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The development of global awareness in elementary students through participation in an online cross-cultural project

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THE DEVELOPMENT OF GLOBAL AWARENESS IN ELEMENTARY
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CROSS-CULTURAL PROJECT

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by
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DEDICATION

This dissertation is dedicated to my wife, Kristin Anne Grant, who encouraged me to pursue a career in education. This dissertation is also dedicated to my late father, John Adams Grant, MD, MPH, who taught me the value of public service. Most important, this research was conducted so that my son, Hunter Adams Grant, may one day live in a world free of hate and bias.

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ABSTRACT

This study provided insights about how to develop online cross-cultural projects designed to foster global awareness in upper elementary-age students. Three schools, located in the southern United States, Mexico and Turkey, implemented a cross-cultural model as part of a comparative case study. The primary goal of this research was to gain an understanding of how these populations develop global awareness in an online environment. A second goal was to determine the necessary implications for practice when conducting online, cross-cultural projects in upper elementary classrooms. During eight weeks of implementation, students participated in cross-cultural groups as members of an online community. Qualitative data were collected from the online threaded discussions, focus group interviews with eight case study participants, teacher interviews, parent interviews and observations. Quantitative data from the Inventory of Intercultural Sensitivity (ICCS) survey was collected. Results showed that online cross-cultural projects are an enjoyable and viable means of developing global awareness in upper elementary age students, and that the development of global awareness in an online environment is dependent upon changes in participants' social comfort zones. Changes in social comfort zones were shown to best occur through social, collaborative experiences, with gender, learning styles and country of origin playing an important role in the design of the online cross-cultural projects. In addition, the study determined that while students enjoy learning about global issues from other students rather than from teachers and textbooks, active teacher involvement in cross-cultural project is necessary for student success. The project concluded that collaborative, constructivist instructional design is essential for the development of online cross-cultural projects.

"No culture can live, if it attempts to be exclusive"

Mahatma Gandhi

CHAPTER ONE: INTRODUCTION

Many educational researchers and practitioners would not doubt the immense impact that instructional technology has had on education, (Schacter, 1999). Technology, whether viewed positively or negatively, is at the forefront of educational thought and reform from preschool to higher education. In addition, the belief that an integral purpose of education is to prepare learners for global citizenship through the development of global awareness is a hallmark of modern educational thought and reform (Postman, 1995). As technology and global issues have grown and evolved over the last two decades, many are turning to new communication technologies as a means for developing global awareness in students, thereby reducing the world's cultural divide.

The cultural divide is the cultural barrier that exists between educators and students of one culture and those of another culture. In school settings that embrace global awareness, students, teachers and the community understand that unique cultural and ethnic heritages exist. They respect and appreciate multicultural diversity and promote a culturally responsible and responsive curriculum (National Association of Multicultural Education, 2003).

Statistics outline the need for technological assistance in reducing the cultural divide through the development of global awareness. In 1998, 40 percent of the total school populations in the United States were minorities (National Center for Educational Statistics, 2000). By 2000, immigrants accounted for 8.6 million school-aged children in our schools. The number of school-aged children who spoke a language other than English rose from 1.3 million in 1979 to 2.4 million in 1995 (Federal Interagency Forum on Child and Family Statistics, 2002).

National statistics regarding computer use for multicultural students are equally compelling. According to a recent report by the U.S. Department of Commerce (2002), Whites, Asian Americans and Pacific Islanders have had higher rates of both computer and Internet use than Blacks and Hispanics. These numbers indicate that cooperative and culturally diverse learning experiences among these groups are difficult to achieve due to a lack of technology.

Other compelling statistics call for enhanced global curricula. As the world's populations become more interconnected, students need to understand their global community. In 1994, the National Council for Social Studies established a broad set of standards related to global interdependence. However, only a few states and school districts have established graduation requirements related to global education. A report from the National Center for Education Statistics (NCES, 2002) shows that only seven states require either world history or world geography for graduation. Only 15 require a foreign language for graduation. Other statistics indicate that the nation's educators are doing a poor job in teaching cultural awareness. According to the College Board (2002), student scores on Advance Placement exams that assess global issues are marginal at best. On a scale of one to five, with five being the highest, the mean grade on the European History exam is 2.87, while the mean score on the Human Geography exam is 2.92.

Several researchers have sought the answers as to why the cultural gap is so large in America's schools. Neuman and Bekerman (2001) surmised that there is a large gap between an educator's practice of pedagogy and the dominant cultural influences that can inhibit learning. Doering (1997) found that a sample of 6th grade students in one school had an extremely low level of global awareness, mainly due to teachers' reliance on standard geography books that did an adequate job of teaching physical geography, but did little to promote geographic influences

on cultural development. Bennett (1997) concluded that students did not learn about global issues because many teachers view geography as a collection of facts. The traditional world geography units taught by these teachers often reinforced students' misconceptions of the global community rather than helping them understand other people's behavior.

One novel approach to reducing the cultural divide and promoting global awareness is to create cross-cultural exchanges using distance education technologies. Computer networks have been used as a means of academic course delivery since the early 1980s, and have experienced significant growth since the proliferation of the World Wide Web in the late 1990s. Hiltz (1997) first described these networks as "virtual classrooms," likening them to a teaching and learning environment devoid of brick and mortar that is instead constructed of group communication and workspace facilities constructed in software.

Distance education technologies have been expanded to allow students and teachers opportunities to build relationships with people of other cultures that would otherwise be logistically impossible. The technology allows for a social-constructivist style of learning, in which students can share their current realities of self, community and the world with others (Reil, 1995). Schools can now play an increased role in reducing geographical and cultural isolation by integrating distance education technologies into their curricula in order to enhance cooperative learning.

However, some would argue that through globalization, the world is becoming more or less homogenized, even Americanized, due to the dominant influence of the United States on the Internet (Evans & Nation, 2003). Usher and Edwards (1994) argue that the natural world has always been globalized, and that countries have historically attempted to shorten distances via technology (sailing ships and other means of colonization). Giddens (1994) supports this idea of

historical globalization by positing that individuals are forced to engage with a wider world, and must be able to navigate through it in order to ultimately survive.

1.1 Definition of Global Awareness

Clearly, the concept of global awareness is an area of little familiarity in America's schools. Pre-service teacher education programs glaringly lack clear integration of global studies, tending to focus on domestic multicultural issues relevant to their regional settings. However, the literature indicates that a universal definition of global awareness (used interchangeably in literature as cultural awareness) is rarely found.

The term "culture" is generally viewed as an anthropological term. Bates and Plog (1990) define culture as "a system of shared beliefs, values, customs, behaviors, and artifacts that the members of society use to cope with their world and with one another, and that are transmitted from generation to generation through learning" (p7). When culture is viewed from an international perspective, the term "cross-global awareness" tends to emerge in the literature. Kirkwood (2001) describes persons possessing global awareness as "those who possess high-tech skills, broad interdisciplinary knowledge about the contemporary world, and adaptability, flexibility, and world mindedness to participate effectively in the globalized world" (p. 11). While this is a useful definition, for the purposes of this study, the researcher will use a definition adopted by the Global Awareness Group at the College of Charleston (2001). Their definition states:

> Global Awareness is an appreciation of interconnected worldwide environmental, political, economic, and social relations and their consequences. This appreciation includes recognition of a responsibility to participate in actively shaping those relations and consequences. This responsibility is demonstrated through active and constructive involvement with global issues individually, through our communities, and in concert with people around the world.

1.2 Summary of Literature

Research focusing on technological innovations for addressing global and cultural issues began in the mid-1980s. Many of these studies sought answers to the cultural implications of distance education design, the effects of distance education on global economic development, and cultural implications for higher education students and faculty. Few studies considered online, collaborative experiences with elementary and secondary students from other countries having different educational backgrounds and speaking different languages.

Some degree of cross-cultural research emerged from the virtual classroom concept of the early 1990's. AT&T learning circles were found to reduce isolation and promote cooperative learning among students, as well as among the participating teachers (Reil, 1990). Similarly, Cifuentes and Murphy (2000) found that cultural similarities and differences were enhanced through communications and artwork shared electronically by students in Texas and Mexico.

Other studies emerged that addressed key components of distance education platforms. Anderson (1998), Beckett, et al. (2002), and Rosaen (2002), surmised that technology such as video, simulations and web research can play a positive role in changing teachers' and students' attitudes regarding multicultural populations. Similarly, students in a U.S. undergraduate French class and in a French post-graduate engineering course pursued an intercultural exchange via electronic interactions concerning cultural differences, focusing on socialization (Kinginger, Gourves-Hayward & Simson, 1999).

Others have focused on increased cultural awareness as a by-product of foreign language development studies using distance education technologies (Schoorman & Carillo, 2000; Cifuentes & Shii, 2001). Singhal (1998) was one of the earliest researchers to combine email with teleconferencing, concluding that the added element of authentic communication fostered

concepts of cultural enrichment. Mill and Shelly (1996) found that American and French middle school students collaborating via teleconference were able to produce a cooperative play that combined cultural elements of each group. Two studies by Lee (1997) and Osuna and Meskill (1998) reported that use of Internet resources was a meaningful way to integrate language and culture and to provide opportunities for students to learn about the target culture while using email to discuss cultural aspects with native speakers.

Other technologies that proved to be successful in helping college students bring insiders' views of other cultures into foreign language classroom are Internet-based culture portfolios (Abrams, 2002). Lee (1998) used online newspapers and online chat rooms with college-level advanced Spanish students in order to develop students' cultural knowledge and language skills.

Eventually, experimental studies emerged that placed cultural awareness and elements of cultural awareness as an intended outcome. Many of these studies used distance-learning strategies such as web-based learning, hyper/multimedia, learner control and simulations. The consistent thread in these studies is the use of inquiry-based, constructivist learning environments. These researchers drew on a wide body of prior studies to support their initial hypotheses. Most based their designs on the philosophy of social constructivists like Vygotsky (1978), Dewey (1938) and Maslow (1973), who contend that as individuals grow through education, they transform into responsible and caring world citizens.

Herron, Dubriel, Corrie & John (2002) examined the effects of using video, combined with traditional text study, as a positive enhancement to cultural knowledge as represented in both daily lifestyle and civilization. Herron et al. (2002) built upon an earlier study by Wilson (1992) that combined HyperCard and standard video programs, showing that students displayed a positive change in attitude toward students culturally different from themselves.

Two progressive studies in particular serve as a loose framework for design of the proposed study. Cifuentes and Murphy (2000) conducted culture-related studies that measured the effects of curricular and identity-forming multicultural activities for middle school students. Students used multimedia portfolios to establish cross-cultural classroom experiences and foster tolerance and diversity in the process. The combination of distance learning and multimedia technologies proved significantly effective in helping young students make sense of their experiences and have a greater sensitivity toward multicultural issues.

Another program, the International Communication and Negotiation Simulation (ICONS, 2003) project at the University of Maryland provides project-generated scenarios in a synchronous chat environment that outline global issues to be negotiated. Students, working in country teams, play roles, develop policies for negotiations and seek common answers through negotiation. Project administrators manage the open-ended scenarios and act as chairpersons for the talks (Starkey, 1998). The documented effects of the ICONS are extraordinary. One study involved Israeli and Palestinian university students engaged in a conflict resolution experiment using ICONS. Encouraged to portray the other side, students learned to define the term neighbor and understand the perspective of what their culture had historically defined as an enemy. Through qualitative analysis, researchers observed students learning that bordering states must cooperate in order to exist and survive. Many of the students described the experience as cathartic and generally agreed that the participants from each side shared common fears and emotions (ICONS, 2003).

1.3 Statement of the Problem and Significance of the Study

This study focused on the promotion of global tolerance in upper elementary students, with the purpose of creating changes in students' cultural contexts. One goal of the project was

to help students develop personal relationships with students from other countries at a deep level, moving beyond the simple acquisition of facts. Research indicates that this is an important concern, considering that a lack of global awareness in young students can lead to damaging future practices such as stereotyping (Aboud, 1988; Cameron, Alvarez, Ruble, & Fuligni, 2001; Martin, Wood, & Little, 1990).

Conceptually, stereotyping is the process of assuming a person or group has one or more characteristics because most members of that group have, or are thought to have, the same characteristics. When stereotypes are inaccurate and negative, their influence can lead to misunderstandings and life-long cultural divides, which make resolving conflicts more difficult. By giving elementary students the opportunity to make informed decisions about other cultures, this facet of the cultural divide can be reduced.

The literature shows that the majority of studies that involved cultural awareness and global understanding were designed with other proposed outcomes and variables, especially foreign language acquisition. The research with ICONS (2003) and the works of Cifuentes and Murphy (1997, 2000) are the only long-term cross-cultural projects designed to measure the development of global awareness in students. ICONS was developed for a higher education setting, and the studies of Cifuentes and Murphy focused on high school and middle school settings. Also, Cifuentes and Murphy tended to focus on populations with intense racial and segregation problems, namely border children in southeastern Texas and northeastern Mexico. For these children, elements of prejudice and stereotypical behavior were deeply ingrained at a young age. Furthermore, Cifuentes and Murphy included student achievement as an additional variable in their studies.

One aspect of the current study explored the feasibility of using distance education technology with 10 and 11 year old students. The program used Blackboard, which is a multifaceted courseware program allowing for synchronous and asynchronous discussion board chat, file and photo sharing, and video streaming capability. These are facets of multimedia instruction not typically experienced in the average upper elementary classroom. The researcher conducted a pilot study which, among other goals, hypothesized that as students in multiple cultural settings increase their comfort level with these multimedia tools, their cross-cultural experience may become more comfortable and insightful as well.

1.4 Pilot Study Procedures and Purpose

The researcher conducted a pilot study in the fall of 2005 with fourth grade students at a school in a large community in the southern United States and fourth grade students at an international school in a Western European capital city. The purpose of the pilot study was to assess the feasibility of interactive courseware programs used by upper elementary students, establish classroom procedures and orchestration for the project, develop a training protocol for instructors at the international site, and test the language of the survey instruments that were adapted from adult surveys.

The feasibility of an interactive courseware program, in this case, Blackboard, used by upper elementary students was quickly established. The researcher conducted a thirty-minute in-class lesson on basic Blackboard use at the school in the United States, demonstrating message posting, message responding and the attachment of photos. Students at the school were already familiar with school email login procedures, and were able to quickly access the course site. All students were able to read and respond to a previously posted question, as well as write and post

a new message. During the third week of the pilot project, students successfully took digital photos and posted them to the course site.

The procedures and orchestration of the project were tested during the pilot phase. One notable change was the creation of group discussion boards in order to reduce and consolidate student responses. With 44 students participating in discussions, this adjustment greatly reduced the number of messages that individual students had to read and synthesize. Other additions made to the site during the pilot study were the inclusion of welcome and progress messages by the researcher and teachers, reworded discussion threads to match the reading ability of the students and graphics to make the austere look of Blackboard more pleasing to an elementary student's eye. See Figure 1 for a screen shot of the pilot study's welcome page.
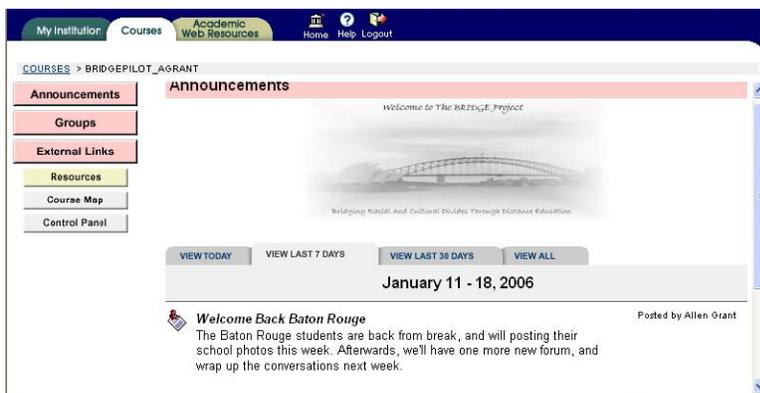
Figure 1 Pilot Study Welcome Screen

Training the technology coordinator at the European school on Blackboard was complicated by distance and time zone factors. The researcher created three procedural modules in Blackboard that mirrored the experiences in which the students would soon participate. The three modules were: 1) login troubleshooting; 2) posting, replying and deleting asynchronous messages; and 3) posting photos and attachments. In turn, the technology coordinator was charged with teaching these skills to the classroom teachers and their students. The protocol was successful, and used to train the teachers in the schools that participated in the main study.

Another important result of the pilot was the creation of a global awareness survey modified from Bennett's (Cushner's) Inventory of Cross-Cultural Sensitivity (ICCS) (1986). The survey was administered to the students at the conclusion of the study. The Likert scale and format for responding was explained on an overhead projector. The survey was not read aloud to the students. Instead, students were charged with reading and interpreting the language of the survey questions, and responding to the best of their ability. Then, small groups of students were interviewed at the conclusion of the exercise, and asked the following three questions:

1. Which, if any, questions did you have difficulty reading?

2. Which, if any, questions did you have difficulty understanding?

3. How well did you understand the response area?

Next, the researcher tested the students' understanding of their own responses by asking them to explain the rationale behind some of their answers. Based on this information, the researcher modified items to ensure age appropriateness. More information on the ICCS survey is located in Chapter Three.

1.5 Pilot Study Results

The results of the pilot study indicated that the participants were very eager to participate in the project, enjoyed meeting other students online, and learned interesting information from their online group members. The following posting by a 10-year-old participant is an excellent summary of what was learned from the experience:

> I really thought I learned and enjoyed a lot from this project. I learned that you can talk to someone and meet them and be friends with them even if you can't see them or hear them. Right now it's like meeting someone from a totally different country while being blind and deaf because I can't see or hear you.

Student suggestions for improvement of the online experience included timelier responses from cross-cultural partners, more participation from teachers, more use of photos and websites, and an online help screen for when difficulties arose.

1.6 Research Questions

The theoretical concepts presented in the review of the literature, as well as information collected during the pilot study, have led to the development of the following research questions:

Central Research Question: How does participation in a cross-cultural distance education project affect the development of global awareness for upper elementary students?

Sub Question #1: What factors lead to the development of global awareness for upper elementary age students?

Sub Question #2: How, if at all, have students' attitudes toward their cross-cultural peers changed through participation in a cross-cultural distance education project?

Sub Question #3: Do students educated in different countries develop global awareness differently than their online peers?

Sub Question #4: Do upper elementary students participating in an online cross-cultural project develop global awareness more than upper elementary students not participating in an online cross-cultural project? If so, how?

Sub Question #5: What are the necessary implications for practice when conducting online, cross-cultural projects in upper elementary classrooms?

1.7 Limitations of the Study

The study employed a mixed methodology approach using sequential mixed methods. As in all research, the study had some limitations in both the qualitative and quantitative designs. One challenge to mixed methods is the difficulty in using quantitative data to drive qualitative

data so that results of both forms of data could be compared. Furthermore, once compared, the two sources of data may contain conflicting results (Creswell, 2002).

There are also limitations to case study research, including the difficulty of identity concealment of the participants and setting being studied, and the transferability of the case study findings. Ethical problems can arise if the identity of the organization and the participants being studied proves difficult to disguise. Likewise, while it is a complex undertaking to allow the results of case study research to be generalized to other situations (Gall et al., 1996), it is possible if thick descriptions of the cases are included to allow the reader to make a determination of transferability to other settings.

Another limitation of the study is quantitative. The study used an adult survey to measure global awareness and understanding because there were no instruments designed to measure global awareness for children under the age of 16. The adult survey was adapted and modified for upper elementary student use during the pilot phase of the research.

CHAPTER 2: REVIEW OF RELATED LITERATURE

2.1 Literature Review Introduction

One purpose of education is to prepare learners for global citizenship through the development of global awareness (Postman, 1995). While the concept of global awareness can be difficult to define, many educators include cooperation, tolerance, appreciation, critical thinking, and the ability to resolve conflict as important constructs (Parker, Ninomiya, & Cogan, 1999). The aim of this study was to show how these constructs of global awareness (also found in the literature as cultural awareness, intercultural competence and globalization) are best learned through cross-cultural communication (also found in the literature as computer conferencing and telecollaboration) among people of diverse perspectives.

For this study, cross-cultural communication took the form of synchronous and asynchronous chat, stimulated not only by free and open dialogue, but also by common problem solving and student-generated multimedia presentations shared via telecommunications software. The target audience was upper-elementary age students, a population generally marginalized in past cross-cultural studies. The following review of literature discusses the formation and reduction of stereotyping in young children, specific constructs for the development of global awareness, the impact of learning theory on the design and use of computer based cross-cultural exchanges, and the effects of collaborative learning via computer conferencing, including cultural awareness as an extraneous variable in foreign language distance education research, and global awareness as a targeted outcome in research design. The review concludes with a hypothesized construct map for the development of global awareness in upper elementary-age students.

2.2 Increasing Children's Global Awareness/Reducing Stereotypes

Current research indicates that stereotypes are learned at an early age and can become deeply ingrained in young children. The vulnerability of children to stereotype threat implies that stereotypes are learned early in life. Several studies have observed group biases by age 3 or 4 and the development of racial and gender stereotyping soon thereafter (Aboud, 1988; Cameron, Alvarez, Ruble, & Fuligni, 2001; Martin, Wood, & Little, 1990). One Israeli investigation even documented anti-Arab prejudice in children as young as 2½ years of age (Bar-Tal, 1996).

Unbelievable by many, research indicates that children can distinguish among social groups at an early age, having found that children typically begin to form social categories within the first year of life. Infants are often able to discriminate between female and male faces by the age of 9 months, and sometimes as early as 5 months (Leinbach & Fagot, 1993).

However, studies also indicate that stereotypes can be successfully reduced and social perceptions made more accurate when people are motivated to do so (Fiske, 2000; Neuberg, 1989; Sinclair & Kunda, 1999). One of the most effective ways to do this is through empathy. Studies show that by taking the perspective of others and gaining a perspective on their culture and ideals, bias and stereotyping can be significantly reduced (Galinsky & Moskowitz, 2000). One study by Sousa, Neto and Mulley (2005) assessed the effectiveness of using a music program as a means of reducing stereotyping among dark and light skinned Portuguese students ages 7 through 10. Through exposure to music from each group's culture throughout the school year, the level of stereotyping was significantly reduced, especially among students aged 9 and 10.

Research also suggests that stereotype threat can be lessened with a change in orientation. For instance, one study showed that when African-American college students were encouraged

to think of intelligence as malleable rather than fixed, their grades increased and they reported greater enjoyment of the educational process (Aronson, Fried, & Good, 2002). Another study found that when preschool Arab and Jewish students were exposed to a Sesame Street program designed to promote mutual respect, students showed an increase in pro-social behavior by the building of a peer-oriented context (John, Arafat, et al. 2003).

2.3 Theoretical Dimensions of Cross-Cultural Exchanges/Internal Constructs

Psychological theorists and researchers often assume that nations are culturally homogeneous and stable (Neuman & Bekerman, 2001). However, demographic, political and economic change, coupled with massive population migrations and threats of global terrorism have sparked new debate and interest in tying global education to student learning. Educational leaders and action researchers have sought the answers to why the cultural gap is so large in U.S. schools surmising that there is a large gap between an educator's practice of pedagogy and the dominant cultural influences that can inhibit learning.

Doering (1997) found that 6th grade students in one school had an extremely low level of cultural awareness due to teachers' reliance on geography books that did an adequate job of teaching physical geography, but did little to promote geographic influences on cultural development. Bennett (1997) concluded that students did not learn about global issues because many teachers view geography as a simple collection of facts. The traditional world geography units taught by these teachers reinforced students' misconceptions of the global community rather than helping them understand other people's behavior. These statistics, reports and studies indicate that there is an urgent need for cultural reform in educational settings.

Unfortunately, the development of global awareness in children and adults is a much debated and little understood phenomenon. In order to understand how children develop culture,

and subsequently reject or accept cultures other than their own, it is important to understand the plethora of varied and opposing theories of cultural acquisition and identity. For education practitioners, Hofstede's (1997) research has been invaluable. According to Hofstede, cultures differ across four dichotomous dimensions: large vs. small power distance, strong vs. weak uncertainty avoidance, individualism vs. collectivism, and masculinity vs. femininity. Hofstede contends that these four dimensions can be used to understand and explain distinct phenomena in cultures. For instance, Hofstede used the four dimensions to characterize adult interactive styles across several nationalities, concluding that those who understand these differences can readily relate to telecommunication partners of different cultural styles.

Others take a more inductive view of building cultural awareness, contending that teachers' and students' views toward intercultural sensitivity are best understood by applying the Developmental Model of Intercultural Sensitivity (DMIS). The first three DMIS stages are ethnocentric, meaning that one's own culture is experienced as central to reality in some way. These stages are denial of cultural differences, defense against cultural differences and the minimization of cultural differences. The second three DMIS stages are ethnorelative, meaning that one's own culture is experienced in the context of other cultures. These stages are acceptance of cultural differences, adaptation to cultural differences and integration of cultural differences (Bennett, 1993).

There are a wide range of other models that attempt to define culture, and serve to advise educators on appropriate methods for understanding and teaching within them. Triandus (1996) links culture to psychology, arguing that shared values of social groups play key roles in an individual's cognitive, emotional and social functioning. This concept of individual-collectivism argues that cultural shaping is affected by the customs, norms, practices and institutions that

individuals are able to discover and express in social situations. The strengths of the model lie in its disregard to traditional assumptions of universal processes in cultural development. The model's limitations lie in its portrayal of cultural communities as holding mutually exclusive, stable and uniform views.

Others view the developing of cultural awareness as a function of specific ecological factors. Bronfenbrenner (1986) is undoubtedly the most well-known ecological systems theorist. He defines cultural awareness as an evolving systematic process of interaction between the human organism and the environment. People are grounded in their immediate setting, and link across other's immediate settings known as the exosystem. For children, Bronfenbrenner theorizes that as they move beyond their families into the world of peers and communities, their life choices and identities may differ as a function of their own personal reality, and the new realities, which they construct. There are many opposed to this theory, in that it defines the acquisition of culture as directly influenced by and relative to children's parental influences, and the external experiences fostered by parents, such as peers, schools and outside cultures.

Ogbu (1993) proposes a cultural-ecological theory, in which individual competence is defined not in universal terms, but within cultural contexts developed by children, independent from parental influences. Ogbu sees the development of culture and cultural awareness as a series of historical, cultural and ecological conditions. These conditions are essentially uniform for those within the same setting, and are limited by an under-emphasis on variation and change within communities.

Brewer and Grind (1995) posit that members of societies engage in social categorization and recategorization, commonly called social identity theory. The theory states that social identity is constructed in the context of the attitude of one's group, and is related to prejudice,

intergroup conflict culture and acculturation. Specific situations can shift one's cultural identity, especially in terms of ethnic identity. For educators who ascribe to social-identity theory, experiences that take their students outside of their social comfort zones can help create not only individual cultural change, but also awareness of cultures other than their own.

Ecocultural theory, first proposed by Whiting (1977), is an integration of ecological and cultural perspectives. The theory is based on a universal assumption that all families seek to make meaningful accommodations to their ecological niches through sustainable routines of daily living. The model ties universal community-specific goals, and focuses on individual, interpersonal and institutional processes. The theory is relativist, and includes specific content such as values, practices, roles and models of communications.

Others view the development of culture as a function of social capital, rooted in the family, with networks among socially elite members (Johnman, 1988). Not surprisingly, educators are torn between processes and practices that involve competing demands and unwitting contributions to inequality. However, social capital theory has advantages, in that those from marginalized populations serve as authentic change agents through their own views of culture and diversity. Likewise, these populations learn to negotiate through processes generally reserved for those of wealth, and sometimes unknowingly, create the basis for social and global change.

Phelan, Davidson and Cao (1991) were the first to propose a multiple worlds theory, positing that various global settings contain specific values and beliefs, expectations, actions and emotional responses familiar to insiders. Others have built upon this model to examine how those from other cultures are able to work collaboratively and bridge their cultures with others. Cooper, Denner, and Lopez (1999) created collaborative experiences for African–American and

Latino students in a series of academic outreach programs in Northern California. Both sets of students reported renewed expectations, peer support, and greater awareness of universal issues.

Indeed, Hofstede's (1997) and Bennett's (1993) constructs for understanding cultural change are better understood through examination of and application of the various cultural theories. Unfortunately, how cultural change and global awareness is manifested in children participating in cross-cultural exchanges is not documented in a wide body of literature. Some see the development of intercultural competence as part of the broader objective of developing children's meta-cognitive awareness, which includes the knowledge and self-awareness a learner has of his or her own learning process (Brewster, Ellis & Girard, 2002) and becoming aware of his or her own linguistic and cultural identity. Others tie global and cultural awareness into the peace education movement, offering a utopian ideal of how children should learn about and view the world, but little empirical proof how and if they actually do (Johnson, 1998).

Jongewaard (2001) postulates that the process of developing an understanding of global awareness follows a theoretical understanding of cross-cultural interaction. He outlines a series of categories based on the knowledge skills and dispositions, which he defines as transcultural universalism. Jongewaard's model is a concentric linear design, involving three broad stages of development including intracultural, intercultural and transcultural.

2.4 Summary of Intercultural Construct Literature

Clearly, educators and researchers hoping to increase students' global awareness need to develop a clear understanding of the eleven reviewed models of cultural development. While many of the models have shared constructs, it is impractical and unwise to pigeonhole particular cultural models as universal and appropriate for all settings. Other models (Hofstede, 1997; Jongewaard, 2001) offer educators practical, understandable models that attempt to incorporate a

variety of culture bases. However, these models suffer from oversimplification. The remaining

sections of Chapter 2 will investigate the pedagogical constructs of electronic cross-cultural

exchanges in distance education settings, and conclude with a hypothesized model for the

acquisition of global awareness in elementary students participating in an electronic cross-

cultural exchange.

2.5 Using Collaborative Computer Conferencing to Facilitate Cross-Cultural Communication/Pedagogical Constructs

For many researchers, the design and development of cross-cultural exchanges follows a

constructivist model. Constructivism is a paradigm that recognizes learning as the process of

constructing meaning about, or making sense of, our experiences (Bruner, 1966). Cultural-

historical activity theory, the foundation of constructivist learning theory, proposes that societal-

organized practices can help resolve problems of language, differences in educational traditions,

and different practices in a way that supports international dialog (Chaiklin, 2002).

Consequently, those who have designed constructivist centered cross-cultural exchanges apply

strategies incorporating the following values: generativity, collaboration, reflection, the

allowance of personal autonomy, active engagement, personal relevance, and pluralism (Lebow,

1995). These ideas support Vygotsky's (1978) view of social constructivism, in which students

construct knowledge by working in social contexts such as interacting with peers, teachers,

experts, and classmates.

Research shows that collaborative learning environments are able to not only close the

distance gap between students and their teachers, but more importantly to transform students into

independent learners capable of building their own knowledge. Scardamalia and Bereiter (1994)

define knowledge building as the production and continual improvement of ideas of value to a

community, through means that increase the likelihood that what the community accomplishes

will be greater than the sum of individual contributions and part of broader cultural efforts. They also maintain that knowledge is socially constructed, and best supported through collaborations designed so that participants share knowledge. Motteram (2001) concludes that there are two main processes that are important in educational settings, including building a community and having a deeper understanding of concepts. Building a community is considered to be a social process, where synchronous tools such as chat fail to provide deep learning and are more appropriate for socialization. He states that there is a need to establish a knowledge building environment so that students can adequately use email to work on collaborative assignments and to learn from one another and deepen their knowledge.

Palloff and Pratt (2001) suggest that ideas should not only be reserved for individuals but also should be available to the whole community in a form that allows them to be discussed, interconnected, revised, and superseded. Teachers should promote knowledge construction that is not only authentic but also relevant and useful to students. Furthermore, Eggelston (1992) outlines the importance of devising purposeful and quality tasks that aim to enhance higher-order thinking and research skills. Therefore, acquiring a deep understanding of academic ideas seems best suited for asynchronous tools such as email, as students can build on each others' contributions to produce significant and meaningful information.

2.6 Collaborative Technologies in Practice

Collaborative technologies such as email and synchronous and asynchronous chat have recently found their way into instruction as a means of facilitating learning of students engaged in group tasks. Collaborative technologies can be designed for use within a classroom, across classrooms, and outside of classrooms. In this way, students can communicate to others within and outside the immediate learning community. Collaborative learning and computer

conferencing are reciprocally related, in that computer conferencing depends on the ability and willingness of participants to collaborate, and that collaborative learning is enabled by computer conferencing (Cifuentes, Murphy, Segur, & Kodali, 1997). Key benefits of computer conferencing include providing equal access to communication, supporting learner interaction, allowing for learner reflection, and fostering collaboration (Murphy, Drabier, & Epps, 1998). Barriers to the use of computer conferencing include unequal access to hardware and software, a steep learning curve, and managing large amounts of information (Burge, 1994; Harasim, 1990; Hiltz, 1994).

Researchers have sought to understand the factors that influence collaborative technologies. Among the most significant are the findings of Mason and Kaye (1990). They concluded that these factors are: 1) that online learning creates a blur between distance education and traditional face to face classrooms, especially when collaborating in discussion and establishing a sense of community, 2) the role of teaching staff and administration have changed as students are able to communicate with these two bodies easily via email, and 3) online learning provides opportunities for socialization and the exchange of ideas. Thus, this illustrates that education is not a static paradigm, but rather is dynamic and still evolving, especially online learning.

Significant research studies indicate that collaborative technologies are increasingly a means by which students actively construct knowledge. Garrison (1989) identifies two-way interaction as a critical feature of the educational process. Having multiple participants in a computer conference contributes to individuals' social constructions of meaning, their abilities to relate new knowledge structures to those they already possess, and their abilities to explore and create meaning. Lee (2001) concurs, attributing collaborative cross-cultural exchanges to the

creation of social constructivist learning environments, concluding that a self regulated learning approach can be used for teaching and assessing analytical, creative, and practical thinking via multimedia.

Romiszowski and Mason (1996) posit that computer-mediated communication provides for two opposing paradigms: instructional, or traditional education, and conversational education, which is typical of collaborative learning environments. This conversational style is evident in computer conferencing environments that are more authentic, situated, interactive, project-oriented, interdisciplinary, and learner-centered (Berge, 1997). Such conversation takes place either in real time, through synchronous electronic chats during which participants are typing concurrently (Jung, 2001), or as delayed asynchronous interaction, in which communication occurs at a participant's convenience.

Harasim, Hiltz, Teles, and Turoff (1995) showed that students learn best through formulating ideas into words that are shared with and built upon through the reactions and responses of others. Others posit that through working in collaborative groups (Brown & Palincsar, 1989) and learning in authentic environments (Brown, Collins, & Duguid, 1989), learners are encouraged to develop personal meaning from those they are paired with, as well as the online environment in which they are communicating. In a computer conferencing environment, this communication takes place via technology and is imbedded in instructional methods that provide for interaction (Wagner, 1994). Interaction is necessary not only for learners to receive feedback on their progress but also to engage the learners in active learning. Research indicates that higher levels of interaction typically lead to more positive attitudes toward and greater satisfaction with learning (Hackman & Walker, 1990).

Mason and Kaye (1990) have demonstrated how the role of computer-mediated discussions have changed in education, where learning opportunities are now considered to revolve around the student, that is, are student centered, rather than having teachers or staff dispense or transfer knowledge. Similarly, Scardamalia and Bereiter (1999) also discuss the concept of guided discovery in which students can construct their own knowledge. Pascoe, Ryan and Morse (2000) also suggested that these factors relate to learning compliance via discussion boards, as it is vital to ensure that students understand the objectives of discussions by matching the learning tasks to students needs.

2.7 Collaborative Technologies and Cross-Cultural Exchange

As the peoples and nations of the world become closer through globalization, some educators have sought to understand global ties and explore the role of local cultural identity in a rapidly globalizing world. Schools need to provide learners with a sense of their own local cultural identities while at the same time offering a global perspective. One effective way to cultivate both the global understanding and the local cultural identity of students is through the promotion of cultural contact among diverse societies (Harvey, 1987; Hammond & Collins, 1993; Anderson, Nicklas & Crawford, 1994).

Research focusing on technological innovations for addressing global and cultural issues began in the mid-1990s. Many of these studies sought answers to the cultural implications of distance education design (McEneaney, Kolker & Ustinova, 1998; Marcus, 2000), and the effects of distance education on global economic development (Montealegre, 1996; Mueller & Tan, 1997. Few studies consider online, collaborative experiences with elementary and secondary students from other countries, educational backgrounds, and languages.

Some degree of cross-cultural research emerged from the virtual classroom concept of the early 1990's. For example, AT&T learning circles were found to reduce isolation and promote cooperative learning among students, as well as among the participating teachers (Reil, 1990). Similarly, Cifuentes and Murphy (1991) found that cultural similarities and differences were enhanced through communications and artwork shared electronically by students in Texas and Mexico. However, the literature indicates that researchers have discovered that use of distance education technologies to bridge cultural divides and promote intercultural competence has generally resulted as a by-product of foreign-language studies. A major trend in these studies is the use of distance education tools such as multimedia and communication exchange through email.

2.8 Cross-Cultural Foreign Language Studies via Email

Email is believed to have significant implications on developing fluency in acquiring a second language and facilitating teacher and student interactions (Crystal, 2001). Collis and Remmers (1997) outlined several factors that help ensure that these interactions are successful. These are: 1) communication and interaction (knowing how to communicate and send well structured, understandable messages), 2) language (being sensitive to cultural differences), 3) content (mutual topics that are discussed), and 4) representation form (text-based via email or visual through web cam). Bloch's (2002) research on graduate ESL students' use of email to interact with their instructors found that students used different strategies and language to send emails. The emails were categorized into four groups: 1) phatic communication (maintaining interpersonal relationships between the writer and sender by asking familiar questions), 2) asking for help (students seeking assistance from instructors about topics/issues causing the instructor to be seen in a more positive light), 3) making excuses (which eliminates having to directly interact

with instructors when excuses are made by sending messages), and 4) making formal requests (messages differ according to the context; for example, when both the student and instructor knew each other, emails were less formal than parties who did not know each other at all).

Singhal (1998) was one of the earliest researchers to combine email with teleconferencing, concluding that the added element of authentic communication fostered concepts of cultural enrichment. Lee (1997) and Osuna and Meskill (1998) reported that use of Internet resources was a meaningful way to integrate language and culture and to provide opportunities for students to learn about the target culture while using e-mail to discuss cultural aspects with native speakers. More recently, a cross-cultural study conducted by Cifuentes and Shih (2001) explored the impact of teaching and learning online using email between Taiwanese and American students. American students were required to correspond weekly to Taiwanese students discussing topics that would help to improve English acquisition, comprehension and cultural awareness. Similarly, Taiwanese students discussed aspects that were important to them such as interests, family life, and the education system. The study revealed successful and positive outcomes, in that students were able to communicate with others from different time zones and share valuable information.

There were marked improvements in the structure of email messages sent by the Taiwanese students, including grammar and sentence structure. The American students also benefited as they had gained knowledge about a different culture and education system. By the end of the course, students were extremely motivated and wanted to continue their contact with the students from the other country through email, and for some, it led to having synchronous chats in real time and visual contact through a web cam.

2.9 Cross-Cultural Language Studies via Multimedia

In addition to acquiring knowledge and motivation in the context of global citizenship, cultural exchange of student-generated visuals can support social construction of meaning across the curriculum. Online discussions including student-generated multimedia presentations of ideas provide environments that incorporate global values and have great possibilities for social construction of meaning. Timm (1996) found that the cultural exchange of student-generated visuals facilitates socially constructed learning in online courses. When students generate trigger visuals using multimedia tools, and share and discuss them via telecommunications, they explore expressions of beliefs, experiences, values, and behavior. Anderson (1998), Beckett, et al. (2002), and Rosaen (2002), surmised that technology such as video, simulations and web research can play a positive role in changing teachers' and students' attitudes regarding multicultural populations. Similarly, students in a U.S. undergraduate French class and in a French post-graduate engineering course pursued an intercultural exchange via electronic interactions concerning cultural differences, focusing on socialization (Kinginger, Gourves-Hayward, & Simson, 1999).

Other technologies that proved to be successful in helping college students bring insider's views of other cultures into the foreign language classroom are Internet-based culture portfolios (Abrams, 2002). Lee (1998) used online newspapers and online chat rooms with college-level advanced Spanish students in order to develop students' cultural knowledge and language skills. Shelly (1996) found that American and French middle school students collaborating via teleconference were able to produce a cooperative play that combined cultural elements of each group.

2.10 Cultural Awareness as an Intended Outcome

Recently, experimental studies have emerged that place cultural awareness and elements of cultural awareness as an intended outcome. Many of these studies use distance learning strategies such as web-based learning, hyper/multimedia, learner control and simulations. The consistent thread in these studies is the use of inquiry-based, constructivist learning environments. These researchers draw on a wide body of prior studies to support their initial hypotheses. Most base their design on the philosophy of social constructivists like Vygotsky (1978), Dewey (1938) and Maslow (1971), who contend that as individuals grow through education, they transform into responsible and caring world citizens.

Cifuentes and Murphy (2000) discuss the use of videoconferencing to connect four fourth-grade classes, two in Mexico and two in the United States. The objective of the year-long program was to develop the students' multicultural understanding throughout their school year, and the students engaged in several activities that culminated in five videoconferences. Primarily, the students created artistic representations of their countries and their partners' countries, and shared and interpreted these during videoconferences. The authors provide evidence that the students learned about and gained insight into each other's cultures. These outcomes are more modest than the goals of the program, which included helping students to become socially active citizens, critically thinking members of society, participating members of a democracy, respecters of others, and learners who focus on the process of learning rather than on acquiring specific information.

Liu (2002) researched the effects of using email between a second grade class in China and the United States. The study focused on how developing cross-cultural pen pals improved motivation, language and cultural awareness, literacy and keyboard skills. Although the children

in year two were very young, both teachers of the classes served as directors, coordinators and facilitators, jointly composing messages with their classes. Students gained so much from the use of email, they were able to break down cultural barriers and understand that they were more similar than different to the other students.

Another cross-cultural study by Frank and Toland (2002) on the use of email as a learning technology in the South Pacific demonstrated that students from various cultural backgrounds use email differently. The researchers found that students who were identified as coming from a collectivist culture favored face-to-face interactions, since educators, teachers or lecturers were viewed as being dispensers of knowledge, transferring information to students. According to Frank and Toland, asking questions in a collectivistic class is considered to be rude while, in individualistic or western universities, expressing an opinion is encouraged. They found that some students felt intimidated when directly speaking face to face with their teacher and preferred interacting through email. The findings of the study revealed that students from individualistic cultures used email more than their collectivist counterparts, sending messages to professors to seek clarification on assignments. On the other hand, the students from collectivist cultures tended to use email for social reasons with peers rather than contacting any of their lecturers.

Herron, Dubriel, Corrie and John (2002) examined the effects of using video, combined with traditional text study, as a positive enhancement of cultural knowledge, as represented both by daily lifestyle and civilization as a whole. Herron et al. (2002) built upon an earlier study by Wilson (1992) that combined HyperCard and standard video programs, showing that students displayed a positive change in attitude toward students culturally different from themselves.

Two progressive studies in particular serve as a loose framework for design of the proposed study. Cifuentes and Murphy (2000) continued their culture-related studies by measuring the effects of curricular and identity-forming multicultural activities for K-12 students. Students used multimedia portfolios to establish cross-cultural classroom experiences and foster tolerance and diversity in the process. The combination of distance learning and multimedia technologies proved significantly effective in helping young students make sense of their experiences and have a greater sensitivity toward multicultural issues.

Abbott, Austin, Mulkeen and Metcalfe (2003) reported cross-national collaboration through Information and Communications Technology (ICT) within the statutory curricula of 10 special schools in Northern Ireland and the Republic of Ireland. Working in north-south paired classes, the pupils carried out joint tasks using asynchronous computer conferencing and videoconferencing. The full spectrum of learning difficulty and disability was represented among the participating pupils. Interviews were conducted to elicit the views and experiences of the teachers in the 2002/03 cohort. The main goals were to discover whether cultural awareness developed through joint tasks using the two technologies, if computer conferencing improved literacy and ICT skills, and if videoconferencing enhanced oral communication.

The results showed that cultural awareness developed as far as cognition allowed, when pupils in partner schools became aware of similarities as well as differences. Those with sufficient keyboard ability benefited from computer conferencing and their ICT competence improved; however, the much preferred medium for collaborative, inter-school work was videoconferencing. All but the most dependent pupils could participate, and valuable, transferable social and communication skills were acquired.

Another program, the International Communication and Negotiation Simulation (ICONS) project at the University of Maryland provides project-generated scenarios in a synchronous chat environment that outlines global issues to be negotiated. Students, working in country teams, play roles, develop policies for negotiations and seek common answers through negotiation. Project administrators manage the open-ended scenarios and act as chairpersons for the talks (Starkey, 1998). The documented effects of the ICONS are extraordinary. One study involved Israeli and Palestinian university students engaged in a conflict resolution experiment using ICONS. Encouraged to portray the other side, students learned to define the term "neighbor" and understand the perspective of what their culture had historically defined as an enemy. Through qualitative analysis, researchers observed students learning that bordering states must cooperate in order to exist and survive. Many of the students described the experience as cathartic and generally agreed that the perspectives from each side shared common fears and emotions (ICONS, 2003).

2.11 Summary of Literature Review

The study's main purpose was to explore the phenomenon of how global awareness is developed in upper elementary-age students participating in an online cross-cultural project. While there is some research that documents the formation of stereotypical behavior in young children, current research with defining purposes and outcomes for students participating in online cross-cultural experiences is limited. It is thus somewhat expected, yet socially surprising, that concrete evidence of how students develop global awareness is not implicitly stated in the research. Instead, researchers are forced to apply what we know about adult constructs, and extrapolate this understanding to what we assume about learning and cognition in young students.

The development of global awareness is succinctly illustrated by Bennett (1993) in his model of ethnocentric and ethnorelative influences. Ethnorelative influences are defined as influences outside a person's own personal knowledge development, while ethnocentric influences are those influences developed from within a person's own understanding and beliefs. Brewer (1995) builds upon ethnocentric influences through his discussion of social context and comfort zones. Phelan, Davidson, Locke and Ye (1991) focus on ethnorelative influences such as peer, family and media. Bronfenbrenner (1996) defines cultural awareness as an evolving systematic process of interaction between the human organism and the environment.

Researchers charged with designing global awareness acquisition studies set in an elementary school environment need to have a clear understanding of how children learn outside the context of a traditional classroom. After all, it is difficult to make assumptions when the environment remains predictable and stagnant. Chaiklin's (2002) discussion of cultural-historical activity theory, known as the foundation of constructivist learning theory, proposes that societal-organized practices can help resolve problems of language, differences in educational traditions, and different practices in a way that supports international dialogue. International dialogue allows students to be autonomous, independent thinkers and problem solvers. As traditional barriers are broken down, global understanding and cultural implications can be developed. The use of electronic media facilitated by the World Wide Web is the most useful, cost-effective, and arguably best way to create cross-cultural experiences.

A good body of research addresses the importance of cultural awareness and global understanding as a result of the virtual elimination of borders through electronic discourse and media. This is coupled with appallingly low levels of cultural awareness among our nation's students and educators (Doering, 1997, Neuman & Bekerman, 2001). Fortunately, there was

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some cross-cultural research that emerged from the virtual classroom concept of the early 1990s. For example, AT&T learning circles were found to reduce isolation and promote cooperative learning among students, as well as among the participating teachers (Reil, 1990). Similarly, Cifuentes and Murphy (1991) found that cultural similarities and differences were enhanced through communications and artwork shared electronically by students in Texas and Mexico. Other studies indicate that collaborative technologies are increasingly a means by which students actively construct knowledge (Garrison, 1989 & Lee, 2001). Romiszowski and Mason (1996) and Berge (1997) have shown that computer conferencing environments that are more authentic situated, interactive, project-oriented, interdisciplinary, and learner-centered better serve the needs of students

Soon, studies began to emerge that addressed key components of distance education platforms. Anderson (1998), Beckett, et al. (2002), and Rosaen (2002), surmised that technology such as video, simulations and web research can play a positive role in changing teachers' and students' attitudes regarding multicultural populations. Similarly, students in a U.S. undergraduate French class and in a French post-graduate engineering course pursued an intercultural exchange via electronic interactions focusing on childhood socialization (Kinginger, Gourves-Hayward & Simson, 1999).

Others have focused on increased cultural awareness as a by-product of foreign language development studies using distance education technologies (Rhue, 1998; Schoorman & Carillo, 2000; & Cifuentes & Shii, 2001). Singhal (1998) was one of the first researchers to combine email with teleconferencing, concluding that the added element of authentic communication fostered concepts of cultural enrichment. Shelly (1996) found that American and French middle school students collaborating via teleconference were able to produce a cooperative play that

combined cultural elements of each group. Lee (1997) and Osuna and Meskill (1998) reported that use of Internet resources was a meaningful way to integrate language and culture and to provide opportunities for students to learn about the target culture while using email to discuss cultural aspects with native speakers.

Other technologies that proved to be successful in helping college students bring insiders' views of other cultures into the foreign language classroom are Internet-based culture portfolios (Abrams, 2002). Lee (1998) used online newspapers and online chat rooms with college-level advanced Spanish students in order to develop students' cultural knowledge and language skills.

Eventually, experimental studies emerged placing cultural awareness and elements of cultural awareness as intended outcomes. Many of these studies used distance-learning strategies such as web-based learning, hyper/multimedia, learner control and simulations. Herron, Dubriel, Corrie and John (2002) investigated the effects of using video combined with traditional text study as a positive enhancement to cultural knowledge as represented both by daily lifestyle and civilization as a whole. This built upon an earlier study by Wilson (1992) that combined HyperCard and standard video programs, showing that students displayed a positive change in attitude toward students culturally different from themselves. Cifuentes and Murphy (2000) continued a lifetime of culture-related studies by measuring the effects of curricular and identity-forming multicultural activities for K-12 students. The International Communication and Negotiation Simulation (ICONS) project at the University of Maryland provides project-generated scenarios in a synchronous chat environment that outlines global issues to be negotiated.

Clearly, there is a trend toward using available technologies to bring the world closer together. The pen pal concept that has been prevalent since society first developed written

language has become instantaneous and cost-effective as technology has advanced. However, there is a caveat to the digital world. While people can easily communicate with students or workers in other countries, these same people can work to reinforce stereotypes, create false impressions and produce deeper schisms. Educators are charged with using these electronic innovations to help students have better, more productive classroom experiences.

Language acquisition naturally emerged as a logical use for cross-cultural connections. However, the growing peace movement, ongoing religious conflicts and a lack of elementary understanding of global issues illustrates a need for online cross-cultural, global awareness studies. This proposed study would help educators understand elementary student processes for developing global awareness, and provide a foundation for future research in the field.

2.12 Peer Influenced Cyber-Social Culturalism: A Hypothetical Model

The following model of constructs for the development of global awareness in upper elementary students emerged from the literature review, the results of the pilot study, and the researcher's own experiences as a classroom teacher. The model is loosely based on Bennett's (1993) ideas of ethnocentric and ethnorelative influences and is tied to Bronfenbrenner's cultural awareness constructs of teacher, peer and family influence. However, the proposed model takes into account how media content can release students from their traditional social comfort zones (Brewer, 1995), and, in the case of synchronous and asynchronous messaging, interact with other students also released from their social comfort zones.

The online scenario of social interactions, in the case of the study, is based on an assumption of different social belief systems that may lead to increased global awareness unique to the online setting. While Richard Clark (1983) would argue that a face-to-face cross-cultural experience, with removal of the media as a vehicle for exchange, would produce the same

results, this researcher argues otherwise. The students, engaged in their own comfort zones, will actively draw on their established belief systems and real time collaboration with their teachers and peers, although these influences will be hidden from those with whom they are communicating online. These influences, accordingly, straddle Bennett's (1993) ethnocentric and ethnorelative principles. This dynamic construct for global awareness can only be found in this type of online setting, and, for the purposes of this working model, is labeled as peer-motivated cyber-social culturalism. The proposed model is displayed in Figure 2.
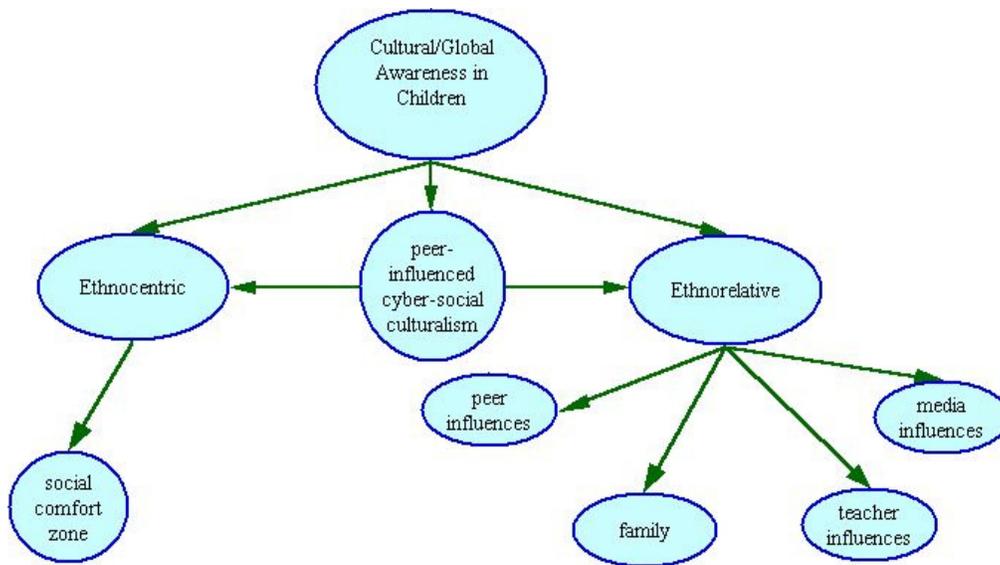
Figure 2 Proposed Global Awareness Acquisition Model

CHAPTER 3: METHODOLOGY

The researcher sought to study the effects of a cross-cultural distance education project on the development of global and cultural awareness in upper elementary age students. Throughout the study, the researcher built a theoretical model of the constructs that lead to the development of these societal influences. Elements of the pilot study, the results of which were outlined in Chapter 1, relevant to the methodology of the proposed study are included throughout the chapter. The central research question and sub research questions for the proposed study are:

Central Research Question: How does participation in a cross-cultural distance education project affect the development of global awareness for upper elementary students?

Sub Question #1: What factors lead to the development of global awareness for upper elementary age students?

Sub Question #2: How, if at all, have students' attitudes toward their cross-cultural peers changed through participation in a cross-cultural distance education project?

Sub Question #3: Do students educated in different countries develop global awareness differently than their online peers?

Sub Question #4: Do upper elementary students participating in an online cross-cultural project develop global awareness more than upper elementary students not participating in an online cross-cultural project? If so, how?

Sub Question #5: What are the necessary implications for practice when conducting online, cross-cultural projects in upper elementary classrooms?

3.1 Participants

A total of 167 fourth- and fifth-grade students participated in the study, representing three school sites. Of the 167 students, a total of 123 students completed all aspects of the study,

including completion of pre- and post-surveys. Of the 123 students, 23 students were part of a control classroom. The researcher employed a criterion sampling strategy, choosing upper elementary classrooms that participated in the International Baccalaureate Organization Primary Years Program (IBOPYP). The goal of the IBOPYP is to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. The IBOPYP has global awareness as one of its guiding principles, with students and their instructors charged with becoming world citizens, in which they build and reinforce their sense of identity and cultural awareness (IBO, 2006). Another criterion for the sample was to identify IBOPYP schools that had the available resources to host the Blackboard courseware system, instructors willing and able to learn how to use the Blackboard courseware system, and an English speaking or bilingual population.

Two schools were identified in the fall of 2005, and these schools subsequently participated in a pilot study which drove the current study. These schools were Lane Elementary School, located in a mid-sized southern city in the United States and The European International School, located in The Netherlands. The European International School was not able to continue with the project in the spring of 2006, and two alternative schools were selected in January of 2006 through inquiries sent through the IBO website. The schools selected to continue the project are referred to as The Mexican International School, a British international school located in a large city in Mexico, and The Euro/Asian School, a private school located in a large city in Turkey.

Lane Elementary School was chosen as a participant school because it met five key criteria:

1. The school was the only elementary school in the region that was a member of the IBOPYP.

2. The school had a technology infrastructure suitable for the purposes of the study.

3. The classroom teachers were committed to the project for an eight-week time period.

4. The school had two classrooms at each grade level that contained heterogeneous populations and received the same curriculum, allowing for a control and experimental classroom.

5. The school was local to the researcher, and allowed access for interviews and observations.

The Mexican International School and The Euro/Asian School were chosen through an intense email query conducted through the IBO website located at www.ibo.org. One hundred and twenty three potential schools were contacted three months prior to the beginning of the project. The researcher provided each school with a description of the project and each were asked to respond via email if interested. Over the course of the next month, twenty-one schools replied to the researcher. These schools were sent a short questionnaire that asked the following four questions:

1. Are you able to commit to the project for an eight-week time period?

2. Do you have a reliable Internet connection?

3. Do you have an English speaking population in grades 4 and 5?

4. Are you willing to be part of a research study?

Of these twenty-one schools, two schools, The Mexican International School and The Euro/Asian School, met the criteria, and were selected for the study. Table 1 outlines the participant demographics, which are discussed in further detail Sections 3.1.1, 3.1.2, and 3.1.3.

Table 1 Demographics of Classroom Participants

Classroom	N	Grade Level	Role in the Study	Curriculum	Location
Lane Classroom 4A	26	4	Pilot Study Participant Only	IBOPYP	USA
Lane Classroom 4B	22	4	Full Participant in Study	IBOPYP	USA
Lane Classroom 5A	23	5	Did Not Participate/Control	IBOPYP	USA
Lane Classroom 5B	23	5	Full Participant/Experimental	IBOPYP	USA
MIS Participants	22	5	Full Participant in Study	IBOPYP	Mexico
EAS Participants	33	5	Full Participant in Study	IBOPYP	Turkey

3.1.1 Lane Elementary School Participants

The Lane Elementary School (LES) was a unique setting, in that each classroom had five

or more student computers, two self-contained fifth grade classrooms and two self-contained

fourth grade classrooms. The students at LES represented a diverse student population drawn

from a mid-size southern community and were located on the campus of a large southern

university. Many faculty members at the school participated in the IBOPYP for the five years

since its inception at the school, and, according to the administration, were committed to

promoting global understanding for their students.

Regarding the fourth grade classrooms, Classroom 4A participated in the pilot study, and

was not involved in the current study. Classroom 4B fully participated in the current project.

Regarding the two fifth grade classrooms, Classroom 5A was selected as a control group for the

quantitative portion of the study, and did not participate in the cross-cultural project. Classroom

5B was the experimental group, and participated in the project. These two classrooms are

henceforth referred to as the fifth grade experimental classroom and the fifth grade control

classroom.

Classroom 5B, the experimental classroom, contained 26 regular education students of

mixed abilities and demographics. Out of these 26 students, 23 students participated in the

online project, the quantitative and qualitative data collection and the subsequent data analysis.

The 3 remaining students were absent for either the pre- or post-survey, and were not included in

the results. While students in the classroom had participated in the IBOPYP at LES since the program's implementation in 2001, none of these students had participated in an online cross-cultural exchange. This was a self-contained classroom, meaning that all core subjects were taught by a single classroom teacher. The classroom teacher was a master teacher, with twenty-three years of teaching experience, including five years teaching the IBOPYP curriculum. This teacher, in partnership with the teacher in Classroom 5A, wrote, revised and assessed the curriculum. This curriculum followed the ideals of global awareness set forth by the IBOPYP, and also met the state curriculum standards.

Classroom 5A, the control classroom, contained 26 regular education students of mixed abilities and demographics. These students did not participate in the online project; however, these students did complete the pre-experience and post-experience survey at the same time as students in Classroom 5B, the experimental classroom. Out of these 26 students, 23 students completed both the pre- and post-survey. The classroom instructor was a master teacher with nine years of experience, two of which were in the IBOPYP setting. As stated previously, the classroom instructor delivered the same curriculum as, and co-wrote the curriculum with, the teacher in Classroom 5B.

Classroom 4B contained 26 regular education students of mixed abilities and demographics. Out of these 26 students, 22 students participated in the online project, the quantitative and qualitative data collection and the subsequent data analysis. The 4 remaining students were absent for either the pre- or post-survey, and were not included in the results. Each student participated fully in the online project, the quantitative and qualitative data collection and the subsequent data analysis. Like the fifth grade classrooms, Classroom 4B centered on the global awareness ideals of the IBOPYP. The classroom teacher was a doctoral

level instructor, with 24 years experience in the classroom, five of which were as an IBOPYP instructor.

Eight students total from Classroom 4B and Classroom 5B were chosen through random quota sampling in conjunction with the classroom teachers to participate in the qualitative portion of the study. The following five demographic criteria were included in the sample:

1. 1 male African American student

2. 1 female African American student

3. 2 male or female students with foreign-born parents

4. 2 male students with American born parents

5. 2 female students with American born parents

The demographics for the quota sampling were chosen in order to provide the researcher with a cross-section of the classroom, and to determine whether race, gender or nativity may play different roles in the acquisition of global awareness. Additional demographic data for the LES participants are found in Appendix A.

3.1.2 The Mexican International School Participants

The Mexican International School (MIS) is a British international school located in a suburban setting north of Mexico City. The school is a member of the IBOPYP and teaches a curriculum with similar outcomes and goals as the LES. The school primarily serves an international community, with many of the students coming from countries other than Mexico. The school has an extensive computer facility, and a classroom teacher who was able and willing to learn about and train students in using the Blackboard courseware program.

The 26 fifth grade students at the MIS represented a variety of backgrounds and experiences. All of these students were proficient in English. The classroom teacher had 17

years of experience, including two as an IBOPYP instructor. Out of these 26 participants from the MIS, 22 completed the pre-project and post-project survey in order for the researcher to collect data regarding Research Sub Question #3. Demographic data for the MIS participants are found in Appendix B.

3.1.3 The European/Asian School Participants

The European/Asian School (EAS) is a private school located along the border of Europe and Asia, in a large Turkish city. The school is a member of the IBOPYP and teaches a curriculum with similar outcomes and goals as LES and MIS. The school serves an eclectic population, drawing equally from the European and Asian sides of the Bosporus. Students are instructed in both English and Turkish. The school has an extensive computer facility, an elementary technology coordinator, and classroom teachers who were able and willing to learn about and train students in using the Blackboard courseware program.

The 69 fifth grade students who participated in the study represented a variety of religions, ethnic groups and global experiences. Out of these 69 students, 33 students participated in the online project, the quantitative and qualitative data collection and the subsequent data analysis. The 36 remaining students were part of a class section that dropped out of the project prior to its inception due to language concerns. All remaining students were either proficient or approaching proficiency in English, and had intermediate technology skills. The classroom teacher had 12 years of experience, including four as an IBOPYP instructor. Participants from EAS completed the pre-project and post-project survey in order for the researcher to collect data regarding Research Sub Question #3. Demographic data for the EAS participants are found in Appendix C.

3.2 Blackboard

The researcher chose Blackboard as the online course management system for the project due to its ease of use by elementary age students (as determined by the pilot study), web-based format, password protection, and available hosting and support from the researcher's university. Additionally, Blackboard (http://www.blackboard.com/) is a leading enterprise software company that is available to users worldwide (Blackboard, 2006).

Participants in the project were emailed a personal username and password in order to access the project materials. The user names and passwords were created by the researcher and batch-uploaded into the Blackboard project shell by the university Blackboard administrator. After logging into Blackboard, the students entered the main announcement page, which acted as the portal for all of the course content, information, and communication. Figure 3 shows the main announcement page of the project.

Figure 3 Blackboard Main Announcement Page

While Blackboard has many features, the researcher limited the participants to four main content areas. The Announcement area was used to post tips to assist the students in Blackboard navigation and provide updates on the opening of new discussion threads. The Communication

area was used by the classroom teachers to email the researcher for technical support. The Group Discussion Board area was used for the posting of discussion prompts, and was the primary area for the cross-cultural discussions by the participants. For this study, the researcher created 15 separate groups within the Discussion Board area due to the large number of participants from the three schools. The Website area was used by the students to post websites relevant to their discussions.

3.3 Procedures

The implementation of the cross-cultural project occurred in two distinct phases, phase one and phase two. Phase one included the administration and return of Parental Consent Forms and Child Assent Forms (Appendices A and B), setup of the Blackboard site by the researcher, and the delivery of Blackboard training to students and teachers at the participating schools. While the delivery of training and collection of forms for Lane Elementary School was done in person by the researcher, this process was somewhat complicated due to the distance involved with the schools in Mexico and Turkey.

All forms required by the study were emailed to the participating teachers in Mexico and Turkey. Forms were translated using Babblefish.com, a web-based translator, into the home languages of Turkish and Spanish to accommodate non-English speaking parents. These forms were printed by the classroom teachers, distributed to the parents and participants and sent via international post back to the researcher.

Blackboard training with the students in Mexico and Turkey was delivered by the classroom teachers after they received online training developed by the researcher. For this training, the researcher created one email based lesson and five Blackboard based lessons. Lesson topics included the following:

1. Logging on to Blackboard (email delivered).

2. Basic Blackboard Navigation.

3. Posting and Replying to the Discussion Board.

4. Posting Pictures and Attachments in Blackboard.

5. Troubleshooting Blackboard.

Online training was self-directed and occurred in the three weeks prior to the start of the project. Student training sessions occurred one week prior to the start of the project, and included the same topics presented to the teachers. The researcher was available via telephone and email throughout the study for any additional Blackboard training needs that arose.

Blackboard training for the students at Lane Elementary School was delivered in person by the researcher, in conjunction with the classroom instructors. These lessons followed the same format as the lessons for the overseas schools. The researcher was available by telephone, email, and in person during observation times throughout the study for any additional Blackboard training needs that arose.

Phase two of the project was the implementation of the online, cross-cultural project. The participants worked in five cultural exchange activity modules within the framework of Blackboard, using synchronous chat, message exchange boards and the sharing of photos and other multimedia. Students were randomly placed in groups of 10 to 12 students. Small groups were formed based on results of the pilot study that enabled the students to follow the flow of the conversations easier than in a large message board thread. This also allowed the researcher to better organize the resulting data.

The researcher, in conjunction with the classroom teachers, posted weekly topics in the group discussion thread. The first discussion thread opened on Monday, March 20, 2006 and

closed on Sunday, March 26, 2006. Each subsequent discussion thread was opened for a week at

a time, with a new discussion thread opened after the previous thread was closed. Discussion

threads were reopened after ongoing artifact analysis was completed. Students at the LES were

given free time at the end of the day to participate in the project. This ensured that the students

were available for observation at a set time. Students were also encouraged to participate at

other free times during the day, at home or at other times determined by the classroom teacher.

The discussion thread topics were developed from the pilot study completed in the fall of

2005. While the researcher had written the basic framework for the module questions, teachers

were encouraged to discuss changes and adjustment to the discussion board prompts if

warranted.

The discussion board prompts and researcher rationale for the questions are listed in the

Table 2.

Table 2 Discussion Board Prompts

Discussion Board Question	Rationale
Welcome! Please tell the group your name, age and hometown. List your two favorite hobbies. Please respond to two students NOT from your own school.	Opening question familiarizes the students with the Blackboard format, and provides students with focal points for discussions.
Describe the distinctive features of your current hometown and school. What are the culinary, cultural and historical events that make your setting unique? Please attach relevant websites, pictures or video.	Question may uncover stereotypical misunderstandings, and/ or insights into local culture.
What current events are you currently discussing in school at this time? What have you learned from your discussion of these events? Please attach relevant websites, pictures or video.	Question provides a topic for debate and insight into thoughts of those living in other countries.
Where else have you lived or visited? What is the best place and why?	Question may uncover stereotypical misunderstandings, and/ or insights into local culture.
After participating in the previous discussions, what are your impressions of life in the United States/Mexico/Turkey?	Question provides opportunity for insightful reflection/ understanding of global constructs.

3.4 Design

The study employed a mixed methodology approach using sequential mixed methods.

Mixed methods research allows for methodological pluralism, which frequently results in

superior research by incorporating the strengths of both quantitative and qualitative research (Onwuegbuzie & Leech, 2004). Creswell (2003) has described mixed methodology as one in which the researcher collects, analyzes, and integrates both quantitative and qualitative data in a single study or in multiple studies in a sustained program of inquiry. It can be conceptualized as combining quantitative and qualitative research in a concurrent, sequential, conversion, or parallel way (Creswell, 2003; Tashakkori & Teddlie, 2003).

The study was based on elements of single-case experimental design. Single-case design, normally found in behavior modification studies, is characterized by an intense study of a group of students, in which changes in targeted behaviors are assessed through a variety of means (Kratochwill & Levin, 1992). In this case, the targeted behaviors were changes in global awareness (the dependent variable) as measured through a global awareness survey and the subsequent qualitative interviews, observations and artifact analysis.

The researcher chose this design method because the development of specific constructs for global and cultural awareness is difficult to observe in the natural occurrences of a classroom. A typical classroom is a closed environment, with student influences on global awareness developing mainly through teacher, peer and home influences. While travel experiences and media can play important roles in the development of global awareness, the addition of a cross-cultural element allows students to live virtually outside their standard influences (Singhal, 1998).

The results of the quantitative research served to influence the inception of an in-depth qualitative case study of student development of global awareness, as measured through interviews, field notes and artifact analysis. Case study design allows for the inclusion of contextual conditions that may be pertinent to the study's findings, and allows for the inclusion

of real-life experiences as well as the context in which social events occur (Creswell, 1998 & Yin, 1994). The initial use of survey and interview data allowed the researcher to consider constructs of interest that related to the development of global and cultural awareness by exploring a variety of factors. Besides the online relationships that were analyzed through artifact analysis, latent influences on global and cultural awareness among classroom peers and family members were also uncovered.

3.5 Data Collection/Quantitative

The researcher used a survey instrument, derived from Bennett's Inventory of Cross-Cultural Sensitivity (ICCS)(1986), to gather quantitative data used in helping to answer the central research and sub research questions. The instrument was originally designed for participants above the age of 16, and had to be adapted due to a lack of cultural awareness measurement instruments for young children. The ICCS, in its original format, contains 32 self-reported items that use a 7-point Likert scale. These items report on cultural integration (C), cultural behavior response (B), intellectual interaction (I), attitudes toward others (A) and empathy (E).

Loo and Shiomi (1999) performed extensive statistical analysis on the ICCS in order to examine the construct validity and internal consistency of the instrument. Tested with a Canadian and Japanese sample, the five scales showed weak to moderate internal consistency, (Canadian sample, .37 to .73, Japanese, .25 to .55). However, the full-scale reliabilities were an acceptable .85 for the Canadian sample and .77 for the Japanese sample. According to Loo and Shiomi, several problem items account for the poor internal consistencies; for example, items 7 and 10 (on the original survey) for the Canadian data and items 15 and 24 (on the original survey) for the Japanese data showed low item-total correlations with their respective scales.

These items were loaded on several components other than their expected component so, according to the researchers, it is not surprising to find low internal consistency reliabilities given this cross-loading problem.

Loo and Shiomi (1999) added that these kinds of psychometric problems might be resolved by adjusting the survey so that the scales have an equal number of items. However, while others have surmised that increasing the number of items in some scales and ensuring that items are highly intercorrelated within scales should help improve alphas, it is important to note that alpha is a complex and, at times, abused statistic (Schmitt, 1996). There is another key issue. For ease of understanding, the revised survey was translated for some of the participants in the Turkish and Mexican schools by the classroom teachers. According to Loo and Shiomi, the accuracy in translation of the ICCS is important, given the difficulties of ensuring equivalency across two different languages and many distinct cultures, in the case of the present study.

Based on Loo and Shiomi's (1999) recommendations, the revised ICCS survey used in the study comprised an overall full-scale score (mean score) used to measure differences between the experimental and control groups, and the use of sub scores solely as a means of determining factor differences in the development of cultural and global awareness in the participants at the three schools. As a result of feedback from the participants of the pilot study, some survey questions were reworded for reading ease, or, if items were misunderstood, removed. This was an essential step, in that the survey was written for ages 16 and older, and contains five scales designed to measure major aspects of cross-cultural sensitivity. The final survey contained 22 items and four subscales: cultural behavior, cultural integration, intellectual interaction, and empathy toward others. While the researcher recognizes that there are age-

issues and sub-scale internal-consistency issues with the original ICCS survey, the researcher found that the data gleaned from the amended survey, combined with the qualitative data analyzed throughout the course of the project, successfully met the data collection needs of this study.

A pre-project ICCS survey was administered to all participants under untimed, neutral conditions. The survey questions and constructs are listed in Table 3, and the full survey is provided in Appendix B.

Table 3 Inventory of Cross-Cultural Sensitivity (ICCS)

subscale	Survey Question
Cultural Integration	I speak only one language
Intellectual Interaction	I enjoy being with people from other cultures
Empathy for others	Others' feelings rarely influence decisions I make
Cultural behavior	I avoid people who are different from me
Intellectual Interaction	People from other cultures should avoid each other
Empathy for others	I think that people are basically alike
Cultural Integration	I have never experienced another culture
Cultural Integration	I have foreigners over to my home on a regular basis
Cultural behavior	I am nervous when I talk about people different from me
Intellectual Interaction	I enjoy studying about people from other cultures
Cultural behavior	People from other cultures do thing differently because they do not know any other way
Empathy for others	There is usually more than one way to get things done
Cultural Integration	I listen to music from other cultures on a regular basis
Cultural Integration	My parents or I decorate my home with artifacts from other countries
Empathy for others	I have many friends
Cultural Integration	I avoid trying foods from other countries
Cultural integration	I would like to live in another country in the future
Cultural behavior	Moving to another culture would be easy
Intellectual Interaction	I like to discuss issues with people from other countries
Empathy for others	The more I know about people, the more I dislike them
Cultural behavior	Crowd of people different from me scare me
Cultural Integration	I eat ethnic foods when I get the chance

The survey was emailed to the classroom teachers in Turkey and Mexico and printed at their sites. Initial plans to make the survey available through an online survey program were dismissed due to language constraints. With an emailed document, the classroom teachers were able to translate the document as necessary. Surveys were hand-delivered by the researcher to LES, and administered by the classroom teachers. Immediately following participation in the

cross-cultural experience, a post-project survey was administered to the same participants. The survey had five alternate forms, achieved through reordering. This was designed to improve testing reliability, minimize practice effects and ensure that students completed their own surveys without assistance from their peers. The survey results were written to not only provide a measure of increased global and cultural awareness, but also to aid in the formation of interview questions used in various phases of the experience

3.6 Data Collection/Qualitative

The qualitative portion of the study focused on eight Lane Elementary students selected through random quota sampling (see section 3.3). The collection of qualitative data was designed to provide rich, thick and powerful insight into the students' thoughts and feelings regarding their participation in the project. This data collection was grounded in Spradley's (1980) concept of participant observation, and was ongoing throughout the course of the project. Data collection included focus group interviews, classroom observations and artifact analysis.

The interviews were conducted in a focus group setting due to the age of the participants. Research shows that some young people need company to be emboldened to talk, and some topics are better discussed by a small group of people who know each other (Glesne & Peshkin, 1992). The main purpose of focus group research is to draw upon respondents' attitudes, feelings, beliefs, experiences and reactions in a way which would not be altogether feasible using observation, one-to-one interviewing, or surveys. This is important for this study, in that the proposed constructs for global awareness include all of these human characteristics. While the researcher recognized that these attitudes, feelings and beliefs may have been partially independent of a group or its social setting, these traits were revealed via the social gathering and interaction that being in a focus group entailed (Kitzinger, 1994). This held especially true with

the participants being elementary age students (Hoppe, Wells, Morrison, Gilmore, & Wilson, 1995).

Focus groups are therefore unlike individual interviews, which aim to obtain individual attitudes, beliefs and feelings. Instead, focus groups elicit a multiplicity of views and emotional processes within a group context. Compared to observation, a focus group enables the researcher to gain a larger amount of information in a shorter period of time. Observational methods tend to depend on waiting for things to happen, whereas the researcher follows an interview guide approach in a focus group (Morgan & Kreuger 1993).

The focus groups were divided by class, with the four fifth graders in the first group, and the four fourth graders in the second group. The interview questions were written in a semi-structured, interview guide approach. This approach was intended to ensure that the same general areas of information were collected from each focus group, and to provide more focus than the conversational approach (Patton, 1990). Creswell (2002) states that the advantage of using this semi-structured approach is:

> the predetermined closed-ended responses can net useful information to support theories and concepts in the literature. The open-ended responses, on the other hand, can allow the participant to provide personal experience that may be outside or beyond those identified in the close-ended options." (p.205)

However, the interview method still allows a degree of freedom and adaptability in gathering information from the participants, especially when compared with the survey data. In this case, the participants' general thoughts and feelings were gathered, and as individual differences were determined during the course of the interviews, specific questions were asked in the course of the inquiry that brought to light individual thoughts and experiences.

The focus groups were scheduled in conjunction with the researcher and the classroom teachers in order to ensure that all students were able to attend all three focus group sessions.

The researcher used a conference room at Lane Elementary and digitally recorded the interviews using an iPOD with an attached digital recording device. The digital features of the recording device allowed the researcher a portable media for instant analysis and review when needed. For example, if the researcher were recording observations in the classroom and needed quick reference to the voice transcript from the focus group interviews for additional memos, the digital features enabled portable voice access and memo insertion. Each recorded session is digitally saved as an MP3 file.

The first focus groups were conducted at the beginning of the project, but after the administration of the ICCS survey, in order to gauge the students' previous experiences, thoughts and attitudes toward students in Mexico and Turkey, and also their expectations concerning the course (Interview protocol can be viewed in Appendix C). These interviews provided information on the participants' backgrounds, demographics and prior-experiences. Information gathered from the students' responses on the pre-project survey served to influence the questions asked during the interview.

The second focus groups were conducted two weeks after the start of the project, after the first two modules were completed. The focus group questions were designed to tease out information regarding the students' ongoing development of global awareness. These questions were, at times, modified to allow the students to reflect upon specific attitudinal changes revealed in the pre-project survey and the first focus group.

The third and final focus groups took place the week after the completion of the course. This was timed to ensure that all of the students had finished posting responses, and had been allowed some opportunity to reflect upon their overall experience with their online peers. Several follow up email questionnaires were sent out to the students during the analysis of the

information to help fill in some gaps in the study and answer questions that materialized during the reviewing of the documents gathered for this research.

In addition to the three focus groups with the eight case study participants, several other interviews were conducted in order to provide a more detailed picture of the research. The classroom teachers were interviewed throughout the project to gain some insight into how the students were changing through their participation in the project, the types of content assistance they were receiving from teachers or peers, and the involvement of outside influences, such as parents and media, in their message board responses and other postings. The teacher interview protocol can be viewed in Appendix D.

Additionally, a questionnaire was sent to the parents of the eight case study participants at the conclusion of the project in order to ascertain how outside influences such as parents, peers, siblings and media have affected their responses during the course of the project. The parents were also able to provide insight and perspective into their child's thoughts that were not revealed in the analysis of the focus groups, observations or artifacts.

In order to increase the trustworthiness of the findings, the focus group and interview data was triangulated with information gathered from classroom observations and analysis of the transcripts from the Blackboard discussions and any pertinent classroom documents. Blackboard allows for easy download and storage of text materials, as well as archiving of digitally sent portfolio items such as drawings, photos and video clips. The Blackboard site was administered by the researcher and the classroom teachers, and remained available throughout the data analysis process. The Blackboard archives were time-stamped and permanent, and could not be altered by the researcher.

Each case study participant was observed at least three times, with each observation being a minimum of one hour. While the participants were permitted to work on the project at any free time of their day, the classroom teachers usually set aside the final half hour of the school day for students to participate. The researcher created a classroom observation sheet (Appendix E) that included an observation protocol tying back to the research questions and proposed model for the development of global awareness. The protocol includes the following six components:

1. The setting: the physical environment of the classroom, and how the environment plays a role in the students' participation in the project.

2. The human, social environment: the ways in which all actors (classroom teacher, participants, peers, others) interact and behave toward each other.

3. Project implementation activities: what goes on in the life of the project? What do various actors (staff, participants, others) actually do?

4. Notable nonoccurrences: determining what is not occurring although the expectation is that it should be occurring as planned by the researcher, or noting the absence of some particular activity/factor that is noteworthy and would serve as added information.

5. Nonverbal communication: nonverbal cues about what is happening in the project, such as the way all participants dress, express opinions, physically space themselves during responses, and arrange themselves in their physical setting.

6. The native language of the program: specific language or jargon that describes their cross-cultural experiences.

The researcher was an active observer, and asked the students questions regarding their experiences as they arose in the context of the observation. Because field note collection and

analysis occurred concurrently, a more detailed description of this process is outlined in section 3.8.

3.7 Assurances of Data and Design Quality

The study is of mixed methodology. For this reason quantitative issues of internal and external validity, as well as qualitative issues of credibility, transferability, dependability and conformability have been addressed. The inclusion of mixed methods helped to strengthen the quality and verification of the study because of the use of multiple data points, including survey data, interviews, observations and artifacts.

Creswell (1998) defined credibility as the degree to which inferences of the phenomena match the realities of the phenomenon. It is important to note that the credibility of a mixed methods study, with an emphasis on qualitative research, did not have the sole purpose of generalizing the results to other settings and populations. Instead, the purpose was to create a rich, thick description that will enable others to not only understand the development of global awareness in elementary age students, but also to extend these understandings to further research in an increasingly global world.

In order to increase the conformability of the study, the researcher triangulated data from multiple sources. As previously stated, data sources were collected from observations of participants during the cross-cultural experience, interviews of students and their teachers and the analysis of artifacts created during the experience. The use of multiple sources was intended to strengthen the results and enhance the conclusions developed from the study.

Another strategy to increase the confirmability of the study was frequent member checking with the participants. Because the data were interpreted throughout the course of the study, the researcher was able to requestion participants as needed, and confirm or refute

findings and generalizations. The researcher used a peer debriefer in order to assist with data analysis and confirm or refute the researcher's findings and interpretation. In addition to the confirmability methods outlined above, another means of controlling the credibility of the study was by videotaping the observations and transcribing the interviews.

3.8 Quantitative Data Analysis

Quantitative methods were used to answer the following three research questions:

- Sub Question #1: What factors lead to the development of global awareness for upper elementary age students?

- Sub Question #3: Do students educated in different countries develop global awareness differently than their online peers?

- Sub Question #4: Do fifth grade students participating in an online cross-cultural project develop global awareness more than fifth grade students not participating in an online cross-cultural project?

For sub questions #1 and #3, the results of the pre- and post-test ICCS surveys were tabulated and entered into SPSS, a data analysis program. The researcher analyzed descriptive statistics in order to examine trends in means and standard deviations among targeted groups of children. Next, a MANCOVA was conducted in order to determine the null hypothesis that ICCS factors would not vary among the participants from the three different countries. The researcher chose the MANCOVA test because of the existence of four dependent variables (four identified factors) and the existence of a pre-test, which served as the covariate to be controlled.

For sub question # 4, the researcher conducted an ANCOVA in order to test the null hypothesis that there would be no significant difference in global awareness between students who participated in the project, and those who did not participate in the project. The existence of

the pre-test scores supported the use of ANCOVA. Additionally, the researcher conducted dependent t-tests for pre- and post-test scores in order to determine significance differences before inception of the treatment and at the conclusion of the cross-cultural experience for the eight case study participants. For all quantitative tests, the significance level was set apriori at.05.

3.9 Qualitative Data Analysis

Data analysis of qualitative data was much more analytic and deductive than the quantitative data. Creswell (2002) described typical qualitative data analysis as the following:

- Preparing and organizing the data for analysis

- Exploring the data

- Describing and developing themes from the data

- Representing and reporting the findings

- Validating the accuracy and credibility of the findings.

Through constant comparative analysis, data points were examined to identify categories, to create sharp distinctions between categories and to decide which categories were theoretically significant (Gall, Borg, & Gall, 1996). From this analysis, the researcher created thick descriptions of the themes and categories that developed to illustrate the findings of the study.

As previously stated, data sources were triangulated to include observation data, transcripts of message board text, parent and teacher questionnaires and focus group interviews conducted before, during and after the project. Data collection involved a continuous series of observations and structured open-ended questions, with the researcher maintaining an observer-participant role.

Observations were descriptive and reflective, with the researcher documenting and coding behaviors and language that reflected recurrent themes, change indicators and group consensus with regard to cultural awareness and stereotypical behavior and understanding. These observations were recorded using a classroom observation form (see Appendix C). Focus group interviews were digitally recorded, transcribed and analyzed immediately following all interviews. In this manner, patterns and themes that emerged served to make general sense of the data, and to further guide the study. The researcher used the program ATLAS.ti as a tool for organizing and coding the data.

3.10 Researcher's Role

According to Denzin and Lincoln (2000), qualitative research is multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them. This constructivist view of research places the researcher as an active participant, and undermines the traditional positivist beliefs of value-free design. Although there are elements of quantitative research in the form of survey design, the foundation of the study was to gain a unique understanding of the participants' development of global and cultural awareness. When developing constructs for an abstract ideal, the historical, environmental and lived experiences of the participants must be taken into account.

An integral part of these experiences involved the creation of the cross-cultural experience by the researcher, whose active participation was vital in the training prior to the delivery of the experience. At the inception of the cross-cultural exchange, the researcher

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assumed the role of observer and data collector, leaving important classroom functions such as orchestration, discipline and instructional timing to the classroom teacher.

3.11 Timeline for the study

February 2006	Submitted proposal to committee
February 2006	Submitted proposed study to LSU IRB for full review approval
March 2006	Created Blackboard site for the project
March 2006	Administered pre-test surveys
March 2006	Trained teachers and students on Blackboard use
March 20, 2006	Began cross-cultural project
March/April 2006	Observed and interviewed participants
April 28, 2006	Ended cross-cultural project
May 1, 2006	Administered post-test surveys and conducted focus groups
May 2006	Analyzed and interpreted data
Sept 2006	Wrote results and discussion sections of final paper

3.12 Study Design Limitations

There were a number of possible limitations to the study that have not been previously discussed. One item considered was the prior knowledge of the students, which brought forth latent stereotypical behaviors. Students with travel abroad experience, older siblings or from immigrant households had behaviors that could not be attributed to the treatment alone. Another area of concern was with the teachers and parents. Those with persisting stereotypical behaviors may have actually led the participants toward their own stereotypical behaviors through the course of the cross-cultural experience. Other limitations were more technical in nature.

Breakdowns in Internet access at all of the schools delayed the project and caused frustration for some users.

CHAPTER FOUR: RESEARCH RESULTS

Research results were determined to fall into three categories: effects of an online project on the development of cultural awareness, factors that contribute to the development of cultural awareness in upper-elementary age students, and implications for future practice in designing and delivering online cross-cultural projects with elementary age students. Table 4.1 displays the sources of data used in answering each research question.

Table 4 Research Questions/How Analyzed

Research Sub-Question	Source of Data Analysis
What factors lead to the development of global and cultural awareness for upper elementary age students?	• Content analysis of student involvement in the online discussions • Student Focus Groups • Teacher Interviews • Parent Interviews • Classroom Observations • ICCS Survey
How, if at all, have students' attitudes toward their cross-cultural peers changed through participation in a cross-cultural distance education project?	• Content analysis of student involvement in the online discussions • Student Focus Groups • Teacher Interviews • Classroom Observations
Do students educated in different countries develop global awareness through an online cross-cultural project more/less than their online peers?	• ICCS Survey
Do fifth grade students participating in an online cross-cultural project develop global awareness more than fifth grade students not participating in an online cross-cultural project? If so, how?	• ICCS Survey
What are the necessary implications for practice when conducting online, cross-cultural projects in upper elementary classrooms?	• Content analysis of student involvement in the online discussions • Student Focus Groups • Teacher Interviews • Parent Interviews • Classroom Observations • ICCS Survey

4.1 Review of Qualitative Data Analysis

The analysis of the content of the threaded discussions in the online community, as well as the analyses of interviews (parent and teacher), focus groups (students), and classroom observations were conducted through constant comparative analysis. Using this method, the discussion threads, interview data, focus group data, and classroom observation summaries were segmented and coded according to significant themes and patterns using the program ATLAS.ti. As outlined by Creswell (2002), the following steps were followed in the constant comparative analysis:

- Preparing and organizing the data for analysis

- Exploring the data

- Describing and developing themes from the data

- Representing and reporting the findings

- Validating the accuracy and credibility of the findings.

Through constant comparative analysis, data points were examined to identify categories, to create sharp distinctions between categories and to decide which categories were theoretically significant (Gall, Borg, & Gall, 1996). From this analysis, the researcher created thick descriptions of the themes and categories that developed to illustrate the findings of the study.

4.2 Review of Quantitative Data Analysis

After the conclusion of the experience, the researcher analyzed the quantitative data (Creswell, 2002) through the SPSS program. The data were cleaned to ensure that unusual data did not exist due to keystroke errors by the researcher or mistakes by participants. The database was explored for errors by running a descriptive analysis using SPSS and noting unusual data.

Descriptive and inferential statistical procedures were used to analyze the cultural awareness instrument completed by the participants.

4.3 The Development of Global and Cultural Awareness: Factor Differences among Participants in Mexico, Turkey and the United States

One goal of this research was to develop an understanding of the factors that contribute to the development of global and cultural awareness in upper elementary-age students who participated in an online exchange. In order to measure the students' level of cultural awareness and determine varying factors among the schools, a survey was given to all online participants at the beginning and end of the experience. Questions from the cultural awareness survey fell into four categories: cultural integration, cultural behavior, intellectual interaction and empathy. Mean scores for each school on pre- and post-tests are identified below in Table 5.

A MANCOVA was conducted to measure changes in student perceptions from three schools participating in the cultural awareness project on the four factors described above. The independent variable was schools and the dependent variables being compared were the four factors of cultural awareness. Pretest scores were used as a covariate, controlling for any pre-existing conditions among groups of students. Next, post tests for each of four factors were compared. The factors from the survey included cultural integration, behavior, intellectual interaction and empathy.

Table 5 Adjusted Mean Scores on ICCS/Schools

	N	posttest cultural integration score		Posttest intellectual interaction score		Posttest empathy score		Posttest cultural behavior score		Pretest composite scores		Posttest composite scores		Mean difference
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
USA	50	3.03	.68	3.89	.81	3.92	.59	3.57	.71	3.42	.48	3.51	.45	.09
Mexico	22	3.82	.57	3.77	.88	3.96	.69	3.10	.85	3.61	.44	3.71	.50	.10
Turkey	33	3.94	.62	4.17	.73	3.87	.70	3.62	.68	3.71	.53	3.90	.50	.19
Total	105	3.48	.77	3.95	.81	3.91	.64	3.49	.64	3.55	.47	3.67	.49	.12

Note: 1=strongly disagree; 5=strongly agree

The four composite scores served as the dependent variables. The assumption of homoscedasticity was tested using Box's M and it was determined that the groups did not differ in their covariance matrices ($F_{(2, 17813)} = 1.225$, p=.222). Testing the assumption of equal group variance, Levene's test concluded that the groups tested had equal variance on each of the four factors (p=.378, p=.793, p=.865, p=.163). In this case, the necessary assumptions for using a MANCOVA were present. Wilks' lambda, which tested the difference between the three schools for four dependent factors, was significant ($F_{(4,196)} = 6.78$, p=.000). This indicates there is sufficient evidence that there were changes in student's perceptions of global issues in one or more factors of global awareness following the program when controlling for pre-existing conditions. Univariate analyses for each factor revealed a significant change among student perceptions on factor one, cultural integration ($F_{(2,101)} = 18.60$; p=.000), and factor four, cultural behavior ($F_{(2,101)} = 6.12$; p=.003). Tukey's pair wise post-hoc comparisons indicate that students from the schools in Mexico (M=3.82; SD=.57), and Turkey (M=3.94; SD=.62) $F_{(2,101)} = 18.60$, p=.000 had significant changes on the cultural integration scale when compared to students from the United States (M=3.03; SD=.68). Likewise students from the United States (M=3.57; SD=.71) and Turkey (M=3.62; SD=.67) scored significantly higher on the cultural behavior scale than students from the school in Mexico (M=3.10; SD=.85) $F_{(2,101)} = 6.12$, p=.003.

Students in all three settings increased their global awareness scores from the pretest to the posttest. The students from Turkey increased their composite score by .19, the students from Mexico increased their composite score by .10, and the students from the United States increased their composite scores by .09.

4.4 The Effects of Project Participation on Global Awareness

An experimental design was employed to answer the following research question: Do fifth grade students participating in an online cross-cultural project develop global awareness more than fifth grade students not participating in an online cross-cultural project? For this portion of the study, an ICCS survey was delivered to 23 students in the control group and 23 students in the experimental group before and after the project. The classroom teachers participated in daily planning sessions that ensured the same curriculum was taught to both classes. Students in the experimental group participated in the online cross-cultural project, while those in the control group did not participate in the project.

An ANCOVA was conducted to compare the means of the two classrooms participating in the cultural awareness project. An ANCOVA was selected in place of t-test in order to account for any initial mean differences in the pretest composite scores. The independent variable was classrooms. The covariant was the pretest composite scores. The dependent variable was the mean posttest scores on the ICCS.

Table 6 Adjusted Mean Composite Scores/Experimental and Control

	Mean Composite Score Pretest	Mean Composite Score Posttest	Mean Difference	Standard Deviation	N
Experimental	3.45	3.52	.07	0.47	23
Control	3.44	3.41	(.03)	0.45	23

Note: 1=strongly disagree; 5=strongly agree

The Levene's test for the assumption of equal group variance concluded that the groups tested had equal variance (p=0.515). The results indicate that while there is a difference in the mean post composite scores between the experimental and control groups, that difference is not significant ($F_{(1,46)}$ =1.03; p=0.316) at the .05 level of significance (Table 6).

Descriptive statistics for raw mean scale scores (Tables 7 and 8) indicate that students in the experimental classroom had no change in their empathy and cultural behavior scores, an increase in their cultural integration scores (.18) and a decrease in their intellectual interaction scores (.09). Students in the control classroom had an increase in their intellectual interaction scores (.52), a slight increase in their empathy scores (.03) and a decrease in their cultural behavior (.01) and cultural integration scores (.34).

Table 7 Raw Scale Scores/empathy and cultural behavior scales

Group	N	pretest empathy score		posttest empathy score		mean difference	pretest cultural behavior score		posttest cultural behavior score		mean difference
		M	SD	M	SD		M	SD	M	SD	
Experimental	23	4.04	.59	4.04	.88	0	3.43	.72	3.43	.72	0
Control	23	3.79	.50	3.82	.65	.03	3.33	.63	3.41	.69	(.01)

Table 8 Raw Scale Scores/cultural integration and intellectual interaction scales

Group	N	pretest cultural integration score		posttest cultural integration score		mean difference	pretest intellectual interaction score		posttest intellectual interaction score		mean difference
		M	SD	M	SD		M	SD	M	SD	
Experimental	23	2.98	.66	3.16	.73	.18	3.67	.70	3.58	.59	(.09)
Control	23	3.22	.71	2.88	.65	(.34)	3.56	.87	4.08	.65	.52

4.5 Case Study Results

The researcher used case study research to intensely focus on eight upper elementary students from Lane Elementary School during the course of the study. The purpose of the case study research, in conjunction with the survey research presented earlier, was to answer the following three research questions:

1. What factors lead to the development of global and cultural awareness for elementary age students?

2. How, if at all, have students' attitudes toward their cross-cultural peers changed through participation in a cross-cultural distance education project?

3. What are the necessary implications for practice when conducting online, cross-cultural projects in upper elementary classrooms?

The researcher observed each student at least three times working on the project in either a whole group setting or at individual times such as recess or end-of-day activities. Each observation session lasted approximately one hour. Additionally, each student participated in focus group interviews before the start of the project, during the project and immediately after the conclusion of the project. The researcher also collected and analyzed the students' discussion board postings throughout the course of the project. The case study descriptions also include interview data with the classroom teachers and parents, when available. Table 9 provides results from the ICCS survey, and time spent online, represented by hits on the discussion board.

Table 9 Case Study Participants/ICCS Mean Composite Scores/Demographics

Participant	Age	Grade	Pre-test mean score	Post-test mean score	Mean Difference	Time spent in online environment (hits)
Jill	10	4	4.27	4.00	(.27)	716
Myra	10	4	4.18	4.05	(.13)	603
Jasmine	11	5	3.91	4.00	.09	815
James	11	5	3.09	3.36	.25	562
Carmen	10	5	3.45	3.95	.50	966
Michael	10	5	2.81	3.38	.57	181
John	10	4	2.68	3.36	.68	3,335
Ann	10	4	3.09	3.91	.90	600

Note: for means, =strongly disagree; 5=strongly agree

The following sections are meant to paint a picture through thick description, in an effort to place the reader into the students' classroom, discussion boards and focus group interviews. The quotations are from the participants' perspectives and are kept in their own language including

dialect. Sub-sections of section 4.5 present results from the following sub-research question: What factors lead to the development of global and cultural awareness for elementary age students?

4.5.1 Ann

Ann is a 10-year-old female, Caucasian student who was described by her teacher and classroom peers as a quiet, friendly and exceptional student. Ann has very good technology skills, and routinely uses a computer both at home and school. Ann recorded 600 hits in Blackboard over the eight week span of the project, classifying her as an average participant. She tended to work mainly during free time in school, but also worked from home. She posted in all five discussion forums, and continued to post after the conclusion of the school year. As recorded at the beginning and the end of the project, Ann's mean score on the Inventory of Cross-Cultural Awareness increased from 3.09 to 3.61, the highest net change among the participants.

Ann began the project with some background knowledge of Mexican culture, but little knowledge of Turkish culture. Her primary source of Mexican cultural awareness came from her extensive personal travel experiences with her family.

> My family likes to travel a lot, and when we go places, we learn about those
> places, and we try new foods and things. But when we come back, we're like
> way different and we want to know what they're doing there right now. We like
> to get the weather updates for places and stuff like that.

Through traveling, she seems to have developed a positive outlook on people from other countries and cultures, indicating that people are basically the same worldwide. While she enjoys traditional American foods like pizza and hamburgers, Ann shared her enjoyment of trying foods from other cultures, especially Mexico.

I think of their food, and the festival that they have because our family, we have a party on Cinqo de Mayo every year and we invite a bunch of people over and it's like a big swimming party.

Based upon observations and informal conversations with Ann, it appeared that she was eager to begin the project, and expressed a positive expectation of what she could learn by exchanging ideas online with students from other cultures.

I think that they can learn about the things we celebrate, like Christmas. Everybody at school likes to get a tree and put all the presents under the tree and stuff, and some countries have a different name for it, and different ways or traditions of doing things.

It also appears that she entered the project with an expectation of personal change.

I think we are going to change because we'll know a lot more about how they do things, and like, maybe we'll do other things different ways, just because of what they taught us.

The researcher's initial thoughts after these first observations and interviews were that Ann would be a fully participating, outgoing and dynamic member of the discussion boards. The researcher felt that her prior experiences, positive family influences and optimistic outlook toward other cultures would belie the rather low pretest score on the ICCS. However, based upon observations, interviews and discussion board analysis, the researcher was led to believe that the reality of Ann's online experience did not initially mirror the positive expectations for change that she predicted.

As stated, Ann was described by her teacher as a friendly, yet shy student who thrives in a cohesive, peer-reinforced comfort zone. Interestingly, her social development in the online environment mirrored the reality of her daily classroom life. During the first classroom observation, the room was buzzing with most students sharing their postings with tablemates, collectively responding to their online partners and seeking guidance on technical issues. A few students, were working alone, quietly reading postings from

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other students, and individually responding or creating new threads. Ann herself was not posting on the discussion board that day, and, up to that point, had not participated in the program at all. When the researcher inquired if she had posted her welcome paragraph, she said that she preferred to write from home.

This observation was further defined through analysis of Ann's early online postings which are seemingly friendly and thoughtful, yet lacking in social depth and collaboration with her online peers. These postings appeared to have an egocentric focus, sharing information about her family, her hobbies and personal traits rather than inquiring about the affairs of others. Her posts ended with statements such as, "Write me back," rather than inquiry into others' lives and culture, which is found in other students' initial postings. The following is one of four similar early postings by Ann.

> Hi Cem,
> My name is Ann, I am 10 years old. My favorite sport is soccer, but I like
> basketball too. I live in _____. I have one brother.

While others in her group moved forward with the next discussion thread, a thread in which students describe their hometown and ask others questions about theirs, Ann avoided the new discussion board thread, even though others had responded to her welcome postings. The researcher observed Ann twice during this time period, and both times found her working on a very complex PowerPoint about her hometown. However, Ann soon began collaborating with her classroom peers, sharing information on her PowerPoint design, and giving mini lessons on uploading pictures into the program. At this time, Ann began to work in the discussion board again:

> Hey Asli, I'm Ann. In Art, we just had an art show with our work in it. You are
> probably way better than me at drawing. What do you like to do? Like a hobby. A
> couple of days ago a yo-yo man came to our school. We all got a cool yo-yo. I
> think I stink at yo-yoing.

However, shortly thereafter, Ann appeared to have assumed a classroom leadership role.

Ann's development of in-class collaboration was illustrated during her second focus group interview. When asked if she worked alone or with others, she responded with the following:

> Ann: Lots of times, when we do it at school, Carly sits right next to me and we like to talk about what we want to say and we give each other ideas because it's easier that way.

> Researcher: Do you think its information about Ann or information about Carly? Or do you just help each other?

> Ann: She helps me with some things to say.

During this latter phase of the project, Ann tended to seek assistance from her classroom teacher and other adults when developing topics for discussion or responses to others, more so than in the beginning of the project.

> Sometimes if you didn't know, and you were like what should I say about like my birthday or something like that, [my teacher] would, like give you an idea but not completely, the whole idea, so she'd want you to make it up by yourself, but she'd kind of give you like a little bitty bit of an idea.

She likewise sought assistance and guidance from her parents and older brother when working from home.

> My family, they helped 'cause every time I was on it, they were like, they knew exactly what I was doing and they were like, "Do you need any help" and one time, they helped me to spell [Wales] and other stuff like that.

Her participation steadily increased throughout the eight weeks (less than 100 Blackboard hits during the first four weeks, over 500 Blackboard hits during the second four weeks) and continued into the summer after the project's completion.

4.5.2 Jill

Jill is a 10-year-old female, African American student. Her teacher and classroom peers describe her as an outgoing and resilient student, having lost her home and possessions in a recent hurricane. Jill recorded 716 hits in Blackboard over the eight week span of the project, classifying her as an above-average participant. She tended to work mainly during free time in school, but also worked from home. Jill was less active in the project at the beginning, with her participation increasing at the end. As a result of the project, Jill's mean score on the Inventory of Cross-Cultural Awareness decreased from 4.27 to 4.00, both very high mean scores.

Jill appeared very honest and forthcoming during the interview sessions, sharing her very extensive personal knowledge of European culture. After evacuating from another community earlier in the school year, Jill and her parents relocated to the city of Prague in the Czech Republic. She spent three months in the city, an experience which may have led to a very high degree of cultural awareness (4.27 on the ICCS). Consequently, her initial expectations for personal growth and change seemed very high.

> I think we will change because we'll know if something bad is going on there, or something they do gets them in trouble, so, we're not going to do that, so we can see how they feel. And when I went to Prague, I came back really different. I knew about what's going on in other countries, and what kids do or what happens to kids or something.

Interestingly, Jill's experiences with countries geographically closer than Europe were quite limited, and could be classified as stereotypical. When commenting on her prior knowledge of Mexican culture, she responded, "I think of Taco Bell and Chihuahuas and of big hats".

Jill began the project with a very positive and inquisitive outlook. In her first postings she asked many questions such as: "What is a surname?" and "Is it cool living

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in your country?" Jill seemed very trusting of her online partners at the beginning of the project, posting personal information, including pictures of her mother. She quickly seemed to feel at ease online, and appeared to use the discussion boards to fill a friendship void she seemed to be experiencing in her current school:

> I don't have a best friend because I am new at this school. I would like to be your friend too. AND it is pretty cool. sure I want to be friends. what do those words mean? you seem nice can you tell me a little more about you?

Jill's openness soon reinforced her beliefs of similarities between her and her online friends. The following is a series of discussion threads that illuminate Jill's involvement with her online friends:

> Jill: Hey, have you every heard of prague check republic? well i went there last year for 4 months because i had to go to school before i moved here. this place is in erope. I have also been to Texas, florida, claifornia, washington dc,and Virginia

> Idil: i went there last year. i went there whit school. we had a choir festival. we are 4th from 27

> Jill: really? you went to prague???

> Idil: YESSS........AND ÝT WAS SO FUN'!!!

> Jill: did you see the castle? if you did was'nt it really pretty?

> Idil: yes i saw it. it mas so nice.

> Jill: it was really cool to see all the history. and i bought a lot of stuff on the sidewalks

> Idil: me too my mom gave me 200 euros and i finnished it

> Jill: thats really cool

Soon, it became evident that Jill was not as independent of a participant in the project as she initially demonstrated, but, like other participants, was greatly influenced by friends and family. Like other students, Jill participated most during school day, and

occasionally posted to the site at home. She tended to have other students read through her messages before posting, and collaboratively wrote many of her responses with the students sitting around her. Jill confirmed this observation with the following statement:

> I try to do it by myself, but sometimes I talk to Casey about it because she sits right in front of me and she just gives me ideas of what to talk about.

Jill's participation in the project was also influenced by her family. When asked whether her parents assisted with her postings, Jill shared the following:

> They did. They kept, the told me what I should say, like give me ideas what I should say, and um, and they told me, like every night or something, when I go on it, and if they send me some information about their country I would tell my parents.

4.5.3 John

John is a 10-year-old old male, Caucasian student. According to his teacher, John is an outgoing, friendly, highly motivated student. He is frequently singled out for his work ethic and diligence toward his studies. John enjoys working on the computer, and, according to his parents, talks about working with computers in his future career. John recorded 3,335 hits on Blackboard over the eight-week span of the project, making him, by far, the top user among 133 participants in the program. He worked on the project during free time in school, and extensively with friends and family at home. John posted at length in all five discussion forums, and continued to post after the conclusion of the school year. As recorded at the beginning and the end of the project, John's mean score on the Inventory of Cross-Cultural Awareness increased from 2.68 to 3.36.

John came to the study with, by his own admittance, very limited knowledge of Mexican and Turkish culture. Unlike Ann and Jill, his family traveled little outside of the community, and his understanding of other cultures seemed to be rooted in stereotypes. When asked what he

thinks about when he hears references to Mexico, his answer was limited to the festival of Cinqo de Mayo, a unit studied in his daily Spanish class in school. John's only knowledge of Turkey was developed soon after he learned of his forthcoming participation in the project. Excited by the prospect of studying other cultures, John began to bring a book of the world's flags in the car during his daily commute, and had his sister quiz him on the distinguishing characteristics of the world's flags. It appeared that John's zeal for self-guided learning translated into the project, based on the number of hits he recorded on Blackboard. He likewise freely shared his positive expectations with the researcher:

> I think that the project will be cool because you get to learn what they do, and how they run things differently in Turkey and in Mexico.

John seemed to have an expectation of differences between him and students from other countries, but differences that he can learn from.

> You can compare what they do and what we do, and you can pick out the things that they do good and they can pick out the things that we do good.

John stated in the first interview that he felt he could learn and grow as a person through participation in the project. The following is an example of one of these early posts:

> Hi I am John -----------. I love video games and sports. My best frind is Will. I love to play my PS2. You probably know that America is cool. I bet Turkey would be cool too. I just finished the ---test. It's a big test that all the students have to take. My school is the -----------. The school is great. I used to go to a school called -----. Bye!!!

More so than with Ann and Jill, John quickly made friends online and seemed to see a value in working with students from other countries.

> I think it's good that we can chat because if you like ever go to Turkey, they can send you words, and how to speak, but, I chat with this girl mostly, cause she has details about everything.

John himself seemed to become the leader of the message board. As the message board became populated, he made it a point to welcome all new students to the group, reintroduced himself, and worked to keep everyone engaged and asking questions, "Hi I'm sorry that I forgot to welcome you to the group. What is your school called?" John also seemed to stand out above the other students in his class and online group with his level of inquiry. He quickly began to realize that his world was capable of expansion, and his egocentric manner evaporated.

> Hey, this is John. I have never heard about the channakkale war. Can you tell me what it was about? Anyway you probably know about the american revolution. The way our country became free. So now my country is free.

John actively solicited the other students, asking for audio files of Turkish words and even using them as simple greetings in his posts. One post toward the end of the project began in this manner: "Hi or should I say Merhaba!" John seemed to develop empathy for the other online students, especially after one student from Turkey was describing his experience in an earthquake. He also seemed very pleased that offerings of friendship were reciprocated by his online peers.

> I went on today, and the people who mostly chat in my group, they responded to me and they said, "thanks, John, it was awesome having you in the group." This other girl, she's that Ally girl, she responded and said, "Oh, thanks, I hope you liked the words."

Much like the beginning of Ann's experience, John was observed working alone. However, unlike Ann, John was extremely active in the message boards from the beginning, and remained an independent participant. When asked if he worked with others, John had the following to say:

> Yeah, I invited Will over, and we went on his [group message board] and went on mine. We looked at posts, and we don't have much every day because we always read them. And I had Cal over once, but we just read and posted on our own.

John also proudly told me during another observation that he never seeks assistance from his friends, family or teachers, and that all of the postings are his words and thoughts only. These statements were confirmed by his parents and teachers.

4.5.4 Myra

Myra is a 10-year-old old female, American born, Asian student. Her parents are Taiwanese immigrants, and English is Myra's second language. Her teacher and classroom peers describe her as extremely quiet and highly intelligent. Myra's teacher noted that she had become very frustrated with her lack of participation in class, as well as a lack of collaboration on projects with her peers. Myra did enjoy working on computers, and said that she uses them for gaming and schoolwork. Myra recorded 603 hits on Blackboard over the eight-week span of the project, classifying her as an average participant. She tended to work mainly during whole group time set aside in class, but also worked from home. She consistently posted on all five discussion forums, and continued to post after the conclusion of the school year. As recorded at the beginning and end of the project, Myra's mean score on the Inventory of Cross-Cultural Awareness began at a very high mean score of 4.18, and remained relatively unchanged at 4.05 as recorded at the conclusion of the project.

Myra was extremely quiet throughout the course of the project, and rarely spoke in group interviews unless others addressed issues first. Despite her very positive outlook on other countries and cultures, as determined by her ICCS score, Myra came to the project with no knowledge of Turkish or Mexican culture. However, her outlook on the program seemed to be open-minded, with her comments providing some evidence of thoughts beyond the usual daily life issues, into the people that comprise the other countries.

> We can learn about like what their favorite festival is, and what they like to eat the best and maybe even like what's their favorite color.

Myra likewise felt that she could learn from other students in a way that could maybe affect the way she conducts her daily life.

> I think we will change because, maybe we can see what they do better and what can change…and if they tell us something about like festivals and things, we can like learn about that.

Like John, Myra seemed to immediately embrace the online experience. Like Jill, she possibly used the online environment as an outlook for making friends. Her tone was immediately conversational, with her replies friendly and relevant to the conversation:

> Hi Evelen. Today I will get a guinea pig, but I really want a cat and dog. I also like to watch TV too! I am almost just like you, but I am 9 years old. My favorite color is Magenta. What is yours? My favorite dessert to eat is ice cream. I will send you a picture of what is basically my favorite ice cream. I am waiting for your reply! From, Myra

Like her online partners, Myra tried to share as much relevant information as possible.

> Wow!!!!!! Your country looks very pretty. I go to _____. _____has great foods too. There is a lot of great music. Some of our tasty foods are pizza, hotdogs, and tacos. Here is a picture of a taco.

During the observations, Myra worked alone, not conferring with other students. In an interview with Myra's parents, they confirmed that she worked entirely on her own, but also took time to share with and teach her younger sister about Turkey and Mexico. Myra confirmed her thoughts on collaborative work with the following reference to her teacher:

> …if she [classroom teacher] gave us a whole bunch of ideas, it wouldn't really be what we were doing, we'd be typing down what [she] said, and so she just gives us ideas to help us and then we write it all by ourselves.

4.5.5 James

James is an 11-year-old Caucasian male from Louisiana. His teacher considers him a very outgoing, somewhat brash, student who has struggled with his schoolwork. His classmates consider him outgoing and confrontational. During our focus group interviews, James

dominated the conversation, at times speaking over others, and verbally sparring with his

classmates. He was an average participant in the project, recording 562 hits on Blackboard. As

recorded at the beginning and the end of the project, James's mean score on the Inventory of

Cross-Cultural Awareness increased from 3.09 to 3.36.

As determined from classroom observations, James was a very social, well-spoken and

theatrical child. Through books, his teachers and his friends, James had amassed an impressive

array of geographical and historical trivia. However, he seemed to lack a fundamental

understanding of how the people live in the country. For example, James had an advanced

understanding of the Mexican coffee trade and its role in the economy: "I know that coffee came

from the Mexicans, they first found out about it, and they make their money from it." However,

when asked if he had ever met a person from Mexico, he replied: "only in video games. They

seem strange." James's understanding of Turkey was also grounded in geography, replying that

he knew the country was located near Macedonia, and a friend had told him that Noah's Ark was

found on a mountain in Turkey.

Like his classmate Michael (see Section 4.5.6), James appeared to express reservation

about participating in an online project with students from other countries. His comments

gathered in an interview prior to the project seemed to indicate that stereotypical behavior and

prejudice had already become part of James's personality.

> I'm always afraid of like meeting new people from like places I've never even
> heard of. Well, you never know, [someone] in some other country, he might be
> wanted for like something like murder or something. I mean, it's possible.

As for his expectations for what he could learn from the project, James hoped that he could learn

about the others' language and economy.

When interviewing and observing James, it became clear that, while he seemed to play a leadership role in his classroom, he tended to interrupt, bully and coerce his classmates. For example, during one group interview, James's and another student's conversation erupted into an argument over the name of a main character in a video game. Once, when working on the project, James leaned into his neighbor's computer and began typing what he thought his friend should have been writing. He likewise expressed a tendency for collective collaboration and postings: "I like it when people sit next to me, cause whenever I can't really think of anything I like to chat with them and give them ideas to say." When others tried to reach out to James in the opening thread, James seemed brusque and intimidating in his replies. He stated, "soooorry. what do you want to know about me?", and, "the first one to answer [my poasting] gets a picture of there favorite animal". While the other participants in James's group began to create dialogue back and forth, asking and answering questions, James's postings went unanswered and ignored for the remainder of the project.

James also seems to have revealed a strong parental influence in his development of cultural awareness. When asked whether he enjoyed talking with students from other countries, he said:

> Not really good, 'cause my parents always told me not to talk to strangers, and like, I don't really know them enough like to really believe stuff that they may say. Like, when they say, like, "this is so cool," and like, I would think like otherwise or something. Also, you can't have a friendship and give them every type of information.

4.5.6 Michael

Michael is an 11-year-old, African American student. According to his teacher, Michael is a friendly, yet underachieving student who often skips his homework assignments, is consistently tardy, and often loses his recess in order to complete his classroom assignments.

Michael was observed only once during the project (a result of his absences from school), however, the researcher believes that enough information was gathered from the focus group interviews, a parent interview, and analysis of his discussion board threads to include his results in the study. As measured at the beginning and end of the study, Michael's score on the ICCS rose from a mean of 2.81 to 3.38.

Michael had limited interaction with the other participants in his online group, recording only 181 times on Blackboard. He posted only nine times in the discussion board, and rarely read other's postings. When asked about his lack of time on the project during the third interview, Michael said that he preferred to work online with James (the same James included in this study). Michael's reflections on the project, including lessons learned and knowledge gained, mirror James's.

Michael began the project with very little knowledge of other cultures. What he did know, he said he learned from television cartoons and his brother, who studies Spanish in high school. Regarding Turkey, Michael's reply was that it is something you eat, and he refused to believe that a country by that name existed. Michael indicated that he is quite shy, and felt that the anonymity of the message board would help him feel comfortable talking to others who he didn't know.

The majority of Michael's participation occurred at the beginning of the project. He seemed to quickly realize that the students from abroad were very much like him: eager to explore various parts of the Unites States, and interested in the same sports. Michael's postings seem friendly, and somewhat inquisitive:

> Hi my name is Josh. I am in the fifth grade. I like to play baseball, basketball, and football. What is your name?

Michael's postings also seem very personable, if not somewhat exaggerated:

my country is big. we have disasters going on every day!! what is your favorite u.s. state? my favorite u.s. state is california. what disasters go on where you live? peaceout!!!!!!!

At the midpoint of the project, Michael remained insightful on how he preferred to communicate with others. Michael said that he preferred to work by himself and work on the project alone, so that he could talk to his "inner self."   He is also the only student in the study who attempted to incorporate/invent his own online language.

But for like "hey, like what's up," "how are you," I put "hey" and I put "what's" and a little up arrow thing, and I didn't really know if they would understand that.

It appears that Michael's earlier work in the project had an impact on his development of global awareness, as evidenced by the major increase in his ICCS score (.57). However, Michael soon began to shy away from his group after the midpoint of the program, becoming a passive participant. While he was reading other's postings, he stopped contributing altogether. During the observation, he commented that it was taking too long for others to respond, and that when they did respond, he couldn't understand what they were talking about. Based on analysis of his group discussion board, it seems that Michael was virtually shunned from the group, being ignored by his peers, and failing to form any online friendships. At this time, Michael began collaborating with James, who, as revealed in analysis of his case, preferred to team up with others and influence their online postings.

4.5.7 Jasmine

Jasmine is an 11-year-old female, Brazilian-American student. Her father is a Caucasian American and her mother is a native of Brazil. At home, Jasmine speaks both Portuguese and English. Her classroom peers described her as an outgoing and likable student. Her teacher described her as a good student, but one unwilling to take risks. Like the other students in the study, Jasmine has very good technology skills, and routinely uses a computer both at home and school. Jasmine recorded 815 hits on Blackboard over the eight-week span of the project, classifying her as an average participant. Most of Jasmine's work on the project occurred at recess and home. She posted in all five discussion forums, and continued to post after the conclusion of the school year. As recorded at the beginning and the end of the project, Jasmine's mean score on the Inventory of Cross-Cultural Awareness increased from 3.91 to 4.00, the highest net change among the participants.

Jasmine's primary source of cultural awareness appears to have developed from her parents, and grandparents. Born in Brazil, Jasmine seemed to indicate a certain pride in her heritage.

> Well, we're from Brazil and so like, my mom sometimes tells us a little bit about Mexico and some Spanish places, and she told me a little bit about Mexico. They are really similar to us.

Jasmine is also the only study participant who had ever met a Turkish citizen.

> Well, I don't really know anything about Turkey, but I had some Turkish friends, 'cause another friend of mine, who's from Brazil, she used to live here, and she lived in an apartment and around her were some Turkish people and I met them. I liked them a lot.

Jasmine was also the only student to actually bring up the idea of learning culture from other students as an expectation of the project. Not only did she mention the word culture by name, but she also referred to it as customs performed in their homes, school and daily life.

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Jasmine's early postings mirrored those of Ann. While other students in her class tended to post early and often and in a conversational tone, back and forth with participants who were singled out, Jasmine's postings were limited, yet informative, clearly written and interesting. Here is one of Jasmine's two postings from the second thread about her hometown:

> I live in ___. Our main foods are seafood, especially crawfish. Our main two sports is american football and bastketball. {Ms state] is mainly Cagun or French, and that is were we got our foods from. Many many years ago Louisiana was owned by France, and that is why we are French. Also, our main music is Cagun music. We have many buildings in [my state], and [my state] is also known as [] My school is very special because it is best school in [my state].

She also expressed an affinity for her home country of Brazil, painting a picture for the reader:

> I am from Brazil and I was born there too. Brazil is in South America. My mom is from there and my dad is from the United States. I visit my family there every summer vacation. In Brazil there is the Amazon Rainforest and I live near there, and it is the biggest rainforest in the world. The language we speak there is porteguese. I can speak porteguese constantly. This summer I am going to go to the rainforest and touch and see animals. Brazils colors are yellow, green, and blue. Our main food is fish from the amazon river. Brazil is beautiful and very big. I love my country Brazil.

Jasmine's postings at this time were similar to those of an assignment. They were detailed and accurate, but not engaging. She did not pose questions to other group members, nor did she respond to others when asked. However, the following posting was written toward the end of the project, and seemed to mark a turning point for Jasmine. Where in prior posts she simply delivered information, she now started to reach out to the online participants, becoming a consumer of information:

> Hey Ali. I heard about greece. it seems very interesting. Ewww bugs. they eat bug? that is nasty. Have you tried them? if you have are they good. Tell me more about Greece, and London.
>
> And

hey Gizem. I have never experienced an earthquake. IS it scary? How does it feel? How many have you experienced? I have never heard of an earthquake happening in [my city] And my dad just told me that there aren't any Earthquakes here.

Like many of the other students, Jasmine preferred to work by herself. Jasmine appeared to be an insightful person, mentioning that she prefers to work alone because people generally will talk and discuss issues that may affect their true feelings. She stated:

Well, I kind of like working by myself so I can tell the people that I'm talking to like about my opinions and like about myself. Well, it would kind of be like shared, because you know you like talk together and stuff.

4.5.8 Carmen

Carmen is an 11-year-old Caucasian student. Her teacher described her as an extremely intelligent, outgoing student. She said that Carmen is a classroom leader, frequently debating others, asking good questions during group work, and, all the while, remaining very diplomatic. Carmen seemed to be an energetic participant in the project. She was always on task during her three observations, and eager to share what she had learned with the researcher and other students in the classroom. In terms of hits on Blackboard, Carmen was an above average participant at 966. During the course of the project, her ICCS score increased from 3.45 to 3.95.

Carmen said that her main influences on her current knowledge of Mexican culture came from both media and her parents. Mexico, according to Carmen:

makes me think of the Indians that lived there, and maracas and ponchos, and things like that. [I learned from] movies, and things my mom has told me, because she likes Mexico. Also, I've learned it from uh - this is kind of sad to say - but I have two little sisters - from Dora the Explorer. Kind of sad

Carmen's knowledge of Turkey, like the other participants, seemed limited: "Well, I really don't know anything at all. I've heard of Turkey, but I've never really learned about it."

Carmen seemed quite enthusiastic to begin the project, eagerly sharing her excitement for

meeting new people, working on the computer, and seeing if the activities important in her life

are shared by her peers in other countries:

> I kind of feel kind of kind of excited meeting new people and learning things and
> stuff.

> Well, I'm really not shy at all, so I think it should be really fun, and also just
> working with computers. I love computers.

> Well, I think it will be interesting to learn like about their festivals and parties and
> do they have like amusement parks and like things that we have. McDonalds.

> When working on the project, Carmen would work alone and with others. Regarding her

collaborative work, she stated:

> I like doing it with a friend because I did it with one of my friends and it was like
> really fun. We just shared opinions and we like, just wrote it down.

Carmen also seemed to recognize that, while her life and the lives of her online partners are

similar, there are also some differences. For example, she said:

> I like learning about how they live because it's a lot different from how we live,
> 'cause we're more spoiled… It seems like it cause they don't have everything that
> we have.

4.6 Changes in Student Attitudes

The following presents the results of student attitudinal changes facilitated

through their participation in the project. This information includes the data gathered

from the discussion boards, focus group interviews, parent interviews, teacher interviews

and observations. This section is broken into sub-sections of individual cases for clarity.

4.6.1 Ann

The researcher observed that Ann's participation steadily increased throughout the eight

weeks (fewer than 100 Blackboard hits during the first four-week period, over 500 Blackboard

hits during the second four-week period) and continued into the summer after the project's completion. During the interviews, Ann stated that, based on the recommendations from students overseas; she was more willing to try new foods, Turkish video games and foreign films. For example:

> If they tell you that something that they like to eat is like really good, and you think it's like horrible, you want to try some more of the things to see if they're bad too or if they're good.
> By the end of the project, her postings seemed more conversational and friendly:

"School is almost out, but luckily we can still write to each other. I really hope that we can write the same amount as we do now. Write Back Cem!!"

Ann's parents saw changes in her during the course of the project. Her father noted how Ann was beginning to seem less shy, and more outgoing toward the end of the eight-week project duration. She began sharing her online experience with her brother, and began communicating with her cousins in California. Ann's teacher noted that, while she was always a very bright student, she seemed more interested after the project in other people and places outside of her school and community.

4.6.2 Jill

Jill's online experience appears to have played a positive role in her overall cultural awareness and her social development. The project seemed to help fill a friendship void that was lacking after her evacuation from the United States to Prague and only a few months later, back to the United States. During the initial interview, Jill seemed very business-like, and came across to her peers as a braggart when discussing her experiences abroad. This is evidenced by some classmates rolling their eyes when she discussed her life overseas. When the project began, Jill quickly appeared comfortable in the online environment, and was very forthcoming and loquacious regarding the friendships she had made and the experiences she was having:

One, I think it was a girl - they told me like, she was 10, she's been playing tennis or something for six years, and she told me she has brown hair and she has blue eyes or something and she loves all sports, and what her favorite food is. She told me a lot about herself. I like her already.

Throughout the interviews and observations, Jill continually referred back to the ease of making friends online and shared what she had learned. However, Jill's final interview revealed a negative side to her new friendships.

I liked meeting new people because some of them, they, like a lot of them, asked if they want to be friends, and then, if you say yes, well, of course you're going to say yes, you don't want to be mean, but when you say yes, they would talk about themselves and what they like, and ask if there's anything in common or something and, it just didn't seem real. [Also] some of them say bad things but I don't really like that. Oh, well, a person called George Bush a bad - the curse word.

As with her face-to-face experiences overseas, Jill gained facts and cultural knowledge in the online setting that she shared, according to her teacher, in her daily journals and classroom conversations. She appeared to glean individual differences from among her group's participants, yet also saw that people from other countries were basically the same as her. She shared the following during the final interview:

Some person sent me some food, and it was, it was really different from what we eat, and I told them what we eat, like a hamburger or something cause that's an American food. And then they sent me something else, some other food, and I heard of it. I think it was pizza. And they said they only liked pizza with mushrooms

Her teacher also noted how Jill began to work collaboratively in the classroom with others, asking questions about what they were learning online, and continuing this collaboration in a friendly manner at recess and in the lunchroom. Jill's mother shared with the researcher Jill's social improvement in school as a result of the project, including her asking a classmate over on a weekend to take pictures of the neighborhood to post on the discussion boards.

4.6.3 John

John's active participation in the project led to positive changes in his attitude toward students from other countries and increased cultural awareness. Regarding whether or not he had become more open-minded about people from other countries, John responded with the following.

> I think yes, because a lot of people are saying that kabob is really good and everyone thinks that. So, [since] they're just like us, and if they can like it, we can like it, too.

John also appeared to change and grow personally as a result of the experience:

> I've changed because now I feel] I should start helping my parents with doing some things like taking out the trash, because they [people in other countries] have to do these things because they don't have a lot of the stuff we have.

His parents noted that during the project, he shared a lot more information about school with the rest of the family, including pictures of Turkish foods and games that the Mexican students liked to play at recess. They also said that John began to teach the family Turkish words learned during the project. John's teacher noted that John was always a very driven student, but now was asking for recess time to work on the project.

4.6.4 Myra

As a result of the project, Myra seemed to perceive that while some things in Turkey and Mexico are different, these differences are of great value. She commented on how beautiful the cities in Turkey are, and how clean the streets are compared to her own.

> Well, I also learned about different food and, I sent a message on what different festivals they have, but they haven't sent one back yet. And, one of them, they sent a picture of Turkey, and it was really beautiful. It was like clean. I think it was at night. And, or like some of their food, they were also, as John said, they were all made of hazelnuts. And, they had these different desserts.

However, she also saw that many aspects of others' daily lives were quite similar to her own. Regarding festivals in Mexico, Myra stated:

And one of them said that it was about a festival, and they said that it was their favorite festival where they get these little presents and then they sing songs and have a feast, I think it was something about them going to play games. And, there was one almost, like, Easter, but if you find, I think it was something like if you find the special egg that was sitting there - I don't even know if it's an egg or not, but you would get money.

Myra's teacher said that she, like many others, has become more inquisitive as a result of her participation in the project. She commented on how Myra began to learn more about her own country through trips to the library and questions to classmates so that she could share information about the United States with her online group.

4.6.5 Jasmine

While Jasmine appeared very interested in the project prior to its start, she seemed to lose interest until the very end. Jasmine immediately asserted herself on the message boards by telling others that she is bilingual and won the fifth grade basketball tournament. She only posted once, and never responded again in the Welcome forum until the conclusion of the project, when she began a conversation with John, one of the case study participants.

Jasmine was interviewed at the conclusion of this thread, before she had an opportunity to post on other discussion boards. It seemed that her level of cultural awareness actually decreased (despite here increase on the ICCA survey), mentioning the following, "Well, I learned that the culture can be kind of different, like their language and their food. I would never do some of things they do." This statement was a departure from her first interviews in which she seemed to like people from other countries and saw similarities in people from other countries.

4.6.6 James

Despite his apparent inability to connect online, James seemed to come away from the

project with an understanding of the students who participated in the project. He seemed to

realize that the other students were similar to him in a number of ways:

> I learned that they like animals, too, because a girl, she kept saying that she really
> wanted a guinea pig but her mother would kill her if she found one.

James also recognized that there are key differences between his world and the culture in

other countries, and that their cities were, in some ways, superior to his own. In his final posting,

he stated: "Both Mexican and terkish [people] are very different and are same as me in a lot of

ways." He confirmed this statement during our final interview:

> They sent like several pictures to me, and it was like this really big silver bridge,
> and like this really clear sky and like, and like this really pretty river….. The only
> thing that they have that I wish that we had here was a cleaner river.

However, James seemed to believe that his personal life was somewhat better off than the

students he met online.

> Yeah. It seems like my life is much better, because they don't have everything
> that we have. I didn't really tell about myself because I didn't want to be all
> braggyish….. They have a hotter, drier place, and they don't get as much
> education as we do.

James's teacher said that she had seen little personal change in James, and that the

researcher's findings were similar to her year-long observations. She did note that he had

become friendlier to Michael.

4.6.7 Michael

Michael, following the project's conclusion, seemed to embody feelings similar to

James's. Regarding what he learned from the other students, he appeared to echo

James's thoughts: "Because once we learn how they live, it just shows we have [it] a whole lot better than they do."

Like James, Michael seemed to harbor negative feelings toward the other students. He considered them strangers, and noted that his mother told him not to not talk to strangers. When asked to elaborate on what influence his teacher and mother had in the content of his postings, he stated:

> Well, it wasn't the teacher, but it was my mom. She told me not to tell them all the personal stuff. Just tell them stuff that you like about where you live. But I know why, because like, we hadn't met them yet, so technically, we don't know them.

Soon after this statement, Michael's mother was interviewed in order to gather her feelings about the project. She stated that the project was very positive in the fact that Michael was able to meet and confer with students from other countries, and hoped that the project could continue into the next school year. She felt that Michael had changed as a result of the project, as evidenced by him asking her about Turkey, Mexico and other countries on their daily drive to school.

4.6.8 Carmen

Throughout the course of the project, Carmen appeared to remain enthusiastic and focused on the online discussions. She said that she learned a lot about Mexican culture, and was surprised that the other students could write English. She also saw many similarities between her friends at school, and her online partners:

> Well, they like to play sports, and some of them are like obsessed with video games, like some of the guys in this class. I think the most popular one is soccer, because half of the people said that their favorite sport was soccer. That is cool because I like soccer too.

Carmen's enthusiasm for the project was further revealed in her actions and mannerisms during the interviews and observations. When discussing the project, she would sometimes stand up, her face aglow as she delivered a treatise on what she was learning online.

4.7 Implications for Practice

Students, teachers and parents shared their thoughts and feelings about the online cross-cultural project throughout the course of the study. The information in this section includes the data gathered from the focus group interviews, parent interviews, teacher interviews and individual interviews conducted during classroom observations. These results, combined with other results and discussions, serve to determine the necessary implications for practice when conducting online cross-cultural projects in upper elementary classrooms.

4.7.1 Student Themes/Enjoyment

One dominant theme that emerged was that most of the participants enjoyed the project, and desired that the project continue. According to Ann, "I would definitely want to participate in more projects like this one. Even with people from the same country." Ann's enthusiasm for the project was exemplified by her plans to work on the project from her laptop while on vacation, and her expressed interest in future online collaboration.

Like Ann, Jill shared her satisfaction with the project and an eagerness for its continuance. Also like Ann, Jill appeared to see value in the portability of the experience, "You can bring your laptop anywhere and write to them. It's better than staying on the couch watching TV."

Myra stated that the project was inspiring, and that she would like to continue in the future, seeing the project as an alternative to watching television, and providing entertainment during the summer, "It's so interesting learning about what they do in Turkey and Mexico; it could inspire you to study about other countries and places and what they do." Like Myra, Carmen was inspired by the experience, "I really liked meeting people online. This is the best project we have ever done in school."

Other participants who had somewhat negative experiences in the project agreed that the online experience was enjoyable. While Jasmine said that she did not change as a person at all, she stated that she enjoyed the experience and desired for it to continue. Jasmine was one of 11 participants who continued the online discussion after the project's conclusion. James said that the project was fun, while Michael enjoyed the ability to find his "inner self" during the project. All students said they would participate in a similar project in the future.

4.7.2 Student Themes/Online Better Learning Environment

Another student theme that emerged was that learning about people and culture in an online cross-cultural exchange is more desirable than learning in a classroom. Carmen seemed to prefer learning online better than in a traditional classroom, and freely discussed the value of information shared by others:

> I think its fun, because you can learn more about their country. Also, cause it's not as boring. I like it too, cause you can actually talk to them and they can actually talk to you about it. I'd rather talk to people from there because they know more about their culture, and, they're from there. Our teachers probably know some stuff, but it might not be fact.

Jill also seemed to find that the online environment was advantageous in learning about the culture of people from other countries because of the personal, one-to-one exchanges made possible by the online environment.

> Our spelling words last week, from a book or in school, would be a secondary source, but talking directly to them would be a primary source, and we would know exactly what's going on and we wouldn't…they wouldn't leave out anything like some books do. They would say something and then another book would say something else and a little of that, but they [the online student] would tell us everything.

She also appeared to enjoy school more, stating that, "It's also more exciting to actually talk to somebody about [their culture] instead of reading it out of a book." Her teacher also brought up the value of the real world experiences, noting that experiencing other countries through dialogue was much more interesting than her lecturing about other people and places. Jill concurred with her teacher's thoughts in the following:

> We usually just take down notes if we were trying to learn something on Mexico, and [the teachers] could tell us what people there like to do and the population and stuff. Well, the teacher might not know those things are true. Students in Mexico do.

Myra also shared her views on the educational value of virtual exchanges as compared to face-to-face teaching, noting that the information in books can be dated, "some [things in books] were copied in 1996, so it's not really updated. But, if you chat to them, they actually can tell you what's happening now." John also felt that the amount and type of information gathered from real people is far superior to learning the information in textbooks or from his teacher.

> In the book, they don't actually have like the right information, but the people from Turkey live there. And they might be able to give you information that really matters.

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He stated that now, if he went to Turkey or Mexico, or met a Turkish or Mexican person

in the United States, he would know more than he did before. Based on these statements,

it doesn't seem surprising that John saw the future value of the project.

> I think it's good that we can chat, because if you are studying another country, they can send you words, and like how to speak. [For example], I chat with this girl, Ally Tapin, mostly, cause she has details about everything.

> Not all of the participants saw value in online cross-cultural projects in developing

cultural awareness. Both James and Michael felt that the information gathered in traditional

classroom learning was better than that gathered in a classroom exchange. According to James:

> I think different because, if you're going to e-mail, cause they don't check their e-mail every day, so you have to wait longer instead of reading, you can just go up to the library, check out a book, and read about them.

Michael did not see any advantages of learning about other countries through an online

personal connection, yet seemed under the impression that facts presented in other virtual

environments are advantageous:

> On the Internet, if they write it on Google or something, it is the exact fact. But if somebody tells you something in an email, it's more likely going to not be true.

4.7.3 Student Themes/Suggestions for Improvement

Carmen had few suggestions for improving the project, only stating that she would like to

learn more about other countries, and to have the capability to send her messages privately, and

not in the group format. Ann agreed, stating, "It'd be cool if we could, and if other people

couldn't, look at our conversations, and we could say whatever we wanted." Regarding

suggestions for future projects, Myra's only desire was that she had more people to talk to.

James's suggestions for improving the project were to provide extra credit and a grade for

participation. It seems clear that he would have rather been working on other activities. He said,

"Thing is, it takes up time. The other day there was like a cool part in French and we had to miss

it. And P.E., we had to miss it." Like James, Michael seemed upset that he didn't receive a grade for participating.

4.7.4 Teacher Themes

The classroom teachers all agreed that talking directly with peers from other countries was a better way to learn about global issues and other cultures. One teacher from Mexico noted that the project helped her students understand that students were similar all over the world. Regarding the reduction of stereotypes she said, "My students have expressed to me how wrong they were in their views of American students." A teacher from Turkey stated that, regarding her shy students, the discussion boards allowed them to open up to others in a way they have never done in my classroom." The classroom teachers did not share any suggestions for changes to the project, other than tying the discussion boards to the classroom content.

4.7.5 Parent Themes

In most cases, the participants' parents seemed supportive of the project. Typical descriptors taken from the interviews regarding the project included: fascinating, interesting, unbelievable, and fun. With the exception of James's parents, all desired for the project to be incorporated into the school curriculum. Michael's mother suggested that parents also be included, so that, "I can learn something about people I know nothing about." Myra's father found the project, "Good! Myra thinks this is fun, and she doesn't think anything about school is fun." James's parents had the only negative comment, having said, "I find this a little scary, as I am afraid of horror stories I hear about on the Internet."

CHAPTER FIVE: DISCUSSION AND CONCLUSIONS

The purpose of this study was to measure the effects of using interactive technology to foster the development of global and cultural awareness in upper elementary age students. The study builds upon what the researcher considers a limited base of online global studies literature, and proposes authentic solutions for developing desirable behaviors such as tolerance and forbearance. This is an important undertaking, in that research has shown that students as young as age 2 (Bar-Tal, 1996) can begin developing damaging stereotypes that could further develop during their adolescence.

The researcher will illustrate in this chapter that while the design and administration of online cross-cultural projects in the upper elementary grades is not an easy undertaking, it is a necessary and viable practice that has positive results. The discussion also reveals the factors that not only lead to the development of global awareness in elementary-age students in an online cross-cultural project, but also drive the design of future projects. The study yielded many important findings and considerations that will be discussed in this chapter. These findings include the following:

- Online cross-cultural projects are an enjoyable and viable means of developing global awareness in upper elementary age students.
- The development of global awareness in an online environment is dependent upon changes in participants' social comfort zones.
- Social, collaborative experiences are best practices for projects with upper elementary age students.
- Students enjoy learning about global issues from other students, rather than teachers and textbooks.

- Gender, learning styles and country of origin play a role in the design of online cross-cultural projects.

- Collaborative, constructivist instructional design is essential for the development of online cross-cultural projects.

- Active teacher involvement in the project is necessary for student success.

5.1 The Social Comfort Zone

Throughout the course of the project, a litany of design considerations for future projects were revealed. Perhaps none were more important than the fundamental change in the participants' social comfort zones (Brewer, 1985). Those students who experienced this transformation, had, what could be considered, a life altering experience. Those who did not experience this phenomenon were left with little more than an entertaining assignment.

Bronfenbrenner (1986) defined the development of cultural awareness as an evolving systematic process of interaction between the human organism and the environment. He theorized that children require a migration beyond their family's influence into a world of peers and communities, with their construction of cultural knowledge dependent upon the formation of new realities. The current study took the new reality concept a step forward, proving that direct classroom connections enabled through the World Wide Web can provide students with the tools to develop a better understanding of the world. As expected, all of these factors were grounded in some form of social collaboration, with students feeding off a combination of group dynamics and individual learning styles (Scardamalia & Bereiter, 1994). These social aspects of the study facilitated the social migration. The following discussion addresses the sub-research question: What factors lead to the development of global and cultural awareness for elementary age students?

5.1.1 Changes in Social Comfort Zones

The development of online social comfort zones emerged as a phenomenon in which some participants came to view the online environment as a viable virtual substitution for a face-to-face setting that better met the social needs of the participants than their non-virtual reality. The researcher observed that as some participants' social comfort zones were increased and altered, so too did their development of cultural awareness. Conversely, the lack of a social comfort zone seemed to hinder the development of cultural awareness in some students.

5.1.2 Social Comfort Zones/Prior Experiences

The experiences of Myra and Jasmine indicate that those with a high level of global awareness prior to online cross-cultural projects do not always increase global awareness through such experiences. While Myra had never been to Taiwan, her Taiwanese parents had instilled in her a high level of cultural awareness, mainly through her routine weekend attendance at a Chinese school. Likewise, Jasmine, through the influence of her Brazilian mother and summers abroad, developed an appreciation for cultures outside of the United States. The cases of Myra and Jasmine serve to discredit Triandus' (1996) portrayal of online communities holding mutually exclusive and uniform views.

Myra, whose first language is Mandarin Chinese, entered the project as an extremely shy, yet independent student. According to her teacher, she rarely participated in classroom discussions, and, though very intelligent, had consequently struggled in areas such as language arts and social studies. Her social behavior was confirmed during the focus group interviews, in which Myra rarely participated. However, Myra belied her classroom personality and became immediately involved in the discussion boards, moving from what Bennett (1993) described as ethnocentric experiences into ethnorelative understanding. She quickly and easily made friends

online, wrote in a conversational manner, and came away from the project with a positive outlook toward other students and cultures. This supports Bronfenbrenner's (1995) ideas of a systematic process of interaction, by which children acquire global awareness through a systematic movement from their parental cultural influences into a new reality more closely defined by their peers and outside influences.

For Myra, the anonymity of the discussion board format and its ease of use quickly enabled her to develop an online social comfort zone, and ensuing friendships with other group participants. The environment allowed her to think about her answers, type them, and make reflective changes before submission. Her teacher confirmed this behavior, noting that the asynchronous online environment was an easier and more beneficial way for ESL students like Myra to become socially adept (Chaiklin, 2002).

Already globally aware prior to the project, Myra was still able to experience positive changes in attitudes toward other cultures through her participation. She left the project more open to new foods, experiences and languages. Myra used the term "inspiring" to describe the project, and expressed her strong desire to study other countries and cultures through similar online experiences in the future.

Conversely, Jasmine was observed as a more open and engaging student at the start of the project than Myra. She spoke excitedly about her summers in Brazil, and predicted a strong connection with the students from outside the United States. However, Jasmine approached the virtual environment in a manner opposite of Myra's. Belying her face-to-face conversational manner, Jasmine was distant from the others on the discussion boards. She approached the question prompts as assignments, giving only the

information asked, and shying away from the back and forth, conversational tones of students like Myra.

Predictably, Jasmine admitted a lack of personal change as a result of her participation, yet continued to post on the discussion board well after the project's conclusion. She likewise saw intrinsic value in the project, seeing the experience as a better way to learn about other countries than reading from books and listening to lectures in a traditional classroom. Jasmine posted from Brazil for two weeks, establishing an online relationship with a group of American, Mexican and Turkish students, indicating that while she didn't cognitively find herself changed by the project, she clearly was affected in a manner that drove her continuance in the project.

Jasmine's case illustrates that the static discussion thread environment was not conducive for her social comfort zone establishment, as supported in the findings of Anderson (1998), Beckett, et al. (2002), and Rosaen (2002). For her, alternative means of communication, such as synchronous messaging or video exchanges may have helped her have a sense of social presence in the other students' lives (Herron, Dubriel, Corrie & John, 2002).

5.1.3 Social Comfort Zone/Positive Peer Influences

In their cross-cultural studies, Cifuentes, Murphy, Segur, & Kodali (1997) concluded that collaborative learning and computer conferencing are reciprocally related, in that computer conferencing depends on the ability and willingness of participants to collaborate, and that collaborative learning is enabled by computer conferencing. While this reciprocity was observed throughout the study, another form of collaboration occurred in the form of in-class peer influences.

Ann's experience illustrates the development of a social comfort zone as a function of classroom peer influence. Unlike Myra, who developed a social comfort zone within the boundaries of the project, Ann relied upon her face-to-face classroom peers and her family influences to help her become comfortable in an online environment. Her experiences lend credence to the researcher's proposed model of peer-influence on the development of cultural awareness in the online environment.

Initially interested in the project, Ann was a late participant in the discussion boards, and failed to make close connections with her online peers early in the project. However, the constructivist makeup of her classroom enabled Ann to take control of her learning experience, which helped her to gain the confidence she needed to enter the online community. Ann's experience mirrors what Scardamalia and Bereiter (1994) described as continual improvement through collaboration as a function of constructivist social change.

Three weeks into the project, Ann assumed the role of technology expert among her peers, delivering mini-lessons on developing and posting multimedia PowerPoint presentations in order to address the discussion board prompts. Through the encouragement of her classmates, she soon created and posted her own PowerPoint, received positive responses from her online peers, and transformed into an active member of her online group, making solid, friendly connections with others. Narayan and Pritchett (1997) describe this transformation as social capital, a phenomenon in which the norms of society are cultivated through frequent interaction. For Ann, this cultivation appears driven by her newfound status as technology expert with her classroom peers.

Ann's participation in the project, coupled with her extensive family travels, enabled her to see how countries normally seen as a collective population can be broken down into unique individuals and personalities. It likewise appears, based on Ann's statements, that she began to understand that her personal experiences and preferences were changing as a result of her online conversations. She stated that she was more willing to try new foods, listen to different music and make friends with people outside of her normal social circles.

Jill and Carmen's development of an online social comfort zone can also be described as collective and collaborative, in that friends and family played an important role in what they wrote online and how they reacted to what they read. Jill, new to her physical setting and lacking close friends, flourished online. She reached out to her classmates, tended to have them read through her messages before posting, and collaboratively wrote many of her responses with the students sitting around her. Like Ann, she seemed to experience an affirmation from her classroom peers, using the online experience as a stepping stone for creating friends in her face-to face setting.

Jill found the online environment to be a viable substitution for her face-to-face experiences in Prague. Shared during interviews and evident through observations, Jill noted that the online environment was advantageous in learning about the culture of people from other countries because of the personal, one-to-one exchanges made possible by the online environment. She discussed the online environment as a primary source of information, which is more authentic and interesting than books and websites.

Jill also ended her project experiences with a greater sense of self-worth. The project gave her a new outlet for making friends, helping her understand that while there are superficial differences among cultures, people are generally the same in many ways.

This realization, according to Jill, provided her with new facts and an even greater appreciation of cultural differences.

Carmen, more outgoing and comfortable in her classroom setting than Jill, participated in the project with her classroom friends. Her experience became a type of groupthink (Janus, 1972), with three or four students working on one posting. Carmen revealed that her friends think the way that she does, and that she felt more comfortable online with others around her. Carmen came away from the project with a positive and insightful understanding of the other cultures, realizing that there were wide economic differences between her social group and her cross-cultural group, but that all of the participants were fundamentally the same.

While other studies have highlighted that the nature of computer conferencing enables learner interaction, allows for learner reflection, and fosters collaboration (Murphy, Drabier, & Epps, 1998), the current study highlighted a need for an additional element when working with elementary age students. Ann's, Jill's and Carmen's experiences emphasized the need for planning experiences that provide meaningful ways of in-class peer-enabled social interaction. This could include in-class group projects such as Ann's PowerPoint lessons, or a mixture of collaborative and individual projects that work to keep the students involved and interested in the project. However, an additional element that affected the development of global awareness is the effects of negative peer influences.

5.1.4 Implications of Negative Peer Involvement

For Michael and James, the absence of a clear development of an online social comfort zone may have led to their less positive online experiences. Both students began the project with differing expectations, but finished with parallel experiences. Josh entered the project with high

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expectations, and seemed eager to learn about other's festivals, cuisine and school. His prior knowledge of other cultures was quite limited. James came to the project fearful of students that they had not met in person, and wary of what they could learn from others, despite an expressed interest in and knowledge of other countries and cultures.

James appeared heavily influenced by his parents, who, during an interview after the project, revealed a wariness of having their child communicate online. As illustrated in Chapter 4, their feelings were manifested in James, who seemed never to connect with the other participants in the group. He expressed to his teacher and the researcher resentment for having to do the assignment, but always elected to continue.

James was the only participant who found that information gathered in traditional classroom learning was better than that gathered in a classroom exchange. Like Jasmine, he expressed frustration with the asynchronous environment and the time needed for responses from others. He noted that information taken from books was faster and more convenient than learning from others online. He also expressed frustration with the lack of a grade for participation and the time taken from P.E. and recess to work on the project. Even so, James frequently compared his country to Turkey, noting their clean rivers and beautiful cities as contrasted to his own.

Conversely, Michael's tone in the beginning of the project was friendly and conversational. At the midpoint of the project, he said he preferred to work alone, enjoyed finding his inner self through the discussion boards, and was surprised that his life was very similar to his online peers. However, negative peer influences began to affect Michael's cultural development in a damaging manner.

During week five of the project, James began collaborating with Michael on the project, advising him on what to write and openly criticizing the project and the other participants. He gradually turned Michael's positive increases in global awareness into cynical thoughts. Michael's postings became negative, mirroring those of James. Soon after, Michael withdrew from the project, and parroted James's negative thoughts about online collaboration, going so far as becoming untruthful regarding his parent's thoughts on the project.

Despite Michael's statements that his life was a whole lot better than others, and his derisive manner during the final interviews, an interview with his mother proved that Michael felt otherwise. She believed that Michael was more inquisitive as a result of the project, stating that he began asking her about Turkey and Mexico, and even asked about dining at an Afghani restaurant that she did not know existed in her community. Michael's teacher also noted a change, mentioning that during the project, he seemed kinder toward other social groups, and tended to participate more in class.

The experiences of James and Michael have critical implications for future design of similar projects. James, like Jasmine, was a very social and outgoing student. Both needed instant feedback, which is impossible to produce in an asynchronous environment. For them, synchronous chat and video may have served to better engage them in the project, and may have helped them develop an online social comfort zone. For Jasmine, the lack of synchronous exchange was not terribly damaging. For James, his lack of interest and increased resentment toward the project affected other participants, and served to ruin a promising project for Michael. James's project

behavior should have been managed by the classroom teacher, and will be further discussed later in the chapter.

5.1.5 Individual Competence/Uniform Transformation

John's development of cultural awareness was less socially motivated by his classroom peers, and more tied to Ogbu's (1993) theory of cultural-ecology, in which the environment serves as a major contributor to social organization. Much like the beginning of Ann's experience, John worked alone. However, unlike Ann, John was extremely active on the message boards from the beginning, and remained an independent participant. John embraced and transformed the collective culture defined in his online group, working to create an ecological setting in which group members assumed traditional societal roles (Whiting, 1996).

John emerged as the leader of the group, encouraging others to participate, praising the responses of others, creating new discussion threads, and even organizing a Turkish/Spanish/Mexican audio dictionary. John's experience encompasses Phelan, Davidson and Cao's (1991) multiple world theory, in which the various cultures, ideals and background represented in John's group were able to transform into a uniform system of shared beliefs. John's experience was more constructivist than the others, with his personal autonomy supported by the collaborative environment, which he embraced (Lebow, 1995). John's experience, like Ann's, shows that even though the project was presented as an asynchronous environment, participants as young as 10, without encouragement, will embrace technology as a means of self expression when permitted.

John seems to have had the greatest shift in attitude toward his online peers. He posted much more than other students, and quickly made changes in his global views.

Early in the project, John had an egocentric outlook on the world, assuming that his peers from other countries would share his American patriotism, his likes and dislikes. However, he quickly realized that the other participants were similar to him in other ways, noting their similar technologies, affinity toward computer games, and an appreciation for family, friends and religion.

At the conclusion of the project, John felt strongly that he had changed as a person. He mentioned a greater willingness to help his parents at home, an ideal he learned from other's descriptions of cohesive family life in their countries. He also felt that he was more open-minded, and willing to try food prominent in other cultures. John's change is illustrated by his use of Turkish vocabulary in his postings toward the conclusion of the project.

It appears that John shared his classroom peers' feelings of satisfaction with the project. He felt, as determined from his interviews, that the amount and type of information gathered from real people is far superior to learning the information in textbooks or from his teacher. John stated that if he ever went to Turkey or Mexico, or met a Turkish or Mexican person in the United States, he would know more than he did before. Based on these statements, it does not seem surprising that John saw the future value of the project, and expressed an interest in pursuing his new relationships after the project's conclusion.

5.2 Instructional Design Considerations

The eight cases show that the use of online cross-cultural projects are a viable means of developing cross-cultural awareness in upper elementary age students. However, the case studies also show that an asynchronous environment falls short of

meeting the needs of all participants. The following sections outline other design

considerations gleaned from the quantitative aspects of the study, as well as more in-

depth analysis of the eight case study participants.

5.2.1 Gender and Learning Styles

As revealed through case study analysis, key factors for the development of cultural

awareness through participation in the project included: 1) the development of online social

comfort zones, 2) positive and negative peer influences, and 3) the use of media to facilitate

collaboration. The varying ways in which the eight case study participants (5 girls and 3 boys)

embodied all three led the researcher to surmise that individual learning styles and gender

differences played a key role, an observation found in neither in the pilot nor in the literature-

related gender studies for elementary-age students. While actual teacher design may not call for

the need to administer learning style inventories prior to online experiences due to their assumed

cognitive knowledge of their students, this may be a consideration in generic cross-cultural

project designs.

A further review of the literature indicates that studies linking the connections of distance

education technologies to teaching and learning styles is not well developed (Grasha &

Yangarder-Hicks, 2000), especially with regard to particular technologies such as asynchronous

message board use (Valenta, Therriault, Dieter & Mrtek, 2001). The results of this current study

indicated that these differences are important aspects in the design of future cross-cultural

projects involving elementary grades, which are outlined below.

Case study analysis indicated that the way students learned and participated generally fell

along gender lines. Female students either embraced the project early or came to embrace the

discussion board as a viable means of communicating, making friends and learning about other

countries and culture. For Myra and Jill, it can be argued that the online experiences supplanted their classroom in this regard. The three male participants appeared to react differently. James and Michael came to dislike the online experiences, commenting that meeting and learning about people in a face-to-face classroom was more desirable than doing so online. Both became confrontational in the online discussion boards and, when they were ignored by their peers, all but withdrew from the project.

John seemed to be the exception to this finding. More so than any others in the project, he embraced the online environment. However, John seemed to be a student with exceptional leadership qualities, and a learning style unlike the others. He too was somewhat confrontational in his approaches to get others to respond to him. However, unlike James and Michael, he was more democratic, and served to drive the conversations forward. These findings are supported by the work of Blum (1999) and Herring (1993) who reported that adult males tend to associate with others with more confrontational behaviors, while adult females tend to connect with those who work in a more supportive manner. Michael, James and John may have been experiencing tacit rules of online engagement. Similar to a classroom, those who bully and force their will upon others tend to be shut out of society. John was able, through his leadership, to change his behavior and succeed in the online environment. Michael and James could not change, and were shunned, as supported by the findings of Kim (2000).

When designing future projects, it is important that a variety of topics, discussion board questions and activities are included so that students have choices to align to their individual learning styles. This supports the social constructivist theories that have served to drive past studies (Berge, 1997; Romiszowski & Mason, 1996; Harasim, Hiltz, Teles, & Turoff, 1995; & Brown, Collins, & Duguid, 1989). For this project, students were not offered many choices

outside of asynchronous chat, and subsequently, as in the case of Jasmine, did not establish

social comfort zones until very late in the project. The researcher erred in thinking that

discussion forums alone could carry the project and, in a late attempt, opened up a whole group

discussion board and website repository. Also, students in the project were forced to work in a

discussion group comprised of 10 to 12 randomly selected students. Those students who

developed cultural awareness as a function of peer motivation and influences may have better

benefited from the project if they could have chosen their in-class group partners. This simple

modification may have helped James and Michael become more involved. Others expressed a

desire for a private chat area, free from the discussion board format that allows all group

participants to view other conversations.

5.2.2 The Use of Media

There should also be a consideration of increased media inclusion. Studies (Herron,

Dubriel, Corrie & John, 2002; & Wilson, 1992) demonstrated the positive effects of certain types

of media on cultural development, and the studies surmise that current and future technologies

would be beneficial and engaging for participants. The results of the study showed that media

can, though arguably indirectly, influence the development of cultural awareness.

Prior to the start of the project, Michael, James and Carmen all cited cartoons, computer

games and movies as factors leading to their preliminary understanding of other cultures,

whether positive and accurate or negatively stereotypical. As expected, participants in the study

naturally gravitated toward the use of multimedia when participating in the project. Ann used

her knowledge of PowerPoint to not only gain the attention of her peers, but also to disseminate

important information to her online peers. John used voice recording software to post voice files

as part of his communication. Students in the Mexican classroom, like Ann, developed

PowerPoint presentations that included images and audio to teach their online peers about their holiday celebrations. Some students in Turkey posted website links of important people and places in their country.

However, the important element in the project was that the course media (Blackboard) proved to be a support service (Murphy, Drabier, & Epps, 1998) that complimented the discussion board threads. For students like Myra and Jill, these threads became a substitute for their voices, much like that of a deaf or mute student, allowing them to develop authentic friendship without the aid of sound. These authentic discussions and formed friendships allowed the students to create what Mason and Kaye (1995) describe as a blur between distance education and traditional classrooms. This supports ideals of technology as an enabling device for collaborative exchange. Study participants commented that, due to the physical distance between the students, the ability to talk and share ideas in a variety of ways served to fill a void unable to be filled in the regular classroom.

5.2.3 Differences in Global Awareness Development/Distinct Settings

Student participants in the study represented three distinct settings, Turkey, Mexico and the United States. The goal of the MANCOVA analysis was to determine if and how students educated in the three distinct settings differed on four factors: cultural integration, cultural behavior, intellectual interaction and empathy. It is important to note once again that while these students are educated in particular countries, their cultural backgrounds vary greatly. For example, the students in Mexico attended an international school, and are, in many cases, children of foreign diplomats. The students in the American school, as shown in the presentation of eight individual cases, also had various cultural and ethnic experiences. The students in

Turkey are perhaps the most homogenous, but are classified as either Turkish Christians or Turkish Muslims.

The students from Turkey and Mexico began the project with, according to the ICCS survey, a higher level of cultural awareness than the students from the United States, supporting the ideas set out in the work of Neuman and Bekerman (2001). However, while the level of cultural awareness increased for all three schools, these levels increased in different ways.

Regarding cultural integration, students from the Turkish and Mexican schools scored significantly higher than the students from the United States at the conclusion of the project. In the ICCS survey, the cultural integration scale includes factors such as language acquisition and use, the inclusion of cultural experiences in daily life (music, artifacts, food), and the desire to live in other countries in the future. The reasons for these differences are likely able to be predicted from the demographic make-up of the participants. The students in the Mexican school represent a broad spectrum of nationalities, including East Asia, Europe and North America. Similarly, students in the Turkish school straddle the dividing line between Europe and Asia, and, arguably live in a region where differences in populations are geographically closer than those in the United States. For the students in the southern United States, the homogeneity of their geographic region and, as indicated in the case studies, a feeling that life in the United States is somewhat better than that in other countries would seemingly have kept the students egocentric despite having participated in the project. However, through later examination of individual cases involving the eight students from the United States, the researcher noted that this group tendency to lag in cultural integration was not present.

Conversely, the results indicated that the students from the United States and Turkey scored significantly higher on the ICCS cultural behavior scale following the project than before

the project. This scale includes a social cultural tendency toward collaboration, cultural

competence and acceptance. For the students from the United States, this shows that while they

prefer not to include learned cultural ideals into their daily lives, they tend to accept and tolerate

cultural differences. The question lies in why the students from the United States and Turkey are

similar in this construct as opposed to the students from the Mexican school. The answer is best

explained by the demographic makeup of the Mexican students, most of whom are not citizens of

Mexico, and are the children of expatriates from other countries. These results are important, not

for those attempting to design cross-cultural projects with Turkish, Mexican and U.S. schools,

but for understanding that key differences in cultural awareness acquisition can vary between

schools for a variety of reasons, which may include factors beyond the scope of this study, such

as race, gender, parental influences, and prior experiences.

5.2.4 Design Considerations of the Quantitative Study

Another important aspect of this study was to determine whether students in a classroom

enhanced by a cross-cultural global awareness project would develop cultural awareness more

than in a classroom with the same course of study without the online cross-cultural project. The

results indicate that students in the experimental classroom increased their cultural awareness

more than their peers in the control classroom, though not significantly. Students in the control

classroom had a slight decrease in their mean scores.

There are a number of threats to internal validity that may have affected the results. This

includes selection-maturation interaction, by which the participants selected into the treatment

groups have different maturation rates. This is an important consideration when working with

participants as young as ten years old. Other related internal threats to the validity of the project

are history, maturation and differential selections (Gay & Airasian, 2000). Likewise there are a

number of additional factors that explain the lack of significance, some of which, when the study

is replicated, can be reduced. These factors include issues in experimental design, social

interaction threats and threats to external validity. Three contributing factors are:

- Lack of commitment by the classroom teacher

- Compensatory rivalry

- Posttest sensitization

5.2.5 Considerations of Compensatory Rivalry

Compensatory rivalry (Gall, Gall & Borg, 2003) is an extraneous variable in which the

control group participants perform far beyond their usual levels, serving to equalize the posttest

performance. In this case, the experimental and control groups were the only two fifth grade

classrooms in a very small, socially oriented school. During observations, the researcher was

asked routinely by control students when they would be able to participate in the project. Some

students were visibly upset that they were being left out of the project. These inquiries and

observations could indicate that some control group students were motivated to display an

increase in cultural awareness on the ICCS posttest, when, in reality, an increase may not have

occurred as a result of their normal course of study. While the mean score for the control group

remained unchanged, descriptive statistics indicate that some students had significant increases,

while others had significant decreases, resulting in little movement in the mean.

5.2.6 Posttest Sensitization

Posttest sensitization is another control group phenomenon that may have served to

minimize the significance of the project on the experimental group's level of cultural awareness

(Gall, Gall & Borg, 2003). In this phenomenon, certain control group students may have learned

from the pre- and posttests, and actually increased their scores because they thought that an

increase in cultural awareness is a positive aspect of life, and, in a sense, the right thing to do.

Future consideration may include alternate forms of the ICCS to minimize posttest sensitivity.

5.2.7 Lack of Commitment by the Classroom Teacher

In the experimental classroom, there was a clear lack of commitment by the classroom teacher for the project. All of the students participated in the project on a voluntary basis with marginal teacher encouragement for participation. Some students noted that their teacher did not allow them enough access time in school, and that they would sometimes go a week without logging onto the project. Others felt that when they were encouraged to participate, the project interfered with other activities such as recess and P.E. The exception was the case study participants, who, through their inclusion in the focus group, participated far more than their classroom peers. Though time-online correlations were not a part of this study, and, as a result of limited participation for some participants for the reasons outline above, would not be valid, these types of statistical measures may be useful in future studies that have dedicated classroom teacher participation.

Other students bemoaned a lack of participation from their online peers, which should be managed by the classroom teachers on the other end of the project. Interviews with the teachers in Mexico and Turkey indicated that, in the case of Turkey, there were sporadic connectivity problems, and, in the case of Mexico, the project never became a priority due to the high-stakes testing schedule. In some of these cases, conversations became stalled.

There are also other considerations regarding teacher participation. In the study, the researcher served as the online facilitator for the classrooms in the United States. When situations arose, such as negative peer influences, the facilitator was not always physically

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present to discourage these practices. In James's scenario, the lack of teacher involvement

served to validate and perpetuate a difficult scenario best handled by the classroom teacher.

In retrospect, the classroom teachers should have been responsible for a number of key

elements, including the set up and maintenance of the online community and the creation of

thought-provoking discussion board prompts relevant to the normal course and daily activities in

the classrooms, which are essential to the momentum of the online discussion (Palloff & Pratt,

2001). In the experimental classroom, the teacher indicated that a tie-in to the current unit of

study might have warranted her participation. In response, the researcher created an open forum

area where students could post information on and discuss their personal experiences with

natural disasters, the current unit of study in the fifth grade classrooms. Unfortunately, students

in the other classrooms had different units of study and little time to research weather patterns in

their countries.

5.2.8 Collaborative Design

Through examination of the individual differences among participants in other countries

and the differences noted among the eight case study participants, it is clear that collaborative

design of online cross-cultural projects is a primary implication for future practice (Willis, 1995;

Vygotsky, 1978 & Bruner, 1976). The results of the study showed that there are significant

differences between the ways that students from other countries develop global and cultural

awareness. Consequently, the researcher has argued that gender and learning styles, coupled

with the role of the classroom teacher is imperative for effective online cross-cultural projects

(Harasim, Hiltz, Teles, & Turoff, 1995; Brown & Palincsar, 1989; & Brown, Collins, & Duguid,

1989). Because the nature of these projects calls for effective practice in varying cultural

settings, it appears clear that collaborative, constructivist instructional design, as best defined by Willis (1995), suits the needs of the future project design.

Collaborative, constructivist design encompasses four overarching principles: (1) recursion, (2) reflection, (3) non-linearity, and (4) participatory design (Willis, 1995). Recursion allows the designers, in this case the classroom teachers, to revisit any decision, product, or process at any time during the design and development of the product, and make refinements and revisions as needed. For this project, the researcher made these recursive attempts, in the form of creating new discussion boards, which would align to the curriculum currently being studied in the classrooms. Classroom teachers have the luxury of being at the impact point of instruction, by which they can take the teachable moments and work these into the cross-cultural project. For example, if a political crisis such as a terrorist attack or natural disaster impacts a participating country, the teacher-designers have the ability to bring these experiences into the project.

The designers of online cross-cultural projects will also benefit by reflective design practices. This is best illustrated by the prior discourse on gender and learning styles. In this project, it was impossible for the researcher to ascertain the particular learning styles of 123 participants, especially when one considers the differences seen among each country's participants, as well as those in the case study analysis. Through reflective design, the classroom teachers are able to constantly seek and consider feedback and ideas from many sources, including the students, other site teachers and parents.

The project design would have also benefited by the concept on non-linear design. It is impractical to conclude that a project based in social constructivist design that has the purpose of students developing cultural awareness within the sphere of their own actions be developed in a

planned, stagnant manner. Collaboratively, teacher-designers and their students need to establish a set of focal points that best serve the needs of the affected parties. For example, this study involved students from a university laboratory school in the southern part of the United States, a private school in Turkey and an International School in Mexico. Now, change the settings to PS 151, a heavily Jewish school in the Bronx, Escuela Rio Bravo in Matamoras, a border city, and Perşembe Lisesi, a Muslim school in the Turkish city of Zonguldak. These settings are in the same countries, yet serve very different populations. Throughout the course of the project, designers may need to modify the project based on precise problems or successes that may emerge. Thus, as supported by Willis (1995), the design process commences wherever it is appropriate and progresses as appropriate.

Another consideration is participatory design, based on the assumption that the context of the project is critically important to the design. In the case of online cross-cultural design, the specific stakeholders are the students, and in some cases, their teachers, parents and communities. Therefore, these stakeholders should be involved extensively in all phases of the design and development process (Schuler & Namoika, 1993). In many instances, this project was driven by the needs of the participants in terms of media and content additions. However, future year-long studies broader in time and scope can take advantage of particular user requirements.

5.3 Implications for Future Practice

Online cross-cultural projects with elementary-age students can be successful in developing global and cultural awareness as determined through in-depth case analysis. This development is important to character education, in that it may lead to a reduction in stereotypical behavior development as students enter adolescence (Bar-Tal, 1996). The analysis

uncovered a variety of implications for practice that can assist classroom teachers in creating

these kinds of experiences in their own settings. Key aspects that can lead to the success of

online cross-cultural experiences are all related to the establishment of the online social comfort

zone for the participants:

- In establishing the social comfort zone, instructional designers should address gender and
  learning style differences among the participants in the creation of their lessons and
  discussion board prompts.

- In establishing the social comfort zone, effective online communication between students
  in other settings should be facilitated and encouraged by the classroom teacher.

- In establishing the social comfort zone, differences in students from participating
  countries should be planned for through collaborative design by the classroom teachers
  and other stakeholders.

The project also sought to determine how upper elementary students develop global

awareness in an online setting. The proposed model (Figure 4) made certain assumptions based

on how researchers have determined adult global awareness acquisition occurs.
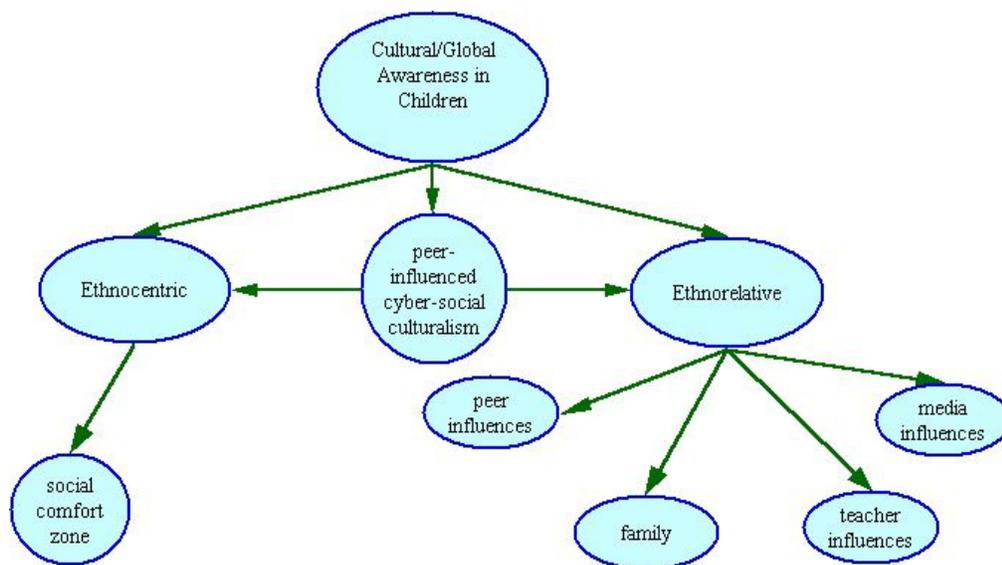
Figure 4 Proposed Global Awareness Acquisition Model Prior to Project

While these assumptions basically held true for 10- and 11-year-old students, the new model represented by Figure 5 places the change in social comfort zone as an outcome of varying ethnorelative and ethnocentric influences (Bennett, 1993). This assumes that global awareness acquisition is indeed a social process, a conclusion determined in this study. Also included are the effects of individual learning styles and gender considerations as a determining factor in the type of social interaction an individual requires in an online environment.
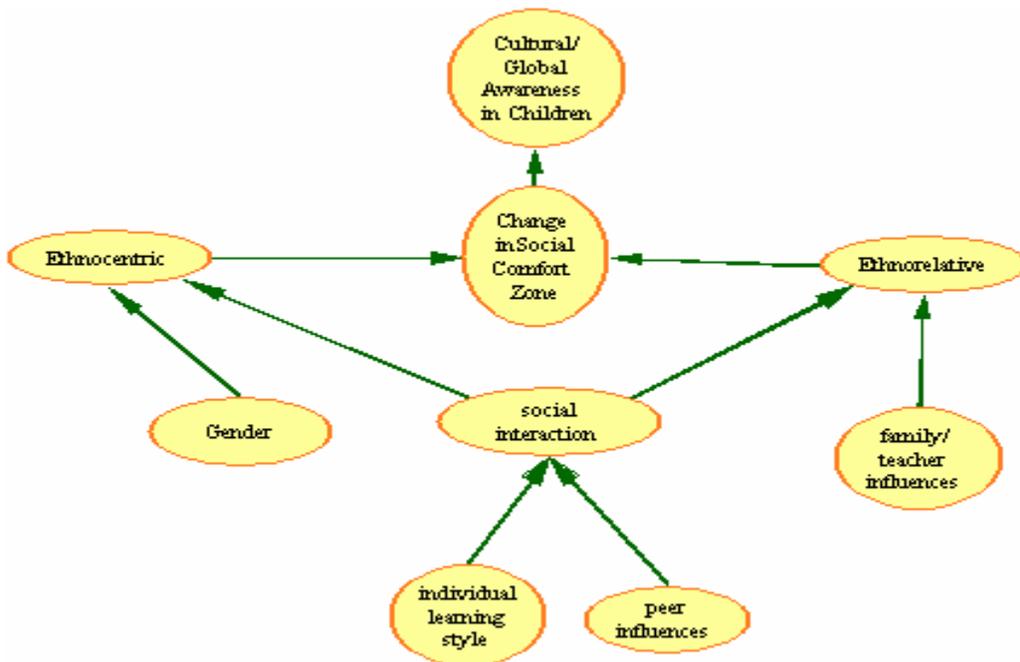
Figure 5 Final Global Awareness Acquisition Model

The absence of online cross-cultural projects can make this phenomenon almost unattainable for most children. It takes a great deal of time and money to bring children in Turkey, Mexico and the United States physically together in the same room. The study has shown that upper elementary age students can achieve this virtually, are able to work the necessary technology, enjoyed the project, and learned not only about other cultures, but about themselves as well.

5.4 Conclusions and Recommendations

This study strove to move beyond the traditional means of teaching global and cultural awareness in schools by using online cross-cultural experiences that give students a primary source for cultural understanding. Cross-cultural studies with students aged 10 and 11 have not been attempted, and the researcher had to glean practices from secondary and post-secondary studies and modify them into a pedagogy suitable for elementary age students. The results of this research served as a basis for literature in elementary global education and provided implications for future research in the area of online cross-cultural projects.

This research showed that online cross-cultural studies are a viable means of increasing global awareness, but further research is needed to test the implications for future practice previously discussed. Critical among these are studies that focus on constructivist pedagogical practices such as the use of multimedia. This could include the effects of synchronous technologies such as streaming video, sound and chat rooms on particular variables such as gender and learning styles. Other considerations should include choices in the assignments, including more collaborative group work, both online and among students in the classroom. Coupled with these considerations is a need for correlation studies that examine quality time online to increases in global awareness.

Another consideration for future research is for studies that include increased teacher involvement. In the current study, a lack of teacher involvement was deemed a factor in the statistically insignificant increase in cultural awareness among the participants in the experimental classroom. Those students who were case study participants did see a significant increase, as determined qualitatively. One reason is that these students were required to meet with the researcher regularly, and thus were more inclined to participate. Those not selected as

case study participants worked on the project without recognition for their efforts or a grade for time. Therefore, future studies may be better served by strong teacher participation and involvement in the project, including a stake in the project through collaborative design.

The results of the study indicated that participants from other countries came to the project with varying levels of global awareness and developed global awareness in different ways. This finding, in conjunction with the known differences in gender and learning styles, justifies a need for studies that measure the effectiveness of collaborative design among teachers and stakeholders. This may also include project-based experiences that tie back to the current curriculum, allowing for the development of global awareness within the context of the current unit of study.

Future research should also be considered to test the feasibility of a cross-cultural consortium that can enable schools to easily locate online links. While such sites exist, such as epals.com, they offer one dimensional email connections that provide little more than pen pal experiences. Instead, the researcher envisions a consortium of like-minded teachers, similar to the higher education ICONS project. In this consortium, educators will not only connect to design collaborative experiences, but will also be given the tools and support necessary to host authentic connections and create the multimedia experiences necessary to meet the needs of the participants. This type of consortium would assist in the creation of longitudinal studies, which would essentially follow a group of students from the elementary grades into high school, and measure their long-term progress in the development of global awareness.

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APPENDIX A: LANE ELEMENTARY SCHOOL PARTICIPANTS

Classroom	N	Gender male female		Grade Level	Role in the Study
Lane Classroom 4B	22	12	10	4	Full Participant in Study
Lane Classroom 5A	23	9	14	5	Did Not Participate/Control
Lane Classroom 5B	23	10	13	5	Full Participant/Experimental

American=64
Taiwanese=1
Chinese=2
Brazilian/American=1

APPENDIX B: MEXICAN INTERNATIONAL SCHOOL PARTICIPANTS

Student	Gender	Nationality
Student 1	M	Spanish
Student 2	M	Tunisian
Student 3	F	Argentine
Student 4	M	Canadian
Student 5	M	Mexican
Student 6	M	British
Student 7	F	American / Mexican
Student 8	F	Israeli
Student 9	F	Mexican
Student 10	F	Mexican
Student 11	F	Spanish
Student 12	M	Mexican
Student 13	F	Mexican
Student 14	F	Norwegian
Student 15	F	Mexican
Student 16	M	Mexican
Student 17	M	American/Mexican
Student 18	F	Chilean
Student 19	F	British / Mexican
Student 20	F	American
Student 21	F	Mexican/American
Student 22	M	French/Brazilian

males=9
females=13

APPENDIX C: THE EUROPEAN/ASIAN SCHOOL PARTICIPANTS

N	Males	Females	Nationality
33	24	9	All Turkish

Parent Consent Form

Project Title: The Development of Global Awareness in Upper Elementary Students through an Online Cross-Cultural Distance Project.

Performance Site:

Investigator: The investigator, Allen C. Grant is a teacher and a doctoral candidate in the Education Leadership, Research, and Counseling program at LSU. Mr. Grant is available for questions, M-F, 8:00 a.m. - 4:30 p.m. at 225-614-7510. Mr. Grant will be assisted by fifth grade instructors.

Purpose of the Study: The purpose of this research project is to determine how elementary students develop global awareness through participation in an online cross-cultural exchange.

Inclusion Criteria: Fifth grade students at the school.

Exclusion Criteria: All fifth grade students at the school are eligible to participate.

Description of the Study: Over a period of five week, 2-3 days per week, students will participate in an online cross-cultural experience with fifth grade students at the [other school]. Students will use the Blackboard courseware system to post and respond to a variety of teacher posted questions. These questions will revolve around school and home life. Students will respond to other students, asking questions, and learn about other cultures. Students will complete pre- and post- project surveys in order to determine their degree of global awareness and computer self-efficacy. Students will also participate in focus group interviews at the conclusion of the study. Students will participate in the project under the direction of their classroom teacher and the researcher.

Benefits: Participants will have the opportunity to learn about students from other countries. Participants will also increase their computer skills. Participants and their parents will have access to the results of this study.

Risks: There are no known or anticipated risks.

Right to Refuse: Participation is voluntary, and a child will become part of the study only if both child and parent agree to the child's participation. At any time, either the subject may withdraw from the study or the subject's parent may withdraw the subject from the study without penalty or loss of any benefit to which they might otherwise be entitled.

Privacy: Results of the study may be published, but no names or identifying information will be included for publication. Subject identity will remain confidential unless disclosure is required by law.

Financial Information: There is no cost for participation in the study, nor is there any compensation to the subjects for participation.

Signatures: The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigator.
If I have questions about subjects' rights or other concerns, I can contact Robert C. Mathews, Chairman, Institutional Review Board, (225) 578-8692. I will allow my child to participate in the study described above and acknowledge the
investigator's obligation to provide me with a signed copy of this consent form.

Parent's
Signature_____

Date_____

The parent/guardian has indicated to me that he/she is unable to read. I certify that I have read this consent from to the parent/guardian and explained that by
completing the signature line above he/she has given permission for the child to
participate in the study.

Signature of
Reader_____

Date_____

APPENDIX E: GLOBAL AWARENESS SURVEY

Fifth Grade Global Awareness Survey

Name:

For each item identified below, circle the number
to the right that best fits your judgment of its quality.
Use the scale above to select the quality number.

	Scale				
	Agree	Somewhat Agree			Disagree
1. I speak only one language.	1	2	3	4	5
2. I enjoy being with people from other cultures.	1	2	3	4	5
3. Others' feelings rarely influence decisions I make.	1	2	3	4	5
4. I avoid people who are different from me	1	2	3	4	5
5. People from other cultures should avoid each other.	1	2	3	4	5
6. I think that people are basically alike.	1	2	3	4	5
7. I have never experienced another culture.	1	2	3	4	5
8. I have foreigners over to my home on a regular basis.	1	2	3	4	5
9. I am nervous when I talk about people different from me.	1	2	3	4	5
10. I enjoy studying about people from other cultures.	1	2	3	4	5
11. People from other cultures do thing differently because they do not know any other way.	1	2	3	4	5
12. There is usually more than one way to get things done.	1	2	3	4	5
13. I listen to music from other cultures on a regular basis.	1	2	3	4	5
14. My parents or I decorate my home with artifacts from other countries.	1	2	3	4	5
15. I have many friends.	1	2	3	4	5

Fifth Grade Global Awareness Survey

16. I avoid trying foods from other countries.	1	2	3	4	5
17. I would like to live in another country in the future.	1	2	3	4	5
18. Moving to another culture would be easy.	1	2	3	4	5
19. I like to discuss issues with people from other countries	1	2	3	4	5
20. The more I know about people, the more I dislike them	1	2	3	4	5
21. Crowd of people different from me scare me	1	2	3	4	5
22. I eat ethnic foods when I get the chance	1	2	3	4	5

Congratulations! You have come to the end of the survey. Please make sure you answered each question.

APPENDIX F: STUDENT INTERVIEW PROTOCOL

Student Interview Protocol-Prior to Project

1) What do you know about Mexican culture? How have you learned about this culture? i.e. parents, teacher, peers, movies
2) What do you know about Turkish culture? How have you learned about this culture? i.e. parents, teacher, peers, and movies.
3) How do you feel about working online with students from other countries in your upcoming project?
4) What do you expect to learn by working with students from other countries?
5) Do you think that students from other countries can have an impact on what you think and feel?
6) What do you think students from other countries will learn about Louisiana?
7) What do you think students from other countries will learn about you?

Students Interview Protocol-During Project

1) What have you learned so far about students from other countries by participating in the project?
2) What similarities are you finding between you and the students from Mexico and Turkey?
3) What differences are you finding between you and the students from Mexico and Turkey?
4) Do you prefer to consult with others (teachers, students) while responding, or do you prefer to work alone. Why?
5) How do you feel about working with students from other countries?
6) Do you feel that you are learning more about other cultures through the online project than in your normal classroom studies?

Student Interview Protocol-At the Conclusion of the Project

1) What did you like most about the project?
2) Have you learned more about other cultures by meeting students online rather than learning about other cultures through books and movies?
3) How have other students/ teachers in your classroom influenced your online conversations?
4) IN what manner was your family involved in the project?
5) How have you changed through your participation in the project?
6) Are you more likely to seek out foreign foods, music and movies since participating in this project?
7) What are some aspects of the online project that you did not like?
8) Did you find any ideas presented by the other students that you disagreed with?
9) Would you want to participate in similar online projects as part of your class work in the future?

APPENDIX G: TEACHER INTERVIEW PROTOCOL

1. How have your students benefited by participating in the cross-cultural project?

2. What kinds of changes have you seen in your students through their participation in the cross-cultural project?

3. What kinds of assistance were you able to give your students regarding the content of their postings?

4. Have you found that your students learned more about global issues through their participation in the project than through the normal classroom curriculum? In what ways?

5. In what ways were the students? parents and siblings involved in the project?

APPENDIX H: PARENT INTERVIEW PROTOCOL

1. How would you describe your child's enthusiasm in regards to the online cross-cultural project?

2. How involved was the family in the project?

3. What are your thoughts regarding the project?

4. Do you have any suggestions for future online projects?

APPENDIX I: OBSERVATION FORM

Time of Observation_____

Setting

Human/Social Environment

Project Implementation Activities

Notable Nonoccurrences	Native language

VITA

Allen Cadwell Grant was born in Baltimore, and grew up in Maryland and Pennsylvania. He graduated in 1986 from The Hill School, an independent boarding school in Pottstown, Pennsylvania. Allen graduated from the College of William and Mary in 1990 with a Bachelor of Arts degree in history, and the George Mason University in 1998 with a master's degree in curriculum and instruction. He taught kindergarten for seven years in Virginia and Louisiana. Allen currently works as an Educational Technology Consultant for the Louisiana Virtual School, a program of the Louisiana Department of Education. He resides in Baton Rouge with his wife and son.