

Lynn University

SPIRAL

Student Theses, Dissertations, Portfolios and
Projects

Theses and Dissertations Collections

7-7-2003

Acculturation Disparity: An Emic Perspective from International Students Enrolled in Two South Florida Institutions of Higher Education

Lisa Knowles
Lynn University

Follow this and additional works at: <https://spiral.lynn.edu/etds>



Part of the [Higher Education Commons](#)

Recommended Citation

Knowles, Lisa, "Acculturation Disparity: An Emic Perspective from International Students Enrolled in Two South Florida Institutions of Higher Education" (2003). *Student Theses, Dissertations, Portfolios and Projects*. 136.

<https://spiral.lynn.edu/etds/136>

This Dissertation is brought to you for free and open access by the Theses and Dissertations Collections at SPIRAL. It has been accepted for inclusion in Student Theses, Dissertations, Portfolios and Projects by an authorized administrator of SPIRAL. For more information, please contact liadarola@lynn.edu.

ACCULTURATION DISPARITY: AN EMIC PERSPECTIVE FROM
INTERNATIONAL STUDENTS ENROLLED IN TWO SOUTH
FLORIDA INSTITUTIONS OF HIGHER EDUCATION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
The Degree of Doctor of Philosophy in the Graduate School
of Lynn University

By

Lisa Knowles, Ph.D.

Lynn University

2003

**Lynn Library
Lynn University
Boca Raton, FL 33431**

ACKNOWLEDGEMENTS

This investigation, and the events leading up to its completion, was made possible first, by each dedicated professor at Lynn University: Dr. Richard Cohen, Dr. Frederick Dembowski, Dr. Khalid Hamza, Dr. William Leary, Dr. Cheryl Serrano, Dr. Bernard Shulman, Dr. Arthur Snyder, and Dr. Carol Warshaw. I thank each of you for teaching and guiding me throughout this graduate program.

My Committee Chair, Dr. Cheryl Serrano, and Committee Members, Dr. Cindy Skaruppa, and Dr. Jack Levin proved to be concerned and competent professionals; guiding and molding me throughout this investigation. I thank each of you for your time, talent, and energy expressed throughout this research process.

The expertise of Dr. Adam Kosnitzky and Dr. George Manning enhanced the depth and understanding of the statistical applications employed throughout this study. I also wish to thank Dr. Daya Sandhu, author of the *Acculturative Stress Scale for International Students (ASSIS)*, for his encouragement and guidance throughout this endeavor.

The faculty and staff at St. Thomas University in Miami, Florida, were instrumental in providing support and opportunity with which to complete this investigation. To Dr. Agatha Ogazon, Dr. Jeffrey Pickens, Dr. Sarah Shumate, and especially Ms. Toni Mountain, I wish to express my sincerest thanks and gratitude for all your interest and assistance.

Finally, without a truly supportive family with whom I am blessed, my dearest and dedicated husband, Jeffrey; my precious sons, Jedison and Jamieson; and my sweet mother-in-law, Mrs. Winifred Knowles, all of whom allowed me the opportunity to complete this program of study; I am truly grateful for all your encouragement, assistance, and sacrifices during this time. My dearest brother David, who suffered the

loss of his precious wife, Patricia, during my studies, I thank you for your encouragement. And in closing, I wish to thank my wonderful parents, Dr. Paul D. and Mary P. Maxwell who always believed in me to truly finish this challenge, I am forever grateful and thankful.

ABSTRACT

The purpose of this study was to provide research to support a new paradigm of emergent cultural experiences and acceptance which was measured by different levels of acculturative stress. The objective of this study was to identify the present levels of acculturative stress using the dependent variables defined as perceived discrimination, perceived hate, fear, homesickness, stress due to culture shock, and guilt. The independent variables included gender, age, length of time in the United States, graduate or undergraduate, place or residence during college, English proficiency, country of origin/citizenship, and countries previously lived in/visited. This research contributes to a more comprehensive understanding of student perspectives by determining the cultural disparity relationship between the identified independent and dependent variables. The subject population was international students possessing an F-1 Visa enrolled at two institutions of higher learning in the state of Florida. The primary assessment instrument was the *Acculturative Stress Scale for International Students (ASSIS)* developed by Sandhu and Asrabadi (1994). The outcome of this investigation expected to provide research supporting a model of social distances, defined by the three levels of *cultural adequation, cultural lingualation, and cultural discordation*.

Indeed, every individual does bear the imprint of cultural socialization; and these imprints are vastly different from others with varying degrees of disparity. The study provided support indicating significant statistical evidence for the *paradigm of cultural distance* defined by three levels of disparity identified as *cultural adequation, cultural lingualation, and cultural discordation*.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

ABSTRACT

LIST OF TABLES

LIST OF FIGURES

Chapter 1 - INTRODUCTION	1
Statement of the Problem	4
Purpose of the Study	5
Rationale of the Study	5
Research Questions	6
Delimitations of the Study	8
Limitations	8
Definitions of Terms	9
Chapter 2 - REVIEW OF LITERATURE	10
Overview	10
Culture	10
Intercultural Communications	13
Acculturation	14
Acculturation Models	16
Cultural Adequation	17
Cultural Lingualation	18
Cultural Discordation	20
Factors of Acculturative Stress	21
International Students	22
Social Distances	23
Learning Models	24
Cross-Cultural Experiences	25

Summary	27
Chapter 3 - DESIGN OF THE STUDY	28
Overview	28
Description of Research Methodology	28
Research Design	29
Methods/Procedures	31
Selection of Subjects	32
Instrumentation	33
Data Collection and Recording	34
Data Processing and Analysis	34
Limitations	35
Summary	35
Chapter 4 - ANALYSIS OF DATA	36
Purpose of the Study	36
Assumptions	36
Sample	37
Descriptive Analysis	41
Summary of Results	52
Chapter 5 - SUMMARY, FINDINGS, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS	53
Summary	53
Findings and Discussion	54
Conclusions	62
Recommendations for Future Research	68
Recommendations for Practice	70
Bibliography	73
APPENDIX	

Appendix A Frequency Distribution of Students by Country of Origin	85
Appendix B Survey Form	87
Appendix C Individualism vs. Collectivism	93
Appendix D Paradigm of Cultural Distances	95
IRB Permission Letters	96

LIST OF TABLES

Table	Title
1	2002 International Students Enrolled in U.S. Colleges
2	Institution's and Sample Enrollment Percentages
3	Means and Range for Age, Time in U.S., and TOEFL Scores
4	Means, Standard Deviation, and Confidence Intervals for ASSIS Subscales
5	Means and Standard Deviation for Age and Gender
6	Pearson Product Moment Analysis for ASSIS Scores and Length of Time in United States, Graduate or Undergraduate Status, On or off Campus Residence, and TOEFL Scores
7	Regression Analysis Summary for Gender, Age, Time in the United States, Graduate Status, and On or off Campus Residence and ASSIS Scores
8	Regression Analysis for ASSIS Scores and Native Language
9	Means, Standard Deviation, and Range of ASSIS Scores by Re- Grouping Countries
10	Summary of Number of Countries Lived In or Visited and ASSIS Scores
11	Reasons for Attending United States Institutions of Higher Education
12	Summary of Grouped Responses for Previous Cross-Cultural Experiences
13	Means, Standard Deviation, and Percentages for Perceived Amount of Interaction with Host Country and ASSIS Scores.

LIST OF ILLUSTRATIONS

Figure No.	Title	Page No.
2.1	Vertical, Horizontal, and Oblique Forms of Cultural Transmission.	12
2.2	Locations of Sixty-Five Societies on Two Dimensions of Cross-Cultural Variations	21

CHAPTER I

INTRODUCTION

An ever-changing global society accentuates foreign, diplomatic and international business relationships, as well as, the pursuit for academic, tourist, or migratory purposes of travel, which require interactions and communications between people from different cultures. *Global intermingling* influences the need for human beings to accept, tolerate, and commune with people from different cultural backgrounds and perspectives. Ease of transportation and the widespread use of technology, coupled with the multiplicity of Internet accessibility, links people separated by oceans and lands representing different cultural thoughts, patterns, values, attitudes, beliefs, and practices. Every individual bears the imprint of cultural socialization practices that are vastly different from others, with varying degrees of disparity.

Euro-American students, representing mainstream United States society, remain consistent in cultural and language practices. Identification with school norms, values, and culture are closely related. This provides greater opportunity for overall academic achievement, (Diaz, 2001, p.12).

Minority groups have increased in diversity and number while the traditional European American groups are less dominant. The “cultural revolution” of the 2000s reflects increasing numbers and changing demographics in mainstream America. Indicators now predict that *people of color* make up over 30% of the public school populations today. Future predictions claim Hispanics will comprise nearly 25% of the U.S. population by the year 2050, (Diaz, 2001).

International students attending U.S. institutions of higher education have also steadily increased. Early statistics (1954-1955) reported 1.4% of students enrolled in higher education were international students. This increased to 2.4% by 1980, 2.9% by 1990, and 3.9% by 2000. Most recent findings indicate 4.3% of students enrolled in higher education in 2001-2002 were international students (Open Doors, 2003).

Students of color, immigrants, non-English speaking, and international students who are not representative of mainstream culture are constantly challenged by the American macro-cultural environment. Blumer (1967) identifies a social interaction theory where through social interaction, internalization of these social interactions and interpretations, people may acquire a more realistic self-perspective.

The need for global education is imperative. Diaz (2002) explains that global education “seeks to help students develop cross-cultural competency in cultures beyond their national borders and to acquire the insights needed to recognize that all people living on earth have highly interconnected fates,” (p. 13).

Acculturation is defined as “cultural changes that occur from extended, first-hand contact between two or more previously autonomous groups,” (Plog & Bates, 1976, p. 297). In addition, “one factor influencing the outcome of direct and prolonged culture contact is the characteristics of the societies in question, particularly the permeability of their boundaries and the flexibility of their internal structures,” (p. 297).

Berry, Kim, Power, Young, and Bujaki (1989) propose an acculturation model identifying strategies of *assimilation*, *integration*, *separation*, and *marginalization*, based on the assumption that freedoms are permitted in choosing the way one may acculturate.

Acculturation attitudes, adaptations, and strategies have been sought out and explained in many ways by cross-cultural researchers:

- acculturation and acculturative stress (Berry, 1998)
- socialization and enculturation (Camilleri & Malewska-Peyre, 1997)
- intergroup relations across cultures (Gudykunst & Bond, 1997)
- cross-cultural differences in work values (Hofstede, 1980)
- individualism and collectivism across cultures (Kagitcibasi, 1997)
- bicultural identity (Lafromboise, Coleman, Gerton, 1998), and
- Mendoza (1989) presents a “multidimensional acculturation model” with four typological patterns: cultural resistance, cultural shift, cultural incorporation, and cultural transmutation, (Zuniga, Skaruppa, & Powell, 2002).

Johnson (1994) identifies an *emic* perspective as representing the viewpoints of people in a group, thereby providing an insider’s view. Berry (1992) defines *emic* as culture-specific; therefore each international student’s perspective varies depending on country of origin. An *emic* perspective of international students in university programs is the viewpoint of this inquiry. “Interestingly, the classroom expectations of international students, particularly those from cultures vastly different from the United States, rarely have been considered,” according to Niehoff, Turnley, Yen, and Sheu (2001). Furthermore, “though one might assume that their expectations for classroom practices would be formed by their own country’s educational cultures; little research has been conducted on this topic,” (Niehoff, et al., 2001).

International students are defined as a unique group originating from different countries with language, cultural, ethnic, and national differences, yet coming together

for the same purpose – to obtain academic substance from a more advanced, formally structured institution of higher education. The cultural differences between their home and host countries may be greatly different, or perhaps not as much as expected (Niehoff, et al, 2001).

Statement of the Problem

International students are among a select group of individuals pursuing academic degrees so as to acquire further personal knowledge while enhancing potential opportunities upon returning to their homeland. The process of adapting to a new country, a new culture, and a new academic environment often creates stress and difficulties for these students. Research on adjustment and acculturative stress of international students has been widely reported in literature, (Ansari, 1996; Aubrey, 1991; Bleichmar, 1998; Buseh, McElmurry, & Fox, 1997; Clayton, 1993; Colston, 1994; Findsen, 1987; Gholamrezaei, 1996; Hener, Weller, & Shor, 1997; Kaul, 2001; Leong & Chou, 1996; McEvoy-Jamil, 1996; Michailidis, 1996; Mitchell, 2001; Niehoff, Turnley, Yen, & Sheu, 2001; Oh, Loeske, & Sales, 2002; Ozbay, 1993; Redmond & Bunyi, 1993; Sadrossadat, 1995; Sandhu & Asrabadi, 1994 & 1998; Smith, 2001; and Wu, 1998).

Cultural impact alone may prove to be unmanageable; in addition, language acquisition often adds to the intensity of their discomfort. Research indicates (Aubrey, 1991; Cross, 1995; Leong & Chou, 1996; Redmond & Bunyi, 1993; Sandhu, 1993) other contributing factors include: “culture shock, cultural distance, differences in communication styles, isolation, language problems, and loneliness,” (Sandhu & Asrabadi, 1994, p.2). Providing grounded theory to determine levels of cultural disparity yields the overall ontology this research seeks to address.

Purpose of the Study

The purpose of this study was to provide research supporting a new *paradigm of cultural distance*. This was accomplished by examining student's country of origin and level of acculturative stress obtained through the administration of a survey instrument designed to measure acculturative stress for international students. This investigation examined levels of acculturative stress for international students at two south Florida institutions of higher learning.

The *Acculturative Stress Scale for International Students (ASSIS)* is a scale designed to assess feelings of 'homesickness' and adapting to living in another country (Sandhu & Asrabadi, 1994). Data collected using this instrument served as the dependent variable defining acculturative stress as: perceived discrimination, homesickness, perceived hate, fear, stress due to change, and guilt.

The independent variables were gender, age, country of origin, graduate or undergraduate status, on/off campus residency, English language proficiency, length of time in host country, and amount of countries visited/lived in and reported cross-cultural experiences. TOEFL scores reported by respondents determined their proficiency in English.

Rationale for the Study

The rationale for this study was to acquire a deeper understanding of the acculturation process as experienced by international students studying at two institutions of higher learning in the state of Florida. Faculty and teachers may benefit by developing a more informed insight into the experiences international students encounter as they pursue their academic goals. In addition, knowledge of the acculturation process should present new

opportunities to improve instructional, administrative, and work place processes. It may well benefit those who interact with immigrants, international students, and foreign nationals in social, academic, and professional settings. Developing avenues for international students to share their cultures and perspectives may enhance social interactions between them and those in the host country.

An increased understanding of cultural orientation should assist in such areas as communication practices and comprehension of verbal classroom inputs for student comprehension of both classroom activities and formal assignments. These issues, when translated to the workplace, may contribute to both employee satisfaction and worker productivity. The tools and techniques developed in the classroom may be applied and modified to meet communication and operational needs of administrative policies, procedures, and programs.

The dynamics and rapidity of changes in our global student environment serve as a rationale for acquiring greater knowledge of the acculturation process. Benefits should accrue to the academic, administrative, and workforce environments.

Affective implications of this study may offer a more informed understanding of school culture, organizational culture, diversity in the workplace, and every day interactions. As pluralist societies emerge, research focused on cultural adaptation benefits both the global marketplace and increases the knowledge base for cross-cultural communication.

Research Questions

This research sought to create the following model:

An emergent *paradigm of cultural distances*, defined by three levels is as follows:

1. *cultural adequation* – this level depicts cultural likeness to one’s own culture. For example, Euro-American cultural norms are prevalent in English-speaking North American countries including Canada, the United States, and Australia.
2. *cultural lingualation* – this level depicts a cultural likeness to one’s own culture; a different language exists between the native tongue and the language of the geographical area.
3. *cultural discordation* – this level represents the differences between cultural perspectives (individualistic versus collectivist societies) and includes extensive language differences and customs whereby non-verbal communication becomes exclusive.

The study addressed the following research questions:

1. Do certain factors affect levels of acculturative stress, identified as perceived discrimination, perceived hate, fear, homesickness, stress of cultural changes, and guilt?
 - a. Do gender and age affect levels of acculturative stress?
 - b. Does length of time in the United States affect levels of acculturative stress?
 - c. Does graduate or undergraduate status affect levels of acculturative stress?
 - d. Does place of residence during college enrollment affect levels of acculturative stress?
 - e. Does fluency in English affect levels of acculturative stress?
2. Is there a relationship between country of origin/residence and levels of acculturative stress?

- a. Does the country of origin/residence affect levels of acculturative stress?
 - b. Does social distance between the countries of origin/residence affect acculturative stress?
3. Is there a relationship between previously lived in/visited countries and levels of acculturative stress?
 4. Do broader cross-cultural experiences affect levels of acculturative stress?
 5. Does the amount of interaction with target members in host country affect the level of acculturative stress?

Delimitations of the Study

The population for this investigation was students enrolled in graduate and undergraduate programs in two private institutions of higher learning in the State of Florida. Students responded voluntarily and not as a requirement. The institutions mailed the surveys and the responses were returned to the researcher.

Limitations

The subject population was limited to international students enrolled at the selected universities from January – March 2003. International students are any non-American citizen possessing an F-1 student visa according to the U.S. Immigration and Naturalization Service standards and requirements.

Due to government regulations for international student tracking resulting from policy changes after September 11, 2001, many students may not have been willing to participate. The onset of “Operation Iraqi Freedom” occurred during the research period.

This may also account for some international students unwillingness to provide information, as well as, higher levels of reported stress.

Definitions of Terms

Acculturative stress. This term describes stress people experience when moving from one culture to a new one (Berry, Kim, Minde, & Mok, 1987) and includes perceived discrimination, perceived hate, homesickness, fear, stress due to change, and guilt (Sandhu & Asrabadi, 1994).

Cultural adequation. This term describes the closest level of social distance where the differences are culturally more similar to the host society (Van Oudenhoven, Willemsma, & Prins, 1996).

Cultural lingualation. This term represents the second level of social distance where second language acquisition adds to the amount of social distance from country of origin to host country. Shumann (1976) proposed that the wider and broader the social distance is between cultures, second language learning is increased in difficulty.

Cultural discordation. This term is used to describe the most extreme differences between cultures including language and overall cultural paradigms. Hofstede (1980) describes 'individualism versus collectivism' as the measure of the greatest differences between cultures.

English proficiency. English proficiency is defined as the reported scores on the Test of English as a Foreign Language (TOEFL).

International student. An international student describes students coming from abroad possessing an F-1 student visa, thus fulfilling specific requirements as designated by United States Immigration and Naturalization Service.

CHAPTER II

REVIEW OF THE LITERATURE

Overview

Historical and current research support the operational definitions and terms employed in this study. A brief overview of culture, intercultural communications, acculturation, acculturation models, and international students establishes the foundation for this study.

Culture

In 1871, E.B. Tylor presented the first literary-used form of 'culture,' (Hall, 1990). According to Hall (1990), "culture has long stood for the way of life of a people, for the sum of their learned behavior patterns, attitudes, and material things," (p. 20).

Patterson (2000) defines culture as "a repertoire of socially transmitted and intra-generationally generated ideas about how to live and make judgments, both in general terms and in regard to specific domains of life," (p. 209). Culture describes both the public display of acceptable ideas and behaviors, as well as, the microcosm underlying such. "Culture is what one must know to act effectively in one's environment," (p. 208). In summary, culture is essentially the "blueprint" of acceptable behavior, attitudes, and ideas acquired or learned through socialization, imitation, and teaching, that is transmitted by intra-generations, significant others, and peers, (p. 209).

Cultural transmission, according to Berry, Poortinga, Segall, and Dasen (1992), describes the "way for cultural groups to transmit themselves to their new members, usually children . . . including the processes of enculturation and socialization," (p. 17). Cultural transmission is accomplished through teaching and learning. A three-tiered model depicting cultural transmission demonstrates:

- *Vertical transmission* through general enculturation and specific socialization from parents (child rearing).
- *Oblique transmission* through general enculturation and specific socialization from other adults in own and other groups.
- *Horizontal transmission* through general enculturation and specific socialization from peers, (p. 17-18). Figure 2-1 illustrates this model, (p. 18, modification made by author and not the researcher of this investigation).

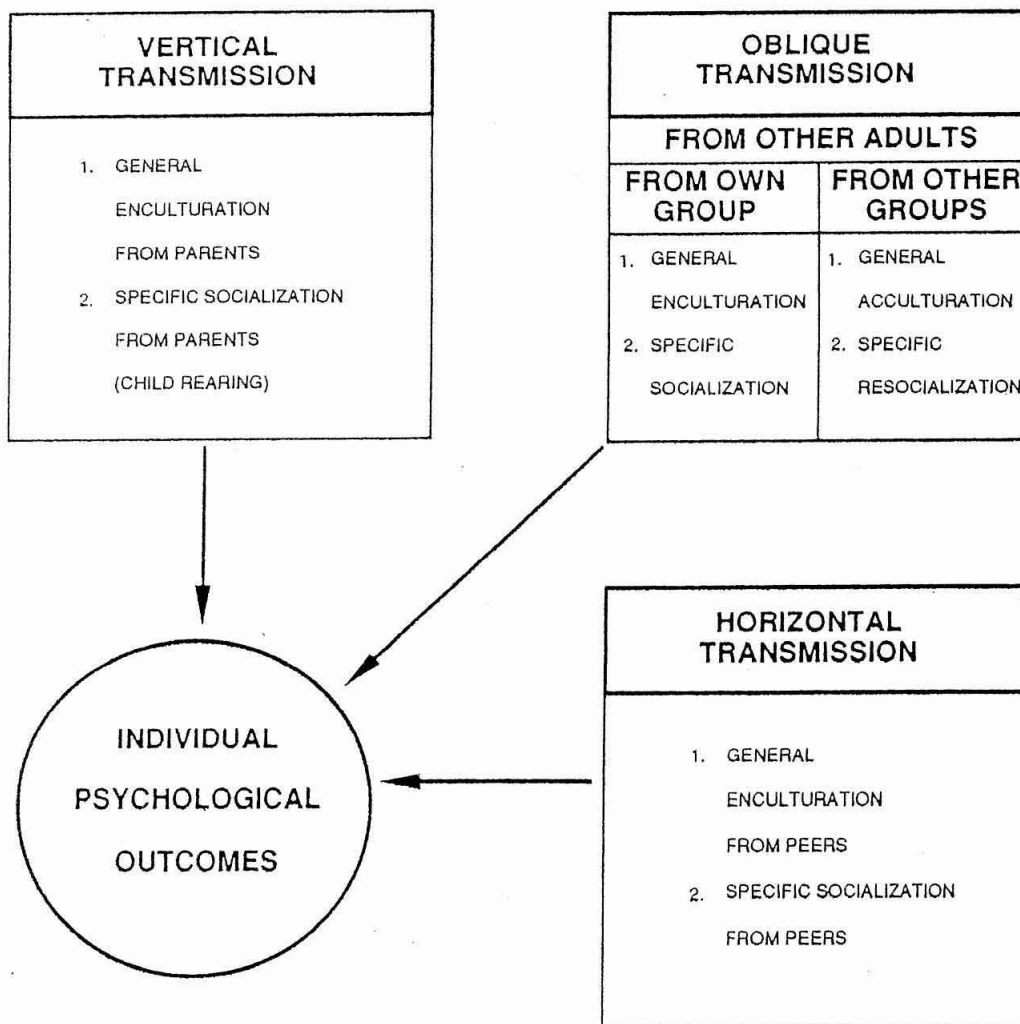


Figure 2-1 Vertical, horizontal, and oblique forms of cultural transmission. (Modified from Berry & Cavalli-Sforza, 1986)

Berry, et al (1992) provides a clear distinction between 'enculturation' and 'acculturation' that deserves mentioning.

Enculturation is the process by which the child acquires the appropriate behaviors. In contrast, *acculturation* refers to cultural and psychological change brought about by contact with other peoples belonging to different cultures and exhibiting different behaviors, (p. 19).

Culture is also confined by the political boundaries of a national identity. "Most people in today's world are socialized and propagandized to hold a national cultural identity," (Mathews, 2000, p.17). This study requested the political/national identity of respondents so as to clarify, and operationally define, respondent's culture by country of origin.

Intercultural communications

Daily business and social contacts provide opportunities for people to interact, communicate, and serve one another's needs. Developing sensitivity and empathy, that is, an understanding of "being in someone else's shoes," has become necessary for effective communication, (Yum, 2000, p. 65).

Ethnocentrism shades each person's meaning and attitudes towards other cultures. The United States, perhaps due to its being a "superpower," with technological, economic, military, and widespread cultural projection through television and other media, often displays an ethnocentric attitude of superiority, almost innocently, (DeTurk, 2001).

The continued immigration magnetism that the United States portrays constantly interferes with the broad brushstroke of who North American people really represent. According to Smith (2001), the population of international students attending United States' universities continues to increase rapidly; thus this magnetism extends to international populations pursuing higher educational opportunities.

It may be suggested that the impact of September 11, 2001, has created a new paradigm for how Americans view cultural migration, perhaps strengthening an ethnocentric perspective. These barriers contribute to a misunderstanding of

multiculturalism. According to DeTurk (2001), despite an ethnocentric nature, increasing opportunities for cross-cultural communications ripen within the continental boundaries in America calling for cultural understandings and inevitably, intercultural sensitivity and empathy.

Chen and Starosta (2000) identified three areas imperative to successful intercultural relations as: *intercultural sensitivity*, *intercultural awareness*, and *intercultural competence*. Several elements comprise the concept of *intercultural sensitivity*: self-esteem, open-mindedness, empathy, interaction involvement, and suspending judgment, (p. 407). *Intercultural awareness* “is the cognitive aspect of intercultural communication . . . understanding cultural conventions that affect how people think and behave,” (p. 407). *Intercultural competence* is the “ability to behave affectively and appropriately in intercultural interactions,” (p. 407). Nonverbal communications, listening, and verbal interactions combined with an empathetic approach create more amicability and understanding in cross-cultural relationships. This strengthens the depth and cohesiveness between communicators.

Acculturation

Although a distinction has been previously discussed between *acculturation* and *enculturation*, further clarification defining acculturation is necessary.

Acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original cultural patterns of either or both groups. . . under this definition acculturation is to be distinguished from culture change, of which it is but one aspect, and assimilation, which is at times a phase of acculturation. It is also

to be differentiated from diffusion, which while occurring in all instances of acculturation, is not only a phenomenon which frequently takes place without the occurrence of the types of contact between peoples specified in the definition above, but also constitutes only one aspect of the process of acculturation, (Redfield, Linton, & Herskovits, 1936, p.149-152).

Cauce (2002) states that acculturation refers to an individual's adaptation to the host or mainstream culture. It is the process of acquiring the knowledge, attitudes, norms, values, and behaviors of that culture and is largely the result of contact with the host culture, (Cauce, 2002). Acceptance within a host society plays an intricate part in the acculturation process (Berry, 1997). This lends credence to the independent variable, length of time in host country.

Gibson (2001) defines acculturation as the process of culture change and adaptation that occurs when individuals with different cultures come into contact. Gibson (2001) elaborates that close examination of the dynamic interactions between cultures and the effects of such greatly impacts the acculturation process. The nature of the acculturation process will be shaped, at least in part, by where immigrants settle, the ethnic and social class composition of the communities in which they settle, and whether or not they are surrounded by co-ethnics or are more isolated from their ethnic culture. The acculturation process is also strongly influenced by structural and contextual factors in the receiving country, (Gibson, 2001).

Acculturation models

Oberg (1954) and Cox (1977) define '*culture shock*' as the naturally occurring psychological adjustment from one culture to another. Brink and Saunders (1976) precede acculturation by first describing four stages of 'culture shock.'

1. Phase I, the *honeymoon phase*, views opportunities for success in a positive manner, however *nostalgia* induces yearning for the original culture as differences arise.
2. Phase II, the *disenchantment phase* begins with feelings of anxiety, irritability, and depression.
3. Phase III, the *beginning resolution phase* takes root as cultural patterns, norms, and expectations are acquired.
4. Phase IV, the *effective function phase* becomes evident as psychological stress deflates, (Brink & Saunders, 1976).

Hertz (1993) similarly proposes a three-stage adjustment model with several layers.

1. *Pre-immigration* – preparing for re-location.
2. *Coping stage* comprised of three developmental phases:
 - a. Impact level, with optimistic perceptions comparable to the *honeymoon phase*.
 - b. Rebound level, showing signs of 'disappointment, withdrawal, anger, aggressive behavior and depression,' is congruent to the *disenchantment phase*.
 - c. The coping level strengthens as adjustment is embodied and learned through daily experience.

3. *Settlement stage* corresponds to Brink & Saunders's (1976) *effective function phase* where there is a reduction in psychological stress (Hertz, 1993).

An abundance of literature produced by Berry and his associates reference acculturation, (Berry, 1980, 1985, 1990, 1997; Berry & Sam, 1997; Berry, Kim, Minde & Mok, 1987; Berry, Kim, Power, Young & Bujaki, 1989). Models of acculturation strategies dominate the subject of acculturation. Acculturation strategies are ways in which individuals respond to new cultural experiences and situations. A four-fold classification is proposed which includes 'assimilation,' 'integration,' 'separation,' and 'marginalization,' (Bhatia & Ram, 2001). Berry (1998) and his colleagues (Berry & Sam, 1997) define each as follows:

- *Assimilation strategy* occurs when the individual chooses interaction with the dominant group over a sustained cultural identity.
- *Separation strategy* 'places a value on holding on to their original culture' [Berry & Sam, 1997, p. 297] while minimizing contact with the dominant group.
- *Integration strategy* begins when individuals maintain strong ties with their ethnic group as well as with the dominant group.
- *Marginalization* is when individuals 'lose cultural and psychological contact with both their traditional culture and the larger society' [Berry, 1998, p. 119].

Cultural Adequation

"Cultural distance is the amount of difference between any two social systems and may range from minimal to substantial," according to Newstrom & Davis (2002, p. 404). It may be surmised from this that minimum cultural distance would indicate minimum stress related to acculturation in a new environment.

Groups that are culturally more similar to the host society preferred assimilation (Van Oudenhoven, Willemsma, & Prins, 1996). *Cultural adequation* was the term used to describe cultures that are very similar, having a similar language and cultural values.

Cultural Lingualation

Acton (1979) proposed the idea that *actual* social distance is not as important as the *perceived* social distance. His work focused on second language learning and the perceptions held by the learner towards their host country's language. Acton (1979) developed an instrument (the Professed Difference in Attitude Questionnaire, PDAQ) to measure levels of success for language learners. Scores were determined based on semantic differences. These differences were referred to as an *optimal* perceived social distance, indicating "good" language acquisition. Perceptions of extremes for too 'close' or too 'distant' from either host culture or culture of origin were alleged to be a "bad" language condition. Acton's work positions successful language acquisition between both new and old cultures while maintaining perceived distances. Acton was able to successfully quantify a relationship between social distance and new language learners, although it was not a predictor of language success. (Brown, 1994).

The addition of second language acquisition and the associated difficulties of acquiring acceptable levels of proficiency provide the demarcation in defining *cultural*

lingualation. Schumann (1976) proposed that

the greater the social distance between two cultures, the greater the difficulty the learner will have in learning the second language, and conversely, the smaller the social distance (the greater the social solidarity between two cultures), the better will be the language-learning situation, (Brown, 1994, p. 178).

Straub (2002) provides support for the importance of schemata for language learning. “Failure to find schemata with which to link up, or linking up to faulty schemata, ends up in misconception,” (p. 30). There is a connection with the learning models presented later in this research. English language fluency significantly correlates to both acculturation stress and positive adaptation (Kaul, 2001). Language has a significant effect on students’ performance in academic work and in acculturation, (Findsen, 1987).

Wu’s (1998) study investigated cross-cultural adjustment and second language acquisition for a group of Taiwanese students at a selected institution of higher education. Information supporting second language acquisition included age, gender, and length of stay in the United States. Wu’s (1998) findings support the notion that better adjustment and more successful second language acquisition derives from:

- determination to acquire the English language through contacts with native speakers of English,
- willingness to initiate and maintain social contacts with Americans,
- frequent use of the English language as their main communication medium whenever and wherever it is possible (Wu, 1998).

Implications from this research produced program planning to assist faculty and staff as they interact with international students. Conclusions provided a deeper understanding of Taiwanese second language learners.

Cultural lingualation was the term to describe the social distance most marked by the need for second language acquisition.

Cultural Discordation

Theorists have explained differences between the East and West in terms of how social relationships are perceived. The East emphasizes proper social relationships based on collectivism, where emphasis rests on the values and interests of the whole group rather than on the needs of the individual. Individualism, on the other hand, is the Western perspective, emphasizing the interests of one's individual self over those of the larger group, (Yum, 2000). The paradigm of 'individualism versus collectivism' is perhaps one of the greatest differences between cultures, (Hofstede, 1980). Appendix B identifies Hofstede's (1986) differences in classroom interactions in relation to the "individualism versus collectivism" perspective.

Hall (1990) poses three areas where cultural differences emerge: time, context, and space. The combination of individualism/collectivism, time, context, and space are all considered when defining *cultural discordation* to describe the extreme differences between cultures.

The Global Cultural Map presented by Harrison and Huntington (2000, p. 85) illustrates differentiation for identifying three levels of cultural disparity (Figure 2-2). People within each grouping will experience a closer *cultural adequation*, where people between groups will experience *cultural lingualation*, or *cultural discordation*.

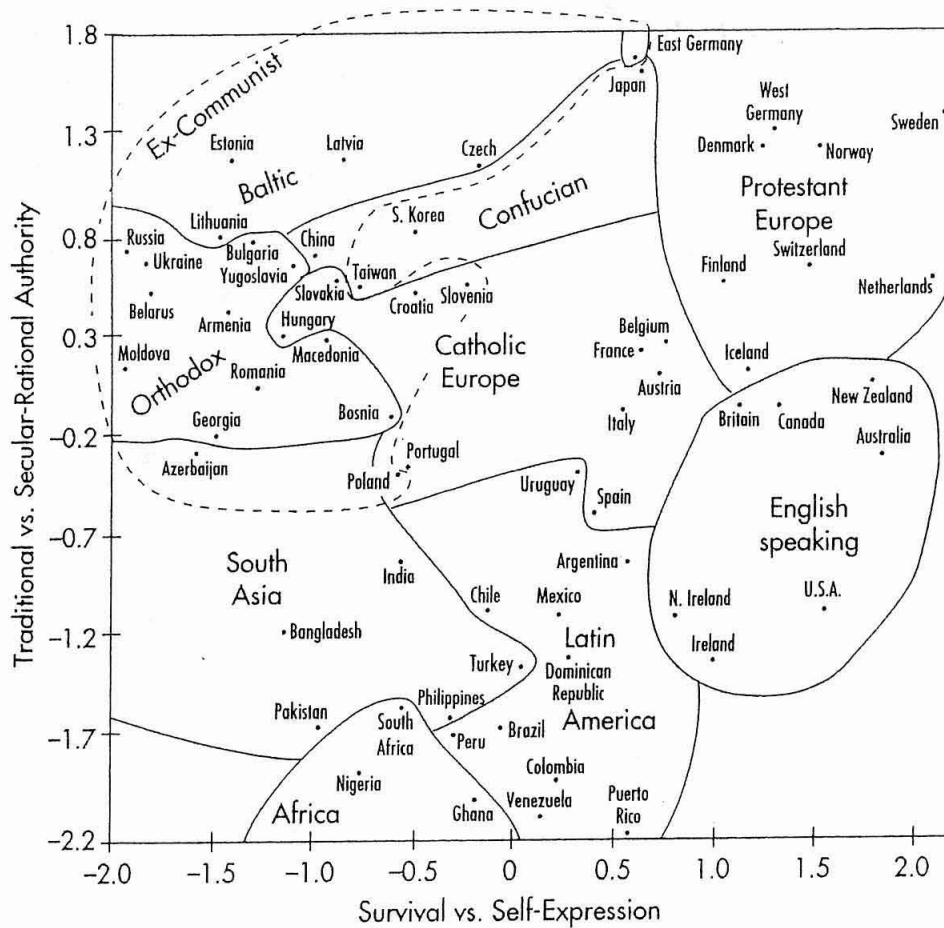


Figure 2-2

Locations of Sixty-Five Societies on Two Dimensions of Cross-Cultural Variation (Harrison & Huntington, 2000, p. 85).

Factors of Acculturative Stress

Intercultural relations occur when contact with a different culture creates new dimensions and cultural perspectives, (Ozbay, 1993). For international students, adapting to a new culture makes coming to the United States to study even more difficult.

International students coping with acculturative stress is very complex, with different levels of coping and coping mechanisms related to affective experiences and variables such as nationality, gender, age, length of stay in host culture, student status, and marital status. Ozbay's (1993) study with 322 subjects examined intercultural relations and

international students' coping processes including how they cope, patterns of coping, and how this coping process related to their experiences. Variables included nationality, gender, age, length of stay in host country, and graduate/undergraduate status. Ozbay's (1993) findings suggest the coping process of acculturative stress for international students varies from being female-male, undergraduate-graduate, single-married, and nationality.

Oh, Koeske, and Sales (2002) consider acculturation as the process of cultural change resulting from contact between groups with distinctive cultures. Kiefer (1974) suggests that sources of stress in the acculturation process result from structural confusion, cultural conflict, and cultural alienation. Acculturation is the degree an individual accepts and adheres to both majority and minority cultures, (Mitchell, 2001).

International students

International students continue to flock to the United States for higher education. "All indications suggest that the number of international students will continue to grow, especially when U.S. institutions with declining enrollments actively recruit students," (Sandhu & Asrabadi, 1994, p. 435). Enrollments have been steadily increasing with nearly 35,000 international students in 1954/1955 to over 580,000 international students in 2001/2002, (Open Doors, 2003).

International students experience an adjustment in terms of personal and social adaptation in a new environment through interactions within the academic host community, (Sadrossadat, 1995). Variables measured by the Sandhu and Asrabadi's (1994) *Acculturative Stress Scale for International Students (ASSIS)* include perceived

discrimination, homesickness, perceived hate, fear, stress due to change/culture shock, and guilt.

Kaul (2001) examined predictors of positive adaptation among international students in the United States. Kaul's (2001) study consisted of 334 graduate and undergraduate students who were administered the *Acculturative Stress Scale for International Students (ASSIS)* (Sandhu & Asrabadi, 1994). A comparison was made between European and other international students with the Europeans revealing more ease in acculturation levels than other international students (Kaul, 2001). Perceived language acquisition was measured as a factor of positive adaptation and acculturative stress. The study results indicated students from outside Europe reported significantly greater stress than students from European countries. Independent variables included gender, age, graduate or undergraduate status, students' native lands, and length of stay in host country.

Social Distances

While this study seeks to provide a new model of acculturation explained in terms of cultural distances between traditional and host cultures, proximity between cultures is predominant in explaining this paradigm. According to Brown (1994)

The concept of *social distance* has emerged as an affective construct to give explanatory power to the place of culture learning in second language learning. *Social distance* refers to the cognitive and affective proximity of two cultures that come into contact within an individual. 'Distance' is obviously used in an abstract sense, to denote dissimilarity between two cultures, (p. 176).

Factors contributing to subjects' social and psychological distance from the host culture were perceived as:

- inability to communicate competently with native speakers,
- lack of sufficient cultural knowledge to initiate conversations with Americans,
- lack of self-confidence, and
- fear of making mistakes during conversations with Americans, (Wu, 1998).

Learning Models

The model presented for this study follows both Piaget's constructivist framework and Vygotsky and Bruner's *scaffolding* analogy. Children's learning has been described as *scaffolding* (Vygotsky, 1986; Bruner, 1986) where teachers provide support in helping children perform a task within their *zone of proximal development* (Vygotsky, 1978). Piaget's (1969) *constructivist* framework further describes children's learning as a construct of their own knowledge from their experiences. "Piaget described learning as the modification of students' cognitive structures as they interact with and adapt to their environment," (Tompkins, 1998, p. 4).

Knowledge is built by *schema* derived from previous experiences. Ford (1992) employs "behavioral episode schemata" to describe behavior chosen to achieve desired goals in cross-cultural situations, (Coleman, Casali, & Wampold, 2001). Straub (2002) provides support on the importance of developing schemata for facilitating language learning or literary development since "much misinterpretation in reading is due to lack of schemata rather than to difficulty with the grammar," (p.30) especially in the area of culture.

Social distance between cultures defined by the three levels hypothesized is supported by Piaget's (1969) constructivist framework. Vygotsky's (1986) and Bruner's (1986) *schemata* and *scaffolding* techniques through cultural knowledge and experience provides

in defining *cultural adequation*, *cultural linguation*, and *cultural discordation* employed in this study.

Incorporating these learning theories into the literature base for this investigation lends credence to support the *model of cultural distances*. Building *schemata* and opportunity for *scaffolding* by fluent speakers of the target language facilitates the process of second language development. Both cultural experiences and second language acquisition provide greater potential for reducing acculturative stress levels.

Findsen (1987) used the concepts of adult educators such as Dewey, Kolb, and Smith as part of his theoretical framework in his cross-cultural study of international student adjustment. He utilized open-ended questions, observations, and reflections to analyze informants' adjustment. His findings indicate the significant effect of second language acquisition, acculturation, and academic performance.

Cross-Cultural Experiences

According to Coke, Bateson, and McDavis (1978), "empathy allows a person to possess a higher degree of feeling of sympathy and concern toward others," (Chen & Starosta, 2000, p. 411). The goal off "developing a positive emotion toward understanding and appreciating cultural differences . . . promotes appropriate and effective behavior in intercultural communication," (p. 408). The acquisition of empathy deepens cultural sensitivity and strengthens intercultural relationships and interactions. "Cognitively, the more we learn about others different from us, the more successfully we can cope with and manage diversity," (Limaye, 2000, p. 415).

Clayton (1993) examined the receiving culture, comprised of the culture of school and classroom, strategies of the mainstream teacher, attitudes of peers, and English as a

Second Language Program, as it influences the acculturation process. Fourth and fifth grade elementary students, both native and second language learners, were interviewed and observed over a three month time period. Clayton (1993) identified four components: cross-cultural students, challenges, receiving culture, and the interactions between these. When positive support was received from their family members and the host culture, an increase in cultural congruence resulted. A lack of support or hostility from the receiving culture led to withdrawal. Credence for investigating the independent variables of cross-cultural experiences and receiving culture are supported from Clayton's findings. Clayton (1993) provides evidence of how important the receiving culture impacts the acculturation process. Any efforts directed to conclude that these findings are representative of students enrolled in higher education may only be based on the application of Clayton's research model to that population.

McEvoy-Jamil (1996) produced a neo-ethnographic case study investigating the perspectives on the strategies for coping. Data was obtained through interviews, observations, academic records and papers, and diary excerpts. The results for this study showed the international undergraduate student developed her own strategies and social networks for:

- acculturation and social coping strategies
- language learning strategies, and
- academic adjustment strategies.

The coping strategies revealed in this instance may imply the reality that international students must build and depend upon their own social networks and not solely on the assistance of faculty and staff. This study provides a qualitative

approach for research to support international students' need to develop and nurture cross-cultural relationships.

Summary

Culture defines acceptable behavior, attitudes, values, and ideas supported in a society. Communicating between cultures, within a multicultural society and globally between nations, has drastically increased due to the ease of transportation, 21st century communication technologies, and ever-increasing international economic interactions. Various models presented address the process of cultural change or acculturation between cultural groups. A new paradigm based on acculturation and social distance between cultures identified the thrust for this research.

CHAPTER III

DESIGN OF THE STUDY

Overview

The purpose of this study was to provide research supporting a new paradigm of emergent cultural experiences and acceptance measured by different levels of acculturative stress. This was accomplished by examining acculturative stress of international students at selected institutions of higher learning in southeastern Florida.

This investigation examined acculturation with respect to beliefs, attributes, and emotional reactions experienced by the selected population of international students. The dependent variable, acculturative stress, was identified as perceived discrimination, perceived hate, homesickness, fear, stress due to culture shock, and guilt. Independent variables were gender, age, length of time in host country, graduate or undergraduate status, on or off campus residency, English proficiency, country of origin, and number of countries lived in or visited.

This study sought to find a relationship between these identified independent and dependent variables in the process of acculturation experienced by international students. The research sought to provide support for the proposed *paradigm of cultural distances*.

Description of Research Methodology

This study was quantitative using both descriptive and co-relational methodologies, and a non-experimental research approach (Charles & Mertler, 2002). The data was quantified for analysis using a $p = .05$ level of significance. Two open-ended questions provided the opportunity for respondents to provide written testimony thus establishing

an emic perspective and thereby adding to the body of knowledge of international students.

Research Design

Independent variables were gender, age, length of time in host country, graduate or undergraduate, place of housing while in college, English proficiency, country of origin, and number of countries lived in or visited. The one dependent variable, acculturative stress, was identified as including perceived discrimination, perceived hate, homesickness, fear, stress due to culture shock, and guilt. While many of these variables were used in previous studies, the investigation of student residence and number of countries lived in or visited was expected to provide corroboration of results, as well as, a unique contribution, when the results were analyzed.

This research sought to create the following model:

An emergent *paradigm of cultural distance*, defined by three levels is as follows:

1. *cultural adequation* – this level depicted cultural likeness to one's own culture. For example, Euro-American cultural norms are prevalent in English-speaking countries including Canada, the United States, and Australia.
2. *cultural lingualation* – this level depicted a cultural likeness to one's own culture; a different language existed between the native tongue and the language of the geographical area.
3. *cultural discordation* – this level represented the differences between cultural perspectives (individualist versus collectivist societies) and includes extensive language differences whereby only non-verbal communication techniques

could be employed. Adding to this discordation is the fact that non-verbal communication is not universal.

The study addressed the following research questions:

1. Do certain factors affect levels of acculturative stress, identified as perceived discrimination, perceived hate, fear, homesickness, stress of cultural changes, and guilt?
 - a. Do gender and age affect levels of acculturative stress?
 - b. Does length of time in the United States affect levels of acculturative stress?
 - c. Does graduate or undergraduate status affect levels of acculturative stress?
 - d. Does place of residence during college enrollment affect levels of acculturative stress?
 - e. Does fluency of English affect levels of acculturative stress?
2. Is there a relationship between country of origin/residence and levels of acculturative stress?
 - a. Does the country of origin/residence affect levels of acculturative stress?
 - b. Does social distance between the countries of origin/residence affect acculturative stress?
3. Is there a relationship between previously lived in/visited countries and levels of acculturative stress?
4. Do broader cross-cultural experiences affect levels of acculturative stress?

5. Does the amount of interaction with those in host country affect the level of acculturative stress?

Methods/Procedures

This study employed a survey approach utilizing an instrument designed by Sandhu and Asrabadi (1994). The survey instrument was comprised of demographic and experiential inquiry developed by the researcher and the *Acculturation Stress Scale for International Students (ASSIS)* developed by Sandhu & Asrabadi (1994). Surveys were distributed to international students enrolled in two South Florida institutions of higher education.

A sample size of 100 was intended. The institutions distributed a total of 390 surveys. Ninety-one responses were returned; six were rejected due to incomplete responses. Eighty-five students responded: graduate students ($N = 19$) and undergraduate ($N = 66$). This study employed a quantitative research design using both descriptive and co-relational analysis with a non-experimental approach (Charles & Mertler, 2002). The demographic section of the survey instrument provided opportunity to collect data through two open-ended questions designed to allow respondents opportunity to provide their reasons for: 1) selecting an institution of higher learning in the United States, and 2) explaining previous personal or individual cross-cultural experiences.

Students returned their responses by either mailing through the United States Postal System or delivering it to a conveniently located "Drop Box" on campus. The researcher collected the returned responses from on-campus offices.

One of the institutions provided follow-up and reminders for students through global e-mails, occasional interactions, and student meetings. Institutional employees conducted follow-up.

Selection of Subjects

The study population consisted of graduate and undergraduate students enrolled at the university from January – March 2003. The subject population was limited to international students studying in the United States. International students were defined as any non-American citizen possessing an F-1 student visa according to U.S. Immigration and Naturalization Service standards and requirements; graduate or undergraduate, enrolled in a formal program at an American institution of higher learning. Participants were between the ages of 19 to 38 years old, with a mean age of 22.98. The universities participating in this study were two private institutions, comparable in size, with a response rate of 38% from one and 62% from the second.

Instrumentation

The *Acculturative Stress Scale for International Students (ASSIS)* was a scale designed to assess feelings of adapting to living in another country (Sandhu & Asrabadi, 1994). Questions were designed with varying degrees of agreement based on the Likert scale of ranking agreement from 1 – 5.

There were a total of 36 questions. Many questions were related and asked the same thing in a slightly different manner. The survey provided for six subscales: perceived discrimination, homesickness, perceived hate/rejection, fear, stress due to change, guilt, and a miscellaneous subsection. The respondents read the statements and answered by circling 1, 2, 3, 4, or 5 according to the degree of agreement; 1 representing “strongly

disagree” and 5 representing “strongly agree.” Scores ranged from 36 – 180, indicating greater stress associated with higher scores.

The ASSIS has been administered as a predictor of identifying perceived discrimination, homesickness, perceived hate/rejection, fear, stress, and guilt with demonstrated validity and reliability in several studies: Kaul (2001), Tsang (2000), Ninggal (1998), Ansari (1996), Buseh, McElmurry & Fox (1997), Gholamrezaei (1996), and Michailidis (1996). Sandhu & Asrabadi (1994), developers of the original instrument, provided statistical measures supporting a high measure of reliability; it did in fact measure what it set out to measure.

The Cronbach’s coefficient alpha is calculated to be 0.94 for 36 items. The calculated value of the Guttman split-half statistic is 0.9690 with 0.9399 as the correlation between halves. All of these statistics support a very high measure of reliability, (Sandhu & Asrabadi, 1994, p. 6).

The seven subscales this instrument measured were: perceived discrimination (37.6%), homesickness (8.6%), perceived hate (7.4%), fear (5.3%), stress due to culture shock (4.4%), guilt (3.4%), and 33.3% of the remaining questions made up the miscellaneous set of questions (Sandhu & Asrabadi, 1994). Scores for each of the factors had a range for perceived discrimination (8 - 40), perceived hate (5 - 25), homesickness (4 – 20), fear (4 – 20), stress due to culture shock (3 – 15), guilt (2 – 10), and miscellaneous (10 – 50). The original study using the ASSIS resulted with a mean of 66.32 and a standard deviation of 21.16 (Sandhu & Asrabadi, 1994).

Data Collection and Recording

Respondents returned their responses in a self-addressed stamped envelope provided in the packet. Many returned their responses to the designated campus offices and were retrieved by the researcher. Information contained on the responses was inputted using Excel spreadsheets and the SPSS data analysis computer program for data compilation, analysis, and summary.

Data Processing and Analysis

The responses to the 36 statements on the ASSIS stress scores were correlated with the independent variables supplied in the demographic information sheet. Frequency tables and cross-tabulations were formatted using the SPSS computer program. Additional statistical analysis utilizing the SPSS computer program included a *chi square* analysis or test of independence for the independent variables of age and gender. An analysis of variance procedure (ANOVA) produced the desired analysis of variance with repeated measures.

Research Question 1 (including *1A* through *1E*) was analyzed using descriptive analysis, *chi square*, and *t* tests. *Research Question 1A* employed the use of *chi square* and correlation analysis. Descriptive statistics using mean and range were performed for all continuous independent variables: age, length of time in the United States, and TOEFL scores.

Research Questions 2A and *2B* were analyzed using regression and correlation analysis. *Research Question 3* was analyzed using correlation analysis by comparing number of countries lived in or visited and ASSIS stress scores. An analysis of *Research Question 4* responses employed a comparison of the number of countries lived in/visited

and overall ASSIS score. The open-ended question asking description of cross-cultural experiences was also incorporated into the analysis for this question. The data results obtained for *Research Question 5* was analyzed by regression analysis.

Limitations

Several limitations were observed. TOEFL scores, as reported by respondents, were used to determine English proficiency. The standard scores for entrance into these institutions of higher education were 550 for the traditional TOEFL and 213 for the computer version. Other limitations were difficulty in obtaining population responses, time constraints, geographical restriction to southeastern Florida, and the institution's policies for mailing surveys. For example, accessing regional population statistics were not available from both institutions.

Since the sample included a large number of countries of origin and countries lived in/visited, the information is mostly of a descriptive nature. The sample provides both an opportunity for generalization and a limitation on the conclusions applicable to this particular sample.

Summary

This research sought to investigate factors relating to the acculturation stress of international students in two South Florida institutions of higher education. The discovery of stress levels anticipated establishing the premise of cultural social distances and acculturation stress. Statistical data developed from this research provided support for the given research questions.

CHAPTER IV

ANALYSIS OF DATA

Purpose of the Study

The purpose of this study was to explore and describe the influence of selected independent variables upon international students' acculturative stress as measured by the *Acculturative Stress Scale for International Students*, (Sandhu & Asrabadi, 1994). The independent variables were: gender, age, length of time in the United States, graduate or undergraduate status, residence during schooling, English language fluency, country of origin, the number of previously lived in or visited countries, broader cross-cultural experiences, and amount of interaction with those in the host country. Acculturative stress was measured using an acculturative stress scale developed for international students. The dependent variable was the score attained on the overall stress scale. Six subscales measured perceived discrimination, perceived hate, fear, homesickness, stress of cultural changes, and guilt. These subscales were grouped together to arrive at the total acculturative stress score. In summary, this chapter presents a description of the sample data collected from 85 subjects as well as the results of statistical tests of the research questions for the study.

Assumptions

Two assumptions were made for this investigation.

1. The respondents possessed F-1 student visas as defined by United States Immigration and Naturalization stipulations. This was stipulated by the researcher, in accordance with the definition for an international student, as a

factor for the institutions when they produced their international students' listing for survey recipients.

2. The students answered the surveys honestly and understood the English language to the extent needed to accomplish this directive.

Sample

The survey was sent to 390 international students attending one of two private universities in southeastern Florida. A total of 91 survey forms were returned generating a response rate of 23% (91 returned out of 390 surveys distributed). Six returns were missing demographic information; therefore, 85 acceptable surveys were used for analysis, unless otherwise noted. One institution's group received global e-mails and had various reminders by staff during meetings and gatherings occurring throughout the research period. Additional follow-up for the other institution was unobtainable. Because this was such a small sample, descriptive statistics representing this sample were appropriate.

Respondents were between the ages of 19 and 38 years old. Survey demographics indicated 22% (N = 19) graduate students and 78% (N = 66) undergraduate students. Males were 45% (N = 38) of the sample population and 55% (N = 47) were female.

Table 1 presents percentages of international students enrolled in the United States for the year 2002 (Open Doors, 2003) and the sample percentages obtained in this research (N = 85).

Table 1

2002 International Students Enrolled in U.S. Colleges (N = 85)

Region	U.S. Enrollment	Sample
Asia	56%	13%
Europe	14%	20%
Latin America	12%	52%
Middle East	7%	6%
Africa	6%	7%
N. America & Oceania	5%	1%

Table 2 illustrates the sample population compared to the school populations (N= 54) for one institution only; institutional policy inhibited the release of this data from the other institution. A total of 40 different countries were represented in this investigation. However, students originating from Latin American and Caribbean countries comprised a majority of respondents at one institution. Country distributions are presented in Appendix A.

Table 2

Institution's Population and Sample Enrollment Percentages (N=54)

Region	Population	Sample	Sample %
Asia	5.9%	6	11%
Europe	10.4%	7	13%
Latin America	70.6%	37	68%
Middle East	1.9%	0	0%
Africa	7.4%	3	6%
N. America & Oceania	3%	1	2%

TOEFL scores reported by second language learners of English on the traditional test had a mean of 560 and ranged from 460 to 673. The requirement for admission into these institutions is a score of 550 on the traditional exam while the computer version score is 213. Table 3 presents the continuous independent variables of age, time in the U.S., and TOEFL scores' means and range. Computer scoring of the TOEFL contained a mean of 232 and a range of 193-270. The average length of time in the United States was 32.81 months or just over two and one-half years. The length of time ranged from 4 months to 10.5 years.

Table 3

Means and Range for Age, Time in U.S., and TOEFL Scores

Characteristic	Mean	Range
Age	22.98	19 - 38
Time (months) in U.S.	32.81	4 - 127
TOEFL scores traditional	560	460 - 673
TOEFL scores computer	232	193 - 270

Note: Traditional TOEFL score is 550; computer TOEFL score is 213 for admission.

The results for the subscales of the acculturative stress score provided confidence intervals of alpha coefficients ($p \leq .05$) as: perceived discrimination (1.41), perceived hate (.96), homesickness (.937), fear (.586), stress due to change/culture shock (.588), and guilt (.403). Table 4 shows the means, standard deviations, and confidence intervals for the ASSIS subscales.

Table 4

*Means, Standard Deviation, and Confidence Intervals
for the ASSIS Subscales
(N=85)*

Subscale	Mean	SD	Confidence Interval
Perceived Discrimination	18.98	6.64	1.41
Perceived Hate	10.68	4.54	.965
Homesickness	11.69	4.41	.937
Fear	6.71	2.76	.586
Stress Due to Change/ Culture Shock	7.47	2.77	.588
Guilt	3.94	1.9	.403

($p \leq .05$)

Descriptive Analysis

The student sample consisted of 85 completed surveys (N = 85). The breakdown of number of students by country of origin appears in Appendix A. The acculturative stress scale mean for this study was 82.84 with a standard deviation of 23.25. The original test performed by Sandhu and Asrabadi (1994) resulted with a stress score mean of 66.32 and standard deviation of 21.16. Kaul's (2001) acculturative stress score mean was 77.86 with a standard deviation of 20.79.

Research Questions 1 (including 1A – 1E)

The first research question sought to determine the relationship of certain factors such as gender, age, length of time in the United States, graduate or undergraduate status, on

or off campus residence, and English fluency (as determined by TOEFL scores) and their relationship to levels of stress as determined by the ASSIS scale scores. The analysis for age and gender variables (N=85) with means and standard deviations are depicted in Table 5. A *Chi-square* analysis for gender and age did not show a significant relationship, and therefore, did not influence stress score results.

Table 5

Means and Standard Deviation for Age and Gender

Characteristic	N	Mean	SD
Age	85	22.98	7.67
Gender	85	0.56	0.25

Correlation analysis was also performed using the independent variables of age and gender compared with the ASSIS score (Gall, Borg, & Gall). The Pearson Product Moment between the dependent variable, the ASSIS score and the independent variables, age and gender were .157 and -.156 respectively. This indicates there was no statistical significance between age and gender compared with the ASSIS scores according to the Pearson measurement.

Question 1B addressed the correlation between the ASSIS score and length of time in the United States. Pearson Product Moment revealed .057, indicating no significant difference for length of time in the United States and the level of stress reported.

Question 1C addressed the correlation between the ASSIS score and graduate or undergraduate status. Pearson Product Moment indicated statistical significance as .012.

With the level of significance at $p \leq .05$, this indicated undergraduate students experienced higher levels of acculturative stress than graduate students. However, undergraduate students comprised 78% of the respondents; only 22% were graduate students.

Question 1D addressed the correlation between the ASSIS score and residence on or off campus resulting in a $-.007$ correlation and $.952$ significance at $p \leq .05$. The Pearson Product Moment was $.014$. This measurement revealed a statistically significant difference between ASSIS scores and on or off campus residency, with off campus residents experiencing higher stress levels than those living on campus.

Question 1E examined the ASSIS scores with TOEFL scores. The Pearson's Product Moment resulted in $.139$. The Pearson's Product Moment indicated that the TOEFL scores were not statistically significant with ASSIS scores.

Table 6

Pearson Product Moment Analysis for ASSIS Scores and Length of Time in the U.S., Graduate/Undergraduate Status, On/Off Campus Residence, and TOEFL Scores

Variable	Pearson
Length of Time in U.S.	.057
Graduate/Undergraduate	.012 *
On/Off Campus	.014 *
TOEFL	.139

($p \leq .05$)

* indicates significance.

Table 6 illustrates the Pearson Product Moment results for selected variables discussed in Questions 1A through 1E.

Regression analysis for each independent variable mentioned in Research Questions 1A through 1D, (gender, age, time in the United States, graduate/undergraduate status, and off/on campus residence) was analyzed with the ASSIS scores. The results of this regression analysis appear in Table 7. The regressions analysis model indicated there was no significance ($p \leq .05$) for any of the variables.

Table 7

Regression Analysis Summary for Gender, Age, Time in the United States, Graduate Status, and On/Off Campus Residence and ASSIS Scores

Variable	R	R Squared	F	Sig
Gender	.165	.027	2.309	.133
Age	.253	.064	2.761	.069
Time in the United States	.255	.065	1.858	.143
Graduate Status	.263	.069	1.468	.220
On/Off Campus Residence	.266	.071	1.184	.325

Dependent Variable: Score on ASSIS

($p \leq .05$)

Regression analysis was performed to determine the language group for respondents and the stress scores on the ASSIS. Table 8 reports an ANOVA analysis indicating an F statistic = 2.003, significance = .087, R = .337 and R Squared = .114. Although this resulted of findings of no significance at the $p \leq .05$ level, it does show movement in

support findings that these two groups experience higher levels of stress and social distance. An excluded variables analysis of the regression model reported a significance level of .003 for the Chinese/Japanese grouping ($p \leq .05$).

Table 8

Regression Analysis for ASSIS Scores and Native Language

Language Group	<i>R</i>	<i>R Squared</i>	<i>F</i>	<i>Sig</i>
Native English	.043	.002	.151	.699
European	.051	.003	.109	.897
Middle Eastern	.126	.016	.433	.730
Chinese/Japanese	.330	.109	2.44	.054
Latin American	.336	.113	2.017	.085

Dependent Variable: Score on ASSIS

$R = .337$ $R \text{ Squared} = .114$ $F \text{ Statistic} = 2.003$ $\text{Sig.} = .087$

($p \leq .05$)

Research Question 2

Regression analysis was used to determine the relationship between country of origin and acculturative stress levels. However, since there were only a few respondents from several countries, regrouping the countries into regions was necessary before further analysis was performed.

Respondents' country of origin was grouped according to three areas: 1) North America; 2) Europe, Latin America, and the Caribbean; and 3) Asia, Africa, and Middle East. The means, standard deviations, and range for each of the regrouped countries are illustrated in Table 9. These groupings are similar to those on the graphic dividing countries by social distance, illustrated in Figure 2-2 in Chapter 2, by Harrington and Harrison (2000, p. 85). The means indicated European, Latin American, and Caribbean respondents experienced increased stress levels; Asians, Africans, and Middle Easterners demonstrated the highest stress levels.

Regression analysis for ASSIS scores and regions indicated statistical significance of .020. The regression model produced an $R = .224$, $R\text{ Squared} = .050$, $F = 4.392$ and overall significance of .039, where $p \leq .05$. There is, therefore, significant statistical evidence that stress levels were indeed greater according to regions supported in the literature and presented in the *paradigm of cultural distances*.

Table 9

Means, Standard Deviation, and Range of ASSIS Scores by Re-Grouping of Countries

Country Group	M	SD	Range
North American English speaking	75.20	7.79	68 -88
European, Latin American and Caribbean	79.37	22.27	37 -129
Asian, African and Middle East	95.11	25.64	48 -135

($p \leq .05$)

R = .224 R Squared = .050 F = 4.392 Sig. = .039

Research Question 3

Research Question 3 inquired about a relationship between previously lived in or visited countries and levels of acculturative stress. The acculturative stress score was the dependent variable. Numerical equivalents represented the independent variable for the number of countries lived in or visited.

Table 10

Summary of Number of Countries Lived in or Visited and ASSIS Scores

Number of Countries Lived In	N	Mean
Three or Less (≤ 3)	30	92.21
Four to Seven (4 – 7)	20	88.79
Eight or More (8 +)	34	72.41

($p \leq .05$)

Dependent variable: ASSIS score

R Squared .000 F Statistic .006 Sig. .940

A correlation analysis was performed to determine this relationship between the number of previously lived in or visited countries and level of acculturative stress. The Pearson Product Moment was $-.008$. Regression analysis produced an R Square = $.000$, F Statistic = $.006$, and Significance = $.940$ for ASSIS scores and number of countries lived in or visited. Therefore, indication is statistically demonstrated that the more exposure to travel outside one's native country, the less the acculturative stress would be experienced.

Research Question 4

Students were provided space to supply reason(s) for attending an institution of higher education in the United States and to describe their previous cross-cultural experiences. Seventy-eight respondents provided reasons for attending college in the United States. Two replied "don't know" and six did not respond to the question. Responses were grouped into eight different categories.

Table 11

*Reasons for Attending United States'
Institutions of Higher Education*

Response Grouping	N
Major area of concentration	24
Better opportunity/education	22
Scholarships in athletics or music	7
No availability in home country	6
Better future/job options	6
Learn English/meet diverse people	6
Family influence	3
Non-specific/miscellaneous	3
Don't know	2
No response	6
	N = 85

The categories for reasons attending a U.S. college included: major area of concentration/program of study (24), better opportunity/ better education (22), scholarships in athletics or music (7), no availability in home country (6), better future/job options (6), learn English/meet diverse people (6), family (3), and nonspecific/miscellaneous (3). Table 11 summarizes the grouped responses of reasons for attending an institution of higher learning in the United States.

Forty-six respondents supplied cross-cultural information for this open-ended question. Responses were grouped into seven different categories: those expressed cross-cultural experiences through travel or residence in other countries (17), interactions common from previous environment/home (6), and interaction/interpersonal contacts on campus (7). Ten described positive experiences such as “enlightening,” “interesting,” “very positive,” and “pleasant.” Four respondents expressed difficulties in their cross-cultural experiences including “religious customs not easy to follow,” and “people are unfriendly.” One student acquired cross-cultural experiences as a result of participating in collegiate athletics. One reported diplomatic experiences. Table 12 provides a brief summary of grouped responses for previous cross-cultural experiences.

Cross-cultural experiences were reported to be “pleasant,” “educational,” “contact with virtually every race,” “easily adaptable,” “interesting,” and “enlightening.” Several respondents related having roommates from other cultures and living with American families, thereby broadening their perspective.

Table 12

Summary of Grouped Responses for Previous Cross-Cultural Experiences

Response	N
Travel or residence in other countries	17
Interactions common from previous environment/home	6
Interaction/interpersonal contact on campus	7
Pleasant, positive influence	10
Difficulties in cross-cultural experiences	4
Athletics	1
Diplomatic experiences	1
	N = 46

Research Question 5

Descriptive statistics were performed to determine the mean, standard deviation, and highest percentage response for determining the affects of host country interaction.

Interest in other friends (4.25) and ease of interaction (3.92) were the two areas most often cited.

Regression analysis was performed to determine the amount of interaction with those in host country and ASSIS scores. Table 13 indicates $R = .481$, $R\text{ Squared} = .231$, $F = 3.535$, and the overall significance of .013. This shows there was a statistical significance for the perceived amount of interaction with those in host country and levels of stress

reported on the ASSIS, indicating lower stress levels for those with more interaction with host country natives.

Table 13

Means, Standard Deviation, and Percentages for Perceived Amount of Interaction with Host Country and ASSIS Scores

Characteristic	Mean	SD	Highest %
Interest in other friends	4.25	1.27	23.8% strongly agree
Ease of interaction	3.92	1.22	16.2% agree
School program opportunities	3.12	1.31	10.8% not sure
Comfort level with natives	3.90	1.19	16.2% agree

($p \leq .05$)

Dependent Variable: Score on ASSIS

R Squared .231 F Statistic 3.535 Sig. .013

Summary of Results

In summary, international students from non-English speaking countries experienced greater stress than those from English-speaking countries. Furthermore, students from countries with a greater cultural distance from the United States demonstrated the highest levels of stress according to the ASSIS scores. Statistical evidence supporting the *model of cultural distance* can be inferred from the evidence found in this research.

CHAPTER V
SUMMARY, FINDINGS, DISCUSSION, CONCLUSIONS, AND
RECOMMENDATIONS

Summary

Based on prior research, a new model of acculturation was presented and a study was conducted to support this model. The principle focus of this study was to provide evidence to support the paradigm of acculturation explained through cultural distances described as *cultural adequation*, *cultural lingualation*, and *cultural discordation*.

A survey was conducted at two south Florida institutions of higher learning. The targeted population was international students possessing an F-1 student visa. This group was chosen because they represented individuals migrating to this country for a temporary period of time to study in an institution of higher education in anticipation of returning to their homeland upon completion of their studies.

Two institutions of higher education were involved in the study. A total of 390 students were mailed surveys; 85 completed returns yielded a 22% return rate. Hence, $N = 85$. However, due to the size of the sample, generalizations to the entire population were not assumed. Regression analysis of independent and dependent variables was performed. Data analysis identified the autonomy of the independent variables and the impact of the dependent variables.

This research sought to provide support defending a new *model of cultural distances* as measured by different levels of acculturative stress. Independent variables were gender, age, length of time in the United States, graduate or undergraduate status, on or

off campus residency, English fluency, country of origin, and social distance and cultural experiences as determined by the amount of travel and/or living in different countries.

The discrete variables for country of origin and social distance between countries were grouped into one of three regions of 1) North America and English Speakers, 2) Latin America and Europe, and 3) Africa, Asia, and the Middle East.

The dependent variable was acculturative stress. The score obtained from the *Acculturative Stress Scale for International Students (ASSIS)*, (Sandhu & Asrabadi, 1994) was used to determine the dependent variable. This stress scale was further divided into six subscales representing: perceived discrimination, perceived hate, fear, homesickness, stress due to culture change, and guilt. A Likert scale of 1 to 5 ranking for each question determined the score for the stress scale. The total range of scores was 36 – 180 indicating higher stress levels as represented by a higher stress score.

Analysis of the independent variable for the amount of perceived interaction in host country and the dependent variable of the stress score on the ASSIS was performed. This analysis was specifically requested by one of the participating institutions.

Findings and Discussion

This research sought to provide evidence in support of a new paradigm or model explaining acculturation in terms of social distances from country of origin and host country. The independent variables were gender, age, time in U.S., graduate or undergraduate status, on/off campus residency, fluency of English, country of origin, social distance between countries, previous lived in/visited countries, broadness of cross-cultural experiences, and amount of interaction with those from host country. The dependent variable was the score on the Acculturative Stress Scale for International

Students. This stress scale was divided into six subscales consisting of perceived discrimination, perceived hate, fear, homesickness, stress of culture change, and guilt.

This investigation sought to provide research supporting a new *model of cultural distances*, which was measured by different levels of acculturative stress. The acculturative stress scale mean for this study was 82.84 with a standard deviation of 23.25. The original test performed by Sandhu and Asrabadi (1994) resulted with a stress score mean of 66.32 and standard deviation of 21.16. Kaul's (2001) acculturative stress score mean was 77.86 with a standard deviation of 20.79. Since the standard deviations are not widely disparate in these studies, there appears to be a pattern of increased acculturative stress reported by international students.

This particular study occurred during "Operation Iraqi Freedom." The onset of imminent war and recent terrorism alerts may explain increased levels of reported stress. Furthermore, the United States Center for Immigration and Naturalization's new policy implementations mandated colleges and universities to track international students. This may have heightened the stress levels for many foreign nationals attending institutions of higher education in the United States.

Research Question One established the relationships of the independent variables (age, gender, graduate or undergraduate status, length of time in the United States, on or off campus residency, and English fluency) upon the dependent variable (acculturative stress score). There appeared to be no statistical significance between age, gender, and scores on the ASSIS.

A marginal statistical significance (George & Mallery, 2001, p. 84) existed for the ASSIS score and the length of time in the United States concluding that stress scores

were reported lower for those spending more time in the United States. Adaptation to mainstream culture by acquiring knowledge, attitudes, norms, values, and behaviors resulting from direct contact with those in the host country is the acculturation process described by Cauce (2002). The evidence that acculturative stress lessens over time is indicative of this acquisition of knowledge, attitudes, norms, values, and behaviors in the host country. Furthermore, McEvoy-Jamil (1996) suggests international students develop their own social coping strategies and social networks as they acculturate over time.

Undergraduate students experienced higher levels of acculturative stress than graduate students. However, undergraduate students comprised 78% of the respondents; 22% were graduate students. Graduate students previously completing undergraduate studies in the United States suggests development of more *schemata*, that is, knowledge derived from previous experiences, and hence supports the very essences of Piaget's (1969) and Vygotsky's (1986) learning theories. This assumption rests on the motivation previously established by these students choosing to study in the United States.

Measurements indicated a statistically significant difference between ASSIS scores and location of residency. Off campus residents experienced higher stress levels than those living on campus. A higher comfort level of security and protection, as well as increased social interaction opportunities on campus, may account for differences in lower stress levels experienced by international students living on campus. The responsibilities for housing, meals, and transportation are more applicable to those students residing off campus. The burden of these decision-making and problem resolution issues may, in fact, add to increasing stress levels.

Tinto (1987) reported prioritizing concern for students through institutional policies and procedures so as to enhance student experiences. Tinto's Student Integration Theory (1987) emphasizes the "social match" of student to institution as determining reported levels of student satisfaction (Hundrieser, 1999). Extending these findings to the experiences of international students may help to explain why acculturative stress is less for those residing on campus. Pascarella (1984) concluded that students residing on campus experience significantly more satisfaction and attachment to the institution due to an increased amount of peer interaction and support, as well as, greater opportunity to develop a rapport with faculty (Hundrieser, 1999).

TOEFL scores were not statistically significant with ASSIS scores, although there was a marginal influence, indicating that the relationship is approaching statistical significance. Marginal statistical significance existed for Middle Eastern and Chinese/Japanese native speakers. Statistical significance for Chinese/Japanese native speakers demonstrated the highest ASSIS scores, indicating higher stress levels.

Research Question Two dealt with the relationship between the dependent variable, acculturative stress score, and the independent variable, country of origin. The cultural distance between countries was measured in order to provide support for the overall paradigm presented. Countries were grouped together in regions. Social distances between host and country of origin and acculturative stress score provided statistical significance once countries of origin were grouped into three categories: 1) North American English Speaking, 2) Latin American, European, and Caribbean, and 3) Asian, African, and Middle Eastern. The means supported higher stress reported from the Asian, African, and Middle Eastern areas, indicating greater cultural distance.

Analysis found that the independent variable, country of origin (now regions), did have an influence on the level of acculturative stress. Significant statistical evidence that stress levels were indeed greater, according to those regions described as being more culturally disparate, supported the literature and the *paradigm of cultural distances*. The Harrison and Harrington (2000) model of cultural variations may be applied here. English-speaking countries would become the grouping satisfying *cultural adequation*. The European and Latin American countries depict *cultural lingualation*. Asian, African and Middle-Eastern countries, located furthest from the English speaking countries, establish *cultural discordation*.

Country of origin and social distance between countries, when grouped in regions, revealed a definite effect on the dependent variable by examining the means. This is especially true for those in closer proximity to the host country, where second language learning is not a factor, hence lower stress levels. Learning models (Piaget, 1969; Vygotsky, 1978; Vygotsky, 1986; Bruner, 1986) that address knowledge built by previous experiences may be applied to these findings. Language learning, according to Straub (2002), supports the importance of schemata for language acquisition; "faulty schemata ends in misconception," (p. 30). Findsen (1987) addressed the concepts of adult educators, Dewey, Kolb, and Smith as part of a theoretical framework for his cross-cultural study of international student adjustment. Findsen's (1987) research indicated the significant effect of second language acquisition, acculturation, and academic performance.

Frey (2000) surveyed 125 White American and 143 international graduate students to examine acculturation, worldviews, and dissociative experiences or culture-bound

syndrome. Results from this research indicated international students' region of origin made a significant difference in their amount of culture-bound interactions. South Asian, Middle Eastern and Latin groups demonstrated stronger culture-related dissociations than the White American group. Implications from Frey's research indicate the importance of international students' region of origin and culture-bound interactions.

Research Questions Three and Four dealt with the amount of previously lived in or visited countries and the accompanying level of acculturative stress. Broader cross-cultural experiences were measured by the amount of other countries lived in or visited. Based upon analysis, the researcher provided evidence for the independent variable, amount of previously lived in or visited countries, as a factor in reducing the level of acculturative stress.

Limaye (2000) presented a *cognitive paradigm* whereby successful coping with diversity is achieved by learning about people from other cultures; and an *affective paradigm* that stimulates sensitivity and empathy toward other cultures (Samovar & Porter, 2000, p. 415). These *cognitive and affective paradigms* provide implications to support cross-cultural experiences and living in or visiting other countries are indicative of learning about people from other cultures while developing sensitivity and empathy.

Previously lived in or visited countries provided overall lower stress scores for those with greater experiences living/visiting other countries. Again, applicable learning models support these findings. Piaget's *constructivist* framework and Vygotsky's *scaffolding* are apparent in this analysis and support the lower stress levels occurring as a result of increased experiences and exposure to other cultural perspectives.

Broader cross-cultural experiences indicated a lower acculturative stress score; less cross-cultural experiences yielded higher acculturative stress levels. Once again, the learning models of Piaget (1969), Vygotsky (1986), and Bruner (1986) explaining knowledge as built upon by experiences, appears to directly apply. Findsen (1987) found international graduate students with minimum cross-cultural experiences demonstrated fewer personal interactions with host country.

Students described their cross-cultural experiences. Their comments were incorporated into this analysis, thereby providing additional description of students' perspectives. Descriptions of broader cross-cultural experiences provided an emic perspective from respondents. The grouped analysis of these descriptions provided additional evidence supporting the quantitative data resulting in lower levels of acculturative stress associated with increased cross-cultural experiences.

Responses to the open-ended question asking about cross-cultural experiences were grouped into seven different categories: those expressed cross-cultural experiences through travel or residence in other countries (17), interactions common from previous environment/home (6), and interaction/interpersonal contacts on campus (7). Ten described positive experiences such as "enlightening," "interesting," "very positive," and "pleasant." Four respondents expressed difficulties in their cross-cultural experiences including "religious customs not easy to follow," and "people are unfriendly." One student obtained cross-cultural experiences through athletic opportunities. One reported diplomatic experiences.

In Research Question Five, interaction in host country and levels of acculturative stress were examined. "Interest in other friends" and "ease of interaction" were the two

areas most reported upon by respondents when asked about interactions with the host country. Increased amounts of host country interactions yielded lower stress scores.

The amount of interaction in host country indicated lower scores on the acculturative stress scale when interaction with host country was perceived to be higher. Therefore, the host country plays an integral part in lessening acculturative stress. Clayton (1993) provided evidence of how important the receiving culture impacts the acculturation process. Positive support from the host country generated greater ease; hostility from host country yielded withdrawal from that culture (Clayton, 1993). Therefore, positive support appears to be a stress reducer for newcomers.

Chen and Starosta (2000) stated that the importance of empathy toward others and effective behavior results from positive attitudes. Application of Chen and Starosta's (2000) *intercultural sensitivity*, *intercultural awareness*, and *intercultural competence* by host country individuals may yet again help reduce the stress experienced by international students. These are the very real attitudes and mind-sets that those in higher education must begin to develop. *Intercultural sensitivity* employs an open-mind, empathy, and interactions that reserve judgment. *Intercultural awareness* initiates an understanding of how others think and behave. *Intercultural competence* develops as appropriate intercultural interactions progress.

Research by Slavin (1994) indicates that relationships in the classroom may be enhanced through cooperative learning, specifically, forming a base group at the start of a session and continuing throughout the term. Cooperative learning enhances student achievement while improving interactions and intergroup relationships. Students increase their opportunities for interaction, learn from peers, and achieve academic goals

as they learn to work together. Cross-cultural friendships develop when students effectively work together, changing the overall culture of the group (Slavin & Cooper, 1999). Creating a positive attitude for both host country students and international students may result in increased contact and positive adaptation, (Kosic, 2002). This prolonged opportunity for interaction over a period of time may help ease stress and contribute to the international students' overall comfort and welfare.

This model should not be viewed as strictly linear, but rather multidimensional in nature. The influence of variables examined in this study created a vision of a Venn diagram with three intersecting circles (Appendix D). The middle intersecting area represents *cultural adequation*. The adjoining area between any two circles represents *cultural lingualation*. And the remaining areas having no contact with any others would represent *cultural discordation*. The dimensions are created by the degrees and variety of those variables examined in this study as well as other variables: ethnicity, heritage, religious beliefs, bi-cultural influences, etc. which were not included in this study but may in fact significantly affect one's acculturation. This explains why the *paradigm of cultural distance* is different and not explained in any other previous model.

Conclusions

Cross-cultural experiences bring with them a plethora of impressions by those finding themselves in a new linguistically and culturally diverse environment. These impressions become more profound the further in distance a subject is from a target community or host country. This is not a distance in terms of miles, but one enveloping many variables. Most importantly, distance can be described more in terms of culture, language, and customs.

This study has attempted to demonstrate degrees of separation from one's own culture, language, and customs, when impacted by a new environment. The closer one is in these areas, the easier the acculturation will be to the new environment. "The distance between the culture of the sojourner and the culture of the host country is a crucial determinant of stress and coping . . . the greater the differences between visitors and hosts, the greater the mutual problems encountered," (Furnham & Bochner, 1986, p. 246).

The academic community in the United States needs to increase sensitivity to these stress levels in order to obtain for the visitor a positive learning experience in a new environment. This consists in much more than having the student learn about this country. It behooves those in the academic community, both faculty and fellow students to open themselves up to learning new cultures, languages, and ideas. Together, the experiences should be beneficial to all in both the academic and social environments.

There is a very real need for educators and professionals to learn about others' cultures as they share their own cultural perspectives. The needed experience is to enter a new phase of joint understanding so that all the participating members grow with little added stress.

Post-September 11 policy changes are greatly affecting today's international student applicants with longer wait times for interviews at U.S. Embassies abroad (Open Doors, 2003). Colleges and universities are required to meet new federal regulations for tracking international students, causing a backlog of paperwork with increasing stress experienced by foreign nationals presently enrolled in U.S. institutions of higher education.

Akomolafe (2003) documents the Patriot Act of 2001 as having a great impact on future international student populations. Educational opportunities in other countries

(U.K., Australia, and Canada) have become more enticing for foreign nationals seeking higher education in first world nations. Recent reports by institutions of higher education indicate more international students are being delayed by the extensive paperwork and increased wait-time for visa appointments, causing students to miss the opening of classes (Open Doors, 2003).

Areas of cross-cultural training for both institutions of higher education and lower levels of learning environments have a growing need to respond to international and multicultural clients. This study indicated international students expressed a desire for friends, ease of interaction, and comfort level with natives in host country.

“Opportunities presented by institutions of higher learning” represent an issue that most respondents indicated they were “not sure.” Implications are suggested that programs may not be available or students are not aware of what is offered.

Culture specific educational models provide insight for specified cultures. Other cultural groups glean understanding, acceptance, empathy, and functionality. Banks (1997) surmises “Citizens who have an understanding and empathy for the cultures within their own society are probably more likely to function effectively in cultures outside of their nation than citizens who do not have this knowledge,” (as cited in Diaz, 2001, p. 13).

Educators must be given time to examine their own multicultural knowledge base and become aware of the way they read behavior through their own cultural filters, (Bohn & Sleeter, 2001). By expanding their own cultural knowledge base, educators at all levels may then contribute to helping students build connections with what they know and are familiar. This is achieved through the many strategies designed to stimulate cross-

cultural interactions, expand experiences thought travel and interaction with other nationals, and embrace a positive attitude by creating a welcoming atmosphere, appreciation, and acceptance for the diversity prevalent in today's educational environments. When educators lack knowledge and understanding of the cultural basis from which their students originate, learning may be that much more difficult, adding to the already numerous stress factors. The social and historical factors that influence an immigrant's acculturation are, at best, referred to as a 'broad class of variables,' that are different and separate from psychological-individual level variables (Berry & Sam, 1997, p. 300). Therefore, all immigrants are uniquely influenced by any number of cultural variables.

In response, Morey (1998) suggests a framework for systemic change at the university level. This framework provides opportunity for faculty to expand both multicultural and international education by hiring those with expert knowledge in multicultural communication practices and educational approaches. In addition, there is a critical need to increase research and academic endeavors, design curriculum where teaching strategies embrace a global perspective, network with outside businesses, programs, and opportunities, and increase system-wide student diversity, (Morey, 1997). Multicultural educational strategies include relating past experiences to present teachings while students construct their knowledge, increase interactions with each other, and participate in classroom activities specifically designed to stimulate learning from each other. Student interactions occur through peer learning and cooperative learning approaches, and thus, create a new dynamic benefiting both teacher and students (Morey, 1997) for the purpose of increasing awareness and experiential retention. International students

provide new perspectives, as well as, increased comfort levels in their own acculturative experiences. Here, within the context of the university classroom, begins the systemic change intended to impact the global society.

Institutions of higher education must take hold of the reigns by implementing curricula as attitudes widen with proper training and knowledge. Selby (2000) declares “worldmindedness” a modern day requirement for survival in today’s global village. Understanding varied perspectives and viewpoints, and developing broader foundations for ideas to disseminate among a culturally diverse population, requires preparedness in globalization. Other programs designed to enhance peer involvement with international students and host country individuals may prove beneficial for all involved. Gaies (1985) supports designing programs not only to help improve skills of second language learners, but also to provide opportunity for host country individuals to interact and grow in cross-cultural communications and skills. This type of program would involve administrative support, teaching staff, clerical assistance, tutors, facilities, and funding issues to defend a positive image and be in support of such a program (Gaies, 1985). Again, systematic change at all levels in institutions of higher education is imperative.

As business drives the direction toward which we proceed, global education and social skills training are becoming invaluable and necessary to manage diversified work forces, and multinational corporations. The *paradigm of cultural distances* resulting from this research may provide one more broadening perspective for which business leaders may understand their associates. “Whatever the amount of cultural distance, it does affect the responses of all people to business-related issues,” (Newstrom & Davis, 2002, p. 404).

Our global village is becoming smaller. "As we evolve from a post-industrial culture to an information culture . . . envision knowledge as culture . . . knowledge is a powerful force, creating and affecting culture's attitudes and forms," (Harris & Moran, 2000, p. 19). Educators face the task of enhancing students' experiences by opening the door to different languages, cultures, and perspectives, (Gomez, 1991).

It is possible that all people experience, at some time, the opportunity to acculturate between cultures, schools, organizations, environments, and other areas creating change throughout their lives. For example, each class may be deemed to possess its own unique personality, (i.e., cultural practices). Each individual classroom environment will contribute to the individual's comfort level. This represents an extremely important opportunity for the faculty person to contribute to the creation of positive and supportive individual student relationships within the larger group. So it is, within this context, that the process of acculturation occurs. Those situations closest and most familiar fall into the *cultural adequation* level. This level is supported once again by learning theories (Piaget, 1969; Vygotsky & Bruner, 1986) presented whereby broader experiences yield less stress in adjusting. Learning to adapt or even acculturate to changes occurs best as one accumulates more experiences, which increases the *schematic* base. One *scaffolds* upon what is learned and experienced, and as a result, develops new knowledge and understanding. Implications arise based on Piaget and Vygotsky's learning theories. It is anticipated that as skills are learned from experiences of transition and its associated stresses, they will be applied for successful interactions within or outside our own culture, (Storti, 1990).

The American Council on Education has noted “the global transformations of the last decade have created an unparalleled need in the United States for expanded international knowledge and skills,” (Hebel, 2002, p. 1). Hence, there is a seemingly unheard cry for increased foreign language development and international educational opportunities. *Cultural linguistic* distance is the prime reason for our educational programs to embark on extensive second language learning in our programs.

Understanding the extreme of *cultural discordation* helps educators and business leaders alike to take off the blinders and as to begin developing a deeper perspective of culturally based norms.

Expatriate managers naturally tend to be somewhat ethnocentric and to judge conditions in a new country according to the standards of their homeland. These problems will be magnified if the cultural distance is great. Nevertheless, expatriates must be adaptable enough to integrate the interests of the two or more cultures involved, (Newstrom & Davis, 2002, p. 404).

It would seem, therefore, that one of the major assets a company should seek out in expatriate managers would be that they are not ethnocentric or judgmental regarding conditions in a new country.

Recommendations for Future Research

This research sought to provide support for a new paradigm of acculturation based upon social distances and the amount of cross-cultural experiences. Descriptive data was obtained to provide an emic perspective relating cross-cultural experiences impacted by scores on the acculturative stress scale. This study specifically focused on the independent variables of gender, age, length of time in the United States, graduate or

undergraduate status, on/off campus residency, English fluency, country of origin, previous lived in/visited countries, cross-cultural experiences and the amount of interaction with host country, and the affects these have on the level of acculturative stress. Other independent variables such as program of study, other immigrant visa status, or specific immigrant populations (e.g., Asians appeared to be more stressed in this study) provide the following challenges for future research.

1. It is suggested this study be duplicated using other institutions of higher education in other regions of the United States or in other host countries. A broader sample population would definitely enhance the evidence to support the model presented.
2. Further studies, specifically qualitative in design, are highly recommended to provide support for the model presented. Given the steady increase of international students, with India and China supplying the highest percentage of students, results from additional studies would certainly benefit from future research. Adding to the body of knowledge for acculturation of international students or other immigrant populations would present additional research on the presented paradigm.
3. Research conducted with multicultural student populations in elementary and secondary school environments would provide an additional perspective from students in order to provide a greater knowledge base for those interacting with those student populations.
4. Organizations in business environments provide fertile ground for future research since workforces are becoming more culturally diverse and

globalization of markets and business practices continue to increase. Studies should be conducted benefiting multicultural work forces. Chang (1996) provides an organizational diversity success model comprised of four stages: creating a diversity vision, building organizational awareness and commitment, ensuring work force capability, and reinforcing on an on-going basis. There is a great need for research benefiting multicultural organizations and international operatives in every area of today's global business markets.

5. This research was conducted with the backdrop of United States cultural perspectives and point of origin for determining cultural social distances. There are many other models that may be developed using other nations as the point of origin. The social distances between other countries would provide interesting data in support of a more global application of the proposed *paradigm of social distances*.
6. Studies in other countries hosting international students would help identify the acculturative stress students from the United States experience. Comparisons incorporating U.S. students abroad provide yet another perspective for future research.

Recommendations for Practice

The academic community in the United States has an opportunity to become more fine-tuned to stress levels in order to obtain a positive learning experience for visitors coming into this new environment. Programs should be developed so that those in the academic community, both faculty and students, practice ways in which they can

themselves learn new cultures, languages, and ideas. This will benefit everyone academically and socially.

1. Programs and training for staff specifically designed to gain deeper understanding so as to better meet needs of a diverse student body are imperative. Students at all levels arrive from various places with various proficiencies whose cultures may be significantly different. The responsibility falls upon educators and professionals to develop workshops and other learning programs where experiences embrace both visiting and host country perspectives, thereby producing a new phase of joint understanding.
2. Opportunities should be made available to enhance social interactions between international students and host country individuals. This study demonstrated that international students desire the opportunity to make new friends in their host country and to comfortably interact cross-culturally. Institutions of higher learning should capitalize on this opportunity for implementing cross-cultural experiences, achieved through mentoring programs, classroom practices, and social and academic gatherings. Not only would international students glean a comfort level of ease to minimize stress, but also host country individuals would gain exposure, broader perspective, and greater empathy for these brave individuals.
3. Curriculum development, peer learning, teacher strategies implementing cooperative learning, and second language acquisition are areas for expansion within academia. Setting goals to acquire the highest levels of positive learning

experiences will enable international students and host country individuals to expand their cross-cultural perspectives.

4. The responsibility for institutions of higher education is to adopt policies requiring international students on-campus residency, in an effort to minimize stressful situations. Pre-arrival orientations and early arrival sessions would greatly benefit these international students.
5. More attention to developing host country awareness and empathy for faculty and staff, as well as present students, should be prioritized for any institution inviting *culturally discordant* students.
6. Implications and findings of this study may serve as an additional foundation in the development of future human resource management programs (HRM). Specific areas of interest include: employee selection, training and development, and managing a culturally diversified work force.

So where do we go from here? How do we develop culturally malleable individuals with the ability to operate at optimal levels of productivity and communications? "The next major advance . . . will be directed at improving inter-group relations through a systematic application of new models, ideas, and techniques that are currently being developed," (Furnham & Bochner, 1986, p. 252). This study serves, in part, as a new model to promote and demonstrate a critical need based on the findings for intercultural social-skills training and knowledge expansion in response to this calling.

BIBLIOGRAPHY

- Akomolafe, S. (2003). Caught in the crossfire: National security, international students and the war on terrorism. Retrieved on-line April 3, 2002, from *Institute of International Education*.
- Ansari, F. P. (1996). Assessing the validity of the acculturative stress scale for international students (ASSIS). Unpublished master's thesis, Middle Tennessee State University, Murfreesboro, TN.
- Aubrey, R. (1991). International students on campus: A challenge for counselors, medical providers, and clinicians. *Smith College Studies in Social Work*, 62(1), 20-33.
- Banks, J. A. (1997). *Teaching strategies for ethnic studies* (6th ed.). Boston: Allyn and Bacon.
- Berry, J. W. (1980). Acculturation as varieties of adaptation. In A. Padilla (Ed.), *Acculturation: Theory, models, and some new findings* (pp. 9-25). Boulder, CO: Westview.
- Berry, J. W. (1985). Psychological adaptation of foreign students in Canada. In R. Samuda & A. Wolfgang (Eds.), *Intercultural counseling* (pp. 235-248). Toronto: Hogreffe.
- Berry, J. W. (1990). Cultural variations in cognitive style. In S. Wapner (Ed.), *Bio-psycho-social factors in cognitive style* (pp. 289-308). Hillsdale, NJ: Earlbaum.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review*, 46, 5-68.
- Berry, J. W. (1998). Acculturative stress. In P. B. Organista, K. M. Cren, & G. Marin (Eds.), *Readings in ethnic psychology* (pp. 117-122). New York: Routledge.

- Berry, J. W., & Cavalli-Sforza, L. L. (1986). *Cultural and genetic influences on Inuit art*. Unpublished report.
- Berry, J. W., & Sam, D. (1997). Acculturation and adaptation. In J. W. Berry, M. Seagull, & C. Kagitcibasi (Eds.), *Handbook of cross-cultural psychology: Vol. 3. Social behavior and applications* (pp. 291-326). Needham Heights, MA: Allyn and Bacon.
- Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review*, 21, 491-511.
- Berry, J. W., Kim, U., Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology*, 38, 185-206.
- Berry, J. W., Poortinga, Y. H., Segall, M. H., & Dasen, P. R. (1992). *Cross-cultural psychology: Research and applications*. New York: Cambridge University Press.
- Bhatia, S., & Ram, A. (2001). Rethinking 'acculturation' in relation to diasporic cultures and postcolonial identities. *Human Development*, Jan/Feb 2001. Retrieved on-line September 27, 2002, from Proquest database.
- Bleichmar, A. P. (1998). Cross-cultural training for foreign students in the context of the international student office (Doctoral dissertation, Massachusetts School of Professional Psychology, 1998). *Dissertation Abstracts International*, 59, 1894.
- Blumer, H. (1967/1986). *Symbolic interactionism: Perspective and method*. Englewood Cliffs, NJ: Prentice Hall.
- Bohn, A. P., & Sleeter, C.E. (2001). Will multicultural education survive the standards movement? *Educational Digest*, Jan. 2001, 17-24.
- Brink, P., & Saunders, J. M. (1976). *Transcultural nursing: A book of readings*. Englewood Cliffs, NJ: Prentice-Hall.

- Brown, H. D. (1994). *Principles of language learning and teaching*, (3rd ed.). San Francisco, CA: Prentice Hall Regents.
- Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Buseh, A. G., McElmurry, B. J., & Fox, P. G. (1997). *A description of the acculturative stress process and the emotional health status of Liberian male immigrants in a large Midwestern U.S. city*. Unpublished manuscript.
- Camilleri, C., & Malewsak-Peyre, H. (1997). Socialization and identity strategies. In J. W. Berry, P.R. Dasen, & T.S. Saraswathi (Eds.), *Handbook of cross-cultural psychology: Vol 2. Basic processes and human development* (2nd ed. pp. 41-67). Needham Heights, MA: Allyn and Bacon.
- Cauce, A. M. (2002). Examining culture within a quantitative empirical research framework. *Human Development*, Jul/Aug 2002. Retrieved on-line September 27, 2002, from Proquest database.
- Chang, R. Y. (1996). *Capitalizing on workplace diversity*. San Francisco: Jossey-Bass Pfeiffer.
- Charles, C. M., & Mertler, C. A. (2002). *Introduction to educational research* (4th ed.). Boston: Allyn and Bacon.
- Clayton, J. B. (1993). Your land, my land: The process of acculturation for four international students in an elementary school setting in the United States (Doctoral dissertation, Boston University, 1993). *Dissertation Abstracts International*, 54, 0442.

- Colston, G. (1994). Relationship of selected variables to the acculturation process of South Korean graduate students (Doctoral dissertation, Mississippi State University, 1994). *Dissertation Abstracts International*, 55, 1474.
- Cox, J. (1977). Aspects of transcultural psychiatry. *British Journal of Psychiatry*, 130, 211-221.
- Chen, G. M., & Chung, J. (2000). The 'five Asian dragons:' Management behaviors and organizational communication. In L. A. Samovar & R. E. Porter (Eds.), *Intercultural communication: A reader*. Belmont, CA: Wadsworth Publishing Company.
- Chen, G. M., & Starosta, W. J. (2000). Intercultural sensitivity. In L. A. Samovar & R. E. Porter (Eds.), *Intercultural communication: A reader*. Belmont, CA: Wadsworth Publishing Company
- Coke, J., Bateson, C., & McDavis, K. (1978). Empathetic meditation of helping: A two-stage model. *Journal of Personality and Social Psychology*, 36, 752-766.
- Cross, S. E. (1995). Self-construals, coping, and stress in cross-cultural adaptation. *Journal of Cross-Cultural Psychology*, 26(6), 673-697.
- DeTurk, S. (2001). Intercultural empathy: Myth, competency, or possibility for alliance building? *Communication Education*, Oct. 2001. Retrieved on-line February 7, 2002, from Proquest database.
- Diaz, C. F. (2001). *Multicultural education for the 21st century*. New York: Addison-Wesley Educational Publishers, Inc.
- Findsen, B. C. (1987). The process of international graduate student adjustment (North Carolina) (Doctoral dissertation, North Carolina State University, 1987). *Dissertation Abstracts International*, 48, 2822.

- Frey, M. L. (2000). Differences in acculturation, worldviews, and ratings of dissociative experiences: A cross-cultural comparison of White American students and international students from developing nations. (Doctoral dissertation, The University of Nebraska – Lincoln, 2000). *Dissertation Abstracts International*, 61, 3841.
- Furnham, A., & Bochner, S. (1986). *Culture shock: Psychological reactions to unfamiliar environments*. New York: Methuen.
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research* (6th ed.). New York: Addison Wesley Longman.
- Gaies, S. J. (1985). *Peer involvement in language learning*. Orlando, Florida: Harcourt Brace Jovanovich.
- George, D., & Mallery, P. (2001). *SPSS for windows step by step: A simple guide and Reference*, (10.0 update). Boston: Allyn and Bacon.
- Gholamrezaei, A. (1996). Acculturation and self-esteem as predictors of acculturative stress among international students at the University of Wollongong (Australia). *Dissertation Abstracts International*, 57, 6648A. (University Microfilms No. AAG0597573)
- Gibson, M. A. (2001). Immigrant adaptation and patterns of acculturation. *Human Development*, Jan/Feb 2001. Retrieved on-line September 27, 2002, from *Proquest Database*.
- Gomez, R. A. (1991). *Teaching with a multicultural perspective*. ERIC Clearinghouse on Elementary and Early Childhood Education. Retrieved online January 8, 2002, from *ERIC Database*.

- Gudykunst, W. & Bond, M. H. (1997). Intergroup relations. In J. W. Berry, M. H. Segall, & C. Kagitcibasi (Eds.), *Handbook of cross-cultural psychology: Vol 3. Social behavior and applications*. (2nd ed., pp. 119-161). Needham Heights, MA: Allyn and Bacon.
- Hall, E. T. (1990). *The silent language*. New York: Anchor Books.
- Harris, P. R., & Moral, R. T. (2000). *Managing cultural differences: Leadership strategies for a new world of business*. Houston, TX: Gulf Publishing Company.
- Harrison, L. E., & Huntington, S. P. (2000). *Culture matters: How values shape human progress*. New York: Basic Books.
- Hebel, S. (2002). Higher-education groups urge U.S. to make teaching of global affairs a priority. *The Chronicle of Higher Education* May 13, 2002. Retrieved online May 15, 2002, from the *Chronicle of Higher Education* website.
- Hener, T., Weller, A., Shor, A. (1997). Stages of acculturation as reflected by depression reduction in immigrant nursing students. *The International Journal of Social Psychiatry*, Winter, 1997. Retrieved on-line October 15, 2002, from Proquest database.
- Hermans, J. M., & Kempen, H. J. G. (1998). Moving cultures: The perilous problems of cultural dichotomies in a globalizing society. *American Psychologist*, 53, 111-1120.
- Hertz, D. (1993). Bio-psychosocial consequences of migration stress: A multidimensional approach. *Israel Journal of Psychiatry and Related Sciences*, 30, 204- 212.
- Hofstede, G. (1980). *Culture's consequences: International differences in work related values*. Newbury Park, CA: Sage.

- Hofstede, G. (1986). Cultural differences in teaching and learning. *International Journal of Intercultural Relations*, 10, 301-320.
- Hundrieser, J. M. (1999). *Traditional college freshmen's ratings of levels of satisfaction with and importance of university services and their relationship to gender, residency, involvement and grade point average*. (Doctoral Dissertation, Barry University).
- Institute of International Education. (2003). *Open Doors: report on international educational exchange*. Retrieved on-line April 3, 2002, from *Institute of International Education* website.
- Johnson, R. B. (1994). Qualitative research in education. *SRATE Journal*, 4(1), 3-7.
- Kagitcibasi, C. (1997). Individualism and collectivism. In J. W. Berry, M. H. Seagull, & C. Kagitcibasi (Eds.), *Handbook of cross-cultural psychology Vol 3 Social behavior and applications*. (2nd ed., pp. 1-49), Needham Heights, MA: Allyn and Bacon.
- Kaul, A. (2001). Predictors of positive adaptation among international students in the United States (Doctoral Dissertation, The University of Memphis, 2001). *Dissertation Abstracts International*, 62, 4790.
- Kiefer, C. W. (1974). *Changing cultures, changing lives*. San Francisco, CA: Jossey-Bass.
- Kosic, A. (2002). Acculturation attitudes, need for cognitive closure, and adaptation of immigrants. *The Journal of Social Psychology*. Retrieved on-line September 27, 2002, from *Proquest* database.
- LaFromboise, T., Coleman, L. K., & Gerton, J. (1998). Psychological impact of biculturalism: Evidence and theory. In P. B. Organista, K. M. Cren, & G. Marin (Eds.), *Readings in ethnic psychology* (pp. 123-155). New York: Routledge.

- Leong, F. T. L., & Chou, E. L. (1996). Counseling international students. In P. B. Petersen, J. G. Draguns, W. J. Lonner, & J. E. Trimble (Eds.), *Counseling across cultures* (4th ed., pp. 210-242). Thousand Oaks, CA: Sage.
- Limaye, M. R. (2000). Managing cultural diversity in the American workplace. In L. A. Samovar & R. E. Porter (Eds.), *Intercultural communication: A reader*. Belmont, CA: Wadsworth Publishing Co.
- Mathews, G. (2000). *Global culture/individual identity: Searching for home in the cultural supermarket*. London: Routledge.
- McEvoy-Jamil, P.A. (1996). Acculturation, second language acquisition, and academic environment: A new-ethnographic case study of an international student's coping strategies and academic achievement (Doctoral dissertation, University of San Francisco, 1996). *Dissertation Abstracts International*, 57, 3368.
- Mendoza, R. (1989). An empirical scale to measure type and degree of acculturation in Mexican-American adolescents and adults. *Journal of Cross-Cultural Psychology*, 20, 372-385.
- Michailidis, M. P. (1996). A study of factors that contribute to stress within international students (Acculturation). *Dissertation Abstracts International*, 57, 2333A. (University Microfilms No. AAG 9635183)
- Mitchell, N. A. (2001). The relationship among acculturation, wellness, and academic self-concept in Caribbean American adolescents (Doctoral dissertation, The University of North Carolina at Greensboro, 2001). *Dissertation Abstracts International*, 62, 4075.

- Morey, A. I. (2000). Changing higher education curricula for a global and multicultural World. *Higher Education in Europe*, April 2000, 25(1), 25-40. Retrieved April 9, 2002, from *Academic Search Premier* database.
- Newstrom, J. W., & Davis, K. (2002). *Organizational behavior: Human behavior at Work* (11th ed.). New York: McGraw-Hill Companies, Inc.
- Niehoff, B. P., Turnley, W. H., Yen, H. J. R., & Sheu, C. (2001). Exploring cultural differences in classroom expectations of students from the United States and Taiwan. *Journal of Education for Business*. May/June 2001. Retrieved January 20, 2002, from *Proquest* database.
- Ninggal, M. T. (1998). The role of ethnicity among international students in adjustment to acculturative stress. (Doctoral dissertation, Western Michigan University, 1998). *Dissertations Abstracts International*, 59, 0738.
- Pascarella, E. T. (1984). Reassessing the effects of living on campus versus commuting to college: A causal modeling approach. *Review of Higher Education*, 7, 247-260.
- Oh, Y., Koeske, G. F., and Sales, E. (2002). Acculturation, stress, and depressive symptoms among Korean immigrants in the United States. *The Journal of Social Psychology*, August 2002. Retrieved on-line September 27, 2002, from *Proquest* database.
- Ozbay, Y. (1993). An investigation of the relationship between adaptational coping process and self-perceived negative feelings on international students (acculturation) (Doctoral dissertation, Texas Tech University, 1993). *Dissertation Abstracts International*, 54, 2958.

- Patterson, O. (2000). Taking culture seriously: A framework and an Afro-American illustration. In Harrison, L.E. & Huntington, S.P. (Eds.), *Culture matters: How values shape human progress*. New York: Basic Books.
- Piaget, J. (1969). *The psychology of intelligence*. NJ: Littlefield, Adams.
- Plog, F., & Bates, D.G. (1976). *Cultural anthropology*. New York: Alfred A. Knopf.
- Redfield, R., Linton, R., & Herskovits, M. J. (1936). Memorandum for the study of acculturation. *American Anthropologist*, 38, 149-152.
- Redmond, M. V., & Bunyi, J. M. (1993). The relationship of intercultural communication competence with stress and the handling of stress as reported by international students. *International Journal of Intercultural Relations*, 17, 235-254.
- Sadrossadat, S.J. (1995). Psycho-social and cultural adjustment among international students at the University of Wollongong (Australia) (Doctoral dissertation, University of Wollongong, Australia, 1995). *Dissertation Abstracts International*, 56, 2388.
- Sandhu, D. S. (1993). Making the foreign familiar. *American Counselor*, 2(2), 22-25.
- Sandhu, D. S., & Asrabadi, B.R. (1994). Development of an acculturative stress scale for international students: Preliminary findings. *Psychological Reports*, 75, 435-448.
- Sandhu, D. S., & Asrabadi, B. R. (1998). An acculturative stress scale for international students: A practical approach to stress measurement. In C. P. Zalaquett & R. J. Wood (Eds.), *Evaluating stress: A book of resources, Vol. II*. Scarecrow Press, Inc.
- Selby, D., & Pike, G. (2000). Civil global education: Relevant learning for the twenty-first century. *Convergence*, 33(1-2), 138-49. Retrieved on-line April 9, 2002, from *First Search Database*.

Schumann, J. H. (1976). Social distance as a factor in second language acquisition.

Language Learning, 26, 135-143.

Slavin, R. E. (1996). Research on cooperative learning and achievement: What we

know, what we need to know. *Contemporary Educational Psychology*, 21, 43-69.

Slavin, R. E. (1999). Improving intergroup relations: Lessons learned from cooperative

Learning programs. *Journal of Social Issues*, 55(4), 647-663.

Smith, A. J. M. (2001). International students at university in the United States: Faculty

perceptions of instructional difficulties and effective instructional strategies (Doctoral

dissertation, Georgia State University, 2001). *Dissertation Abstracts International*, 62,

2675.

Storti, C. (1990). *The art of crossing cultures*. Yarmouth, ME: Intercultural Press, Inc.

Straub, H. W. (2002). Cultural key to comprehension. *Language Magazine*, May 2002,

30-31.

Tinto, V. (1987). *Leaving college*. Chicago: University of Chicago.

Toloyan, K. (1996). Rethinking diaspora(s): Stateless power in the transnational

moment. *Diaspora*, 5, 3-35.

Tompkins, G. E. (1998). *Language arts: Content and teaching strategies*. (4th ed.).

Upper Saddle River, NJ: Prentice-Hall, Inc.

Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.

Vygotsky, L. S. (1986). *Thought and language*. Cambridge, MA: Harvard University

Press.

Appendix

Appendix A

Frequency Distribution of Students by Country of Origin

Country of Origin	Frequency	Region
Argentina	3	2
Bahamas	6	2
Bangladesh	1	3
Belize	1	2
Botswana	1	3
Brazil	4	2
Bulgaria	2	2
Canada	1	1
Columbia	3	2
Cyprus	1	2
Ecuador	1	2
England	1	1
Germany	1	2
Haiti	2	2
India	1	3
Ireland	2	1
Israel	1	3
Italy	1	2
Jamaica	2	2
Japan	2	3
Kenya	1	3
Kingdom of Bahrain	1	3
Mexico	2	2
Netherlands Antilles	3	2
Nicaragua	1	2
Peru	1	2
Romania	3	2
Russia	1	3
Serbia	1	2
South Africa	2	3
St. Maarten	3	2
St. Vincent	1	2
Sweden	4	2
Switzerland	1	2
Taiwan	6	3
Trinidad & Tobago	6	2

Turkey	2	3
Uganda	1	3
Venezuela	6	2
Vietnam	1	3
?	1	
N =	85	

Regions: North America and English Speaking = 1
Europe, Latin America, and Caribbean =2
Africa, Asia, and Middle East =3

Appendix B
INSTRUCTIONS

1. Please print each of your responses.
2. **Section One** requests background data about you.
Please take your time in responding.
3. **Section Two** consists of a series of questions. Please enter a value from 1 (strongly disagree) through 5 (strongly agree).
4. When you have completed your responses, please place both **Section One** and **Section Two** in the enclosed stamped envelope.
Mail envelope with both responses enclosed.
5. Under **NO CIRCUMSTANCES** will your responses be shared or known to anyone else.
6. Please complete and mail by March 19, 2003.

SECTION ONE

1. Please check one:

_____ Male
_____ Female

2. What year were you born?

3. Are you:

_____ Married
_____ Single

4. How long have you been
in the United States?

_____ years _____ months

5. Why are you studying in the United States?

How long have you been enrolled?

_____ years _____ months

Number of credits earned

Program/major area of
concentration

6. Level of study (check one)

Undergraduate _____

Graduate _____

If English is your first or native language, please continue with SECTION TWO. If English is NOT your primary language, please complete Questions 14 - 16, then go on to SECTION TWO.

14. How long has English been the main language for you in classroom instruction?

- _____ less than one year
_____ one year to two years
_____ more than two years

15. How long (years) have you communicated in English for

- _____ Primary learning activities
_____ Personal and social communication

16. What was your score on your most recent TOEFL exam?

SECTION TWO
Acculturative Stress Scale for International Students

As international students have to make a number of personal, social, and environmental changes upon arrival in a strange land, this *culture-shock* experience might cause them acculturative stress. This scale is designed to assess such acculturative stress you personally might have experienced. There are no right or wrong answers. However, for the data to be meaningful, please answer each statement below as honestly as possible.

For each of the following statements, please circle the number that BEST describes your response.

1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, and 5 = strongly agree

- | | |
|---|-----------|
| 1. Homesickness for my country bothers me. | 1 2 3 4 5 |
| 2. I feel uncomfortable to adjust to new foods and/or to new eating habits. | 1 2 3 4 5 |
| 3. I am treated differently in social situations. | 1 2 3 4 5 |
| 4. I feel rejected when people are sarcastic toward my cultural values. | 1 2 3 4 5 |
| 5. I feel nervous to communicate in English. | 1 2 3 4 5 |
| 6. I feel sad living in unfamiliar surroundings here. | 1 2 3 4 5 |
| 7. I feel for my personal safety because of my different cultural background. | 1 2 3 4 5 |
| 8. I feel intimidated to participate in social activities. | 1 2 3 4 5 |
| 9. Others are biased toward me. | 1 2 3 4 5 |
| 10. I feel guilty to leave my family and friends behind. | 1 2 3 4 5 |
| 11. Many opportunities are denied to me. | 1 2 3 4 5 |
| 12. I feel angry that my people are considered inferior here. | 1 2 3 4 5 |

13. I feel overwhelmed that multiple pressures are placed upon me after my migration to this society. 1 2 3 4 5
14. I feel that I receive unequal treatment. 1 2 3 4 5
15. People from some ethnic groups show hatred toward me nonverbally. 1 2 3 4 5
16. It hurts when people don't understand my cultural values. 1 2 3 4 5
17. I am denied what I deserve. 1 2 3 4 5
18. I have to frequently relocate for fear of others. 1 2 3 4 5
19. I feel low because of my cultural background. 1 2 3 4 5
20. I feel rejected when others don't appreciate my cultural values. 1 2 3 4 5
21. I miss the country and people of my national origin. 1 2 3 4 5
22. I feel uncomfortable to adjust to new cultural values. 1 2 3 4 5
23. I feel that my people are discriminated against. 1 2 3 4 5
24. People from some other ethnic groups show hatred toward me through their actions. 1 2 3 4 5
25. I feel that my status in this society is low due to my cultural background. 1 2 3 4 5
26. I am treated differently because of my race. 1 2 3 4 5
27. I feel insecure here. 1 2 3 4 5
28. I don't feel a sense of belonging (community) here. 1 2 3 4 5
29. I am treated differently because of my color. 1 2 3 4 5
30. I feel sad to consider my people's problems. 1 2 3 4 5
31. I generally keep a low profile due to fear from other ethnic groups. 1 2 3 4 5

32. I feel some people don't associate with me because of my ethnicity. 1 2 3 4 5
33. People from some other ethnic groups show hatred toward me verbally. 1 2 3 4 5
34. I feel guilty that I am living a different lifestyle here. 1 2 3 4 5
35. I feel sad leaving my relatives behind. 1 2 3 4 5
36. I worry about my future for not being able to decide whether to stay here or to go back. 1 2 3 4 5

Appendix C

Differences in Teacher/Student and Student/Student Interaction Related to the Individualism versus Collectivism Dimension (Hofstede 1986)

Collectivist Societies

- *positive association in society with whatever is rooted in tradition
- *the young should learn; adults cannot accept student role
- *students expect to learn how to do
- *individual students will only speak up in class when called upon personally by the teacher
- *individuals will only speak up in small groups
- *large classes split socially into smaller, cohesive subgroups based on particularist criteria (e.g., ethnic affiliation)
- *formal harmony in learning situations should be maintained at all times
- *neither the teacher nor any student should ever be made to lose face
- *education is a way of gaining prestige in one's social environment and of joining a higher status group
- *diploma certificates are important and displayed on walls
- *acquiring certificates even through (dubious) means is more important

Individualist Societies

- *positive association in society with whatever is "new"
- *one is never too old to learn; "permanent education"
- *students expect to learn how to learn
- *individual students will speak up in class in response to a general invitation by the teacher
- *individuals will speak up in large groups
- *subgroupings in class vary from one situation to the next based on universalist criteria (e.g., the task "at hand")
- *confrontation in learning situations can be salutary; conflicts can be brought into the open
- *face-consciousness is weak
- *education is a way of improving one's economic worth and self-respect based on ability and competence
- *diploma certificates have little symbolic value
- *acquiring competence is more important than acquiring certificates

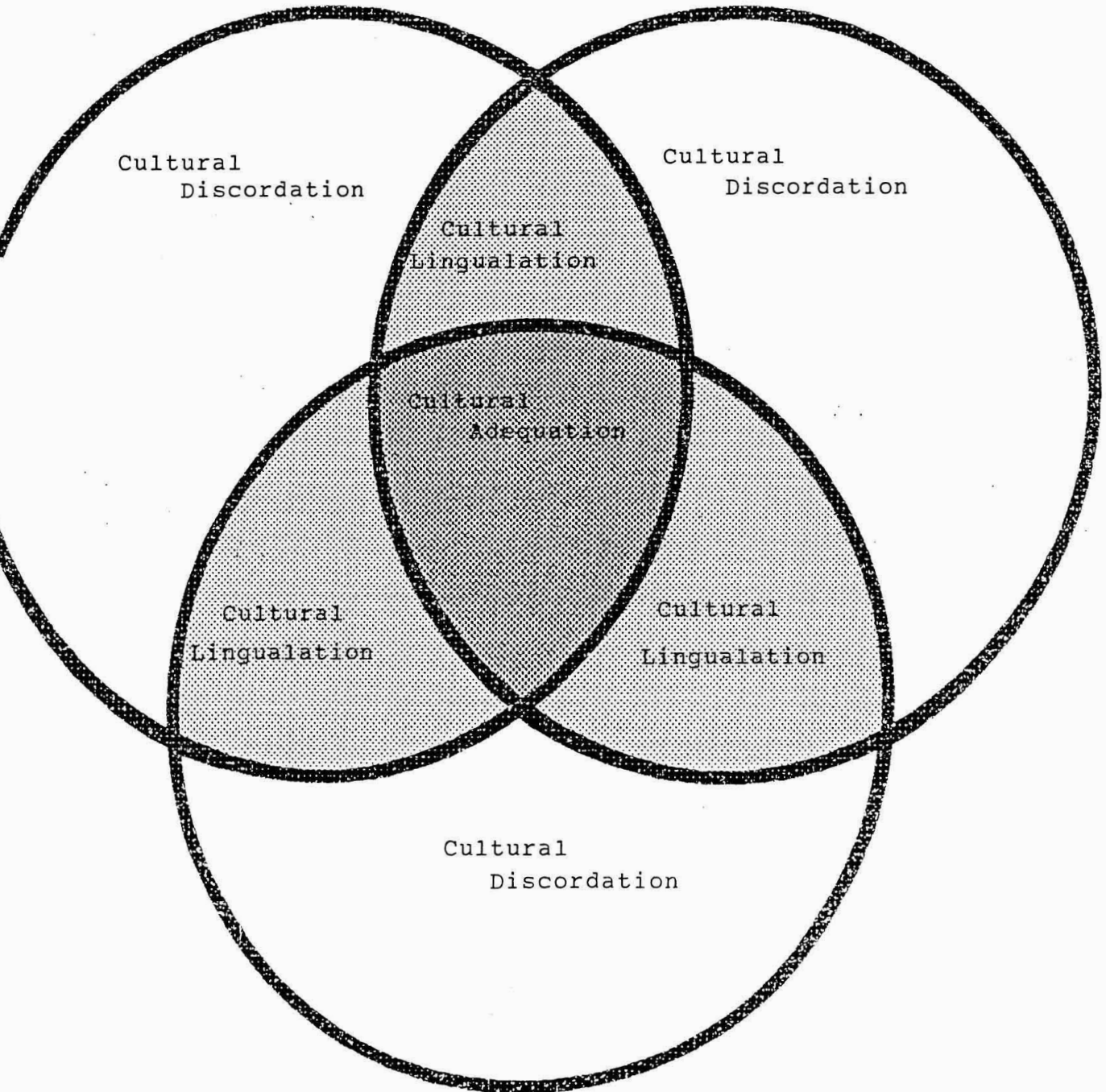
than acquiring competence

***teachers are expected to give preferential treatment to some students (e.g., based on ethnic affiliation or on recommendation by an influential person**

***teachers are expected to be strictly impartial**

Appendix D

Paradigm of Cultural Distances



LYNN UNIVERSITY
BOCA RATON, FLORIDA

January 21, 2003

Lisa Knowles
[REDACTED]

Re: IRB Review – 2002-009

Dear Lisa,

I have received the requested information for your proposal entitled “Acculturation Disparity: An Emic Perspective from International Students in Selected United States Institutions of Higher Education”. You are approved to begin your research.

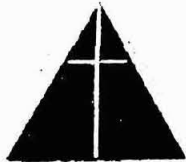
If you have any questions, please feel free to call me at [REDACTED]

Good Luck with your project.

Sincerely,
[REDACTED]

Karen Casey-Acevedo, Chair
Institutional Review Board

Cc: Dissertation Chair



St. Thomas University

16400 N.W. 32nd Ave., Miami, Florida 33054

Proposal Approval Form
Institutional Review Board (IRB) - Human Participants in Research

PRINCIPAL INVESTIGATOR(S): Lisa Knowles and Cheryl Serrano

PROJECT TITLE: Acculturation stress among International College Students

In accordance with St. Thomas University policy and national guidelines governing the ethical use of human participants in research, the university Institutional Review Board certifies that the above stated project:

X being exempt from full review was peer reviewed by the IRB under the expedited review process and in its original form was:

_____ was revised according to suggestions made by the IRB to the investigators and was

_____ being subject to a full review by the IRB was

REVISION REQUESTED ON _____

APPROVED ON 2/7/2003

DISAPPROVED ON _____

A follow-up progress report should be submitted to the IRB by one year from the date of approval. Investigators may request continuation of a project using the IRB project submittal form and procedure.

Human Subjects are adequately informed of any risks:

Signature: _____

Review Chair, St. Thomas University IRB

Date: _____

2/7/2003

IRB approval/tracking # 2003-05