

**EFFECTS OF THE PHOTO NARRATIVE PROCESS ON STUDENTS'
INTERCULTURAL LEARNING IN AGRICULTURE**

An Undergraduate Research Thesis

by

EMILY BOST

Submitted to Honors and Undergraduate Research
Texas A&M University
In partial fulfillment of the requirements for the designation as an

UNDERGRADUATE RESEARCH SCHOLAR

Approved by Research Advisor:

Dr. Gary Wingenbach

May 2018

Major: Journalism Studies

TABLE OF CONTENTS

	Page
ABSTRACT.....	1
DEDICATION.....	3
ACKNOWLEDGMENTS	4
NOMENCLATURE	5
LIST OF FIGURES	6
LIST OF TABLES.....	7
CHAPTER	
I. INTRODUCTION	8
II. REVIEW OF LITERATURE.....	10
Culture in an Agricultural Context	10
Bennet’s Developmental Model of Intercultural Sensitivity	11
Photovoice.....	17
Photo Narrative Process and Culture	19
III. METHODS	22
Purpose.....	22
Design	22
Participant Characteristics	23
Instrumentation	23
Data Collection Procedures.....	29
Data Analyses	32
IV. FINDINGS.....	36
Research Objective One.....	36
Research Objective Two.....	41
Research Objective Three.....	45
V. DISCUSSION AND SUMMARY.....	53

Educational Value of Findings.....	55
Future Research	56
Limitations	60
REFERENCES	63
APPENDIX A: HUMAN SUBJECTS APPROVAL FORM.....	68
APPENDIX B: PHOTO NARRATIVE ASSIGNMENT DESCRIPTIONS AND INSTRUCTIONS.....	71

ABSTRACT

Effects of the Photo Narrative Process on Students' Intercultural Learning in Agriculture

Emily Bost
Department of Liberal Arts
Texas A&M University

Research Advisor: Dr. Gary Wingenbach
Department of Agricultural Leadership, Education and Communications
Texas A&M University

Cultural heritage describes our way of life. It comes from previous generational traditions and incorporates our current constructed and natural environments, and tangible artifacts. The purpose of this study was to explore effects of the photo narrative process on students' intercultural learning in agriculture. The photo narrative process, derived from Photovoice, combines photography and narrative expression about artifacts important to one's way of life. Photo narrative assignments were developed for students to capture facets of their own cultural heritage, and their host country nationals' cultural heritage, while participating on three separate study abroad programs. Archival data was collected from students' photo narratives (i.e., course assignments to illustrate one's cultural heritage via photo and text) in three agricultural study abroad programs. Kress and van Leeuwen's (2001) concept of visual social semiotics was used to analyze qualitative data, and Bennett's (1986) Developmental Model of Intercultural Sensitivity was used to measure students' levels of intercultural competence. The results showed participants experienced frame shifts (i.e., perspective change in worldviews) from ethnocentrism to ethnorelativism, as evidenced in the rhetoric of their photo narrative artifacts after participating in the photo narrative process. The photo narrative process is a valuable

educational technique to change participants' intercultural competence. Consistent with young people's preferred communication methods (i.e., social media), the combination of image and text empowers learners through expressive communication and reflection.

DEDICATION

I dedicate this thesis to my sweet family – Mama, Dad, Ellie, Pa, and Grandma – and to my close friends. You all mean the world to me. Thank you for pushing me and encouraging me to work hard. If it were not for the unwavering support, love, and wisdom that you all have poured into me throughout my every endeavor, I would not be where I am or who I am today. I am endlessly grateful for all of you.

ACKNOWLEDGEMENTS

I would like to acknowledge my research advisor, Dr. Gary Wingenbach, for being a constant source of knowledge, growth, and support to me since the first class I took from him. Thank you for introducing me to this project and guiding me along every step of the way. Thank you for your countless hours of help, and for continuously expressing hope, belief, and encouragement in my abilities. Because of this support, I began to adopt the same sense of belief in myself. Thank you for this confidence.

I would also like to recognize and thank Texas A&M University, the College of Agriculture and Life Sciences, and the Undergraduate Research Scholars Program for giving me the opportunity to conduct undergraduate research, along with many other valuable experiences that have made my undergraduate career so enriching.

NOMENCLATURE

DMIS	Developmental Model of Intercultural Sensitivity
PN	Photo Narrative

LIST OF FIGURES

	Page
Figure 1. Bennett’s (1993) Model of Cultural Competency; adapted from “A developmental approach to training for intercultural sensitivity,” by M. J. Bennett, 1986.	16
Figure 2. Manifest vs. latent content coded among all PN artifacts.	32
Figure 3. Frequencies of Bennett’s (1986) DMIS stages in PN 1 artifacts.....	37
Figure 4. Frequencies of Bennett’s (1986) DMIS stages in PN 2 artifacts.....	41
Figure 5. Cultural themes found in PN artifacts.	45
Figure 6. Changes in frequencies of Bennett’s (1986) DMIS stages for PN artifacts across study abroad programs in Namibia and Costa Rica (2016-2017).	47
Figure 7. Students’ processes of study and experience during short-term study abroad programs in Namibia and Costa Rica (2016-2017).	49

LIST OF TABLES

	Page
Table 1 Photo Narrative Assignment Descriptions and Instructions	27
Table 2 Frequencies of Coded Photo Narrative Artifacts	30
Table 3 Ethnocentric Rhetoric from PN 1 Artifacts	39
Table 4 Ethnorelative Rhetoric from PN 2 Artifacts	43
Table 5 Frequencies of Bennett's (1986) DMIS Stages by PN Artifacts	52
Table 6 Percent of U.S. Adults Who Use Social Media Platform	54

CHAPTER I

INTRODUCTION

Current university students write fewer formal research papers, reports, and essays in today's classrooms, but they are proficient users of social media platforms. Equally notable are students' expectations of "instant" answers via Google searches, as opposed to examining lengthy scientific research articles. In essence, sometimes the first plausible answer found in such attention deficit searches is accepted as the definitive truth, because thorough reviews of literature are bygone skills in the digital age. Have these tendencies changed students' methods of understanding new concepts? Have current university students' views of research (i.e., information search strategies, deductive logic, etc.) influenced how they view themselves, their sense of place, and their perceptions of culture heritage? Does communication with combined effects (i.e., photograph and text) change students' views about intercultural learning?

Today, the combination of personal photographs and short narratives depicting cultural heritage flood Facebook, Instagram, and Twitter news feeds. Given students' proclivities for using digital photography and truncated narratives to describe their daily existence, an updated method is needed to capture best students' descriptions and understandings of their cultural heritage. The internet has bred a global environment (Fabregas-Janeiro, 2011) and a "cooperative coexistence" (Heinzmann, Kunzle, Schallhart, & Muller, 2015, p. 187) in which cultural pluralism is a norm (Chen, 2008). Therefore, contrary to expressions via traditional research essays, the purpose of this study was to explore effects of the photo narrative process on students' intercultural learning in agriculture. The photo narrative process may help students understand better their familial

culture and others' cultures. In effect, an expected outcome of this study is to empower learners, using already accepted techniques for self-expression, to improve their intercultural competencies (i.e., changes within the cognitive, behavioral and affective domains).

CHAPTER II

REVIEW OF THE LITERATURE

Culture in an Agricultural Context

Every culture possesses its own set of traditional semiotics; an idea founded by Charles S. Peirce and Ferdinand de Saussure (Aiello, 2016). Traditional semiotics can be defined as a “set of socially constructed meanings or norms that become embedded and naturalized in the cultural fabric, to the extent that they become invisible or common sense” (Aiello, 2016, p. 92). Cultural semiotics has the potential to be captured via photographs by members outside of the culture in which they are embedded. Although meanings of cultural semiotics are not always fixed, or certain, the possibilities of their attributed meanings can give outside members of the culture insight into new cultures (Aiello, 2016). Developing an understanding of another culture’s semiotics opens the opportunity to expand viewpoints and develop compassion for individuals and communities globally (Harrell, Sterner, Alter, & Lonie, 2017).

A strong emphasis should be placed on cultural awareness and globalization within the agriculture industry, to help industry professionals “adapt and function within a globalized community and world” (Conner & Roberts, 2017, p. 141). Agriculture students’ curricula can be globalized through inclusion of study abroad programs (Conner & Roberts, 2017). Bruening and Frick (2004) found that both knowledge on agricultural production, and appreciation for diverse cultures grew while undergraduate students participated in agricultural study abroad programs. This global exposure and educational development among undergraduate students contributes to the establishment of a culturally competent agricultural workforce; Agriculturalists will be better

equipped to “embrace the challenges and opportunities that come with feeding a developing and growing world” (Harrell et al., 2017, p. 56).

Bennett’s Developmental Model of Intercultural Sensitivity

Photographs that have been purposefully captured to portray a message have the potential to play an impactful and educational role in students’ learning processes about different cultures.

Purposeful interaction and assessment of another’s culture opens the potential to retain more information about that culture. Intercultural competence can be defined as the ability to communicate effectively and appropriately in multicultural situations with people who differ linguistically and culturally from oneself (Byram, 1997; Sinicrope, Norris, & Watanabe, 2007).

Bennett’s (1986) Developmental Model of Intercultural Sensitivity, later referred to as ‘DMIS’, was based around the concept of *difference*, in that cultures “differ fundamentally in the way they create and maintain world views” (p. 181). The more students recognize this ethnorelative principle, the greater sense of intercultural sensitivity they possess. Bennett’s DMIS was developed to “both illustrate ‘improvement’ in the ability to comprehend and experience difference, and it [implies] the strategies that will impede such experience” (Bennett, 1986, p. 181).

To understand and analyze people’s behaviors, Ruben (1976) stated “measures of competency that reflect an individual’s ability to display concepts in his behavior rather than intentions, understandings, knowledges, [SIC] attitudes, or desires” (p. 337). Ruben (1976) realized seven elements of intercultural competence, including a display of respect for other groups of people

and empathy, or the ability to “put [oneself] in another’s shoes” (p. 339-341), which is similar to Bennett’s (1986) fourth and fifth elements in his Model of Intercultural Sensitivity. Byram (1997) identified that one’s attitude, knowledge, skills of interpreting and relating, skills of discovery and interaction, and critical cultural awareness toward a different culture are all significant factors that contribute to intercultural competence. Developing intercultural competence and sensitivity allows for the ability to step outside of one’s own culture and efficiently function with different individuals from “linguistically and culturally diverse backgrounds” (Sinicrope et al., 2007, p. 1). The development of intercultural competence research stemmed from the recognition of communication issues that thwarted collaboration between individuals from different backgrounds (Sinicrope et al., 2007). Sinicrope et al. mentioned cross-cultural communication issues that impeded effective collaboration between people from different cultures and backgrounds among Peace Corp volunteers between the 1950s and 1970s. Today, intercultural competence research stretches across various disciplines and researches have used diverse methods and approaches to define and measure people’s levels of competence (Sinicrope et al., 2007).

Conner and Roberts (2017) determined several factors affecting intercultural competence. First, they found factual knowledge of a particular culture (e.g., geography, politics, or history) is insufficient for effective intercultural interactions in that culture. We must attempt to understand the subjective matter (i.e., shared values, beliefs and behaviors of a culture), which is equally important as facts. Second, foreign language proficiency, often required for intercultural competence, does not guarantee its development. The desire to increase language proficiency is a common reason for students to participate in study abroad opportunities (Conner & Roberts,

2017). However, language proficiency alone does not equate to changes in intercultural competency; Bennett's (1986) six stages of development in intercultural competence must be met to achieve a holistic intercultural understanding.

Bennett (1986) observed six stages of intercultural competence among learners, which were useful in understanding their personal growth and development of intercultural sensitivity and/or intercultural communications. The first three stages, denial, defense, and minimization, constitute an ethnocentric viewpoint, in which an individual's own culture is the central worldview (Sinicrope et al., 2007). The second three stages, acceptance, adaptation, and integration, comprise an ethnorelative viewpoint, in which an individual displays an increased understanding of the world (Sinicrope et al., 2007). It should be noted that Bennett continued developing his initial beliefs in the 1980s, until he more fully developed the DMIS in 1993, 2004, and then 2013. Following are brief descriptions of each stage in the DMIS.

The first stage, denial, marks the most ethnocentric stage of Bennett's (1986) DMIS. It occurs when a culture's isolation precludes contact with "significant cultural differences" (Bennett, 1986, p. 182). In this phase, an individual denies differences of other cultures by "erecting psychological or physical barriers in the forms of isolation and separation from other cultures" (Sinicrope et al., 2007). The second stage, defense, occurs when individuals from a culture work to counter any perceived threats to the core of one's culture, or view of the world. The third stage, minimization, occurs when individuals from a culture attempt to diminish the significance of a culture different from their own. At this stage, cultural difference is acknowledged, yet perceived as unimportant, or is "trivialized" (Bennett, 1986, p. 184). Sinicrope et al. (2007)

described this stage as possessing the ability to acknowledge cultural differences on the surface, but maintaining the belief that all cultures are similar fundamentally. The first three stages of Bennett's (1986) Model can be perceived as "ways of avoiding cultural difference, either by denying its existence, by raising defenses against it, or by minimizing its importance" (Bennett, 2004, p. 1).

The fourth stage, acceptance, is the first shift from ethnocentrism to ethnorelativism, marking the first stage where difference in culture is both acknowledged and respected (Bennett, 1986). The fourth stage emphasizes that "experience does not occur simply by being in the vicinity of events when they occur" (Hammer, Bennett, & Wiseman, 2003, p. 423), but true experiences is a result of active receptions and reflection to an event, environment, or culture. This stage of acceptance involves respect that individuals gain for a different culture's behavior and values (Sinicrope et al., 2007).

The fifth stage, adaptation, occurs when an individual changes behavior and thinking towards a difference in culture. A common form of adaptation is empathy, the practice of "using a significantly different world view to process reality" (Bennett, 1986, p. 185), demonstrating a shift in cultural world view. This element is associated with Allport's (1979) idea that contact with other cultures may not lead to less stereotyping and/or prejudicial behavior. In this element, individuals use empathy and pluralism to alter their "frame of reference to other culturally diverse worldviews" (Sinicrope et al., 2007).

The last stage, integration, marks the incorporation and “application of ethnorelativism to one’s own identity” (Bennett, 1986, p. 186). In this stage, individuals are able to expand and incorporate diverse worldviews into his or her own, pre-existing worldview (Sinicrope et al., 2007). These ethnorelative perceptions are methods of “seeking cultural difference, either by accepting its importance, by adapting perspective to take it into account, or by integrating the whole concept into a definition of identity” (Bennett, 2004, p. 1-2). The progression along Bennett’s (1986) Model correlates with cultural competence, beginning with least to most culturally competent, providing a sound way of developing intercultural understanding.

This research study gathered data from participants’ writing and photography that was deeply focused on culture through purposeful reflection sessions in two international experience programs. The purposeful reflection sessions were a necessary condition for discourse about stereotypes and prejudicial behavior, which may have enhanced participants’ appreciation for different cultural values and behavior. Holmes, Bavieri, and Ganassin (2015, p. 3) found that critical reflection and analyses encouraged students to question stereotypical understandings that may deny individuals’ “multifaceted and fluid” (Bauman, 2004; Dervin, 2012) cultural identities.

Figure 1 illustrates Bennett’s (1986) DMIS and the linear progression in developing intercultural sensitivity. In Oberg’s (1960) cultural sensitivity U-curve model, two major components were “adaptation” and “assimilation” (Conner & Roberts, 2017, p. 142), similar to “acceptance” and “adaptation” in Bennett’s (1986) model. Combined, acceptance and adaptation help us realize others’ value systems and behavioral norms (i.e., seen as positive influences on our cultural norms), which build our intercultural competence. Sinicrope et al. (2007) said Bennett’s (1986)

model is a dynamic model in that it explains “how individuals respond to cultural differences and how their responses evolve over time” (p. 8). Bennett’s (1986) model consists of six elements, or stages, beginning with the first three, most ethnocentric stages in which “the individual’s culture is the central worldview” (Sinicrope et al., 2007, p. 8). The scale concludes with three ethnorelative stages in which “the individual’s culture is one of many equally valid worldviews” (Sinicrope et al., 2007, p. 8). In summary, the early stages of the scale “define the parochial denial of difference, the evaluative defense against difference, and the universalist position of minimization of difference” (Bennett, 1986, p. 179). Conversely, the concluding stages “define the acceptance of difference, adaptation to difference, and the integration of difference into one’s world view” (p. 179).

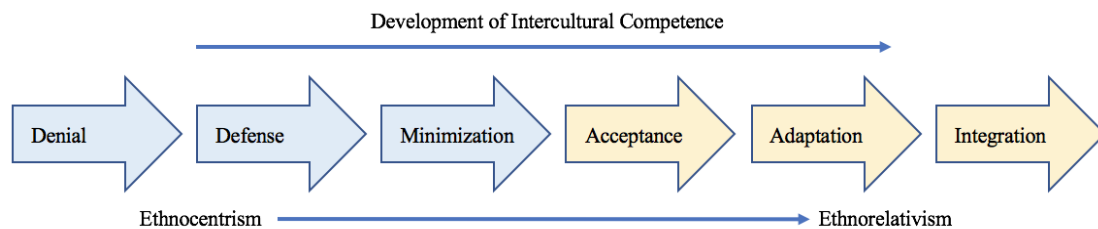


Figure 1. Bennett’s (1993) Model of Cultural Competency; adapted from “A developmental approach to training for intercultural sensitivity,” by M. J. Bennett, 1986.

The linear progression along the stages of Bennett’s (1986) model coincides with growth in intercultural competence. Bennett’s (1986) DMIS undergirded the theoretical framework for this research. The six stages of the scale were used to measure students’ intercultural sensitivity.

Photovoice

Photovoice is defined as a learning process, centered on the conception of knowledge, in which people identify, portray, and enhance their community through photographs (Wang & Burris, 1997). The idea of photovoice was developed (Wang & Burris) as a means to communicate culture and realities of various underrepresented communities to policymakers. The main purposes of photovoice are to 1) capture and illustrate the community's strengths and weaknesses, 2) encourage in-depth group discussions analyzing the important issues portrayed in the photos, and 3) communicate to legislators to push for change. In Wang and Burris' (1997) study, the purpose of hosting group discussions was to allow people to reflect on the photographs they produced of their communities. Participants were then shown photos from other communities and cultures and were prompted to discuss and relate them to their own cultures. According to Wang and Burris (1997), "the participatory approach gives multiple meaning to singular images" (p. 381). Dialogue about images brings forth various issues, themes, and theories within a picture. This extraction of meaning from singular images serves as a medium for people's "visions and voices" (Wang & Burris, 1997, p. 382).

The concept of photovoice stemmed from Paulo Freire's belief that a means of encouraging people to think critically about the conditions of their communities is through visual images (Wang & Burris, 1997). Common themes and social and political matters can be raised through group discussions about particular images and what people believe they represent. Furthermore, feminist theory played a role in the evolution of photovoice as a means to prompt women, and other underrepresented groups, to communicate in society (Wang & Burris, 1997). Building on this idea, Wang and Burris (1997) developed photovoice to give people without access to tools,

such as cameras, opportunities for active roles in their societies, rather than “stand as passive subjects of other people’s intentions and images” (p. 370-371).

Wang and Burris located underrepresented populations and discussion facilitators committed to improving group discussion, resources, and access to information. Participants were trained on how to use manual focus cameras to produce images from their communities. The community’s participation in this process had the potential to affect program and policy implementation during communities’ needs assessment phases (Wang & Burris, 1997). The photovoice process can provide insight into the realities of underrepresented societies and vulnerable populations (Wang & Burris, 1997). Photovoice participants are able to represent, through photographs and brief caption writing, the realities and issues in their communities to raise awareness and encourage local action (Strack, Orsini, Fearnow-Kenney, Herget, Milroy, & Wyrick, 2015). These insights can translate into revealing society’s “most vulnerable populations” (Wang & Burris, 1997, p. 372) community participation and ownership, exposure to different cultural settings and needs, and highlight communities’ assets. This deeper insight, or meaning, can be acquired after in-depth analyses, participatory research, and reflection of an image; a concept that can be compared to “surface/depth” reading in literary analysis (Wolfe & Wilder, 2016). Surface/depth reading requires the search for deeper meanings beneath the surface interpretation of a text; or in this case, a photograph or image (Wolfe & Wilder, 2016). The symbolic and ideological meaning of an image derived after in-depth analyses corresponds to the “range of possible meanings inscribed by cultural codes” (Aiello, 2016, p. 94). The photovoice learning process involves participatory research, which can be applied to different disciplines and goals to serve a

functional role in education when approached with a focus on culture (Harrison, 2003; Wang & Burris, 1997).

Photo Narrative Process and Culture

Photo narrative, the combination of photography and narrative expression about artifacts important to one's way of life, was derived from photovoice. Photographs contain visual social semiotics, or signs, reflecting individual beliefs, values and attitudes about a culture's political and social climates (Harrison, 2003). Photovoice was developed to allow members of a community to capture personal photographs to gain greater understanding of a culture in which they are immersed (Borron, 2013). Borron focused on the inclusion of photovoice in agricultural communications' research, enhanced applied communication and engagement, sharpened comprehension of target audiences, and improved community participation. Borron's research was similar to Wang and Burris' (1997), with a goal "to evaluate the capacity of a local community to lead positive change, and identify the factors that exert significant influence on change processes and outcomes" (p. 3), as identified in the American Association for Agricultural Education National Research Agenda (Doerfert, 2011). Nykiforuk, Vallianatos, and Nieuwendyk (as cited in Borron, 2013), stated that the photovoice process creates the "opportunity to visually portray and share experiences and knowledge about issues that otherwise would be difficult to explain through in-depth interviews" (Borron, 2012, p. 2). Photovoice has the potential to develop intercultural competence by providing valuable insight about lived experiences, generating knowledge and diversifying communication, through the portrayal of signs and meanings central to a different culture (Borron, 2013; Sinicrope et al., 2007).

Liu and Dall’Alba (2012) focused on orienting undergraduate students to the world outside the classroom to enhance competence in intercultural communication through a multidimensional approach that includes ‘appropriateness’ in addition to learned background knowledge about a different culture. The research design allowed students to apply their knowledge in “appropriate intercultural contexts” (Liu & Dall’Alba, 2012, p. 1) and to actively reflect upon their experiences. Cultural competence does not develop automatically, or through mere contact with a different culture (Heinzmann et al., 2015), so undergraduate students’ intercultural competence shifted through reflective and active inquiry, that was “maintained and deepened over time” (Wilbur, 2016, p. 59). Wilson and Fowler (as cited in Liu & Dall’Alba, 2012) found that students’ active and purposeful engagement in the learning process shifted intercultural learning among undergraduate students.

Students’ intercultural learning through photovoice processes can be used in agricultural settings to foster deeper understanding for various target audiences and to enhance communication engagement efforts (Borron, 2013). A visual element provides another level of comprehension for audiences that agricultural communication researchers are often times required to understand. Borron (2013) stated that photovoice in agriculture can engage “participants in a way to identify and visually portray issues that may otherwise go unsaid” (p. 12). Communication through the pairing of photographs and short narratives can provide valuable information, such as societal needs and values, and elements to consider and explore when learning about different cultures.

The ability to empathetically explore another's culture is a major component of intercultural competence, as seen in Bennett's (1986) Model. Employers consider global competencies, like understanding different cultures and backgrounds, as assets in college-level students (Holmes et al., 2015). The reality of society's vast diversity increases the need for undergraduate students to be able to function in a diverse work environment. So, there is great value in exploring college students' international experiences in terms of intercultural competency, enhanced through purposeful reflection and intentional engagement with other cultures.

Multicultural education and cultural competence is necessary for agricultural professionals to succeed in an increasingly diverse world. The U.S. agriculture industry functions in a global marketplace that practices trade worldwide, therefore agriculture professionals should develop intercultural competence before graduation to effectively conduct business in today's globalized marketplace. Global competence is becoming an increasingly valuable asset for college graduates in today's worldwide environment (National Education Association, 2010). Our interconnected global society urges for students to be "educated to develop habits of the mind that embrace tolerance, a commitment to cooperation, an appreciation of our common humanity, and a sense of responsibility – key elements of global competence" (National Education Association, 2010, p. 1). To prepare students better for entering a globalized world, educators should reevaluate and modify curricula to help students not only "contribute to knowledge, but also to comprehend, analyze, and evaluate its meaning in context of an increasingly globalized world" (Association of Public Land-Grant Universities, 2004, p. 2).

CHAPTER III

METHODS

Purpose

The purpose of this study was to explore effects of the photo narrative process on students' intercultural learning in agriculture. To achieve this purpose, three research questions guided the investigation:

- 1) Which stages of intercultural sensitivity were most prevalent in students' descriptions of their cultural heritage using photo narrative processes?
- 2) Which stages of intercultural sensitivity were most prevalent in students' descriptions of host country nationals' cultural heritage using photo narrative processes?
- 3) Do participants' perspectives shift from ethnocentrism to ethnorelativism as a result of participation in the photo narrative process?

Design

A qualitative research design (Patton, 2002) of this non-experimental study offered appropriate analyses techniques of photo narrative (PN) assignments, a collection of short textual bodies and photographs. The research design allowed me to measure the quality of descriptions from photo narrative assignments to determine impact on cultural competence. This determination enabled me to study students' perspectives through the analysis of their communications (Fraenkel, Wallen, & Hyun, 2015). "A person's or group's conscious and unconscious beliefs, attitudes, values, and ideas often are revealed in their communications" (Fraenkel et al., 2015, p. 476). Among these revelations of students' beliefs and values, natural cultural themes emerged,

“developing appropriate categories, ratings, or scores” (Fraenkel et al., 2015, p. 476) used for subsequent comparison to highlight what was being investigated. The research study was approved by the Institutional Review Board at Texas A&M University (see Appendix A).

Participant Characteristics

For this study, the population ($N = \sim 7,800$) consisted of undergraduates in the College of Agriculture and Life Sciences (AGLS) at Texas A&M University. Purposive sampling methods (Fraenkel et al., 2015) were drawn from those students who studied abroad on one of three short-term (i.e., less than 30 days) study abroad programs in Namibia or Costa Rica during 2016 and 2017. The sample ($n = 55$), although self-selected into the research study, could represent the population of interest because all students in AGLS had the same opportunities to participate in the Namibia and Costa Rica programs (Fraenkel et al., 2015).

Instrumentation

This study used an undergraduate agricultural students’ assignment, known as Photo Narratives (PN), which was a selection of a series of photographs paired with a short body of text, to gauge understanding of cultural heritage (i.e., own and foreign). PN assignments mirror a major facet of social media and Internet use in today’s society – a communicative photograph supplemented by a short description. That is, exposure to social media, and using the Internet, with mobile devices is “swiftly becoming central to our lives within modern society and is largely integrated into our daily social behaviors” (Strack et al., 2015, p. 192). More than 90% of young adults (ages 12 to 29) are online, 75% own and use mobile phones, and 73% operate social media and networking accounts (Strack et al., 2015). With so many young people exposed to online content,

specifically social media such as Facebook, Twitter, and Instagram, the PN process has great potential for educators to create impactful assignments, congruent with young peoples' modern communication methods, to change intercultural sensitivity among students.

The PN assignment was initially developed for a study abroad trip to Chile, in which students were encouraged to document and capture intercultural interactions that stimulated their curiosity or “[gave them] pause for thought” (Covert, 2011, p. 181) in a new cultural environment. Students were instructed to ponder the aspects of Chilean culture that were different from their own and caused them to reflect, and then photograph and write about these elements of the culture.

In alignment with the foundational idea of the PN assignment, short-term study abroad program leaders created similar assignments for two programs (Namibia and Costa Rica) at Texas A&M University. Namibia 2016 PN 1 and Costa Rica 2017 PN 1 were the resultant similar assignments, requiring students to acquire (using cellphone cameras) and submit a photo representing their personal cultural heritage, and then supplement their photos with 100-150 words describing how the photo represented an important aspect of each participant's culture and heritage.

The PN 2 assignment for Namibia 2016 and Costa Rica 2017 required students, while participating in their respective short-term study abroad programs, to capture a photograph that represent one of the following categories:

- Historical/cultural value of an agricultural product

- Consumer effect on production
- Environmental concerns/issues affecting production
- Multicultural significance between [respective country] and U.S. product uses/values
- Socio-economic effects

Namibia 2016 and Costa Rica 2017 students were then required to draft 100-150 words describing how or why they believed their photos best represented the chosen theme, and then each participate in double-blind critiques of peers' PN 1 submissions.

The Namibia 2017 PN assignment was enhanced from the previous year's, but still vastly maintained the original sentiments of the PN 1 and 2 assignment models. Like the Namibia 2016 and Costa Rica 2017 PN assignments, students were prompted to create PNs that were representative of their own cultural heritage in Namibia 2017 PN 1. However, in this particular assignment, students were required to take many photos representing their cultural heritage two weeks before the date of their departure and weren't permitted to supplement the photos with narrative until after one week of exposure in the new cultural environment, Namibia. Study abroad program leaders used the one-week lag to facilitate discussions about culture, heritage, values, beliefs, norms, etc., to deepen students' understanding of the concepts, culture, and heritage. Following the week of discussions, students were instructed to select only three related photos from their collections that best represented a uniquely specific facet of their cultural heritage. After selecting the top three photos, students drafted a narrative to describe the meaning of their photo collection, including the thought processes involved in selecting the photo set. All students participated in double-blind PN reviews and critiques of their peers' PN submissions.

The Namibia 2017 PN 2 assignment required students to collect a series of digital photographs within the first two weeks of their stay in the host country. Among their collections, students had to choose three that they believed best represented Namibia's cultural heritage. The assignment required a 200-word narrative and double-blind reviews, in which students were then encouraged to reflect on the similarities and differences between their narratives and their peers' critique. A reflection session about the PN process was conducted to *relate intercultural learning and/or expression of cultural heritage in domestic and foreign settings*, per the instructor-facilitated lesson. This intentional engagement, or reflection, of the PN process is a critical component of understanding different cultures and dispelling stereotypes via dialogue, in alignment with Bauman's (2004) and Dervin's (2012) studies.

Table 1 illustrates the main ideas, similarities, and differences of each PN assignment during their respective program and years. Note that PN 1 and PN 2 assignments from Namibia 2016 and Costa Rica 2017 are similar, but PN 1 and PN 2 from Namibia 2017 were enhanced. Despite this minute difference, all PN assignments were based on the same principles of increasing cultural competency and reflection among students, while traveling abroad by recording their cultural perceptions (own and foreign), pre- and post-departure. See Appendix B for complete PN assignment instructions and prompts.

Table 1 *Photo Narrative Assignment Descriptions and Instructions*

Program	Photo Narrative 1	Photo Narrative 2
Namibia 2016 (July 2016)	Submit a photo representing your personal cultural heritage and supplement it with 100-150 words describing why your photo best represents your personal cultural heritage. Also, participate in double-blind critiques (each student reviews another student's photo, using the same criteria, and writes why the photo best represented the chosen theme).	Capture a specific element of your host country (see categories) via photograph, and supplement with 100-150 words describing how, or why, the photo best represents the chosen theme (i.e., categories): <ul style="list-style-type: none"> ● Historical/cultural value of an agricultural product ● Consumer effect on production ● Environmental concerns/issues affecting production ● Multicultural significance between [respective country] and U.S. product uses/values ● Socio-economic effects
Costa Rica 2017 (Jan. 2017)	Submit a photo representing your personal cultural heritage and supplement it with 100-150 words describing why your photo best represents your personal cultural heritage. Also, participate in double-blind critiques (each student reviews another student's photo, using the same criteria, and writes why the photo best represented the chosen theme).	Capture a specific element of your host country (see categories) via photograph, and supplement with 100-150 words describing how, or why, the photo best represents the chosen theme (i.e., categories): <ul style="list-style-type: none"> ● Historical/cultural value of an agricultural product ● Consumer effect on production ● Environmental concerns/issues affecting production ● Multicultural significance between [respective country] and U.S. product uses/values ● Socio-economic effects

Table 1 Continued

Program	Photo Narrative 1	Photo Narrative 2
Namibia 2017 (July 2017)	<p>Required students to acquire a series of photos that are most representative of your personal cultural heritage <i>two weeks before the date of their departure</i>. Students were not required to supplement the photos with narrative until after one week of exposure in the new cultural environment.</p> <p>During the first week of your study abroad program:</p> <ol style="list-style-type: none"> 1. <u>Choose three photos</u> from your collection <u>that best show your personal cultural heritage</u>. 2. Attach the digital photos in a Word document. 3. Describe how these photos best represent your Cultural Heritage (~200 words). 4. Participate in double-blind reviews (i.e., each student analyzes a peer's photo set and writes a narrative describing how the peer's photos best represent their cultural heritage). 5. After the peer review, reflect on the similarities/differences between narratives. 	<p>Collect a series of digital photographs that are most representative of the host country's cultural heritage during the first two weeks of study in the host country. After the second week of your study abroad program:</p> <ol style="list-style-type: none"> 1. <u>Choose three photos that best represent the host country's cultural heritage</u>. 2. Attach the digital photos in a Word document. 3. Describe how these photos best represent the host country's culture or heritage (~200 words). 4. Participate in double-blind reviews (i.e., each student analyzes a peer's photo set and writes a narrative describing how the peer's photos best represent the host country's cultural heritage). 5. After the peer review, reflect on the similarities/differences between narratives. 6. Share reflections from the Photo Narrative process as they relate to intercultural learning and/or expression of cultural heritage in domestic and foreign settings.

All PN participants, across all study abroad trips, were required to participate in a double-blind review in which “each student [analyzed] a peer’s photo set and [wrote] a narrative describing how the peer’s photos best [represented] their cultural heritage.” Analysis of the double-blind review element of PN assignments was left out of this study, as the purpose of this research is to track progress in intercultural sensitivity, done by recording the progression along Bennett’s (1986) DMIS.

Data Collection Procedures

The data for this study were collected as archival, redacted artifacts from students who traveled and who completed PN assignments in Namibia ($n = 15$) during July 2016; Costa Rica ($n = 20$) in January 2017; and, again in Namibia ($n = 20$) during July 2017. Data consisted of students’ PN assignment submissions, collected after their short-term study abroad programs had ended, and after grades had been assigned (i.e., both for individual PN assignment scores and course grades). All personal information (e.g., students’ names, family names, etc.) was redacted from the research artifacts prior to transmitting the archival data to the researcher of this study.

The PN assignment instructions were administered to participating students and collected by the faculty leader of each study abroad trip. Although all enrolled students participated in the PN assignments, not all produced usable artifacts. Table 2 displays the number of usable artifacts per PN assignment and program type. To uphold the students’ confidentiality and maintain an unbiased study, each participating individual’s name was omitted from the archival data. Observational methods were employed to collect descriptive data (Borg & Gall, 1989) and draw inferences about how students’ perceptions on cultural heritage were impacted throughout the

photo narrative process. Each PN artifact was uploaded into MAXQDA, facilitating accessibility for coding and thematic grouping.

Table 2 *Frequencies of Coded Photo Narrative Artifacts*

Program	<i>f</i>		Total
	PN 1	PN 2	
Namibia 2016 (July 2016)	14	15	29
Costa Rica 2017 (Jan. 2017)	20	17	37
Namibia 2017 (July 2017)	20	20	40

Both the manifest and latent content of the PN artifacts were coded, using the cultural themes that emerged from the data. Manifest content can be defined as the obvious, surface-level meaning in text or photographs (Fraenkel et al., 2015); meanings that are “directly accessible to the naked eye” (p. 482). Coding manifest content is reliable due to its straightforward nature, as no inferences are used to detect the underlying meanings of data (Fraenkel et al., 2015).

Conversely, latent content can be defined as the “meaning underlying what is said or shown” (Fraenkel et al., 2015, p. 482). Latent content can sometimes be ambiguous, so there is great value in interpreting the core meanings behind text and images that have impactful messages at their root.

Latent content coding was predominantly used when measuring the mentions of Bennett’s (1986) six stages of intercultural competence within the PNs. Students did not explicitly disclose occurrences of the six stages of Bennett’s (1986) DMIS, which are denial, defense, minimization, acceptance, adaptation, and integration. Therefore, latent content coding was instrumental in formulating how students’ raw PN content and then translated into the six stages of Bennett’s (1986) DMIS.

The vast majority of content coded was via manifest coding, as cultural themes that emerged required minimal to no detection of underlying meanings of rhetoric, or data. Although inferences about underlying meanings of data were made using latent coding, the process is still valid. The majority of the data were coded by counting frequencies of different cultural categories. These frequencies of various words, images, or sayings were used to formulate summarizations about students' progressions along the six stages of Bennett's (1986) DMIS.

Figure 2 provides an estimation of how many codes were determined via manifest content coding or latent content coding. The high counts of manifest content codes allude to the validity of the study's outcome and research approach. The segment representing manifest content (2,237 codes, 93%) includes frequencies of every code used in the study, apart from the six stages of Bennett's (1986) DMIS. In contrast, the segment representing latent content (160 codes, 7%) includes frequencies of Bennett's (1986) stages of intercultural competency within all PN assignments.

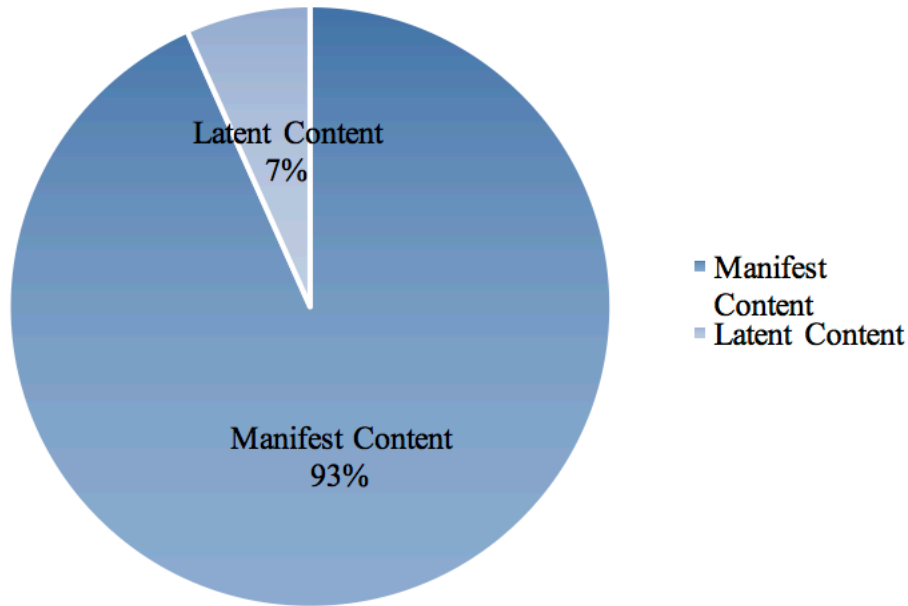


Figure 2. Manifest vs. latent content coded among all PN artifacts.

Data Analyses

MAXQDA, a software for “qualitative, quantitative and mixed methods data analysis,” (MAXQDA, 2017, para. 1) was used as the vehicle to which each PN assignment was thematically grouped and coded. The software possesses various multimedia analysis features that have the capability of creating illustrations, reports, and graphs, after digitally grouping and quantifying the qualitative data.

After inputting my data into the MAXQDA database, I began to code and organize pieces of information, and visual elements in pictures, to record recurring themes in the data. Illustrations, reports, and graphs were formed through MAXQDA’s transcription tools and multimedia functions, after it digitally grouped and quantified the qualitative data. The software’s multitude of settings allowed me to pair and group the categories I set to analyze various angles of my data

set's communication of intercultural competence as a whole. Edgar and Rutherford (2017) used a similar semiotic method to interpret photographic and logo meanings in a Texas Cooperative Extension marketing packet. In my study, descriptive methodology and qualitative analyses were employed to "identify the symbols used in the image and determine their meaning for society as a whole" (Lester, 1995, p. 126), with the hopes of detecting common themes, messages and meanings that could help to define a population's culture (Edgar & Rutherford, 2017). Mentions of Bennett's (1986) six stages of intercultural sensitivity were noted in the data, and coded to formulate evidence on students' levels of intercultural competence before and after their international experiences.

Content analysis was used to "make comparisons about the attitudes and beliefs of various groups of people separated" (Fraenkel et al., 2015, p. 477) by culture. After becoming familiar with the content in the PN assignments collected, various attitudes, values, and cultural patterns emerged, which were used to create categories, or codes, that were relevant to the investigation. These themes were formulated to "organize and make sense out of [the] large amounts of descriptive information" (Fraenkel et al., 2015, p. 477) collected. The qualitative data analysis of students' views on different cultures revealed emerging cultural themes that made the qualitative content quantifiable. From the quantified groups formed, intercultural competence among college students was measured, using Bennett's (1986) DMIS as the scale.

By categorizing and coding the data through content analysis, I was able to organize, or group, similar elements of cultural heritage together to begin measuring intercultural competence. Coding groups, themes, and major ideas were formulated before the qualitative analysis took

place, to help organize and make sense of the large amounts of descriptive text and photographs. Developing categories, ratings, or scores helped in the subsequent comparison used to illuminate what was being investigated – the development of intercultural competence. The pre-established categories, representative of cultural heritage or traditions, helped to define and determine the larger thematic output that presented itself in the results. Cultural themes used to code the PN artifacts ranged from family, food, and relationships, to government, work, and education. “Ideology” was also a main category used to code PN artifacts, which included the sub-categories of the six ideologically-based stages of Bennett’s (1986) DMIS – denial, defense, minimization, acceptance, adaptation, and minimization. Coding students’ *ideology* helped to categorize their ethnocentric and ethnorelative perceptions on cultural heritage (own and foreign), using the six stages of the DMIS as specialized codes. The main codes and their sub codes were used to thematically divide PN assignments to gain insight about students’ perceptions of their own cultural heritage and host country nationals’ cultural heritage.

By grouping and systematizing similar themes and ideas together throughout the content analysis, we were able to gain quantitative figures, concrete numbers, through qualitative analysis, an indirect analysis of communications. These groups, centered around different aspects that define one’s culture, reveals the population samples’ conscious and unconscious beliefs, attitudes, values, and ideas about different cultures. The various groups of themes were then utilized to “investigate possible relationships” (Fraenkel et al., 2015, p. 477) between PN 1 and PN 2 assignments.

The study's content analysis was guided by Bennett's (1986) DMIS to measure students' transitions from ethnocentric to ethnorelative ways of approaching new cultures. Stemming from research in the 1970s and 1980s, Bennett's (1986) Model has been discussed widely in North America as means of measuring intercultural competence (Sinicrope et al., 2007). In accordance with Bennett's (1986) dynamic model, the PN assignments were used to gauge individuals' perceptions of culture (own and foreign) over time.

Bennett's (1986) DMIS, consisting of six progressive stages, illustrates a continuum of intercultural competence, beginning with three ethnocentric stages, and ending with three ethnorelative stages, as seen in Figure 1.

CHAPTER IV

FINDINGS

The purpose of this study was to explore effects of the photo narrative process on students' intercultural learning in agriculture. To achieve this purpose, three research questions guided my investigation:

- 1) Which stages of intercultural sensitivity were most prevalent in students' descriptions of their cultural heritage using photo narrative processes?
- 2) Which stages of intercultural sensitivity were most prevalent in students' descriptions of host country nationals' cultural heritage using photo narrative processes?
- 3) Did participants' perspectives shift from ethnocentrism to ethnorelativism as a result of participation in the photo narrative process?

For this research, qualitative data in the form of photo narrative artifacts, were analyzed to address their effects on students' intercultural learning.

Research Objective One

Research objective one focused on analyses of PN 1 artifacts containing students' descriptions and perceptions on their cultural heritage, which was completed before students traveled to their host countries in three high-impact, international programs. Using the PN process, frequencies of the stages of Bennett's (1986) DMIS were coded and recorded in students' responses. Figure 3 illustrates the most ethnocentric stages of Bennett's (1986) model – denial, defense, and minimization – were prominently found in students' descriptions of their cultural heritage (PN 1

artifacts). None of the ethnorelative elements of Bennett’s (1986) DMIS (acceptance, adaptation, and integration) were found in the PN 1 artifacts; students had room to develop their intercultural competencies, as progression along Bennett’s (1986) DMIS correlates with changed intercultural sensitivity.

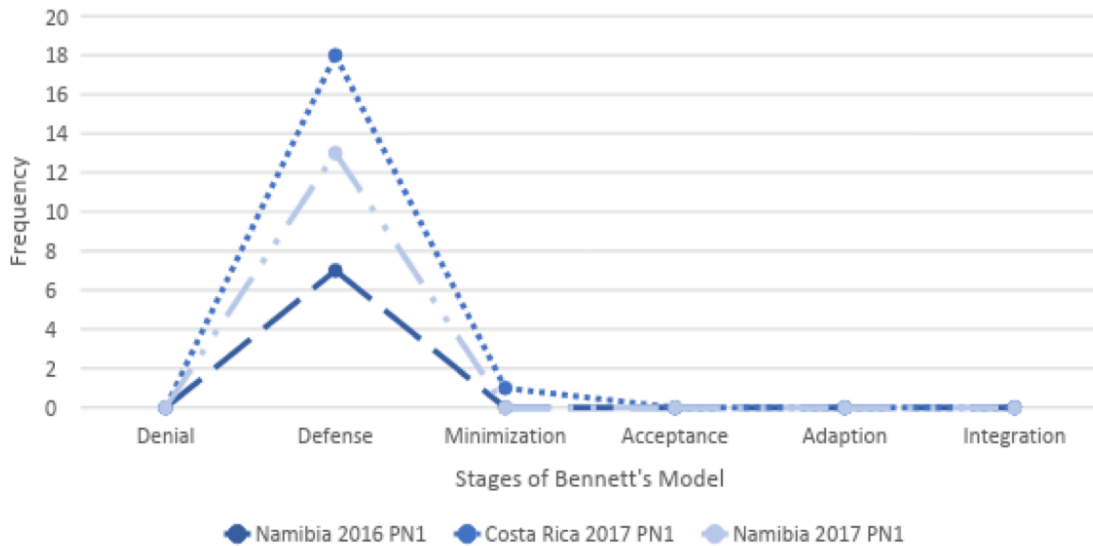


Figure 3. Frequencies of Bennett’s (1986) DMIS stages in PN 1 artifacts.

Figure 3 illustrates a high distribution of ethnocentric viewpoints found in PN 1 artifacts, with “Defense” as the most prominent. The ethnorelative stages of Bennett’s (1986) DMIS – acceptance, adaptation, and integration – did not produce any frequency counts in PN 1 artifacts.

PN 1 assignments were completed before students’ exposures to their host country nationals’ cultures, while they reflected on *ethnocentric* beliefs of culture. As seen in Figure 3, “Defense” was the most common element included in students’ descriptions of their cultural heritage, across all PN 1 assignments. Defensive rhetoric was used by students in PN 1 assignments, in

accordance with Bennett's (1986) theory of an individual's reaction against the threat of other cultures (Sinicrope et al., 2007). Table 3 consists of examples of "Defense" and "Minimization" from students' content in PN 1 assignments. The examples from the data illustrate ethnocentric rhetoric and ways of thinking, and the predetermined instinct to defend one's own culture, values, and practices.

Table 3 *Ethnocentric Rhetoric from PN 1 Artifacts*

DMIS Stages	Excerpts from PN 1 Artifacts	Programs
Defense	<i>The recent celebration of our American Independence never fails to show the things that have the largest impact on our lives: America's freedom. The bloodshed across the world for our freedom has changed the course of history, bettered the lives of millions, and will never be forgot.</i>	Namibia 2016
Defense	<i>To me, agricultural [sp.] is the most vital industry in the world, and I strive to be a part of it for the rest of my life like my ancestors before me.</i>	Namibia 2016
Defense	<i>Though my parents have not farmed, we live by the beliefs that all-natural, organic products are best for health and taste...</i>	Namibia 2016
Defense	<i>...rodeo to us is more than a sport or hobby, it's a way of life that brings us closer together as a family.</i>	Costa Rica 2017
Defense	<i>I am born and raised Texans and will never leave home. This sunset is irreplaceable...</i>	Costa Rica 2017
Defense	<i>Almost all child-bearing women in my family lineage sacrificed a salary job to raise their children for the betterment of society...members of my heritage have stood the test of time and stayed strong with and for each other to weather the storms.</i>	Costa Rica 2017
Defense, Minimization	<i>In my culture, we don't believe in waste. Food represents habits, heritage of recipes passed down, one generation to another.</i>	Namibia 2017
Defense	<i>We live to serve others and do our part to make the country a better place.</i>	Namibia 2017

Movement across Bennett's (1986) DMIS corresponds with a more developed sense of cultural competence. As such, Figure 3 shows students' cultural competence was not fully developed

before arrival in their respective international destinations. This evidence begs the question, “Which stages of intercultural sensitivity (Bennett’s (1986) Model) are most prevalent in students’ descriptions of their cultural heritage using the photo narrative process?”

Frequencies of the DMIS stages in PN 1 and PN 2 artifacts provide an understanding of students’ intercultural sensitivities when discussing their own and host country nationals’ cultural heritages. PN 1 was assigned to students to establish a cultural base to build on when approaching a new culture, similar to Byram’s (1997) theories of intercultural competence. Byram (1997) stated the *skills of interpreting and relating* “describes an individual’s ability to interpret, explain, and relate events and documents from another culture to one’s own culture” (p. 6). Byram (1997) also stated that skills of discovery and interaction “allows the individual to acquire ‘new knowledge of culture and cultural practices,’ including the ability to use existing knowledge, attitudes, and skills in cross-cultural interactions” (p. 7). Both the skills of *interpreting and relating* and *discovery and interaction* (Byram, 1997) were evident in students’ PN 2 assignments, through the literal mentions of appreciation for the new cultures and environments where students found themselves.

Research Objective Two

Research objective two focused on analyses of PN 2 artifacts containing students' descriptions and perceptions of their host country nationals' cultural heritage, completed after two-weeks in international programs, to either Namibia or Costa Rica. Using the PN process, frequencies of Bennett's (1986) DMIS stages were coded and recorded in students' responses. Figure 4 illustrates students' descriptions of their host country nationals' cultural heritage (PN 2 artifacts) were reflective of Bennett's (1986) *ethnorelative* stages – acceptance, adaptation, and integration –revealing a marked shift from PN 1 findings.

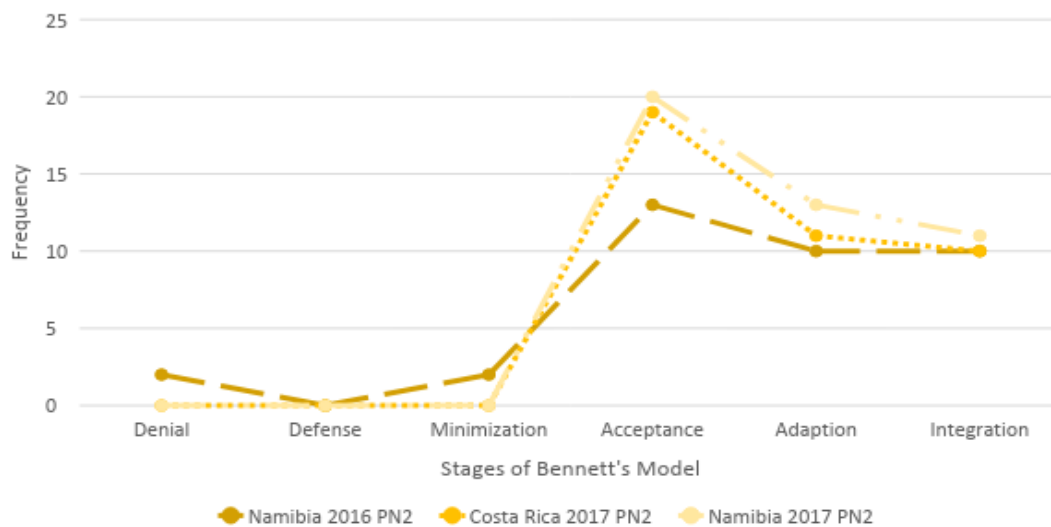


Figure 4. Frequencies of Bennett's (1986) DMIS stages in PN 2 artifacts.

Figure 4 provides evidence of an increased distribution of ethnorelative viewpoints, with “Acceptance” as the most prominent within PN 2 artifacts. PN 2 assignments were completed after students spent two weeks immersed in their host country's culture.

The purpose of the PN 2 assignments was to encourage cultural competence gains through intentional interactions between Texas A&M University students and host country nationals. Intercultural sensitivity is “the ability to discriminate and experience relevant cultural differences” (Hammer et al., 2003, p. 422). Intercultural competence is “the ability to think and act in interculturally appropriate ways (Hammer et al., 2003, p. 422). The definitions differ, as one involves “knowing” and one involves “doing” (Sinicrope et al., 2007, p. 3). Displayed in Table 4, students’ reflections in PN 2 assignments represented their purposeful interactions with host country nationals, and their experiences from cross-cultural immersion.

Table 4 *Ethnorelative Rhetoric from PN 2 Artifacts*

DMIS Stages	Excerpts from PN 2 Artifacts	Programs
Acceptance	<i>...a key difference is that Namibia, unlike the U.S., included environmental protective measures in its constitution. This fact may hint at the idea that the cultures of Namibia hold their native wildlife and natural resources in higher regard than the U.S.</i>	Namibia 2016
Integration	<i>Almost anyone in the U.S. can connect to that love for animals and playing as a kid, and see that Namibia may not be so foreign.</i>	Namibia 2016
Integration	<i>Getting to hold this snake represents how easy it is to try something I normally wouldn't do...Essentially, I have changed my cultural heritage because none of my other family members would dare do what I did in holding one of these giant predators. Now that I have experienced this change, I will be able to take what I've gotten from Costa Rica and apply it to my family heritage back in the United States.</i>	Costa Rica 2017
Adaptation	<i>Hard work, dedication, and love go into this product, more so than the average mass-produced product available in many places which is what makes it valuable to the people of this culture as well as other cultures that demand it.</i>	Costa Rica 2017
Adaptation	<i>The impact of a deep-rooted and strong family goes far beyond the naked eye, and the visible difference in cultural values is apparent to all who have an appreciation for affective multiculturalism.</i>	Costa Rica 2017

Table 4 Continued

DMIS Stages	Excerpts from PN 2 Artifacts	Programs
Integration	<i>The story of Namibia is the story of beauty and struggle...Namibia's beautiful countryside tells a romantic story of naturalism, as the untainted land is truly this country's greatest commodity.</i>	Namibia 2017
Acceptance	<i>The continuous push to be better, grow more, and achieve standards is what makes Namibian agriculture unique.</i>	Namibia 2017
Acceptance	<i>My experience going through Katatura reminded me that not everything is as rose-colored as it seems. This also shows different perspectives can help you appreciate a subject as a whole.</i>	Namibia 2017
Adaptation	<i>...learning from the Namibians will change my behaviors and how I take care of my own homeland.</i>	Namibia 2017

PN 2 assignments revealed Bennett's (1986) *ethnorelative* stages of students' international experiences. Students' ethnorelative viewpoints are a result of their purposeful reflection and engagement with their host country nationals' culture. The rhetoric extracted from students' PN 2 assignments, seen in Table 4, demonstrates students' willingness to apply their new intercultural experiences to their own lives and culture, and their desire to understand the new culture in which they are immersed.

These changes in attitudes, or views, can be perceived as "manifestations of changes in the underlying worldview" (Bennett, 1986, p. 11).

Research Objective Three

Research objective three focused on observing shifts from ethnocentrism to ethnorelativism in Bennett’s (1986) DMIS, as a result of participation in the photo narrative process.

Prior to examining the data for shifts, or changes, in students’ intercultural sensitivities according to Bennett’s (1986) DMIS, an initial evaluation of predominant themes from the PN assignments was conducted. Figure 5 illustrates frequency counts for each theme, or code, identified in PN 1 and PN 2 artifacts, that provided a supplemental idea of shared perspective between cultures. That is, frequencies with near equal outcomes between PN 1 and PN 2 would indicate that students viewed those themes similarly between their culture and host country nationals’ cultures. Figure 5 provides insight into cultural themes that students observed more, or less, when comparing their own culture to host country nationals’ cultures.

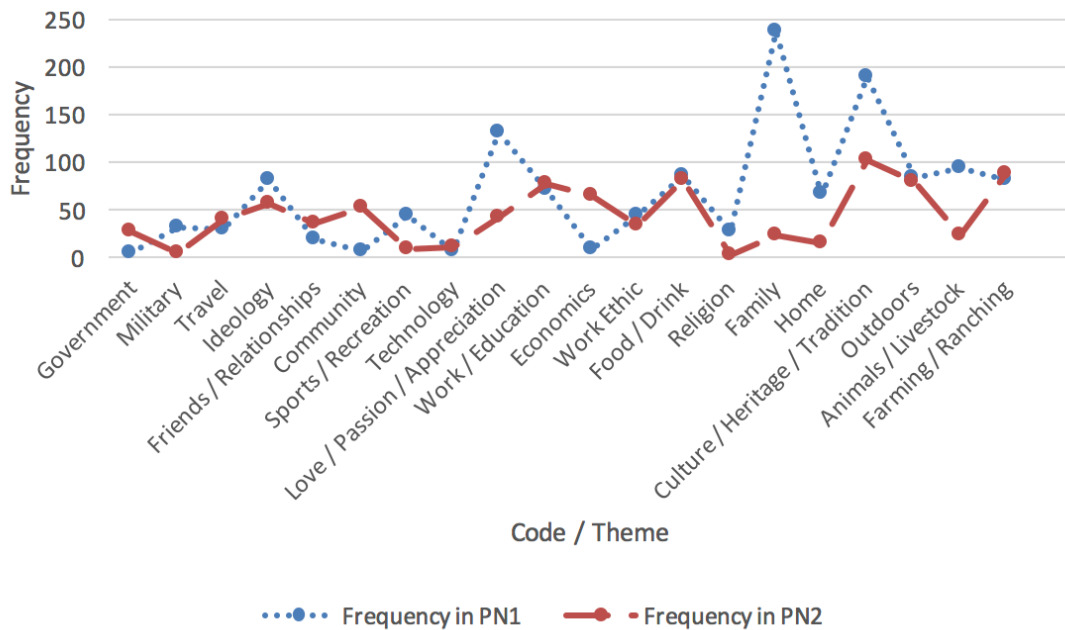


Figure 5. Cultural themes found in PN artifacts.

Figure 5 illustrates 21 cultural themes derived from 106 PN artifacts. Figure 5 shows disparities in frequency counts between PN 1 and PN 2 outcomes (i.e., PN 1 – students’ descriptions of their own cultural heritage, compared to PN 2 – students’ descriptions of host country nationals’ cultural heritages, respectively). Two observations can be made from analyses of the cultural themes. First, students’ perceived intercultural sensitivities were viewed as equal or nearly equal between their and the host country’s culture for eight themes: (a) travel; (b) friends/relationships; (c) technology; (d) work/education; (e) work ethic; (f) food/drink; (g) outdoors; and, (h) farming/ranching. This similarity of frequencies between PN 1 and PN 2 indicates that students viewed those cultural themes similarly between their culture and the host country nationals’ culture. Second, noticeable gaps emerged between thematic frequencies for PN 1 and PN 2, where gaps were predominantly favoring self-cultural views or host country nationals’ views, existed for 10 themes: (a) Military; (b) ideology; (c) community; (d) sports/recreation; (e) love/passion/appreciation; (f) economics; (g) family; (h) home; (i) culture/heritage/tradition; (j) animals/livestock.

To answer research objective three, students’ PN artifacts were analyzed using latent content coding schemes relevant to Bennett’s (1986) DMIS stages of intercultural sensitivity. Figure 6 visually illustrates progression of students’ intercultural competence and sensitivity, along the six stages of Bennett’s (1986) DMIS.

The three initial stages, on the left side of Figure 6, show ethnocentric perspectives. PN 1 artifacts, represented by blue lines, show higher distributions of students’ ethnocentric views

prior to departure for their international experiences. In direct comparison, the three conclusive stages of the DMIS on the right side of the figure show ethnorelative perspectives found in PN artifacts. PN 2 artifacts, represented by yellow lines, show shifts in students' ethnorelative views after spending time in their host countries' environment and culture. Figure 6 illustrates that after students spent time observing and engaging with their host country nationals' culture, their intercultural sensitivities were transformed from ethnocentric to ethnorelative viewpoints. Ethnocentric perspectives, represented by blue lines, decreased, approaching negligible measurement, while ethnorelative perspectives, shown in yellow, increased in frequency across all PN 2 artifacts (Figure 6).

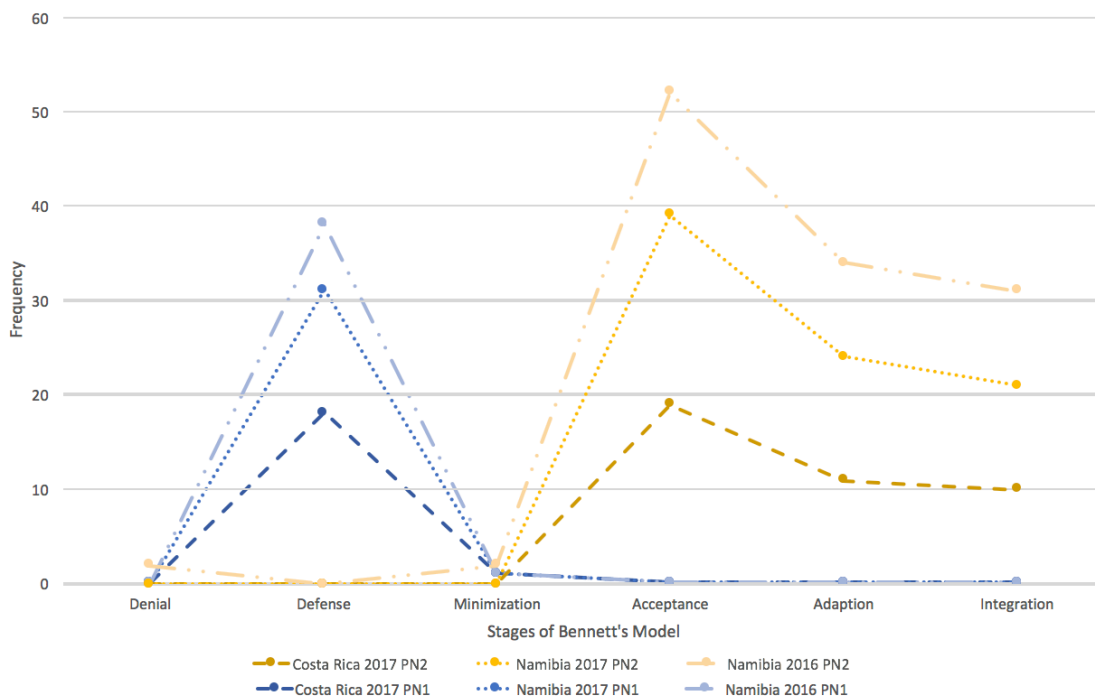


Figure 6. Changes in frequencies of Bennett's (1986) DMIS stages for PN artifacts across study abroad programs in Namibia and Costa Rica (2016-2017).

Figure 6 is a consolidation of Figures 3 and 4. Overlaying Figures 3 and 4 visually illustrates changes in students' intercultural competence and sensitivities, through progression of the six stages of Bennett's (1986) DMIS.

The end result, as seen in Figure 6, is defensible evidence of students' positive progression in developing intercultural competencies using the photo narrative process. Photo narrative assignments were instrumental tools in helping students transition from ethnocentric (denial, defense, and minimization) to ethnorelative beliefs (acceptance, adaptation, and integration) during international high-impact experiences. In summary, Figure 6 illustrates the concept that photo narrative assignments have positive effects on transforming students' intercultural sensitivities by helping them progress from ethnocentric to ethnorelative views of cultural heritage, thus broadening their global views.

The entire data set from selected study abroad programs, was analyzed to answer the question of whether participants' intercultural sensitivities shifted from descriptions of their cultural heritage to their host countries' cultural heritage. Figure 7 visually represents students' study and cultural experiences that contributed to the data analyses and research findings.

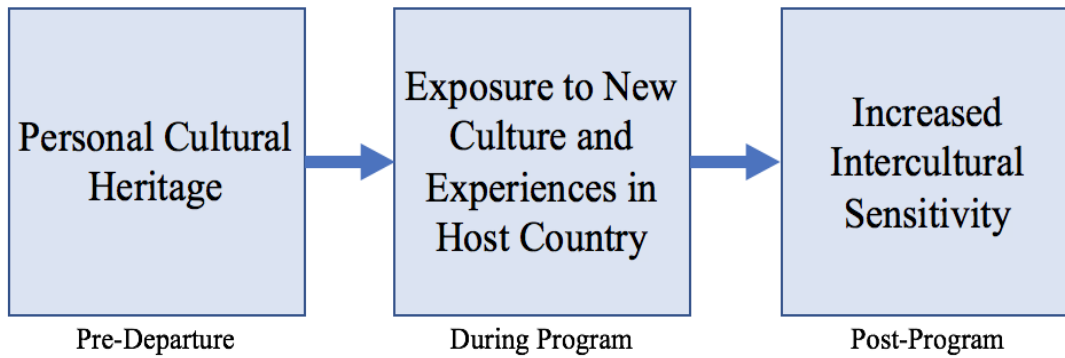


Figure 7. Students’ processes of study and experience during short-term study abroad programs in Namibia and Costa Rica (2016-2017).

As seen in Figure 7, the study abroad experience begins with focus on personal cultural heritage (PN 1), moves to immersion into a new culture, then concludes with increased intercultural sensitivity as a result of purposeful reflections and intentional engagement with a new culture (PN 2). Reaching the ethnorelative stages of Bennett’s (1986) DMIS – acceptance, adaptation, and integration – includes exercising characteristics in Ruben’s (1976) seven dimensions of intercultural competence. Among Ruben’s (1976) seven dimensions of intercultural competence, *tolerance for ambiguity*, *self-oriented role behavior*, *empathy*, *interaction posture*, and *respect* most closely relate to Bennett’s (1986) elements of *acceptance*, *adaptation*, and *integration* to a new culture.

For instance, correlating with *interaction posture*, one of Ruben’s (1976) dimensions of intercultural competence, which focuses on “the ability to respond to others in a descriptive, nonevaluating, and nonjudgmental way” (p. 340), the following is an excerpt illustrating an objective voice describing Namibia, from a Namibia 2016 PN 2 artifact:

...a key difference is that Namibia, unlike the U.S., included environmental protective measures in its constitution. This fact may hint at the idea that the cultures of Namibia hold their native wildlife and natural resources in higher regard than in the U.S.

Ruben (1976) defines *tolerance for ambiguity* as the “ability to react to new and ambiguous situations with little visible discomfort” (p. 341), while adapting to a new cultural environment. *Tolerance for ambiguity* was illustrated in the following rhetoric of a Namibia 2017 PN 2 artifact:

Namibia is a place that 30 years ago was filled with civil war and unrest, but now it is an independent country filled with people from varying backgrounds. I have chosen to show the side of Namibia that has pride for its roots and the differing background it has today. The first president of Namibia, Dr. Sam Nujoma, brought in a new era for this country after gaining its independence. Namibia has gone through some rough times to get to where it is now between the German rule, apartheid, and civil unrest.

Life has changed here in Namibia over the years. Some say it has gotten better, but like most societies nothing is perfect and there is still work to be done. The people here really have a love for their country because they have fought to make it what it is today. When we were [in] Solitaire, I had a man approach me when we were taking pictures at the soccer game and my first thought was that he would try to get us to leave. Instead he approached me and asked me where I was from and where I was headed. After we chatted a bit about me, I asked him about his culture and where he was from. He preceded to tell me his name was Alex and he is Damar. Alex left nothing out about his culture and answered all my questions as best as possible about him and Namibia. He

brought up the civil unrest, but he never said anything negative about what Namibia has had to go through. It's refreshing to meet someone so in love with who they are and where they are from.

The conclusion of the excerpt above illustrates Ruben's (1976) theory of *self-oriented role behavior*, as the rhetoric incorporates an "initiation of ideas, requests for information, [and] seeking clarification" (p. 341) in the mentioned discussion with the local Namibian man.

Respect, an element of Ruben's (1976) dimensions of intercultural competence can be found in the following excerpt from a Namibia 2017 PN 2 artifact, in which the writer expresses "positive regard" (p. 339) for another person:

The continuous push to be better, grow more, and achieve standards is what makes Namibian agriculture unique. Farmers put pride into their craft. Their calloused hands and sun kissed faces are visible consequences of their hard work, every day of the week. Hand harvested crops on fields show the character of the yield.

Bennett's (2004) study stated that "the DMIS supposes that contact with cultural difference generates pressure for change in one's worldview" (p. 11). This statement from Bennett's (2004) study was supported by the findings of this research study, evident in the change in students' rhetoric and worldviews from PN 1 to PN 2 artifacts (as seen in Figure 6). Table 5 reinforces the defensible evidence of students' positive progression in developing intercultural competencies through completion of PN 2 assignments, as displayed in Figure 6.

Table 5 *Frequencies of Bennett's (1986) DMIS Stages by PN Artifacts*

DMIS Stages	Photo Narrative 1			Sum	Photo Narrative 2			Sum
	NAM 2016	CR 2017	NAM 2017		NAM 2016	CR 2017	NAM 2017	
Denial	0	0	0	0	2	0	0	2
Defense	7	18	13	38	0	0	0	0
Minimization	0	1	0	1	2	0	0	2
Acceptance	0	0	0	0	13	19	20	32
Adaptation	0	0	0	0	10	11	13	34
Integration	0	0	0	0	10	10	11	31

Table 5 shows frequencies of the stages of Bennett's (1986) DMIS across all PN 1 and PN 2 artifacts. Ethnorelative views (acceptance, adaptation, and integration) were nonexistent in PN 1 artifacts, but their frequencies increased in PN 2 artifacts. In addition, ethnocentric views (denial, defense, and minimization) were nearly nonexistent in PN 2 assignments, after students spent considerable time immersed in new cultures and environments. Therefore, participants' perspectives shifted from ethnocentrism to ethnorelativism as a result of participation in the photo narrative process. Students related their own cultures, with instructional and comparative assistance of PN 1, to host country nationals' cultures (PN 2) on a "familiar level" (Harrell et al., 2017, p. 58) after their personal perceptions of new cultures developed over time.

CHAPTER V

DISCUSSION AND SUMMARY

The purpose of this study was to explore effects of the photo narrative (PN) process on students' intercultural learning in agriculture through analyses of cultural aspects described in photo narrative assignments. Adding to ongoing research in intercultural competence and sensitivity, this study confirmed the impact of the photo narrative process as an educational tool, specifically in the realm of increasing intercultural sensitivity among students.

This study found that students' intercultural sensitivities shifted dramatically, as a result of participation in the photo narrative process. For future research, it is recommended to discover a method that objectively collect quantitative data that records the shift between attitudes in PN 1 and PN 2 artifacts. Numerical values will be an important aspect of determining if there is truly a significant change in students' intercultural sensitivities as a result of the participation in the PN process.

The study's outcome (i.e., shifted intercultural competency among photo narrative participants) can help educators plan activities and assignments that align with young people's methods of communication, such as social media (the pairing of photographs with short bodies of text). A Pew Research study indicates that 88% of college-aged people (ages 18-29) use at least one social media platform in 2018, a substantial growth from 7% in 2005 (Pew Research Center, 2018).

Table 6 shows percentages of social media users from different demographic, social, and age groups. The vast majority of American youth, across a wide range of demographic and ethnic groups, are social media users, which is a valuable reality in terms of applying the use of PN assignments across demographic and social lines.

Table 6 *Percent of U.S. Adults Who Use Social Media Platform*

Demographics	Percent		
	Facebook	Instagram	Twitter
Race:			
White	67	32	24
Black	70	43	26
Hispanic	73	38	20
Ages: (18-29)	81	64	40
Education:			
High school or less	60	29	18
College-aged	71	36	25
College graduate	77	42	32
Residence:			
Urban	75	42	29
Suburban	67	34	23
Rural	58	25	17

Note. Data were adapted from “Social Media Fact Sheet,” by Pew Research Center, 2018. Retrieved from <http://www.pewinternet.org/fact-sheet/social-media/>

Exactly 90% of youth that are still in grade school own a cellphone. More than 90% of high school graduates own cellphones and 96% of college students own mobile phones, 80% of these being smartphones (Pew Research Center, 2018). Although some people may not have social media accounts, the opportunities to be exposed to “photo narrative-like” communication, or photographs supplemented with short bodies of text, through cellphone use is widely available.

“Engaging in various forms of social media is a routine activity that research has shown to benefit children and adolescent by enhancing communication [and] social connection” (O’Keefe,

Clarke-Pearson, & Council on Communications and Media, 2011, p. 800). The educational value and usability of photo narrative assignments was demonstrated through the defensible results of this study.

Educational Value of Findings

Qualitative analyses of students' PN assignment artifacts revealed deeper meaning beyond perceptions of a new culture, giving greater insight into students' intercultural competencies. Participants' intercultural sensitivities and competencies changed, according to Bennett's (1986) DMIS, as a result of the photo narrative process.

The general, non-specific nature of the PN assignment instructions (see Appendix B), makes them widely adaptable and versatile to a variety of disciplines and educational realms. Because of the success of this study, PN assignments have immense educational value and potential to be used as tools by educators to impact students' ethnorelative worldviews by “[engaging] participants in a way to identify and visually portray issues that may otherwise go unsaid” (Borron, 2017, p. 12).

Enhanced intercultural sensitivity should be a highlighted result and incentive of students' participation in study abroad programs, a sentiment also mentioned by Fabregas-Janeiro (2011). Fabregas-Janeiro's (2011) study stated that “Curricular materials should be examined and perhaps enhanced to assist in [developing intercultural competence]” (p. 41). This study presents an outline, or model, for curriculum that focuses on students' development in intercultural competence.

“Although intercultural sensitivity is not a direct reason to study abroad, this idea and other global trends and theories suggest large-scale influences for why students study abroad” (Harrell et al., 2017, p. 58). Students who have “received largely monocultural socialization” (Bennett, 2004, p. 10) typically possess a very limited “cultural worldview” (p. 10), stunting intercultural interactions and communications. “The development of intercultural sensitivity describes how we gain the ability to create an alternative experience that more or less matches that of people in another culture. People who can do this have an *intercultural worldview*” (Bennett, 2004, p. 11). This study confirmed the photo narrative process as a valid method to attain *intercultural worldviews* (Bennett, 2004).

Harrell et al. (2017) noted the concepts of “intercultural sensitivity, internationalism and multicultural education are all related to the larger trend of globalization” (p. 58). Using PN assignments as the vehicle to change intercultural competencies from ethnocentric to ethnorelative views, capacitates students to work in a “diverse society” (Harrell et al., 2017, p. 58), making international experiences more valuable for career preparation. In our increasingly globalized world, international exposure and the ability to collaborate with people from different cultures are valuable characteristics for one on the brink of entering the workforce.

Future Research

Future research should be conducted using PN assignments to assess actors’ intercultural competencies across a spectrum of impactful social issues; studies should focus on racism,

income inequality, religious understanding, and/or classism to strengthen empathetic responses between dissimilar groups.

“Attempts to reduce the direct, traditional form of racial prejudice have typically involved educational strategies to enhance knowledge and appreciation of other groups” (Dovidio, Kawakami, & Gaertner, 2000, p. 102), which coincides directly with this study’s facet of incorporating multicultural education tools on study abroad programs. Attempting to disband prejudice can most effectively be done in a group setting, which could include students in study abroad programs, as in this study, or students in a classroom setting. Presenting a large group of students with “stereotype-disconfirming-information” (Dovidio et al., 2000, p. 102) is more effective when dispelling stereotypes, rather than presenting concentrated information to “a single person who is not a prototypical representative of the group” (Dovidio et al., 2000, p. 102). An individual’s exposure to new ideas that could possibly disprove his/her prejudice towards different groups presents the need for that individual to change his/her attitudes.

Bennett’s (2004) study states that each progression along the six stages of Bennett’s (1986) DMIS “generates pressure for change in one’s worldview” (p.11). Therefore, as individuals with the “‘default’ ethnocentric worldview” (Bennett, 2004, p. 11) become increasingly exposed to different cultures and ways of life, an impending pressure develops for the individual to adjust his/her *own* culture, or way of life, to accommodate the shifting social environment around him/her. “This happens because the ‘default’ ethnocentric worldview, while sufficient for managing relations within one’s own culture, is inadequate to the task of developing and maintain social relations across cultural boundaries” (Bennett, 2004, p. 11).

In accordance with the sentiments from Bennett's (2004) study, and by using the methodology of this study as a model, PN assignment instructions can be tailored for students or community members of varying ages to address prominent social issues, such as racism, prejudice, and stereotypes. The design of PN assignment instructions encourages engagement between culturally and ideologically diverse groups.

PN assignments could be modified to purposefully immerse participants into different cultural value systems. For example, Crampton, Dowell, Parkin, and Thompson's (2003) study proposed cultural immersion as a response to racism in healthcare. The authors argued, "Cultural immersion, an approach based on the principle that immersion in culture and language is an effective means of learning about oneself and about another culture" (Crampton et al., 2003, p. 597). Cultural immersion raises self-consciousness, which has value in breaking down racist attitudes of individuals who are not conscious of themselves (Crampton et al., 2003) "Students are encouraged to critically reflect on their own and others' attitudes towards racial and ethnic differences, assisting them to acquire generic skills that will improve their ability to work in culturally diverse settings and providing them with insights and knowledge about a specific culture" (Crampton et al., 2003, p. 597). The ideas from Crampton et al. (2003) can be incorporated into the structural framework of a PN assignment to create instructions centered on developing students' worldviews to combat a variety of social issues.

Bennett (1986) noted, "the DMIS is not predominately a description of cognition, affect, or behavior. Rather, it is a model of how the assumed underlying worldview moves from an

ethnocentric to a more ethnorelative condition” (p. 11), producing increased intercultural sensitivity and competence. It is important to note that shifts in views, attitudes, and perceptions are perceived as “manifestations of changes in the underlying worldview” (Bennett, 1986, p. 11). Therefore, curriculum and other developmental programs based on intercultural sensitivity should be focused on altering worldview rather than a particular pool of knowledge, expression of attitude, or skillset (Bennett, 1986).

Researchers should use the enhanced PN instructions from the Namibia 2017 study abroad program (as seen in Appendix B), because those instructions were more detailed, providing students with greater opportunities for growth in intercultural competence.

Furthermore, it could be useful to develop a coding structure, or mechanism, that accurately captures each stage of Bennett’s (1986) DMIS through the detection of key words or statements. The presence of these key words could then be accurately measured based on their occurrences in participants’ PN writings. In doing this, a uniform system would be established to code PN artifacts and quantify the qualitative contents in the data.

Another method for objectively coding PN artifacts would be to establish a third-party panel who could objectively evaluate the visual contents (i.e., photographs and images) of each PN in the data set. The panel would evaluate the images for signs of the six stages in Bennett’s (1986) DMIS by using social semiotic theories. Their findings would provide quantifiable occurrences that determine if significant numerical shifts occurred in students’ attitudes between PN 1 and PN 2 artifacts. Collecting statistical outcomes of the frequencies of the six stages of Bennett’s

(1986) DMIS in PN artifacts may reveal if there were truly statistically significant differences in students' intercultural sensitivities.

Limitations

Latent content, referring to the underlying meaning behind text and images, was used in this study. While this was useful in garnering the core meaning of different content in the PN artifacts, coding latent content “comes at some cost in reliability” (Fraenkel et al., 2015, p. 482). It is possible that one element of latent content could be interpreted or assessed differently by two different researchers. Although both accounts or interpretations of one element are valuable, the validity of the coding could be somewhat skewed or questioned.

A limitation to the study is in the spike of Bennett's (1986) element of “Defense” in PN 1, which may be attributed to the sheer nature of the PN assignment instructions. The instructions themselves do not give students opportunities to naturally incorporate significant rhetoric, or elements, of “Denial” and “Minimization” (two of the first three ethnocentric stages of the DMIS) in their PN 1 assignments (descriptions of their own cultural heritages). The nature of the PN 1 instructions engaged students to freely explain *their* cultural heritage, which may have encouraged students to “Defend” their cultural views, as opposed to using “Denial” and “Minimization” to describe their cultural heritages. This natural inclination to include defensive rhetoric in PN 1 assignments, evident in the spike of “Defense” seen in the findings, should illicit additional research to clarify this supposition. Again, this is a product of the PN assignment instructions. Based on the realization that defensive rhetoric may have been an unintended outcome of this research, the author recommends strongly that in future research, PN assignment

instructions be revised, if deemed necessary, to limit unintentionally encouraging specific attitudes, and to remain a neutral instructional position.

Furthermore, I believe this study could be enhanced by focusing on individual progressions of intercultural sensitivities by tracking individuals' ethnocentric or ethnorelative rhetoric in their PN 1 and PN 2 assignments. By creating individual accounts of change in intercultural sensitivity by tracking individuals' shifts from ethnocentrism to ethnorelativism, as a result of the PN process, the outcomes and validity of similar studies could be strengthened in the future.

Participants of this study did not board with host country nationals during their study abroad programs. However, in the future, assigning students to temporarily reside in host country nationals' homes while abroad might contribute to students' intercultural understandings and sensitivities (Fabregas-Janeiro, 2011). Many professional and educational settings require people to successfully operate in a multicultural and global setting, so individuals who possess intercultural communication capabilities and understandings (i.e., intercultural sensitivity and competence) are in high demand. Because there is a need for cross-cultural relations "...then there is pressure to develop greater competence in intercultural matters" (Bennett, 2004, p. 11).

These limitations are mentioned for the purpose of enhancing research on the photo narratives' effect on intercultural sensitivity and competence. This study's results show defensible evidence of a shift in intercultural sensitivity as a result of participation in the photo narrative process, highlighting the processes' educational and societal value. The PN assignment instructions (see Appendix B) are valid instruments and resources that can be adapted and used by educators and

community members to purposefully engage with different cultural groups for the purpose of greater understanding of one another.

REFERENCES

- Aiello, G. (2006). Theoretical advances in critical visual analysis: perception, ideology, mythologies, and social semiotics. *Journal of Visual Literacy*, 26(2), 89-102.
<http://dx.doi.org/10.1080/23796529.2006.11674635>
- Allport, G. (1979). *The Nature of Prejudice*. Cambridge, MA: Perseus Books.
- Association of Public and Land-Grant Universities. (2004). A call to leadership: The presidential role in internationalizing the university. Washington, DC: APLU. Retrieved from <http://www.aplu.org/NetCommunity/Document.Doc?id.=340>
- Bauman, Z. (2004). *Identity*. Cambridge: Polity Press.
- Bennett, M. J. (1986). A developmental approach to training for intercultural sensitivity. *International Journal of Intercultural Relations*, 10(2), 179–196.
[http://dx.doi.org/10.1016/0147-1767\(86\)90005-2](http://dx.doi.org/10.1016/0147-1767(86)90005-2)
- Bennett, M. J. (1993). Towards ethnorelativism: A developmental model of intercultural sensitivity. In R. M. Paige (Ed.), *Education for the intercultural experience*, 2, 21–71. Yarmouth, ME: Intercultural Press.
- Bennett, M. J. (2004). Becoming interculturally competent. In J. S. Wurzel (Ed.) *Toward multiculturalism: A reader in multicultural education*. Newton, MA: Intercultural Resource Corporation.
- Borg, W. R., & Gall, M. D. (1989). *Educational research: an introduction* 5th. edn. New York: Longman.
- Borron, A. (2013). Picturing the underserved audience: Photovoice as method in applied communication research. *Journal of Applied Communications*, 97(4), 1-13.
<http://dx.doi.org/10.4148/1051-0834.1124>
- Bruening, T., & Frick, M. (2004). Globalizing the U. S. undergraduate experience: a case study of the benefits of an international agriculture field-based course. *Association for*

International Agricultural and Extension Education, 11(1), 89-96.
<http://dx.doi.org/10.5191/jiaee.2004.11110>

- Byram, M. (1997). *Teaching and assessing intercultural communicative competence*. Philadelphia, PA: Multilingual Matters.
- Chen, H. (2008). *Intercultural sensitivity development among Taiwan business college students*. (Doctoral dissertation, Kent State University). Retrieved from <http://proquest.umi.com/pdqweb?did=1546790311&Fmt=7&clientId=4653&RQT=309&VName=PDQ>
- Conner, N., & Roberts, T. (2017). A qualitative case study of the cultural experiences of undergraduates on a study abroad program in Costa Rica. *NACTA Journal*, 61(2), 141-149.
- Covert, H. H. (2011). Undergraduate students' perceptions of developing intercultural competence during a semester abroad in Chile. (Doctoral dissertation). Retrieved from <http://purl.fcla.edu/fcla/etd/UFE0043538>
- Crampton, P., Dowell, A., Parkin, C., & Thompson, C. (2003). Combating effects of racism through a cultural immersion medical education program. *Academic Medicine* 78(6), p. 595-598. <http://dx.doi.org/10.1097/00001888-200306000-00008>
- Dervin, F. (2012). Cultural identity, representation and othering. *Routledge Handbook of Language and Intercultural Communication*, 181-194. London: Routledge. <http://dx.doi.org/10.4324/9780203805640.ch11>
- Doerfert, D. (2011). *National research agenda: American association for agricultural education's research priority areas for 2011-2015*. Retrieved from [http://aaaeonline.org/files/research_agenda-da/AAAE_National_Research_Agenda_\(2011-15\).pdf](http://aaaeonline.org/files/research_agenda-da/AAAE_National_Research_Agenda_(2011-15).pdf)
- Dovidio, J., Kawakami, K., & Gaertner, S. (2000). Reducing contemporary prejudice: Combating explicit and implicit bias at the individual and intergroup level. Hillsdale, NJ: Erlbaum, 101-105.

- Edgar, L., & Rutherford, T. (2017). A semiotic analysis of a Texas Cooperative Extension Marketing Packet. *Journal of Applied Communications*, 96(1), 1-14.
- Fabregas-Janeiro, M., Kelsey, K., & Robinson, J. (2011). Assessing changes in intercultural sensitivity among agricultural students exposed to international experiences. *International Agricultural and Extension Education Journal*, 18(1), 34-44. <http://dx.doi.org/10.5191/jiaee.2011.18103>
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. (2015). *How to design and evaluate research in education* (9th ed.). Boston: McGraw-Hill Professional Publishing.
- Hammer, M., Bennett, M., & Wiseman, R., (2003). Measuring intercultural sensitivity: The intercultural development inventory. *International Journal of Intercultural Relations*, 27, 421-443. [http://dx.doi.org/10.1016/S0147-1767\(03\)00032-4](http://dx.doi.org/10.1016/S0147-1767(03)00032-4)
- Harrison, C. (2003). Visual social semiotics: understanding how still images make meaning. *Technical Communication*, (50)1, 46-40.
- Harrell, A., Sterner, G., Alter, T, & Lonie, J. (2017). Student perceptions of the impact of their diverse study abroad experiences. *North American Colleges and Teachers of Agriculture*, 61(1), 56-65.
- Heinzmann, S., Kunzle, R., Schallhart, N., & Muller, M. (2015). The effect of study abroad on intercultural competence: Results from a longitudinal quasi-experimental study. *The Interdisciplinary Journal of Study Abroad*, XXVI, 187-208.
- Holmes, P., Bavieri, L., & Ganassin, S. (2015). Developing intercultural understanding for study abroad: Students' and teachers' perspectives on pre-departure intercultural learning. *Intercultural Education*, 26(1), 16-30. <http://dx.doi.org/10.1080/14675986.2015.993250>
- Kress, G., & Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. Bloomsbury Academic.
- Lester, P. M. (1995). *Visual communications: Images with messages*. Belmont, CA: Wadsworth Publishing, 55-140.

- Liu, S., & Dall'Alba, G. (2012). Learning intercultural communication through group work oriented to the world beyond the classroom. *Assessment & Evaluation in Higher Education*, 37(1), 19-32. <http://dx.doi.org/10.1080/02602938.2010.494233>
- MAXQDA. (2017). *The art of data analysis*. Retrieved from <http://www.maxqda.com/>
- National Education Association. (2010). Global competence is a 21st Century imperative. Washington, DC: NEA Education Policy and Practice Department. Retrieved from http://www.nea.org/assets/docs/HE/PB28A_Global_Competence11.pdf
- Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical Anthropology*, 7, 177-182. <http://dx.doi.org/10.1177/009182966000700405>
- O'Keefe, G., Clarke-Pearson, K., & Council on Communications and Media. (2011) Clinical report – the impact of social media on children, adolescents, and families. *Official Journal of the American Academy of Pediatrics*, 127(4), 800-806.
- Ownby, T. (2013). Critical visual methodology: Photographs and narrative text as a visual autoethnography. *Online Journal of Communication and Media Technologies* (Special Issue).
- Patton, M. Q. (2002). *Qualitative, research & evaluation methods*. Thousand Oaks, California: Sage publications Inc.
- Pew Research Center. (2018). *Social media fact sheet*. Retrieved from <http://www.pewinternet.org/fact-sheet/social-media/>
- Ruben, B. C. (1976). Assessing communication competency for intercultural adaptation. *Group and Organization Studies*, 1, 334-354. <http://dx.doi.org/10.1177/105960117600100308>
- Sinicrope, C., Norris, J., & Watanabe, Y. (2007). Understanding and assessing intercultural competence. *Second Language Studies*, 26(1), 1-58.
- Strack, R., Orsini, M., Fearnow-Kenney, Herget, J., Milroy, J., & Wyrick, D. (2015). Developing a web-based tool using information and communication technologies to expand the reach

and impact of photovoice. *American Journal of Health Education*, 46, 192-195.
<http://dx.doi.org/10.1080/19325037.2015.1044585>

Wang, C., & Burris, M. A. (1994). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*, 24(3), 369–387.

Wilbur, G. (2016). The staying power of intercultural learning through reflective inquiry. *Reflective Practice*, 17(1), 59-71. <http://dx.doi.org/10.1080/14623943.2015.1123687>

Wolfe, J., & Wilder, L. (2016). *Digging into literature: Strategies for reading, analysis, and writing*. Boston, New York: Bedford/St. Martin's.

APPENDIX A

HUMAN SUBJECTS APPROVAL FORM

TEXAS A&M UNIVERSITY HUMAN SUBJECTS PROTECTION PROGRAM

CONSENT FORM

Project Title: Effects of the Photo Narrative Process on Intercultural Learning

You are invited to take part in a research study being conducted by Gary Wingenbach, a researcher from Texas A&M University. The information in this form is provided to help you decide if you want to participate by contributing unidentified photographs and written text. If you decide you do not want to participate, there will be no penalty to you, and you will not lose any benefits you normally would have from participation.

Why Is This Study Being Done?

The purpose of this study is to explore the effects of the photo narrative process on students' intercultural learning in agriculture.

Why Am I Being Asked To Be In This Study?

You are being asked to be in this study because you are participating in an ALEC Study Abroad Program, which includes creating Photo Narratives (i.e., a combination of photos and text) of cultural heritage (domestic and foreign). The required photo narrative assignments occur during your study abroad program and are a part of your normal coursework.

How Many People Will Be Asked To Be In This Study?

Approximately 250 people (participants) will be invited to participate in this study.

What Are the Alternatives to being in this study?

The alternative to this study is not to participate.

What Will I Be Asked To Do In This Study?

You will be asked to participate by contributing archival data (i.e., unidentified photographs and written text from a course-related assignment; see Photo Narrative Examples), which will be analyzed for thematic content related to intercultural learning in agriculture. The required Photo Narrative assignment helps you describe your understanding of cultural heritage (own and foreign) using photographs and written text. Your participation in producing archival data for this study could be three hours, depending on efforts in acquiring and editing digital photos, creating and editing text for the photos, and reviewing peers' photos. You are being asked to share the outcome of your photo narrative assignments (e.g., unidentifiable photo narratives) for research purposes, if your photo narrative outcome is deemed acceptable for research purposes.

Are There Any Risks To Me?

The things that you will be doing have no more risk than you would come across in everyday life. Although the researcher has tried to avoid risks, you may feel that some questions and/or procedures will be stressful or upsetting. You do not have to answer, or may partially answer, such questions.

Are There Any Benefits To Me?

There may be no direct benefit to you from participating in this study. What the researcher learns may help improve instructional techniques, specifically using the photo narrative process in high-impact learning programs at Texas A&M University.

Version Date:

Page 1 of 3



IRB NUMBER: IRB2017-0377
IRB APPROVAL DATE: 06/12/2017
IRB EXPIRATION DATE: 06/11/2022

TEXAS A&M UNIVERSITY HUMAN SUBJECTS PROTECTION PROGRAM
CONSENT FORM

Will There Be Any Costs To Me?

Aside from your time, there are no costs for taking part in the study.

Will Information From This Study Be Kept Private?

The records of this study will be kept private. No identifiers linking your photo narratives (photographs and written text) to this study will be included in any sort of report that might be published. Research records will be stored securely and only Gary Wingenbach will have access to the records.

Information from your photo narratives will be stored in computer files protected with a password.

Information about you will be kept confidential to the extent permitted or required by law. People who have access to your information include the Principal Investigator and research study personnel. Representatives of regulatory agencies such as the Office of Human Research Protections (OHRP) and entities such as the Texas A&M University Human Subjects Protection Program may access your records to make sure the study is being run correctly and that information is collected properly.

Who may I Contact for More Information?

You may contact the Principal Investigator, Gary Wingenbach, PhD to tell him about a concern or complaint about this research at (979) 862-3001 or wingenbach@tamu.edu

For questions about your rights as a research participant, to provide input regarding research, or if you have questions, complaints, or concerns about the research, you may call the Texas A&M University Human Research Protection Program office by phone at 1-979-458-4067, toll free at 1-855-795-8636, or by email at irb@tamu.edu.

What if I Change My Mind About Participating?

This research is voluntary and you have the choice whether to be in this research study. You may decide to not contribute archival data (i.e., photo narrative assignments), or to stop participating at any time. If you choose not to be in this study or stop being in the study, by requesting your photo narratives do not become a part of the archival data set, there will be no effect on your student status or relationship with Texas A&M University, or on your academic status in the study abroad program.

Any new information discovered about the research will be provided to you. This information could affect your willingness to continue your participation.

Version Date:

Page 2 of 3



IRB NUMBER: IRB2017-0377
IRB APPROVAL DATE: 06/12/2017
IRB EXPIRATION DATE: 06/11/2022

TEXAS A&M UNIVERSITY HUMAN SUBJECTS PROTECTION PROGRAM

CONSENT FORM

STATEMENT OF CONSENT

I agree to be in this study and know that I am not giving up any legal rights by signing this form. The procedures, risks, and benefits have been explained to me, and my questions have been answered. I know that new information about this research study will be provided to me as it becomes available and that the researcher will tell me if I must be removed from the study. I can ask more questions if I want. A copy of this entire consent form will be given to me.

Participant's Signature

Date

Printed Name

Date

INVESTIGATOR'S AFFIDAVIT:

Either I have or my agent has carefully explained to the participant the nature of the above project. I hereby certify that to the best of my knowledge the person who signed this consent form was informed of the nature, demands, benefits, and risks involved in his/her participation.

Signature of Presenter

Date

Printed Name

Date

Version Date:

Page 3 of 3



IRB NUMBER: IRB2017-0377
IRB APPROVAL DATE: 06/12/2017
IRB EXPIRATION DATE: 06/11/2022

APPENDIX B

PHOTO NARRATIVE ASSIGNMENT DESCRIPTIONS AND INSTRUCTIONS

ALED 422 - Cultural Pluralism in Agriculture Photo Narrative Assignments 2016 Namibia Study Abroad Program

Photo Narrative #1:

1. Submit your best photo representing your personal cultural heritage; submit photos (jpeg format) on a thumb drive.
2. Describe (100-150 words) how or why your photo best represents the chosen theme.
3. Participate in double-blind critiques (each student critiques another student's photo, using the same criteria... how and why the photo best represents...).

Photo Narrative #2:

1. Capture a specific element of your host country with photograph and narrative, representing one specific category:
 - a. Historical/cultural value of an agricultural product
 - b. Consumer effect on production
 - c. Environmental concerns/issues affecting production
 - d. Multicultural significance between Namibia and U.S. product uses/values
 - e. Socio-economic effects
2. Describe (100-150 words) how or why your photo best represents the chosen theme (i.e., categories).

ALED 422 - Cultural Pluralism in Agriculture
Photo Narrative Assignments
2017 Costa Rica Study Abroad Program

“Photovoice is a process [an action research method] by which people can identify, represent, and enhance their community through a specific photographic technique” (Wang & Burris, 1992, p. 369). The pictures are used (usually with captions composed by the photographers) to bring the realities of the photographers’ lives home to the public and policymakers and to create change.

Wang and Burris (1992) developed Photovoice based on a combination of Paulo Freire’s notion of “critical consciousness” (a deep understanding of the way the world works and how society, politics, and power relationships affect one’s own situation); feminist theory, which emphasizes the importance of voice; and documentary photography, which is often used to help bring about social change.

An outgrowth of the Photovoice method is the Photo Narrative method, a purposeful exercise whereby learners construct “self-identity through photographs and narrative text...to develop a visual autoethnography” (Ownby, 2013, para. 1). Texas A&M University’s describes high impact experiences as practices that deepen learning and foster student engagement. Rather than passive learning, students actively pose and solve problems, work collaboratively, experience real-world applications, and reflect on their learning processes. The purpose of this assignment is to help you deepen your understanding of self, culture, and diversity through personal photos and expressive narratives.

Instructions:

1. Photo Narrative #1:
 - a. Submit your best photo representing **personal cultural heritage**.
 - b. Describe (100-150 words) why your photo best represents this theme.
 - c. Participate in double-blind critiques (each student reviews another student’s photo, using the same criteria, and writes why the photo best represented the chosen theme).
2. Photo Narrative #2:
 - a. Submit your best photo and narrative for **one of these Costa Rica categories**.
 - i. Historical value of an agricultural product (i.e., trade, political power, religion, etc.)
 - ii. Consumer effects (market supply and demand)
 - iii. Environmental concerns/issues affecting production
 - iv. Multicultural significance of product use/value
 - v. Socio-economic effects (e.g., Does U.S. demand for the product exploit Latin American suppliers? Does supply and demand cause social justice issues in agriculture?)
 - b. Describe (100-150 words) why your photo best represents the chosen theme.

ALED 422 - Cultural Pluralism in Agriculture
Photo Narrative Instructions
2017 Namibia Study Abroad Program

While studying abroad, there are daily opportunities to interact with host country nationals. These intercultural interactions may stimulate your curiosity and make you think about your culture. Such interactions could occur anywhere, such as on a bus, in a store, walking on a street, in a classroom, or when talking with friends or professors. Before you make the leap to understand another person's culture, you need to examine critically your own culture. In essence, you can tell a short story (through photo and text) of what it means to be you.

Photo Narrative #1 Instructions:

To facilitate telling your cultural heritage story, you need a cellphone camera (make and model are irrelevant), and note taking tools (e.g., cellphone or a small notebook and pen). **Two weeks before your planned study abroad travel, acquire a series of digital photos** (as many as you want), **that are most representative of your cultural heritage**. Think about images that illustrate your culture or heritage, such as foods, home, clothes, places, traditions, etc.

While collecting photos use a paper or digital notepad to write notes for "each photo in your collection" focusing on these specific questions:

- Where was the photo acquired?
- What drew your attention to the subject of the photo?
- What aspect of culture or heritage does the photo represent to you?
- What were your emotions and/or thoughts when you took the photo?
- How will this photo help you tell your cultural heritage story with/without text?

During the first week of your study abroad program:

1. Choose three photos from your collection that best show your personal cultural heritage.
2. Attach the digital photos in a Word document.
3. Describe how these photos best represent your Cultural Heritage (~200 words).
4. Participate in double-blind reviews (i.e., each student analyzes a peer's photo set and writes a narrative describing how the peer's photos best represent their cultural heritage).
5. After the peer review, reflect on the similarities/differences between narratives.

Photo Narrative #2 Instructions:

During the first two weeks of your study abroad program, collect a series of digital photos (as many as you want), that are most representative of the host country's cultural heritage.

Think about images that illustrate the host country's culture or heritage, such as foods, homes, clothes, places, signs, etc. Use the same questions from PN #1 while collecting photos to make notes for those retained in your collection.

After the second week of your study abroad program:

1. Choose three photos that best represent the host country's cultural heritage.
2. Attach the digital photos in a Word document.
3. Describe how these photos best represent the host country's culture or heritage (~200 words).
4. Participate in double-blind reviews (i.e., each student analyzes a peer's photo set and writes a narrative describing how the peer's photos best represent the host country's cultural heritage).
5. After the peer review, reflect on the similarities/differences between narratives.
6. Share reflections from the Photo Narrative process as they relate to intercultural learning and/or expression of cultural heritage in domestic and foreign settings.