundaria?

_____

3. ¿Cuál es la especialidad a que se dedica? Por ejemplo, una especialidad o licenciatura, etcétera.

_____

4. Año del nivel en la universidad (por ejemplo, primer año):

_____

5. ¿Cuántas idiomas puede leer, escribir, y hablar? ☐ Uno ☐ Dos ☐ Tres o más

6. ¿Cuántos cursos a nivel universitario ha completado con éxito?

☐ Ninguno ☐ 1 ☐ 2-3 ☐ 4-6 ☐ Más de 7

7. ¿Cuales metas tiene para su carrera? (Marque todas las que aplican). Le gustaría:

- ☐ No sé
- ☐ Trabajar en educación (maestro, profesor)
- ☐ Trabajar en negocios o industria particular
- ☐ Trabajar en el gobierno
- ☐ Servicio en los militares
- ☐ Trabajar en una organización sin fines de lucro
- ☐ Trabajar en otro país
- ☐ Otra: _____

8. ¿En cuál país nació?_____

9. ¿En cuál país actualmente reside? _____

10. ¿Cuál país considera ser su país de residencia?_____

11. ¿Ha viajado fuera de su país de residencia? ☐ Sí ☐ No

Si es así, ¿dónde, cuándo, y porqué viajó fuera de su país de residencia?:
_____

_____

12. ¿Ha vivido fuera de su país de residencia? ☐ Sí ☐ No

Si es así, ¿dónde, cuándo y porqué vivió fuera de su país de residencia?: _____

_____

13. ¿Es usted actualmente un estudiante de intercambio internacional o en un programa de estudio en el exterior?

☐ Sí ☐ No

Si es afirmativo, indique las fechas de comienzo y de término de su programa: _____

_____

14. ¿Ha completado un programa de estudios en el extranjero durante sus estudios en el colegio o la universidad?

☐ Sí ☐ No

Si es así, ¿dónde, cuándo y porqué estudió en el extranjero?: _____

_____

15. ¿Cuál conocimiento anterior tenía sobre migración?

- ☐ Mucho, he estudiado el tema en otra clase.
- ☐ Un poco, he aprendido sobre todo de noticias o de otros tipos de medios.
- ☐ Nada.
- ☐ Otro: _____

Parte 3. Encuesta de Disposición Global

Por favor, lea cada frase y decida si está o no de acuerdo. Marque la respuesta que mejor refleje su opinión. No hay respuestas "correctas".

	Totalmente en desacuerdo	En desacuerdo	No seguro	De acuerdo	Totalmente de acuerdo
1. Me resulta generalmente estimulante pasar una tarde hablando con gente de otra cultura.					
2. Siento la obligación de hablar cuando veo a nuestro gobierno hacer algo que considero incorrecto.					
3. Chile se enriquece por el hecho de que se compone de muchas personas de diferentes culturas y países.					
4. Realmente, no hay nada que yo pueda hacer acerca de los problemas del mundo.					
5. Las necesidades de Chile deben seguir siendo nuestra más alta prioridad en las negociaciones con otros países.					
6. A menudo pienso en el tipo de mundo que estamos creando para las generaciones futuras.					
7. Cuando oigo que miles de personas se mueren de hambre en un país africano, me siento muy frustrado.					
8. Los chilenos pueden aprender algo de valor de todas las culturas diferentes.					

	Totalmente en desacuerdo	En desacuerdo	No seguro	De acuerdo	Totalmente de acuerdo
9. En general, las acciones de un individuo son demasiado pequeñas para tener un efecto significativo en el ecosistema.					
10. A los chilenos deberían permitírseles tener el nivel de vida que ellos pueden costear si sólo tiene un impacto ligeramente negativo en el medio ambiente.					
11. Pienso en mí mismo, no sólo como un ciudadano de mi país, sino también como ciudadano del mundo.					
12. Cuando veo las condiciones en que viven algunas personas en el mundo, siento la responsabilidad de hacer algo al respecto.					
13. Me gusta tratar de entender el comportamiento de las personas en el contexto de su cultura.					
14. Mis opiniones sobre las políticas nacionales se basan en cómo esas políticas pueden afectar tanto al resto del mundo como a Chile.					
15. Es muy importante para mí elegir una carrera en la que pueda tener un efecto positivo en la calidad de vida de las generaciones futuras.					
16. Los valores chilenos son probablemente mejores.					

	Totalmente en desacuerdo	En desacuerdo	No seguro	De acuerdo	Totalmente de acuerdo
17. A largo plazo, Chile probablemente se beneficiará del hecho de que el mundo está cada vez más interconectado.					
18. El hecho de que una inundación puede matar a 50.000 personas en Bangladesh es muy deprimente para mí.					
19. Es importante que las universidades de Chile ofrezcan programas diseñados a promover el entendimiento entre los estudiantes de diferentes orígenes étnicos y culturales.					
20. Creo que mi comportamiento puede afectar a las personas en otros países.					
21. La actual distribución de la riqueza y los recursos del mundo deben mantenerse, ya que promueve la supervivencia del más apto.					
22. Yo siento una fuerte relación familiar con el resto del mundo.					
23. Me siento muy preocupado por la vida de las personas que viven en los regímenes políticos represivos.					
24. Es importante que eduquemos a la gente a comprender el impacto que las políticas actuales podrían tener sobre las generaciones futuras.					

	Totalmente en desacuerdo	En desacuerdo	No seguro	De acuerdo	Totalmente de acuerdo
25. No es realmente importante para mí que me considere como un miembro de la comunidad mundial.					
26. A veces trato de imaginar cómo se debe sentir una persona que siempre tiene hambre.					
27. Tengo muy poco en común con la gente en las naciones subdesarrolladas.					
28. Yo soy capaz de influenciar en lo que sucede a nivel mundial por lo que hago en mi propia comunidad.					
29. A veces me siento irritado con personas de otros países, porque no entienden cómo hacemos las cosas aquí.					
30. Los chilenos tienen la obligación moral de compartir su riqueza con los pueblos menos afortunados del mundo.					

Parte 4. Preguntas del Centro de Educación Geográfica Global

En esta sección, le pedirán contestar brevemente a preguntas sobre la colaboración internacional próxima. **Responda por favor en forma honesta y cuidadosamente. No deje ningún espacio en blanco en las respuestas.**

1. ¿Qué le interesa más sobre el módulo de *Migración*?

_____

_____

_____

_____

_____

2. ¿Qué le interesa menos sobre el módulo de *Migración*?

3. ¿Qué espera aprender al trabajar directamente con compañeros en los Estados Unidos?

4. ¿Hay algo más que le gustaría compartir acerca del proyecto internacional del Centro de Educación Geográfica Global (CGGE)?

5. ¿Estarías dispuesto a participar en una entrevista de quince minutos por Skype? ☐ Sí ☐ No

¡Gracias por participar en esta investigación!

APPENDIX 7

STUDENT POST-TRIAL SURVEY (ENGLISH)

Project Title: Evaluating the Center for Global Geography Education Modules

Researcher: Waverly C. Ray (waverly@txstate.edu), PhD Candidate, Texas State University-San Marcos

Please check the box below to reconfirm your agreement to participate in this research.

☐ I reconfirm my agreement to participate.

1. Name*: _____

2. Email address or CGGE log-in*: _____

* Your name, email address and CGGE log-in will be kept completely confidential and will be removed from the survey analysis and reporting. This information is requested so that the pre-tests and post-tests can be matched.

3. What grade do you anticipate you will earn in this geography class?

☐ A ☐ B ☐ C ☐ D ☐ F

4. What is your overall grade point average (GPA)?

☐ 4.0 ☐ 3.5-3.9 ☐ 3.0-3.4 ☐ 2.5-2.9 ☐ 2.0-2.4 ☐ 1.5-1.9 ☐ 1.4 or less

5. How would you rate your interest level in geography?

☐ Very Interested ☐ Somewhat Interested ☐ Indifferent/Neutral ☐ Not Interested

6. As a result of the CGGE international collaboration, are you more interested, indifferent/neutral, or less interested in the following activities?

Travel to foreign countries:	☐ More Interested	☐ Indifferent/Neutral	☐ Less Interested
Study abroad:	☐ More Interested	☐ Indifferent/Neutral	☐ Less Interested
Work in a foreign country:	☐ More Interested	☐ Indifferent/Neutral	☐ Less Interested
Learn a foreign language:	☐ More Interested	☐ Indifferent/Neutral	☐ Less Interested
Read/watch international news:	☐ More Interested	☐ Indifferent/Neutral	☐ Less Interested
Talk with others from diverse backgrounds:	☐ More Interested	☐ Indifferent/Neutral	☐ Less Interested

Global-Mindedness Survey, Post-Collaboration

Please read each statement and decide whether or not you agree with it. Circle the response that most accurately reflects your opinion. There are no "correct" answers.

1. I generally find it stimulating to spend an evening talking with people from another culture.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
3. The United States is enriched by the fact that it is comprised of many people from different cultures and countries.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
4. Really, there is nothing I can do about the problems of the world.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
5. The needs of the United States must continue to be our highest priority in negotiating with other countries.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
6. I often think about the kind of world we are creating for future generations.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
8. Americans can learn something of value from all different cultures.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree

12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
13. I enjoy trying to understand people's behavior in the context of their culture.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as the United States.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
16. American values are probably the best.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
17. In the long run, America will probably benefit from the fact that the world is becoming more interconnected.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
19. It is important that American universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
20. I think my behavior can impact people in other countries.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
22. I feel a strong kinship with the worldwide human family.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
23. I feel very concerned about the lives of people who live in politically repressive regimes.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree

24. It is important that we educate people to understand the impact that current policies might have on future generations.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
25. It is not really important to me to consider myself as a member of the global community.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
26. I sometimes try to imagine how a person who is always hungry must feel.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
27. I have very little in common with people in underdeveloped nations.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
28. I am able to affect what happens on a global level by what I do in my own community.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
30. Americans have a moral obligation to share their wealth with the less fortunate peoples of the world.	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree

---

1. What interested you the **most** about the CGGE module?

_____

_____

_____

_____

2. What interested you the **least** about the CGGE module?

_____

_____

_____

_____

3. What suggestions do you have for improving the module for students who may use it in the future?

4. Did working with the *[Chinese or Chilean]* students meet your expectations? Please explain.

5. What did you learn, if anything, from working with the *[Chinese or Chilean]* students?

6. What did you learn, if anything, from working with your team members at your university?

_____

_____

_____

_____

_____

_____

_____

7. Is there anything else you would like to share in regard to the Center for Global Geography Education (CGGE)?

_____

_____

_____

_____

_____

_____

8. Hett (1993, 89) defines global-mindedness as "a worldview in which one sees oneself as connected to the world community and feels a sense of responsibility to its members". Hett developed the 30 question survey to measure global-mindedness.

Do you think your global-mindedness changed as a result of the CGGE international collaboration?

☐ Yes ☐ No ☐ I don't know

Please explain your response in the space below.

_____

_____

_____

_____

_____

APPENDIX 8

STUDENT POST-TRIAL SURVEY (CHINESE)

项目名称：全球地理教育中心模块评估

研究员: Waverly C. Ray (waverly@txstate.edu), 博士生, Texas State University-San Marcos

请勾选下面的复选框, 再次确认您同意参与本研究。

☐ 我确认同意参与。

1、 姓名*: _____

2、电子邮件地址或CGGE账户登录*: _____

* 你的名字和电子邮件地址将完全保密, 并会在调查分析和报告中删除。
此信息是为了将前测和后测人员匹配。

3、你认为自己对地理的兴趣程度如何?

☐非常感兴趣 ☐感兴趣 ☐中立 ☐ 不感兴趣

4、在经过了CGGE国际合作学习之后 你对如下活动的兴趣程度如何、是更感兴趣、中立、还是更不感兴趣了?

到外国旅行:	☐更感兴趣	☐中立	☐更不感兴趣
在国外学习:	☐更感兴趣	☐中立	☐更不感兴趣
在国外工作:	☐更感兴趣	☐中立	☐更不感兴趣
学习一门外语:	☐更感兴趣	☐中立	☐更不感兴趣
收看国际新闻:	☐更感兴趣	☐中立	☐更不感兴趣
与来自不同背景的人交谈:	☐更感兴趣	☐中立	☐更不感兴趣

全球意识调查, **后协作**

请阅读每句话, 并确定您是否同意。选择最能准确反应您的观点的那句。没有"正确"答案。

1、通常我都觉得与来自另一个文化的人夜谈很刺激。
非常不同意 不同意 不确定 同意 非常同意

2、当我看到我们的政府正在做我认为错误的事情时，我觉得有义务说出来。
非常不同意 不同意 不确定 同意 非常同意

3、实际上很多来自不同文化和不同国家的人让中国变得更丰富。
非常不同意 不同意 不确定 同意 非常同意

4、实际上对于全球问题，我无能为力。
非常不同意　　不同意　　不确定　　同意　　非常同意

5、与其他国家谈判时，必须始终优先考虑中国的需求。
非常不同意　　不同意　　不确定　　同意　　非常同意

6、我经常思考我们在为下一代创造什么样的世界。
非常不同意　　不同意　　不确定　　同意　　非常同意

7、当我听到非洲国家成千上万的人处于饥饿时，我感到难过。
非常不同意　　不同意　　不确定　　同意　　非常同意

8、中国人能从不同的文化学到有价值的东西。
非常不同意　　不同意　　不确定　　同意　　非常同意

9、通常来说，个人力量太小，无法对生态系统产生重大影响。
非常不同意　　不同意　　不确定　　同意　　非常同意

10、如果中国人能承担的生活水平对环境不会产生重大不利影响，就应该允许他们追求这样的生活。
非常不同意　　不同意　　不确定　　同意　　非常同意

11、我觉得我自己不仅是我们国家的公民，也是全世界的公民。
非常不同意　　不同意　　不确定　　同意　　非常同意

12、当我看到世界上一些人生活贫困时，我觉得自己有责任做些什么。
非常不同意　　不同意　　不确定　　同意　　非常同意

13、我喜欢试图透过人们的文化背景来理解他们的行为。
非常不同意　　不同意　　不确定　　同意　　非常同意

14、我对国家政策的观点是基于这些政策对中国和世界其他国家的影响。
非常不同意　　不同意　　不确定　　同意　　非常同意

15、选择职业对我来说，最重要的是这个职业能让我对下一代的生活质量带来正面影响。
非常不同意　　不同意　　不确定　　同意　　非常同意

16、中国人的价值观念可能是最好的。
非常不同意　　不同意　　不确定　　同意　　非常同意

17、长远来说，世界的联系日益密切这个事实会让中国从中受益。
非常不同意　　不同意　　不确定　　同意　　非常同意

18、孟加拉国的水灾夺去了50,000人的生命，这一事实让我感到悲痛。
非常不同意　　不同意　　不确定　　同意　　非常同意

19、中国各大学和学院提供的课程旨在促进不同种族和文化背景的学生间的相互了解。
非常不同意　不同意　不确定　同意　非常同意

20、我认为我的行为能影响其他国家的人。
非常不同意　不同意　不确定　同意　非常同意

21、应保持当前世界的财富和资源分配，因为这样能促进适者生存。
非常不同意　不同意　不确定　同意　非常同意

22、我觉得与全球人类家庭的关系十分密切。
非常不同意　不同意　不确定　同意　非常同意

23、我非常关心生活在政治压迫政体下的人们的生活。
非常不同意　不同意　不确定　同意　非常同意

24、重要的是我们应教导人们理解现行政策对下一代的影响。
非常不同意　不同意　不确定　同意　非常同意

25、将我自己视为全球社区的成员对我来说实际意义不大。
非常不同意　不同意　不确定　同意　非常同意

26、有时候我会试图去想一个总是处于饥饿的人会有什么样的感觉。
非常不同意　不同意　不确定　同意　非常同意

27、我与不发达国家的人没有什么共同点。
非常不同意　不同意　不确定　同意　非常同意

28、我在我自己社区里所做的事情能影响全球所发生的事情。
非常不同意　不同意　不确定　同意　非常同意

29、有时我会对其他国家的人感到生气，因为他们不理解我们这的做事方法。
非常不同意　不同意　不确定　同意　非常同意

30、中国人在道德上有义务与世界上的贫苦人民分享他们的财富。
非常不同意　不同意　不确定　同意　非常同意

1、CGGE的人口与自然资源模块中最吸引你的是什么？

_____

_____

_____

_____

2、CGGE的人口与自然资源模**块**中你最不感兴趣的是哪些部分?

3、为了方便将来可能会用到它的学生们, 要改善人口与自然资源模**块**, 你有什么建议?

4、和美国学生的合作是否达到了你的期望? 请给出解释。

5、通**过**和美国学生的合作, 你有什么收**获**?

6、通过和你的北师大小组成员的合作, 你有什么收获?

7、关于全球地理教育中心 (CGGE), 你还有其他感受要分享吗?

8、赫特 (Hett, 1993, 89) 把全球意识定义为"一种认为自己和国际社会相连, 并对其成员负有责任感的世界观"。赫特制定了以上的包含30个问题的调查, 以衡量全球意识。

通过CGGE国际合作, 你觉得自己的全球意识改变了吗?
☐ 是的 ☐ 没有 ☐ 不清楚

请在下面的空白中解释你的答案。

APPENDIX 9

STUDENT POST-TRIAL SURVEY (SPANISH)

Título del Proyecto: Evaluar los Módulos del Centro de Educación de Geografía Global

Investigadora: Waverly C. Ray (waverly@txstate.edu), PhD Candidate, Texas State University-San Marcos

Por favor, marque la casilla de abajo para confirmar su acuerdo para participar en esta investigación.

☐ Confirmo que estoy de acuerdo en participar.

1. Nombre*: _____

2. Email o CGGE username*: _____

* Su nombre, email, y CGGE username se mantendrán en estricta confidencialidad y se eliminará a partir del análisis de encuestas y de informes. Esta información se solicita para que los pre-tests y las pruebas posteriores se pueden emparejar.

3. ¿Qué nota usted anticipa que va a obtener en su clase de geografía social?

☐ 1.0-3.9 ☐ 4.0-4.9 ☐ 5.0-5.9 ☐ 6.0-7.0

4. ¿Cuál es su promedio general de calificaciones?

☐ 1.0-3.9 ☐ 4.0-4.9 ☐ 5.0-5.9 ☐ 6.0-7.0

5. ¿Cómo calificaría su nivel de interés en la geografía?

☐ Muy interesado ☐ Algo interesado ☐ Indiferente/Neutral ☐ Nada interesado

6. ¿Como resultado de la colaboración internacional, usted está más interesados, indiferente / neutral, o menos interesados en las siguientes actividades?

Viajes a otros países:	☐ Más interesados	☐ Indiferente/Neutral	☐ Menos interesados
Estudiar en el extranjero:	☐ Más interesados	☐ Indiferente/Neutral	☐ Menos interesados
El trabajo en un país extranjero:	☐ Más interesados	☐ Indiferente/Neutral	☐ Menos interesados
Aprender un idioma extranjero:	☐ Más interesados	☐ Indiferente/Neutral	☐ Menos interesados
Leer/ver noticias internacionales:	☐ Más interesados	☐ Indiferente/Neutral	☐ Menos interesados
Hable con otras personas de diversos orígenes:	☐ Más interesados	☐ Indiferente/Neutral	☐ Menos interesados

Encuesta de Disposición Global, después de la colaboración

Por favor, lea cada frase y decida si está o no de acuerdo. Marque la respuesta que mejor refleje su opinión. No hay respuestas "correctas".

	Totalmente en desacuerdo	En desacuerdo	No seguro	De acuerdo	Totalmente de acuerdo
1. Me resulta generalmente estimulante pasar una tarde hablando con gente de otra cultura.					
2. Siento la obligación de hablar cuando veo a nuestro gobierno hacer algo que considero incorrecto.					
3. Chile se enriquece por el hecho de que se compone de muchas personas de diferentes culturas y países.					
4. Realmente, no hay nada que yo pueda hacer acerca de los problemas del mundo.					
5. Las necesidades de Chile deben seguir siendo nuestra más alta prioridad en las negociaciones con otros países.					
6. A menudo pienso en el tipo de mundo que estamos creando para las generaciones futuras.					
7. Cuando oigo que miles de personas se mueren de hambre en un país africano, me siento muy frustrado.					
8. Los chilenos pueden aprender algo de valor de todas las culturas diferentes.					

	Totalmente en desacuerdo	En desacuerdo	No seguro	De acuerdo	Totalmente de acuerdo
9. En general, las acciones de un individuo son demasiado pequeñas para tener un efecto significativo en el ecosistema.					
10. A los chilenos deberían permitírseles tener el nivel de vida que ellos pueden costear si sólo tiene un impacto ligeramente negativo en el medio ambiente.					
11. Pienso en mí mismo, no sólo como un ciudadano de mi país, sino también como ciudadano del mundo.					
12. Cuando veo las condiciones en que viven algunas personas en el mundo, siento la responsabilidad de hacer algo al respecto.					
13. Me gusta tratar de entender el comportamiento de las personas en el contexto de su cultura.					
14. Mis opiniones sobre las políticas nacionales se basan en cómo esas políticas pueden afectar tanto al resto del mundo como a Chile.					
15. Es muy importante para mí elegir una carrera en la que pueda tener un efecto positivo en la calidad de vida de las generaciones futuras.					

	Totalmente en desacuerdo	En desacuerdo	No seguro	De acuerdo	Totalmente de acuerdo
16. Los valores chilenos son probablemente mejores.					
17. A largo plazo, Chile probablemente se beneficiará del hecho de que el mundo está cada vez más interconectado.					
18. El hecho de que una inundación puede matar a 50.000 personas en Bangladesh es muy deprimente para mí.					
19. Es importante que las universidades de Chile ofrezcan programas diseñados a promover el entendimiento entre los estudiantes de diferentes orígenes étnicos y culturales.					
20. Creo que mi comportamiento puede afectar a las personas en otros países.					
21. La actual distribución de la riqueza y los recursos del mundo deben mantenerse, ya que promueve la supervivencia del más apto.					
22. Yo siento una fuerte relación familiar con el resto del mundo.					
23. Me siento muy preocupado por la vida de las personas que viven en los regímenes políticos represivos.					

	Totalmente en desacuerdo	En desacuerdo	No seguro	De acuerdo	Totalmente de acuerdo
24. Es importante que eduquemos a la gente a comprender el impacto que las políticas actuales podrían tener sobre las generaciones futuras.					
25. No es realmente importante para mí que me considere como un miembro de la comunidad mundial.					
26. A veces trato de imaginar cómo se debe sentir una persona que siempre tiene hambre.					
27. Tengo muy poco en común con la gente en las naciones subdesarrolladas.					
28. Yo soy capaz de influenciar en lo que sucede a nivel mundial por lo que hago en mi propia comunidad.					
29. A veces me siento irritado con personas de otros países, porque no entienden cómo hacemos las cosas aquí.					
30. Los chilenos tienen la obligación moral de compartir su riqueza con los pueblos menos afortunados del mundo.					

Preguntas del Centro de Educación Geográfica Global

En esta sección, le pedirán contestar brevemente a preguntas sobre la colaboración internacional. **Responda por favor en forma honesta y cuidadosamente. No deje ningún espacio en blanco en las respuestas.**

1. ¿Qué le interesa **más** sobre el módulo de *Migración*?

2. ¿Qué le interesa **menos** sobre el módulo de *Migración*?

3. ¿Qué sugerencias tiene para mejorar el módulo de *Migración* para los estudiantes que podrán utilizarlo en el futuro?

4. ¿Se trabaja con los estudiantes en los Estados Unidos cumple con sus expectativas? Por favor, explique.

5. ¿Qué has aprendido, en todo caso, al trabajar con los estudiantes en los Estados Unidos?

_____

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6. ¿Qué has aprendido, en todo caso, al trabajar con los miembros de su equipo en la ULS?

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7. ¿Hay algo más que le gustaría compartir acerca del proyecto internacional del Centro de Educación Geográfica Global (CGGE)?

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8. Hett (1993) define una disposición global como una visión del mundo en el que se ve a sí mismo como vinculado a la comunidad mundial y se siente un sentido de responsabilidad a sus miembros. Hett desarrolló la encuesta anterior para medir disposición global.

¿Cree que su disposición global cambiado como resultado de la colaboración internacional?

☐ Sí ☐ No ☐ No sé

Por favor explique su respuesta en el espacio de abajo.

_____

_____

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_____

¡Gracias por participar en esta investigación!

APPENDIX 10

FACTOR ANALYSIS FOR U.S. COMPARISON CLASSES

	Component					
	1	**2**	**3**	**4**	**5**	**6**
1. I generally find it stimulating to spend an evening talking with people from another culture.	.710	.084	.139	.051	.190	-.161
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	.060	-.017	.166	.193	.789	.023
3. The [country of residence] is enriched by the fact that it is comprised of many people from different cultures and countries.	.578	.047	.190	.186	-.043	-.104
4. Really, there is nothing I can do about the problems of the world.	.091	.178	.110	.716	.148	-.027
5. The needs of the [country of residence] must continue to be our highest priority in negotiating with other countries.	.124	.181	.637	.094	.083	-.130
6. I often think about the kind of world we are creating for future generations.	.228	.243	.009	.193	.329	.601
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	.146	.755	.173	.187	-.012	.060
8. [People in country of residence] can learn something of value from all different cultures.	.677	.206	.155	.233	-.015	.140
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.	.120	.105	.292	.729	.028	.102
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	.019	.167	.634	.073	-.113	.270
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	.461	.352	.135	.134	.414	.280
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	.223	.680	.177	.313	.220	-.097
13. I enjoy trying to understand people's behavior in the context of their culture.	.689	.219	.160	.119	.119	-.003
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as [country of residence].	.366	.381	.047	.107	.341	-.037
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	.345	.349	-.074	.382	-.026	.216

	Component					
	1	**2**	**3**	**4**	**5**	**6**
16. [Country of residence's] values are probably the best.	.307	-.055	.603	.009	.134	.237
17. In the long run, [country of residence] will probably benefit from the fact that the world is becoming more interconnected.	.241	.239	-.047	.192	.125	-.578
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	.194	.706	.065	.144	-.061	-.025
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	.697	.325	.217	.156	-.078	-.041
20. I think my behavior can impact people in other countries.	.317	.265	.042	.562	.172	-.056
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.	.081	.168	.723	.103	.145	-.030
22. I feel a strong kinship with the worldwide human family.	.426	.405	.061	.032	.347	.063
23. I feel very concerned about the lives of people who live in politically repressive regimes.	.408	.581	.088	.186	.242	-.130
24. It is important that we educate people to understand the impact that current policies might have on future generations.	.596	.170	.114	.216	.163	.184
25. It is not really important to me to consider myself as a member of the global community.	.404	.227	.219	.195	.111	.272
26. I sometimes try to imagine how a person who is always hungry must feel.	.088	.586	.078	.255	-.072	.263
27. I have very little in common with people in underdeveloped nations.	.287	.057	.404	.370	.056	.042
28. I am able to affect what happens on a global level by what I do in my own community.	.230	.282	-.006	.615	.073	-.057
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.	.344	.112	.596	.078	.053	-.128
30. [People in country of residence] have a moral obligation to share their wealth with the less fortunate peoples of the world.	.120	.638	.263	.056	.115	-.058

APPENDIX 11

FACTOR ANALYSIS FOR CASE STUDIES

	Component			
	1	**2**	**3**	**4**
1. I generally find it stimulating to spend an evening talking with people from another culture.	.638	.335	.413	.232
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	.552	.475	.333	.175
3. The [country of residence] is enriched by the fact that it is comprised of many people from different cultures and countries.	.240	.118	.631	.474
4. Really, there is nothing I can do about the problems of the world.	.590	.224	.505	.031
5. The needs of the [country of residence] must continue to be our highest priority in negotiating with other countries.	-.068	.235	.241	.753
6. I often think about the kind of world we are creating for future generations.	.727	.323	.249	.242
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	.376	.691	.233	.280
8. [People in country of residence] can learn something of value from all different cultures.	.551	.303	.421	.453
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.	.540	.327	.388	.168
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	.626	.314	.085	.179
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	.503	.390	.478	.286
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	.377	.739	.319	.094
13. I enjoy trying to understand people's behavior in the context of their culture.	.621	.406	.404	.236
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as [country of residence].	.566	.284	.410	.161
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	.715	.249	.274	.080
16. [Country of residence's] values are probably the best.	.530	.091	.104	.700

	Component			
	1	**2**	**3**	**4**
17. In the long run, [country of residence] will probably benefit from the fact that the world is becoming more interconnected.	.170	.290	.718	.164
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	.326	.693	.323	.159
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	.690	.356	.319	.230
20. I think my behavior can impact people in other countries.	.516	.195	.601	.125
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.	.549	.585	.040	.272
22. I feel a strong kinship with the worldwide human family.	.336	.440	.612	.094
23. I feel very concerned about the lives of people who live in politically repressive regimes.	.550	.586	.269	.180
24. It is important that we educate people to understand the impact that current policies might have on future generations.	.752	.322	.343	.221
25. It is not really important to me to consider myself as a member of the global community.	.514	.356	.415	.123
26. I sometimes try to imagine how a person who is always hungry must feel.	.504	.624	.222	-.069
27. I have very little in common with people in underdeveloped nations.	.168	.509	.477	.213
28. I am able to affect what happens on a global level by what I do in my own community.	.382	.344	.566	.120
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.	.446	.131	.093	.627
30. [People in country of residence] have a moral obligation to share their wealth with the less fortunate peoples of the world.	.180	.740	.293	.218

APPENDIX 12

FACTOR ANALYSIS FOR INTERNATIONAL COMPARISON CLASSES

	Component								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1. I generally find it stimulating to spend an evening talking with people from another culture.	.609	-.185	-.057	.057	-.004	.051	-.032	.040	-.050
2. I feel an obligation to speak out when I see our government doing something I consider wrong.	.541	-.222	.204	.038	.425	-.184	.035	.240	.105
3. The [country of residence] is enriched by the fact that it is comprised of many people from different cultures and countries.	.063	.334	.276	.441	-.002	.241	-.136	-.051	-.517
4. Really, there is nothing I can do about the problems of the world.	.418	-.088	.439	-.083	-.296	.262	.236	-.201	-.061
5. The needs of the [country of residence] must continue to be our highest priority in negotiating with other countries.	-.267	.254	.317	.393	.090	.129	.329	.037	.370
6. I often think about the kind of world we are creating for future generations.	.572	-.201	-.167	-.185	-.105	.144	.122	.007	.080
7. When I hear that thousands of people are starving in an African country, I feel very frustrated.	.395	.261	-.143	.204	-.444	-.039	.140	.453	.049

	Component								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
8. [People in country of residence] can learn something of value from all different cultures.	.403	-.053	.240	.339	-.108	.446	-.168	.371	.044
9. Generally, an individual's actions are too small to have a significant effect on the ecosystem.	.345	-.021	.636	-.098	-.246	-.168	-.094	-.014	.044
10. Americans should be permitted to pursue the standard of living they can afford if it only has a slight negative impact on the environment.	.478	-.269	.248	.061	-.175	-.010	-.498	.055	-.063
11. I think of myself, not only as a citizen of my country, but also as a citizen of the world.	.437	.328	.052	-.046	.468	.228	-.227	.048	.200
12. When I see the conditions some people in the world live under, I feel a responsibility to do something about it.	.502	.421	-.210	.013	.096	.130	-.311	-.005	.168
13. I enjoy trying to understand people's behavior in the context of their culture.	.656	-.021	-.212	-.101	.064	-.006	-.089	-.200	.046
14. My opinions about national policies are based on how those policies might affect the rest of the world as well as [country of residence].	.406	.023	-.212	-.463	.134	.094	-.165	.164	-.211
15. It is very important to me to choose a career in which I can have a positive effect on the quality of life for future generations.	.620	-.309	-.148	-.149	.016	.256	.112	-.041	-.083
16. [Country of residence's] values are probably the best.	.143	-.306	.013	.606	.151	-.004	-.075	-.159	.265
17. In the long run, [country of residence] will probably benefit from the fact that the world is becoming more interconnected.	.087	.476	-.041	-.068	.291	.350	.290	.194	-.184

	Component								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
18. The fact that a flood can kill 50,000 people in Bangladesh is very depressing to me.	.227	.505	-.373	.148	-.119	-.274	-.075	.244	-.076
19. It is important that [country of residence's] universities and colleges provide programs designed to promote understanding among students of different ethnic and cultural backgrounds.	.704	-.258	-.026	.162	-.102	-.070	.024	.081	-.122
20. I think my behavior can impact people in other countries.	.495	.308	.291	-.117	-.041	-.177	.156	-.050	-.164
21. The present distribution of the world's wealth and resources should be maintained because it promotes survival of the fittest.	.608	-.274	.012	.065	.142	-.185	.170	.082	-.008
22. I feel a strong kinship with the worldwide human family.	.409	.352	.209	-.093	.022	.176	-.151	-.486	.102
23. I feel very concerned about the lives of people who live in politically repressive regimes.	.567	.238	-.045	-.027	.007	-.102	.186	-.103	.294
24. It is important that we educate people to understand the impact that current policies might have on future generations.	.669	-.326	-.177	-.115	.134	.094	.114	-.042	.033
25. It is not really important to me to consider myself as a member of the global community.	.192	.181	.477	-.359	.109	-.224	-.020	.322	.235
26. I sometimes try to imagine how a person who is always hungry must feel.	.516	.239	-.172	.004	-.452	-.159	-.136	-.127	.188
27. I have very little in common with people in underdeveloped nations.	.278	.263	.098	.278	.319	-.461	-.150	-.147	-.240

	Component								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
28. I am able to affect what happens on a global level by what I do in my own community.	.581	.148	.156	-.064	.043	-.156	.390	-.115	-.242
29. I sometimes feel irritated with people from other countries because they don't understand how we do things here.	.417	-.242	-.223	.533	.088	-.093	.146	-.046	-.075
30. [People in country of residence] have a moral obligation to share their wealth with the less fortunate peoples of the world.	.313	.425	-.296	.112	-.146	.076	.119	-.173	.099

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