ABSTRACT

While research on international students adaptation within the United States has been growing in the last several years, research on positive experiences of international students is limited (Tseng & New ton, 2002). The literature on international students highlights their challenges and difficulties in the United States as they pursue their educational goals (Cheng, 1999; Han, 1996; Lin & Yi, 1997; Ying & Liese, 1994).

One variable that highlights the positive psychological perspective of individuals is hope. There have been no studies examining the relationship of hope with international populations (Lopez et al., 2002). Therefore this study proposed to examine the relationship of international students’ personality traits with hope. In addition, international students’ support systems in relation to hope were examined.

The present study also sought to provide an empirical foundation for understanding the factors that contribute to the acculturation of international students within the United States. This study explored the positive psychological constructs of hope, optimism and problem solving as well as personality traits and support systems.
In addition, problem solving was utilized as a mediating variable which was defined as a complex interplay of cognitive, affective, and behavioral processes for the purpose of adapting to internal or external demands or challenges (Heppner & Krauskopf, 1987). Problem solving was a mediating variable between the relationship of hope and acculturative stress and the relationship between optimism and acculturative stress.

Results indicated that extraverted international students with friendships as part of their support system experienced higher levels of hopefulness. Findings also suggested that international students who are hopeful, with perceptions of their problem solving abilities being effective, with friendships as part of their support system and extraverted have decreased levels of acculturative stress. However, there was no relationship between optimism and acculturative stress. Finally, the results indicated that problem solving as a mediating variable had a small effect on the relationship between hope and acculturative stress. In addition, problem solving had a small effect on the relationship between optimism and acculturative stress although the relationship between optimism and acculturative stress was not significant. Implications of these results are offered as well as recommendations for expanding the research.

INDEX WORDS: International students, Hope, Optimism, Problem solving, Personality traits, Support systems, Acculturation
A STUDY OF THE CONTRIBUTION OF SELECT FACTORS IN THE ACCULTURATION OF INTERNATIONAL STUDENTS WITHIN THE UNITED STATES

by

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A STUDY OF THE CONTRIBUTION OF SELECT FACTORS IN THE ACCULTURATION
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by

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DEDICATION

This dissertation is dedicated to my mother and late father: Heather and Vernon James and my sister, Raquel. Thank you for all of your love, support and encouragement throughout this journey.
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CHAPTER 1
INTRODUCTION

According to Super (1955) in his classic paper, *The Transition from Vocational Guidance to Counseling Psychology*, the underlying assumption is that even profoundly disturbed persons have strengths, assets, and coping abilities that provide a valuable foundation from which to work. Focus on the positive is a point of view characterized by hopefulness and optimism and based on the belief that individuals can change. They can lead satisfying lives, and be self-directing. They can find ways of using their resources even though these may have been impaired by incapacitating attitudes and feelings, slow maturation, cultural deprivation, lack of opportunity, illness, injury, or old age (Jordaan, Myers, Layton, & Morgan, 1968). Research regarding international students has focused on their challenges and struggles without attention to their positive experiences and strengths. Therefore research within this population has been skewed towards pathologies rather than to well-being.

The United States, in recent decades, has attracted the largest number of students from all over the world (Sandhu, 1995). International students contribute nearly $12 billion dollars to the U.S. economy, through their expenditure on tuition and living expenses (Institute of International Education, 2005). During the 2003-2004 academic year, there were 572,509 international students studying at academic institutions in the U.S. (Institute of International Education, 2005). For the 2002-2003 academic year there was an increase of less than one percent in international enrollment in the U.S. colleges
and universities. This was the smallest increase since the 1995-1996 academic year and follows five consecutive years of steady growth. However, for the 2003-2004 academic year there was a 2.4% decrease in international enrollment in the U.S. colleges and universities. This represents the first decrease since the 1954-1955 academic year which was when the data collection began.

According to an online survey conducted in October 2003 by the Institute of International Education, campus professionals reported that new security procedures and economic factors are having visible impact on foreign student enrollments. Forty-six percent of respondents report a decline in enrollments, whereas 33% report an increase. Twenty one percent have seen no noticeable change. Fifty nine percent reported that the new visa application process is the primary reason for the increase in declines and delays, followed by financial difficulties and attraction to other host countries. Among the international students, students from Asian countries represent more than half (51%), followed by students from Europe (13%), Latin America (12%), Africa (7%), and the Middle East (6%). While the impact of the September 11th tragedy on international exchange is yet to be empirically examined, the expectation is that the number of international students in the U.S. will continue to increase in the future (Lin & Yi, 1997; Mori, 2000; Sandhu & Asrabadi, 1994). This impact calls for an examination of international students’ unique experiences and concerns, including the impact of terrorism and anti-terror polices on these students (Yi, Lin, & Kishimoto, 2003).

Information that has been published regarding the impact of 9/11 on international students surround tracking and regulation systems that have been implemented. The White House and Congress have taken steps to screen the admission, and monitor the
whereabouts of the half million foreign students in U.S. universities. The United States House of Representatives on May 7th 2002 unanimously endorsed the Enhanced Border Security and Visa Reform Act. The new law requires the Justice Department to establish an electronic tracking system for foreign students and requires schools that admit such students to notify the government if students fail to enroll or drop out (Greenberg, 2002). The tracking system is known as SEVIS (Student and Exchange Visitor Information System) and is the computerized gatekeeping administered by the Bureau of Immigration and Customs Enforcement (ICE) within the newly established Department of Homeland Security. Fears have surfaced about the misguided security measures which are coupled with the concern about losing the $11 billion that foreign students pay into the financially strained university system. At the graduate level, foreign students commonly account for half or more of enrollments, and they fill crucial roles as teaching and laboratory assistants. Due to the decline in domestic graduates, high-tech industry relies heavily on foreign-born staff.

According to Kher, Juneau, and Molstad (2003) the task for the universities and personnel interacting with foreign students is more daunting following 9/11. The rich tradition that many universities share of welcoming and supporting international students is now coupled with institutional concerns regarding their abilities to meet new Federal guidelines. In the post 9/11 era of higher education, the discussion regarding international students on U.S. campuses has taken on greater urgency.

International students in America are exposed to a new cultural environment. These changes in their environment provide chances for international students to explore
certain aspects of themselves that have never been discovered. Exposure to a different culture influences thought, behavior, emotion, and personality.

It has been previously documented that international students tend to experience more psychological problems than American students as a group (Leong & Chou, 1996; Mori, 2000; Padilla, Alvarez, & Lindholm, 1986; Pedersen, 1991; Sandhu & Asrabadi, 1994). Research on international student populations have reported a variety of mental health and personal concerns including language barriers, academic difficulties, financial difficulties, interpersonal problems with American students as well as with their conational students, racial/ethnic discrimination, loss of social support, alienation and homesickness (Leong & Chou, 1996; Mallinckrodt & Leong, 1992; Mori, 2000; Pedersen, 1991).

Personality, severity of problems encountered, and various coping resources are important issues for international students. Some studies found differences in emotional expression and personality traits according to the level of acculturation (Liem, Lim & Liem, 2000; Chatterjee, 1994), which can manifest in behavioral changes. This suggests that people change while they absorb the host culture’s values, norms and preferable attitudes.

With regard to international students’ support systems, one study states that international and U.S. students frequently list parents, older friends, and student friends as their ideal sources of help (Leong & Sedlacek, 1986). Although one of the potentially significant sources of support for international students is a mental health professional, research suggests that international students generally do not seek services from counseling centers on campus (Mau & Jepsen, 1990). For example, due to the stigma of
potential mental illness, many students from Asian countries do not seek professional psychological help unless they have exhausted their support system. Thus, they are likely to be in subjective crisis when they do reach out to the counselors (Lin, 1996).

It takes time to learn a new culture and international students need to overcome cultural shock through their contact with an alien culture. According to Adler (1975), culture shock is a crisis of personality or identity. International students solve this crisis by developing new identities and embracing both old and new selves.

Culture shock has been noted as one of the main concerns regarding international college students’ mental health (Idowu, 1985; Parr & Bradley, 1991; Williamson, 1982). The earliest descriptions of culture shock compared it to a disease that resulted in temporary or permanent disability but could presumably be cured with the right treatment. Oberg (1960) mentioned six negative aspects of culture shock including: (1) strain resulting from the effort of psychological adaptation, (2) a sense of loss or deprivation referring to the removal of former friends, status, role, and/or possessions, (3) rejection by or rejection of the new culture, (4) confusion in the role definition, role expectations, feelings, and self-identity, (5) unexpected anxiety, disgust, or indignation regarding cultural differences between the old and new ways, and (6) feelings of helplessness as a result of not coping well in the new environment. Others have applied Oberg’s framework more broadly to include “culture fatigue” (Guthrie, 1975), “language shock” (Smalley, 1963), “role shock” (Byrnes, 1966), and “pervasive ambiguity” (Ball-Rokeach, 1973). Each of these early definitions has conveyed the meaning of culture shock as a reactive state of specific pathology or deficit, which is both the source and result of alienation in a new culture according to the “medical model”.
Recent explanations of culture shock have emphasized the “educational model,”

describing the adjustment period as a state of growth and development which, however
painful it might be, may result in positive and even essential insights. Through the
positive explanation of culture shock, change and transition are seen as potentially
positive conditions of growth, development and learning. The growth explanation of
culture shock is described as a normal experience, which does not necessarily indicate
failure, deficit or abnormality.

Statement of the Problem

The literature on culture shock is more likely to be problem-bound and problem-
oriented than growth-related. Until recently there was little or no emphasis on the skills
and strengths that people have developed out of their adverse culture-shock experiences
(D’Ardenne & Mahtani, 1989).

Historically the psychological needs of international students experiencing
acculturation problems were addressed through counseling (Zimmerman, 1995).
Research has primarily focused on problems that impact international student adjustment.
These concerns and needs can be broadly divided into five interrelated categories:
academic, physical health, financial, vocational, and personal/social. Academically,
international students struggle with completing essay examinations, taking notes during
lectures due to limited language proficiency (Deressa & Beavers, 1988; Parr, Bradley, &
Bingi, 1992), and the difficulties of studying effectively in a new educational system
(Mau & Jepsen, 1990). Second, concerning physical health, many international students
indicate that they have difficulty interacting with U.S. healthcare providers due to
language barriers or a lack of knowledge of the healthcare system (Prieto, 1995). Third,
some international students face financial hardships during the years of their study due to immigration regulations that generally prohibit international students from working off campus (Mori, 2000). Fourth, international students’ unique vocational concerns/needs are related to the geographic location of their future employment. Upon the completion of their studies, it is difficult for them to decide whether to seek employment in the U.S. or in their countries of origin (Wehrly, 1986). Lastly, the most commonly reported personal/social concerns of international students involve social isolation, loneliness, homesickness, irritability, and tiredness (Das, Chow, & Rutherford, 1986; Wehrly, 1986).

The literature regarding international students tend to focus on their struggles and problems, which can pathologize their experience, rather than strengths. Not to denigrate the issues and concerns that international students face, as it is part of the reality of their experience, but it is important to have a balance which also focuses on their positive experiences and the factors that enable international students to have affirming experiences in the United States. What is largely ignored in these studies is an explanation of how and why some international students experience their study abroad life in positive ways (Tseng & Newton, 2002). To illustrate the movement of positive psychology within the mainstream of the profession, two issues of the American Psychologist in 2001 have been dedicated to positive psychology. In these issues, editorials have called for psychologists and researchers to consider a different perspective from one that is founded in maladaptations and pathology (Sheldon & King, 2001). They suggest examining what works instead of what does not. Hope, optimism and problem-solving represent mental health constructs worthy of investigation in this era promoting the study of positive psychology. This study also examines the interaction with variables
such as personality traits and support systems and their impact on acculturation.

Additionally, it seems appropriate for counseling psychology, with foundations based on strengths and individual differences, to adopt and value the paradigm shift of positive psychology.

**Selection of Factors**

The present study explores select factors that contribute to acculturation within the international student population. There are numerous factors that can be utilized within this study that have an impact on international students and their acculturation. Select variables have been chosen because of the investigator’s research interest and lack of empirical examination in the literature. It is an exploratory study that will examine constructs of positive psychology and acculturation, with a population that has not received examination within the realm of the aforementioned concepts. Of the positive psychology constructs to be implemented within the study, one of the factors that will determine international students’ adaptation to the United States and lends itself to their positive experience is hope. The investigator has an enduring interest in the hope construct and its’ applicability to human functioning. Although the Hope Scale (Snyder, Harris, et al., 1991), the most widely used scale to measure hope, has been translated into different languages and used with culturally diverse groups (Lopez, Gariglietti, et al., 2000), a review of the literature revealed no published studies to date with international populations. Scales that have been developed to assess hope in children and young children (Children’s Hope Scale: Snyder et al., 1997; Young Children’s Hope Scale (YCHS): McDermott, Gariglietti, & Hastings, 1998) have yielded preliminary findings
with Latino(a), African Americans and Native Americans that provide support for the factor structures of each scale.

Another factor that will be utilized that falls under the umbrella of positive psychology is optimism. The investigator’s interest in optimism stemmed from its’ relevance with hope. Very little is known about optimism among different racial or ethnic groups and how they and related variables; for example different coping strategies, are associated with psychological and physical well-being (Chang, 1996). A review of literature revealed a study (Heine & Lehman, 1995) that examined the tendency to express unrealistic optimism (i.e. a general tendency to expect that negative events are more likely to occur to others than to oneself, and conversely that positive events are more likely to occur to oneself than to others) in Japanese and Canadian college students of European descent. Another study (Chang, 1996) looked at cultural differences between Asian Americans and White Americans on optimism, pessimism, coping and adjustment. It is important to note that responses provided by mainland Asian (or international) students were not included in this study (Lee & Seligman, 1997). Another study conducted by Lee and Seligman (1997) examined the differences in expressions of optimism and pessimism between mainland Chinese, Chinese Americans and White Americans on the Attributional Style Questionnaire (ASQ; Peterson et al., 1982). Additional studies are needed to address the many questions that remain to be considered in studying optimism in groups of Easterners and Westerners (Chang, 2001).

The third factor of interest is problem-solving. The problem-solving concept emanated from the investigator’s interest in a construct that conveys international students’ perception of how their problems are solved. The PSI (Problem Solving
Inventory; Heppner, 1998) is a widely used instrument to measure problem solving in the United States. The PSI has been utilized in over 60 published investigations (Sahin, Sahin, & Heppner, 1993). Pretorius (1993) examined the reliability of the Problem Solving Inventory (PSI) with black South African students. Sahin, Sahin, and Heppner (1993) examined the psychometric properties of the PSI in a Turkish cultural context with Turkish University students. These studies provide cross-cultural information that increases knowledge about the utility of problem-solving constructs across diverse environments (Sahin, Sahin, & Heppner, 1993). A review of related literature also suggests that there has been limited research regarding problem solving with diverse populations. According to Heppner and Lee (2002) little is known about problem solving within different cultural contexts (i.e., Asian culture), which is an exciting arena.

In addition, there were two other factors included: support systems and personality traits. Support systems were included to provide a context for international students within which they function in the United States. Personality traits were implemented to obtain an understanding of international students’ inherent characteristics.

What accounts for positive experiences of international students and their ability to acculturate within a different culture? By empirically investigating the role of acculturation and positive psychology constructs such as hope, optimism and problem-solving together with personality traits and support systems in the lives of international students, a greater scientific knowledge may be gained about the positive experiences of international students in the United States.
Theoretical Framework

Positive Psychology

Positive psychology is the scientific and practical pursuit of optimal human functioning. Psychologists committed to helping people realize their potential by capitalizing on strengths and managing weaknesses, must be skilled at detecting the worst and best in people. Psychologists are more effective in examining illness or pathology than they are in evaluating health and well-being (Snyder & Lopez, 2002). The aim of positive psychology is to catalyze a change in psychology from a preoccupation only with repairing the worst things in life to also building the best qualities in life. To redress the previous imbalance, we must bring the building of strength to the forefront in the treatment and prevention of mental illness (Snyder & Lopez, 2002).

Significance of the Study

Positive psychology’s emphasis on the scientific pursuit of optimal human functioning draws scientists’ attention to protective factors, assets, resources and strengths. To date, however, there has been little effort to highlight the cultural factors that influence health and the meaning of the good life. Researchers and practitioners must remember that the societal and cultural context of life affects how individuals pursue identity development, goals, and happiness (Lopez et al., 2002). The Basic Behavioral Science Task Force of the National Advisory Mental Health Council (1996) highlighted the context within which mental health exists, stating that social, cultural, and environmental forces shape who we are and how well we function in the everyday world. For example, although the Hope scale (Snyder, Harris, et al., 1991), the most widely used scale to measure hope, has been translated into different languages and used with
culturally diverse groups (Lopez, Gariglietti, et al., 2000), a review of the literature revealed no published studies to date with international populations. This illustrates the need to empirically examine instruments within diverse populations to gain insight into the impact between the social, cultural, and environmental forces on the individual.

Research has focused on problems that impact international student adjustment such as loss of social support, alienation, homesickness, language barriers, academic difficulty, and financial difficulty (Arthur, 1997; Brinson & Kottler, 1995; Das, Chow, & Rutherford, 1986; Pedersen, 1991). This has resulted in a void in the literature regarding international students’ inherent strengths and how they result in positive experiences in the United States.

There is a need to study empirically positive psychology constructs such as hope, optimism and problem solving within the international student population due to the void in the literature. The study would incorporate the aforementioned constructs as a function of international students’ positive experience and adjustment in the United States. There has been an increase in the research regarding acculturation of international students (Levine & Padilla, 1980; Sandhu & Asrabad, 1998; Sodowsky & Plake, 1991, 1992); however, there is no understanding of how positive constructs relate to international students’ level of acculturation. In addition, it has been noted that certain personality traits are positively correlated with positive adjustment (Crano & Crano, 1985); however, there is no research on international students’ personality traits in relation to their sense of acculturation.

Finally, international students’ adjustment can be facilitated through the interpersonal relationships with individuals in the host culture (Tanaka, Takai, Kohyma,
Fujihara, & Minami, 1997; Amarasingham, 1980). Therefore, it is assumed that international students with high social connectedness are likely to adjust to the new social environment more easily and will experience less psychological stress than students with low social connectedness; however, there is no understanding of how international students’ acculturation and their sense of hope relate to their interpersonal relationships and support network.

Research on positive psychology constructs such as hope, optimism and problem solving is timely in the area of psychology where there is a movement to focus on assets and strengths rather than pathology. On the contrary research on international students has focused on their struggles rather than their inherent strengths. This current study proposes to examine (a) personality traits in relation to hope (b) support systems in relation to hope (c) hope in relation to acculturation (d) optimism in relation to acculturation (e) problem solving in relation to acculturation (f) support systems in relation to acculturation (g) personality traits in relation to acculturation (h) problem solving abilities mediating the relation between hope and acculturation (i) problem solving abilities mediating the relation between optimism and acculturation.

This study holds promise for providing psychology with preliminary exploration of positive experiences of international students within the context of their level of hopefulness, optimism, acculturation, support systems, personality traits and problem solving abilities. Ultimately, analyses made within this study help contribute to the body of existing knowledge of the acculturation of international students and aids in gaining further knowledge regarding what factors are attributed to the positive experiences of international students in the United States.
Purpose of the Study

The purpose of this study is to empirically examine constructs that can be characterized within three clusters. Cluster one comprises of personality traits and support systems within the context of hope. Cluster two comprises of the acculturation of international students through the use of multiple positive psychology constructs (hope, optimism and problem solving) with international students together with personality and support system assessments. Cluster three comprises of the problem solving concept mediating the relationship between hope and acculturative stress and between optimism and acculturative stress.

Hope is a construct that has not been examined with international populations (Lopez, Gariglietti, et al., 2000). First, measures were taken to determine the relationship between individuals’ personality traits and their level of hope. Second, international students’ support systems were measured in relation to their level of hope.

In addition, measures were taken to examine the acculturation of international students through the use of multiple constructs in the following five areas: (1) hope in relation to acculturation (2) optimism in relation to acculturation (3) problem solving ability in relation to acculturation (4) support systems in relation to acculturation (5) personality traits in relation to acculturation.

Further problem solving ability (a positive psychological construct) was examined with the other two positive psychological constructs (hope and optimism) as well as being utilized as a mediating variable to determine if it mediated the relationship between hope and optimism with acculturation in the following two areas: problem solving mediating the relationship between hope and international students’ acculturation; and
finally, problem solving mediating the relationship between optimism and international students’ acculturation. This study offered a preliminary view of the ways in which international students are able to attain a positive experience in the United States.

Research Questions and Hypotheses

The following research questions are highlighted according to five clusters (therefore they are not in sequential order): acculturation and hope, followed by a pair of questions that fall into the category of personality traits, problem solving abilities, optimism and support systems.

Increased levels of hope have resulted in increased positive affects and thoughts and fewer negative affects and thoughts (Snyder et al., 1996). Furthermore, high-hope as compared with low-hope college students have reported feeling more inspired, energized, confident, and challenged by their goals (Snyder, Harris, et al., 1991). It has also been found that as individuals acculturate over a period of time they begin to experience long-term adaptations to the new cultural context (Beiser et al., 1988). The following question examines how acculturation in relation to hope, affects the way in which individuals perceive their experiences.

1) What is the relationship between acculturation as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994) of international students and their level of hopefulness as measured by the Hope Scale (Snyder, Harris, et al., 1991)?

Adjustment for international students is likely to involve their personality which is aimed at bringing about a better fit with the new external setting (Ying & Liese, 1994). Characteristics such as open-mindedness and extraversion are positively correlated with
positive adjustment (Crano & Crano, 1985). The following questions examine international students’ personality traits, within the context of hope and their ability to acculturate.

(2) What is the relationship between international students’ personality traits as measured by the International Personality Item Pool NEO (IPIP-NEO) (Goldberg, 1999) and their level of hopefulness as measured by the Hope Scale (Snyder, Harris, et al., 1991)?

(3) What is the relationship between international students’ personality traits as measured by the International Personality Item Pool NEO (IPIP-NEO) (Goldberg, 1999) and their level of acculturation as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)?

According to Snyder (2000c) it is relevant to examine the Hope theory in relation to theories that bear strong resemblance to the Hope theory, such as problem-solving. Based on the data, there is a positive correlation (.40 to .50) between hope and problem solving (Snyder, Harris, et al., 1991). Problem solving helps individuals who struggle with transitions and difficult problems through planning and striving towards goals (Heppner & Wang, 2003).

In addition, problem solving has been examined with students from South Africa and Turkey within the cultural context of their home country (Pretorius, 1993; Sahin, Sahin, & Heppner, 1993). The results from the Sahin, Sahin, and Heppner (1993) study indicated that Turkish men and American men did not differ in their problem solving perception. However, Turkish women reported more positive problem solving abilities.
than American women. The following questions examine how problem solving relates to international students as they acculturate within the United States.

(4) What is the relationship between international students’ level of hopefulness as measured by the Hope Scale (Snyder, Harris, et al., 1991) and their level of acculturation as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994) as mediated by their problem solving abilities as measured by the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982)?

(5) What is the relationship between international students’ problem solving abilities as measured by the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982) and their level of acculturation as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)?

According to Scheier, Weintraub, and Carver (1986), an optimist, in comparison with their less optimistic peers, are more likely to use adaptive problem-focused strategies and less likely to engage in cognitive or behavioral avoidance during stressful encounters. In addition, there have been a few studies that examined optimism with diverse groups such as Japanese and Canadian college students, Asian American students and Chinese students (Heine & Lehman, 1995; Chang, 1996; Lee & Seligman, 1997; Lai, Cheung, Lee, & Yu, 1998; Lai & Yue, 2000). Optimism can be viewed as a predictor of psychological and physical adjustment (Chang, 1996). The following questions examine how optimism relates to international students as they acculturate to the United States.

(6) What is the relationship between international students’ level of optimism as measured by the Life Orientation Test-Revised (LOT-R) (Scheier, Carver &
Bridges, 1994) and their level of acculturation as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994) as mediated by their problem solving abilities as measured by the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982)?

(7) What is the relationship between international students’ level of optimism as measured by the Life Orientation Test-Revised (LOT-R) (Scheier, Carver & Bridges, 1994) and their level of acculturation as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)?

Interpersonal relationships are one of the most important factors in international students’ adjustment (Parr, Bradley, & Bingi, 1992). The quality of international students’ support system had a direct and buffering effect when they were undergoing stress (Mallinckrodt & Leong, 1992). The following questions examine international students’ support system, within the context of hope and their ability to acculturate.

(8) What is the relationship between international students’ support systems as measured by The Demographic Questionnaire for International Students (researcher developed questionnaire) (see Appendix B) and their level of hopefulness as measured by the Hope Scale (Snyder, Harris, et al., 1991)?

(9) What is the relationship between international students’ support systems as measured by The Demographic Questionnaire for International Students (researcher developed questionnaire) and their level of acculturation as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)?
Delimitations and Limitations of the Study

Delimitations

The primary delimitation for the study is the use of international students for the sample pool. The study is being conducted at a major university in the Southeast, where there are approximately 2000 international students studying at the university. This may result in a small sample size due to the small population. In order to maximize the number of participants, the researcher sought participants at the weekly coffee hour as well as through the assistance of the International Student Life Office by placing the study on the listserv and attending monthly international organization meetings.

Data collection through personal contact with participants is important for the study. Outreach and proactive efforts were important as participants were more likely to engage in research when met with personally as opposed to answering an advertisement as the former will ease any levels of mistrust. It is important for international students to have a level of comfort. For example, in a group setting for international students, having at least one international staff co-facilitator may enhance group member participation, an individual who can validate students’ adjustment struggles and provide them with information on coping methods and practical resources (Smith, Chin, Inman, & Findling, 1999). It will be important for the students to connect with the researcher who is also an international student in order to minimize cultural mistrust.

Limitations

An initial limit to the study is that all assessment measures are self-report. They are written at approximately a 7th grade reading level with simple instructions. With self-
report instruments some measurement error is to be expected and no attempt is made to substantiate with behavioral presentation.
CHAPTER 2

REVIEW OF RELATED LITERATURE AND RESEARCH

In this chapter literature will be reviewed in six major areas: (a) international students (b) positive psychology constructs of hope, optimism and problem solving, (c) acculturation, (d) personality, (e) support systems and, (f) individualistic and collectivistic quality of life (although this latter area will not be specifically examined, it is important to have an understanding of collectivistic and individualistic societies and how they interpret life satisfaction).

International Students

There continues to be an increase in the number of international students who attend colleges and universities in the United States. According to the Institute of International Education (2005) for the 2003-2004 academic year there were 572,509 international students studying at academic institutions in the United States. With the increase in the international population within the United States, there is a need to explore the ways in which they are able to adapt to a new culture as well as measures that can be taken to ease the transition for these students. A review of the literature illustrates an examination of international students within the context of their struggles and challenges rather than their positive experiences and identification of personality traits that enables them to acculturate.

One area that has received extensive research within the international student population is language difficulties. Language difficulties is the most challenging issue for
international students, as a lack of English skills is likely to affect international students’ academic performance, and academic difficulties in turn would affect their psychological adjustment (Lin & Yi, 1997). This issue may be especially distressing for students who cannot express their academic ability in English well, because many of them have had high academic achievement in their home countries (Pedersen, 1991).

Academic differences are a major issue for international students. Stressors in the educational domain are pivotal to an international student’s adjustment in the new environment. Some of the educational stressors include performance expectations, system adjustment, and test-taking anxiety (Aubrey, 1991; Leong & Mallinckrodt, 1990; Leong & Sedlacek, 1986; Liberman, 1994; Marion, 1986; Oropeza & Fitzgibbon, 1991; Svarney, 1989; White & Brown, 1983).

Another area that has been addressed is the loss of social support that has a significant influence on the psychological well-being of international students (Hayes & Lin, 1994; Mallinckrodt & Leong, 1992; Pedersen, 1991; Sandhu, 1995). Upon coming to the U.S., international students tend to feel a deep sense of loss when leaving their families and friends behind (Sandhu, 1995). It is also challenging for them to establish comparable support systems in the U.S. (Mallinckrodt & Leong, 1992) and they may feel dissatisfied with their new social relationship in the U.S. Simultaneously, international students may become deprived of social support systems that typically validate their sense of self-concept and self-esteem, and provide emotional and social support (Mallinckrodt & Leong, 1992; Pedersen, 1991; Sandhu, 1995). As a result, they may feel anxious, alienated, or even disoriented in the unfamiliar environment (Pedersen, 1991).
Financial concern is a practical and critical issue in international students’ daily lives. Without adequate financial resources, basic survival becomes an issue. Financial factors have been cited as one of the essential elements that form stressors during international students’ adjustment to the new environment (Idowu, 1985; Oropeza & Fitzgibbon, 1991). Oropeza and Fitzgibbon (1991) pointed out that the emergence of these kinds of stressors is closely related to changes in one’s economic status. Any breakdown or unexpected disturbances in financial resources can threaten an international student’s educational pursuit as well as other aspects of living. When this happens, the student may experience stress.

Another major concern is racial discrimination and prejudice (Westwood & Ishiyama, 1991). Racial prejudice may derail the healthy acculturation process of international students. It may serve to worsen what is already felt and perceived as negative. Experiencing racial prejudice may lead to low self-esteem and self-confidence. These experiences may intensify international students’ sense of harm and threat when encountering difficulties in their academic and social lives. Along with maladaptive coping, undergoing racial prejudice may foster and develop stressors and elevate overall stress level. This stress can result in internalized or externalized anger, and helplessness and if unresolved, practical and emotional issues (Westwood & Ishiyama, 1991).

International students also face anxieties from fear of immigration authorities. Students who live in the host country for a specific purpose have to deal with various authorities such as the police, the Home Office or immigration authorities, because they need to register their address and to obtain or extend a Visa. Therefore, some students
live in fear of being deported if they violate immigration regulations (Khoo & Abu-Rasain, 1994).

It can be quite stressful for foreign students to decide whether to stay in the host country or to go back to their home countries at the conclusion of their studies. Many international students go through long, difficult periods of indecision as they examine the advantages and disadvantages of either alternative (Thomas & Althen, 1989). For those who have decided to go home, they may face particular problems and anxieties about readjusting to their own cultures. This is because they have probably changed in their time abroad, whereas, their families and friends typically expect them to be the same as when they left (Pedersen, 1991).

Hope

Hope has been the subject of many analyses of a broad philosophical or cultural nature, beginning with the ancient Greeks and the tale of Pandora. The current conception of hope owes more to the Judea-Christian tradition than to classical Greek thought. The Judea-Christian tradition treats hope as a highly valued condition. Hope is, in fact, one of the three theological virtues recognized by Christianity, the others being faith and charity or love (Averill, Catlin, & Chon, 1990).

During the late 1950s to the 1960s, hope was examined in the context of more formal, scientific approaches. Both psychiatrists (e.g., Frank, 1968; Frankl, 1963; Melges & Bowlby, 1969; Menninger, 1959; Schachtel, 1959) and psychologists (e.g., Cantril, 1964; Farber, 1968; Mowrer, 1960; Stotland, 1969) agreed on the premise that hope was based on positive expectations for goal attainment. Although promising, their work did
not capture the support of the wider scientific community who remained skeptical about hope (Frank, 1968).

From the mid-1970s onward, there was a surge of psychological research and writings related to stress, coping and illness. Research began to suggest that negative thoughts and feelings were related to poorer health, coping and medical recovery (Cohen, 1979; Cohen & Lazarus, 1979). Researchers argued that given the involvement of negative thoughts and emotions in poor health, then positive processes such as hope would be worthy of study for possible positive sequelae (Simonton, Matthew-Simonton, & Creighton, 1978). There was increased support of the roles of enhanced positive self-evaluations and perceptions of control or mastery in psychological and physical well-being (Taylor, 1989; Taylor & Brown, 1988, 1994).

**Snyder’s Hope Theory**

Hope is a cognitive component that involves an overall perception that goals can be met (Snyder, Harris, et al., 1991). The theory of the hope process is developed around a goal directed premise. Goal-thinking is a basic process in hope. Goals are the framework or endpoints upon which the operations of hope act. These primary operations or components are, pathways (planning to meet goals) and agency (goal-directed energy; Snyder, 1995; Snyder et al., 1997; Snyder, Harris, et al., 1991) and it is their interaction that is the basis for Snyder’s hope theory.

*Pathway thinking.* Once a goal is conceptualized, the next cognitive step is to imagine a route to the goal. The pathway component of hope theory reflects perceiving successful pathways or strategies that are available to attain goals (Snyder, 2000a; Snyder, Harris, et al., 1991). It is both the ability and resourcefulness of an individual in
planning to reach goals. Fundamental pathway thinking is coming up with routes to goals. Yet more sophisticated pathway thinking is demonstrated by recognizing when a strategy or route is not working, developing an alternative, and when barriers present themselves developing strategies to overcome them. It is in this manner that hope influences one’s perception of available successful pathways to goals.

Agency thinking. The other component identified by Snyder and his colleagues (Snyder, Harris, et al., 1991) is agency. Snyder describes agentic thinking, within the hope process as, “a sense of successful determination in meeting goals in the past, present, and future” (Snyder, Harris, et al., 1991). An individual’s capacity to begin and continue movement towards a chosen goal determines his or her level of agency. Agency is the fuel that pushes individuals towards their goals and can be thought as motivational will power. An additional aspect of agentic energy is one’s perception that one can persevere through the undertaking to the end goal. This critical element of agency has important implications not only for one’s level of agency but for pathways and hope.

The relationship of past to future orientation. Through the developmental process, children can learn to maintain agency and discover pathways that will increase their levels of hope through encouragement and modeling of caregivers. Snyder and others (Snyder et al., 1997) proposed that our successes or failures negotiating barriers within the hope process, play a fundamental role in the individual differences of our hope. Hope theory is based on cognitive appraisals. The incorporation of the individual’s perceptions of themselves and their past is critical to their schema regarding goal attainment (Snyder, 1995; Snyder, Harris, et al., 1991; Snyder, Michael, & Cheavens, 1999). It is the successes and failures that begin to set the tone for one’s expectancy of the future and
hope. In this context hope is not a goal-related state but an enduring disposition that is subjectively defined by assessing agency and pathways.

*Agency and pathway interaction—hope.* Both agency and pathways are necessary through the entire goal-attainment process (Snyder, 2000b; Snyder, Harris, et al., 1991). To elaborate, once a pathway is decided upon, agency cannot maintain the process from that point forward in goal-related journeys. Conversely, the will that agency provides to start goal-oriented movement does not end once a pathway for a goal is decided upon. Agency and pathway thinking is needed throughout the process to sustain movement towards a goal. Agency and pathways are reciprocal, yet they are not the same. The presence of both and their interaction represent what is necessary to achieve high levels of hope. One must not only have the will (agency) but also the way (pathways) to attain a goal (Snyder, Harris, et al., 1991).

*Levels of hope.* Hope is viewed as a cognitive construct, but is related to emotionality (Snyder, Harris, et al., 1991; Snyder & Taylor, 2000). It is a theory of cognitive appraisals, and conclusions drawn from these appraisals, that result in affect-the power of hope. Snyder states the “quality of emotions reflects perceived level of hope in a particular situation” (Snyder, 1995, p. 355). In other words, persons with high hope and low hope will approach a given goal with different emotional qualities, the former with positive emotions and a sense of impending success and the latter with trepidations from negative emotions and a focus of impending failure instead of success. Put in terms of goals, those who are unimpeded and energetic in the pursuit of their goals will experience positive emotions where those who face barriers and/or are stalled by apathy will experience negative emotions. Again, it is our past successes and failures that set the tone
for one’s expectancy of the future goal-attainment. In this capacity the affective power of hope is more clearly seen. This dynamic of hope results from cognitive appraisals of past goal related outcomes.

Hope and ‘Type A’ personality. High-hope individuals are friendly and seem to enjoy excellent relationships with other people (Snyder, Cheavens, & Sympson, 1997). Unlike Type A and hostile persons, high-hope individuals seem to enjoy a good laugh at their own expense (Snyder, 1994b) and appear to be in rather good health (Snyder, Irving, & Anderson, 1991; Snyder, Cheavens, & Michael, 1999). Type A persons appear to be driven by goal pursuits, they also are very unhappy with such goal chasing. Those with high levels of hope, on the other hand, seem to enjoy the process of going after their goals. While the striving of Type A persons often reflects an underlying “I’m not good enough,” high hope individuals are at peace and are patient with experiencing the course of unfolding events in their lives.

Maintenance of hope during difficult times. Hopeful individuals have experienced losses and blocked goals similar in nature, number, and scope to those of other persons (Snyder, 1998a). The differences for high-hope individuals, among others that will be discussed here, relate to their self-referential beliefs. As a result of their difficult experiences, high-hope individuals believe that they can adapt to potential difficulties and losses (Irving, Snyder, & Crowson, 1998; Snyder, 1994b). They have ongoing, positive, internal dialogues of self-statements such as, “I can,” “I’ll make it,” and “I won’t give up” (Snyder, LaPointe, Crowson, & Early, 1998). As a result, they tend to establish goals for themselves, view obstacles as challenges, and focus on successes rather than failures (Snyder, 1994b). High-hope individuals experience less negative emotional reactions
when their goals are blocked than do their low-hope counterparts (Snyder, 1998a). One reason for this is that high-as compared to low-hope individuals are skilled at finding alternative paths to their original goals (Snyder, Harris, et al., 1991). In contrast, low-hope individuals are unclear about how to reach their goals and do not seem to know what to do when encountering a blocked goal (Snyder, 1998b). Another coping mechanism utilized by high-hope individuals is the consideration of alternative goals when the original goal no longer exists (Snyder, 1994b, 1996). Similarly, high-hope individuals establish several goals in each of the roles in their lives (e.g., relationships, career, and recreation). Using both of these strategies, high-hope individuals can be flexible and switch to another goal or rely on another life role when encountering a blockage to one of their goal pursuits. Thus, the psychological benefits of high hope individuals are multifaceted, hopeful approaches that contribute to their successful handling of goal blockages.

Hope and physical health. In health psychology, the focus is on promoting and maintaining good health and preventing, detecting, and treating illness (Matarazzo, 1982). Based on research, hope has been positively implicated in each of these areas (Irving, Snyder, & Crowson, 1998; Snyder, 1996, 1998a; Snyder, Irving, & Anderson, 1991). Snyder, Feldman, Taylor, Schroeder, and Adams (2000) have described the powers of hope in terms of primary and secondary prevention. Primary prevention involves thoughts or actions that are intended to reduce or eliminate the chances that subsequent health problems (either physical [Kaplan, 2000] or psychological [Heller, Wyman, & Allen, 2000]) will occur in the future. Secondary prevention involves
thoughts or actions that are directed at eliminating, reducing or containing a problem once it has occurred (Snyder et al., 2000).

*Hope and psychological adjustment.* One way in which psychological adjustment is influenced by hope is through the belief in one’s self and this supposition is consistently supported in research (Snyder et al., 1997). Manipulations to increase levels of hope have resulted in increases in positive affects and decreases in negative affects. Likewise, in tracking research participants over 28 days, higher hope was related to the report of more positive and fewer negative thoughts each day (Snyder et al., 1996). Furthermore, high-hope as compared with low-hope college students have reported feeling more inspired, energized, confident, and challenged by their goals (Snyder, Harris, et al., 1991), along with having elevated feelings of self-worth and low levels of depression (Snyder et al., 1997; Snyder et al., 1996).

To understand the stressor concept in the context of coping, we begin with a definition of coping. In this regard, coping is the ability to effectively respond to a stressor so as to reduce psychological (and physical) pain (Houston, 1987). Within hope theory, the stressor represents that which is interfering with one’s normal ongoing goal of being happy. When confronting a stressor, therefore, one must find alternative paths to attain the “normalcy” goal, as well as become mobilized to use those paths. When confronted with a stressor, higher as compared with lower hope people produce more strategies for dealing with the stressor (pathways) and express a greater likelihood of using those strategies (agency); (Snyder, 1994c, 2000d; Snyder, Harris, et al., 1991); moreover, higher hope persons are more likely to find benefits in their ongoing dealings with stressors (Affleck & Tennen, 1996; Tennen & Affleck, 1999). Relative to low-hope
people, high-hope individuals also are less likely to use avoidance, a coping style that is linked to distress and decreased psychological adjustment when used over the long term (Suls & Fletcher, 1985).

As is the case with physical health, hope also is crucial for psychological health. Hopeful thoughts entail assets such as the ability to establish clear goals, imagine workable pathways, and motivate oneself to work toward goals (Snyder, 2000a, 2000b, 2000c). For example, higher versus lower hope yields more successful goal pursuits in a variety of performance arenas (e.g., athletics, academics, coping), (Snyder, Cheavens, & Michael, 1999). Furthermore, this successful pursuit of goals is associated with elevated self-esteem and well-being (Snyder et al., 2000). Psychological health is related to people’s routine anticipation of their future well-being. In this regard, those with higher levels of hope should anticipate more positive levels of psychological health than persons with lower hope. These positive expectations also will yield higher confidence (Snyder et al., 2000), and higher-hope individuals perceive that their hopeful thinking will protect them against future stressors (Snyder, 2000d).

In addition, higher hope seems to moderate the relationship between unforeseen stressors and successful coping (Snyder & Pulvers, 2001). Thus, in contrast to people with low levels of hope, who tend to catastrophize about the future, those with high levels of hope are able to think effectively about the future, with the knowledge that they, at times, will need to face major life stressors. Similar to that occurring for physical health, secondary prevention in psychological health involves thoughts or actions that eliminate, reduce, or contain a problem once it has appeared (Snyder et al., 2000). Hope also plays a role in this process. For example, when people with high hope encounter a goal blockage,
they are flexible enough to find alternative goals. In contrast, people with low hope tend to ruminate unproductively about being stuck (Michael, 2000; Snyder, 1999a, 1999b); moreover, their low-hope ruminations often involve fantasies about “magically” escaping their entrapments. This is tantamount to avoidance and disengaged coping behaviors, which generally have unhealthy consequences (Bolger, 1990; Carver et al., 1993; Litt, Tennent, Affleck, & Klock, 1992; Stanton & Snider, 1993). Furthermore, by coping through avoidance, the low-hope individuals do not learn from past experiences (Snyder et al., 2000).

People with high hope also are likely to have friends with whom they share a strong sense of mutuality. In stressful circumstances, high hope individuals can call on these friends for support (Crothers & Schraw, 1999; Sarason, Sarason, & Pierce, 1990). People with low hope, on the other hand, tend to be lonely and lack friends with whom they can talk. This seems to stem from their fear of interpersonal closeness (Crothers & Schraw, 1999). Even if low-hope individuals do have friends, those friends also are likely to have low hope (Cheavens, Taylor, Kahle, & Snyder, 2000).

**Hope and resilience.** Life places impediments in our paths, and it therefore is important for hopeful thinking to learn how to deal with such barriers. Researchers have discussed dealing with barriers as an immunization like process and have called it resiliency (Rutter, 1981, 1985, 1987, 1994a); moreover, resiliency appears to confer several coping advantages (Cowen & Work, 1988; Garmezy, 1991; Rutter, 1987; Werner, 1984; Werner & Smith, 1982). Hope is consistent with the various definitions of resiliency (a concept involving individual, family, and support system characteristics.
(Rutter, 1994b), and yet it offers a succinct two-component model for describing this positive, goal-directed way of thinking.

**Hope within the Cross-Cultural Context.**

Hope, broadly defined, is an ever-present aspect of the human condition that has been demonstrated across time and cultures. Greek legend gave us Pandora’s jar containing hope. During this century, the French gave the U.S. the Statue of Liberty, a timeless symbol of hope to those who came to grace the American shores. Asian Americans have established enclaves in the U.S. cities and have increased their social commerce of hope. Cuban immigrants epitomize the “where there’s a will there’s a way” attitude as they reach the American coast via creative, yet dangerous means. Hope has existed across time, culture, and ethnic groups. Stories and monuments serve as enduring symbols, but it is people finding means to desired ends-translating their wishes into goals, agency, and pathways thoughts—that gives daily evidence of hope in action (Snyder, 2000c).

Hope can help in overcoming barriers to adjustment, health, and happiness. Therefore, it is crucial to understand hope in a cultural context and to ensure that all people are eligible to develop meaningful goals, perceive themselves as capable of establishing pathways, and summon mental energy all while navigating barriers in a social context (Lopez, Garigletti, et al., 2000).

All people run into impediments to their goals. Whether these barriers are facts of life or negative thoughts about neutral circumstances (Lopez, Floyd, Ulven, & Snyder, 2000), obstacles to goal attainment are numerous, and high-hope individuals learn how to adaptively perceive them as challenges to be overcome. Although members of the
majority are not immune to being stymied by their barriers, few would argue that the members of certain religious, ethnic minority groups, and immigrants, as well as sexual minority groups might be faced with frequent and larger impediments derived from interpersonal, societal, and institutional restrictions. Included here are acculturation stress, language barriers, prejudice and poverty to name a few:

**Acculturation.** Often, a strong hope for a better life prompts people to depart from their homelands. Other forces such as war and economic difficulties also motivate people to leave their birthplace and, unfortunately, some people are taken forcibly from their homes and relocated to other countries. Adapting to a new culture creates acculturative stress (Smart & Smart, 1995) which results when immigrants often learn quickly that their cultural customs are not valued by the people in their new land. People experiencing such adjustment stress to a new culture may not know how to navigate goal attainment when playing by new rules.

**Language.** Without language, humans have no clear method of communication. It is language that enables humans to interact most successfully, especially in regard to goal-directed activities. Snyder (1994b) emphasized that “language is a toll for hopeful thinking, especially as the young child is attempting to communicate desires. Sometimes we need to coach our children to put words to their desires about interpersonal matters.” Language not only is an instrument of communication, but it also is a major symbol of social or group identity-a badge of one’s group membership (Grosjean, 1982). Researchers suggest that high-hope individuals experience less anxiety in social situations (Snyder, Cheavens, & Sympson, 1997). Thus one might reason that high-hope
individuals may feel more comfortable in interpersonal situations where they perceive themselves as being proficient in the dominant language.

**Prejudice and stereotyping.** Prejudicial actions impede goal pursuits, squelch reasonable aims, and are “antithetical to the furtherance of hopeful thinking” (Snyder, 1994a). Thus, it may be that groups who are the target of prejudice experience a drumming out of their agentic thinking as they repeatedly encounter covert barriers. Likewise, as they confront prejudicial blockages time and again, their initial experiences of frustration may turn into apathy such that their pathways thinking also may diminish.

**Economics and the environment.** Hope also may be influenced by socioeconomic and environmental factors. People challenged with conditions of poverty may perceive achievable goals as being delimited, and their perceptions of diminished resources can narrow their pathways thinking. With the perception that there are fewer goals and routes to achieve them, people are less likely to manifest the agentic thoughts necessary to pursue their objectives. Poverty and poor environmental conditions also may result in poor health and physical fitness. The combination of limited resources and diminished physical health may produce low hope that, in turn, further undermines physical and psychological health.

**Cultural applicability.** “To keep hope alive, we therefore must make certain that our society allows a wider segment of our citizens to have access to a more diverse and obtainable set of goals” (Snyder, 1993). Age, faith, ethnicity and culture can shape the way individuals view the world and their goals, and these personal characteristics may determine accessibility of goals. Demography and experience engender a particular view of a hopeful spirit. It is undeniable, however, that people of all ages, religions, ethnicities,
and cultures have conjured goal thoughts and committed themselves to the pursuit of those aims. Despite the utility of the construct and the existence of measures of hope that span all phases of development, unfortunately the cross-cultural research of the construct is quite limited. According to Lopez, Gariglietti, et al. (2000) the applicability and appropriateness of the following theoretical suppositions need to be tested across cultures:

- Interpersonal exchanges and the societal context provide an adaptive framework for attaining goals.
- High-hope individuals have a good social support network and perceive that they can count on their friends.
- Hope is unlikely to flourish in environments devoid of mental and physical stimulation and challenges.

Hope is a culturally laden construct that assumes specific value orientations. Persons’ descriptions of hope tend to emphasize factors such as faith, individualism, accomplishment, positive outcome, success, and future; moreover, these definitions of hope appear to vary across cultures (Averill, Catlin, & Chon, 1990). Hope and personal and cultural values clearly are intertwined. Nevertheless, the role of value orientations in hope development should be more closely examined. Cross-cultural applicability of the hope construct and its measurement cannot be assumed, and cross-cultural research is needed to examine links between hope and its precursors and antecedents.

Hope scales have been administered to Caucasians, African Americans, Native Americans, Hispanics and Asian Americans living in the United States and to Mexicans who recently migrated to the United States. Additional translations of the Hope Scale
have been made in China, Russia, France, Germany, Italy, Norway, Israel, Japan and Spain. Clearly there is a cross-cultural interest in measuring hope in many countries. Results of such efforts, to our knowledge, have yet to be published, and this is a very important extension of the worldwide applicability of hope (Lopez, Gariglietti, et al., 2000).

*Hope across cultural groups.* Does culture influence hope? Although ethnic origins, culture, and language continue to be a major part of one’s overt identity (Lynch, 1992), defining culture is an ongoing process in which individuals steadily rework new ideas and behaviors. In other words, cultures are not static (Anderson, 1989), and situational factors such as socioeconomic status, occupational skills, educational background, and immigration status play important roles in the lives of all people. As the U.S. population becomes increasingly diverse and multicultural, the lines between the different ethnic groups will become blurred. In short, we are becoming a combination of cultures— a cultural tapestry.

The best approach to understanding individuals’ goals and their hopes is to examine their cultural context. The choices and possibilities of individuals within the broader sociocultural contexts may be limited. Likewise, some people may consider fewer goals, as well as have lower hope for accomplishing them.

Interpretation of the data collected from diverse groups of adults suggests that the average hope score of ethnic minority groups does not differ significantly across groups. Munoz-Dunbar (1993) administered the Adult Dispositional Hope Scale and other positive psychology measures to 167 college students. This sample was comprised of African Americans, Asian Americans, Hispanics, Native Americans, and Caucasians. The
average hope scale score was 51.50 using the 8-point response option to each of the eight items. The average scores for the African Americans, Asian Americans, Hispanics, Native Americans and Caucasians were 51.63, 48.97, 51.54, 55.50 and 52.06, respectively. Based on these scores, Asian Americans exhibited the lowest level of hope relative to the other group scores and Native Americans displayed the highest scores. An analysis of variance on these data revealed a statistically significant main effect, and post hoc analysis confirmed that Asian Americans had significantly lower hope than the sample taken as a whole. Likewise, Native Americans had significantly higher hope scores than the group taken as a whole. Research specific to the examination of hope across adult members of different cultural groups is limited, but this line of empirical investigation is the next plank that must be added to the hope research platform.

To date there has been little effort to highlight the cultural factors that influence health and the meaning of the good life. Researchers and practitioners must remember that the societal and cultural context of life affects how individuals pursue identity development, goals and happiness (Lopez et al., 2002).

Optimism

Optimism is a research area of psychology that is flourishing and is currently one of the more recognizable constructs in positive psychology (Peterson, 2000). Optimism, like hope, has been linked to desirable characteristics like, happiness, health, achievement, perseverance and effective problem solving (Buchanan & Seligman, 1995; Carvajal, Clair, Nash, & Evans, 1998; Peterson, 2000; Scheier & Carver, 1992; Schneider, 2001; Seligman, 1992).
Optimism can take two forms. In the first, it can be postulated to be an inherent part of human nature. It has been observed that psychologically healthy people in particular showed the positivity bias. Lazarus (1983) described what he called positive denial and showed that it can be associated with well-being in the wake of adversity. Beck (1967) developed his influential cognitive approach to depression and its treatment, which was the assertion that depression was a cognitive disorder characterized by negative views about the self, experience, and the future by pessimism and hopelessness. Greenwald (1980) viewed the self as an organization of knowledge about one’s history and identity. Everyone engages in an ongoing process of fabricating and revising his or her own personal history. Taylor and Brown (1988) viewed optimism that people are biased toward the positive and that only exceptions to this rule are individuals who are anxious or depressed. Taylor (1989) elaborated on the idea as she proposed that people’s pervasive tendency to see themselves in the best possible light is a sign of well-being.

At the same time, researchers interested in individual differences began to address optimism as a characteristic people possess to varying degrees. The two approaches are compatible. Human nature provides a baseline optimism, of which individuals show more or less, where as our experiences influence the degree to which we are optimistic or pessimistic. There are several intellectual precursors of optimism as an individual difference. Adler’s (1964, 1927) fictional finalism, based on Vaihinger’s (1911) “as-if” philosophy. Lewin’s (1935, 1951) field theory and Kelly’s (1955) personal construct theory provided influential frameworks for understanding how beliefs-optimistic, pessimistic, or somewhere in between –channeled people’s behavior. Rotter’s (1954, 1966) social learning theory and in particular his generalized expectations (locus of
control and trust) legitimized an approach to personality in terms of broad expectancies about the future. The traditional stimulus-response (S-R) approaches to learning and their replacement with cognitive accounts emphasizing expectancies (Peterson, Maier, & Seligman, 1993) also led to an interest in optimism.

**Optimism and Hope**

Hope and optimism are extremely similar. Both emphasize the importance of outcome expectancies in goal directed behavior. Different levels of abstraction may be used to define optimism. Peterson (2000) refers to these different levels as ‘Little and Big’ optimism. Little optimism is focused on specific, positive outcome expectancies, whereas big optimism is generally a less specific, global, positive expectation. He considers big optimism more similar to hope. While some researchers would agree with this (Miller & Powers, 1988; Staats, 1987), others would see hope as more specifically focused (Averill et al., 1990), and others view hope less rigidly allowing for both specific and global positive expectancies (Farran, Herth, & Popovich, 1995; Nunn, 1996).

**Explanatory Style of Optimism**

The explanatory style emerged from the attributional reformulation of the learned helplessness model (Abramson, Seligman, & Teasdale, 1978). People have a habitual way of explaining bad events- an explanatory style- and this explanatory style is found to have an influence on helplessness following adversity (Peterson & Seligman, 1984).

Explanatory style can be measured two ways, one through a self-report questionnaire called the Attributional Style Questionnaire (ASQ), which presents respondents with hypothetical events involving themselves and asks them to provide “the one major cause” of each event if it were to happen to them (Peterson, Semmel, von
Baeyer, Abramson, Metalsky, & Seligman, 1982). The respondents rate these provided causes along dimensions of internality, stability and globality. Another way explanatory style can be measured is with a content analysis procedure—the Content Analysis Verbatim Explanations (CAVE). This measure allows written or spoken material to be scored for naturally occurring causal explanations (Peterson, Schulman, Castellon, & Seligman, 1992).

**Dispositional Optimism**

Scheier and Carver (1992) have studied a personality variable they identified as dispositional optimism: the global expectation that good things will be plentiful in the future and bad things, scarce. Scheier and Carver (1985) emphasize the generalized outcome expectancies of people and assume that optimism is a goal-based approach that is activated when a fairly major value is attached to a perceived outcome. While both pathways-like thoughts (outcome expectancies) and agency-involved thoughts (efficacy expectancies) are implicit in their optimism model, the outcome expectancies are seen as the prime elicitors of goal (engaging/disengaging) behaviors (Scheier & Carver, 1985, 1987). Scheier and Carver (1985) emphasizes agency-like thought, while hope theory gives equal and constantly iterative emphasis to pathways thoughts and their, motivational companions, agentic thoughts. Scheier and Carver (1985) measured optimism (vs. pessimism) with a brief self-report questionnaire called the Life Orientation Test (LOT). This questionnaire has been further revised to the Life Orientation Test-Revised (LOT-R) (Scheier, Carver, & Bridges, 1994). Results show that dispositional optimism is linked to desirable outcomes and in particular to active and effective coping (Scheier, Weintraub, & Carver, 1986).
Optimism and Coping

Although coping is not directly examined in this study this concept provides some insight regarding how optimists are able to cope and adapt with difficulties in their lives. Scheier, Weintraub, and Carver (1986) found that optimists use more problem-centered coping and emotion-focused coping techniques, including working to accept the reality of difficult situations and putting the situations in the best possible light than pessimists. Other studies (Carver, Scheier, & Weintraub, 1989; Fontaine, Manstead, & Wagner, 1993) have shown that optimists reported a dispositional tendency to rely on active, problem-focused coping and being planful. Pessimism related to the tendency to disengage from the goals with which the stressor is interfering.

Optimism and Culture

Cultures clearly differ in their emphasis on individual agency (Markus & Kitayama, 1991) and again the contemporary United States would seem to fall far out on this continuum (Peterson, Maier, & Seligman, 1993). In the United States, the most important goals we have as a people include individual choices, individual rights, and individual fulfillment (Peterson, 2000). Americans are greatly occupied with what they can and cannot accomplish in their everyday lives, and in particular with what they can acquire. These expectations tend to be decontextualized, unqualified by a consideration of the social, economic, and historical factors that can shape outcomes (Wallach & Wallach, 1983). In the United States, all things are possible to the right-thinking individual, and this sort of positive thinking is a tradition that dates back hundreds of years (Meyer, 1988).
Other cultures emphasize individual agency less but other aspects of optimism more. Optimism need not be attached just to individual agency. Collective agency-collective optimism-is an important value for cultures that emphasize the collectivity over the individual (Zaccaro, Blair, Peterson, & Zazanis, 1995). Western cultures have been described as being individualistic (Markus & Kitayama, 1991; Triandis, 1995). In such cultures, individuals are expected to seek independence from others by attending to the self (Greenwald, 1980). As a result, individuals from such cultures grow to develop a sense of the self largely independent of others. In cultures where the independent self is predominant, we find a self-enhancing bias involving overly positive views of the self, illusions of control, and unrealistic optimism (Taylor & Brown, 1988).

In contrast, the focus in Eastern cultures traditionally has been on a view of the individual who maintains a fundamental relatedness with others (Markus & Kitayama, 1991). Attending to others, harmonious interdependence with them, and fitting in not only are valued but are often expected, which results in an interdependent view of the self (Weisz, Rothbaum, & Blackburn, 1984; Yee, 1992). Within collectivist culture, the resulting bias appears to be toward self-effacement: the tendency to see oneself as being more typical or average than others (Heine & Lehman, 1995).

Only a few studies have looked at the cultural differences in optimism and pessimism empirically (Chang, 2001). Lee and Seligman (1997) assessed the explanatory style for both bad events and good events of three college student groups: mainland Chinese, Chinese American and European American. With respect to explanatory style for good events, both Chinese Americans and European American students had evaluated scores relative to mainland Chinese students. Thus, Chinese Americans appeared to be
just as optimistic as European Americans, whereas mainland Chinese were less optimistic than the two American groups. In contrast, both mainland Chinese and Chinese Americans had elevated scores for explanatory style for bad events compared to European Americans. So Chinese Americans appeared to be as pessimistic as mainland Chinese, whereas European Americans were less pessimistic than both Asian groups. Researchers have attempted to understand the pessimistic explanatory style for the Asian groups. Kao, Nagata, and Peterson’s (1997) research provides that a pessimistic explanatory style based on bad events was linked among a group of Asian American college students to a style of family upbringing that emphasized submissiveness and de-emphasized dominance.

Chang (1996) examined dispositional optimism and pessimism in Asian American and European American college students. Chang (1996) found that the two groups did not differ with respect to optimism. However, the Asian Americans were more pessimistic than European Americans. Results also indicate that there were different predictors of adjustment in the two groups. Among Asian Americans, low scores on optimism predicted psychological and physical adjustment, whereas among European Americans, high scores on pessimism predicted psychological adjustment. Results also indicated that increased active coping among Asian Americans with the use of expressing emotions and problem solving was predicted by high pessimism scores, where decreased active coping among European Americans was predicted by high pessimism scores. Therefore, Asian Americans maintain a level of pessimism in order to cope with life’s challenges, whereas coping abilities will decrease when European Americans are pessimistic.
The study shows that for Asian Americans the link between pessimism and problem solving does result in more positive rather than negative consequences, this can help explain why elevated pessimism is maintained among Asians (Peterson & Chang, 2003).

Problem Solving

The early applied problem-solving literature conceptualized problem solving as a constellation of discrete, cognitive abilities or thought processes. For example in the late 1960s and 1970s interpersonal cognitive problem-solving skills such as problem sensitivity, means-ends thinking, alternative solution thinking, causal thinking and consequential thinking were investigated (Shure, 1982). In other early research, problem-solving skills were conceptualized within stage sequential models. For example D’Zurilla and Goldfried’s (1971) five-stage model (general orientation, problem definition and formulation, generation of alternatives, decision making, and verification). The stage sequential model led to the development of problem-solving training interventions (D’Zurilla, 1986; D’Zurilla & Nezu, 1982) and was also used for conceptualizing psychotherapy activities (Heppner, 1978; Urban & Ford, 1971).

Problem solving emphasizes the person’s identification of a desired goal, which typically is a solution to the major problem (Snyder, 2000c). With the focus on finding a route upon which to base the problem-solving solution (D’Zurilla, 1986); this latter characteristic parallels the pathways component of hope theory. Hope theory, in relation to problem-solving theories, additionally invokes the motivational component of agentic thinking, which is often necessary for both understanding and promoting change.
According to Brown and Harris (1978), people can slip into despair because of lack of mastery or knowledge about how to problem solve.

Applied real-life problem solving is of special interest to professionals who help others plan and strive towards goals, as well as struggle with transitions and difficult problems that they have been unable to resolve. People typically face a complex web of goal-setting decisions, daily hassles, major life events, and continually changing situations (Heppner & Wang, 2003). A persistent problem within applied problem-solving research has been the operationalization of actual problem-solving skills, effectiveness, or competence (Kendall & Fischler, 1984). As a result, the measurement of applied problem solving generally has been categorized into two categories: (a) self-report or verbal and (b) observational (D’Zurilla, 1986). Observational methods are useful for assessing overt problem-solving performances or the product of problem-solving processes. Despite the appeal of observational approaches, this strategy encounters complex measurement issues, thus the self-report method has been the most common method of assessment.

People respond to applied personal problems in different ways. Some people bring a wealth of resources to coping with their problems, whereas others have significant problem-solving deficits. Much research suggests that how people appraise their problem-solving style is directly related to not only the manner in which they cope with their problems but also the extent to which they resolve their problems as well as their psychological adjustment (Heppner & Baker, 1997; Heppner, Cooper, Mulholland, & Wei, 2001; Heppner & Lee, 2002).
An assessment of one’s problem-solving skills (e.g., problem-solving confidence) affects subsequent coping with life transitions (Heppner & Wang, 2003). In short, the appraisal of one’s problem-solving skills may well be an important component of how one approaches life and its circumstances.

Problem-Solving and Psychological Adjustment

Researchers have found among college students that perceived effective as compared with ineffective problem solvers report themselves to be more adjusted on (a) general measures such as the Minnesota Multiphasic Personality Inventory and Symptom Checklist-90 (e.g., Elliott, Herrick, & Witty, 1992); (b) specific measures of personality variables such as positive self-concepts (e.g., Heppner, Reeder, & Larson, 1983) and (c) personal problem inventories (e.g., Heppner, Hibel, Neal, Weinstein, & Rabinowitz, 1982). Researchers have also found that a positive problem-solving appraisal such as the PSI is related to good social skills as measured by self-report indices. For example, perceived effective problem solvers reported having more social skills (e.g., Elliott, Godshall, Herrick, Witty, & Spruell, 1991), less social uneasiness (e.g., Larson, Allen, Imao, & Piersel, 1993), and more social support (e.g., Wright & Heppner, 1991) as compared to ineffective problem solvers. The research illustrates that there is a well-established association between positive problem-solving appraisal and better social and psychological adjustment.

Problem-Solving Across Cultures

Evidence regarding the cross-cultural applicability of problem-solving measures was provided with samples of African American (Neville, Heppner, & Wang, 1997) and Turkish college students (Sahin, Sahin, & Heppner, 1993). Specifically, evidence for the
generalizability of problem-solving theory was provided for a group of Turkish university students (Sahin et al., 1993). Using the most common assessment to measure perceived problem-solving abilities, Sahin and colleagues found that Turkish men did not differ from American men on total scores on the Problem Solving Inventory (PSI), but significant differences were found between Turkish and American women, with Turkish women reporting more positive problem-solving abilities. Negative problem-solving appraisal was related to higher levels of depression and anxiety among the Turkish students (and American students).

There is considerable evidence that supports the generalizability of the PSI factor structure across quite different populations and cultures; data from a number of PSI samples from other racial-ethnic minority groups and various cultures are encouraging. Nonetheless, more research with different ethnic and race samples are still needed (Leong, 1990). Thus, more work needs to be done to develop an understanding of culture-specific as well as universal problem-solving constructs. More cross-cultural normative data is needed for adequate comparisons.

In essence, problem-solving can play an important role in developing a positive psychology that actively promotes the positive development of a broad range of individuals across many aspects of their lives.

Problem-Solving Skills and Hope

Both hope and problem-solving skill can be described as additive and iterative. Increases in agency and pathways thinking lead to increased hope and goal attainment, which in turn promote subsequent agentic and pathways thoughts (Snyder, Harris, et al., 1991). Similarly, by attributing goal attainment to increased problem-solving skills,
confidence in one’s ability to solve a future problem is enhanced. A person with good problem-solving skills today is likely to create increasingly effective problem-solving abilities tomorrow.

Researchers have demonstrated that high-hope individuals are creative and effective problem solvers (Snyder, Harris, et al., 1991; Snyder, Irving, & Anderson, 1991) and have positive perceptions of competency for problem solving in multiple areas (Snyder et al., 1997). High-hope individuals view problem-solving tasks positively, believe in their problem-solving abilities, and demonstrate persistence in the face of problem-solving difficulties. High-hope individuals generate a variety of potential solutions and can identify and implement the best alternative. If effective problem solving and hopeful thinking are positively correlated, then it follows that clients who improve problem-solving skills also may experience increased hope (and vice versa) (Michael, Taylor, & Cheavens, 2000).

Other Motivation Related Concepts

It is relevant to examine positive psychological constructs for example, the hope theory in relation to selected previous theories that bear strong resemblance (Snyder, 2000c).  

Self-Efficacy

Bandura’s self-efficacy theory (1982, 1997) is predicated on the supposition that a goal-related outcome is of sufficient value to capture a person’s attention; this premise is similar to that of hope theory. Bandura consistently has posited that the cognitive processing that characterizes self-efficacy focuses upon situation specific goals. This latter goal emphasis parallels hope theory, but it differs from hope theory where there
may be enduring, cross-situational goal-directed thoughts. According to the premises of self-efficacy, the person engages in a cognitive analysis so as to comprehend the relevant contingencies for goal attainment; this is called outcome expectancy and is similar to pathways thought. The outcome expectancies reflect the person’s perceived capacity to carry out those actions that are inherent in the outcome expectancies; this is called efficacy expectancies and is similar to agency thought. The situational self-efficacy (agency) thoughts are the key to Bandura’s model, whereas both agency and pathways thoughts are emphasized in hope theory. Research shows that, in predicting well-being, hope provides unique variance independent of self-efficacy and that the factor structures of the two constructs vary (Magaletta & Oliver, 1999).

Esteem Theories

Self-esteem refers to the evaluation the individual makes and customarily maintains with regards to self; it indicates an attitude of approval or disapproval, and indicates the extent to which the individual believes self to be capable, significant and worthy (Coopersmith, 1967). Self-esteem is the personal judgment of worthiness that is expressed in the attitudes the individuals holds toward self. Self-esteem models implicitly are built upon goal-directed thoughts, and they also hold that the particular activity is valued by the person. These latter two characteristics also are applicable in hope theory. Contrary to esteem approaches, hope theory focuses upon the underlying goal pursuit-related source of a given emotion; in turn, this latter analysis aids in the understanding of how to change counterproductive thought patterns and behaviors to more positive patterns (Snyder, 2000c).
Research reveals that goal pursuit thoughts, that is hope, influence esteem (Snyder et al., 1996) and that hope augments the prediction of several markers beyond the variance related to self-esteem (Snyder, Cheavens, & Michael, 1999).

Acculturation

Acculturation refers to changes in cultural attitudes, values, and behaviors that result from the continued firsthand contact between two distinct cultures. Acculturation is marked by physical and psychological changes due to the adaptation required in diet, climate, housing, interactional styles, norms, and values of a new society (Berry, 1997; Nwadiore & McAdoo, 1996). Variables that have been shown to affect the adjustment process include personality variables (Ditchburn, 1996; Hawes & Kealey, 1981), behavioral skills (Church, 1982), previous overseas experience (Black, 1998, Torbiorn, 1982), organizational variables (Mendenhall, Dunbar, & Oddou, 1987), cultural knowledge and cultural identity (Ward & Searle, 1991), and discrepancies between expectations and experience overseas (Weissman & Furnham, 1987).

Acculturation Models

Berry’s (1990) acculturation model, assumes dichotomous decisions on two major issues that immigrants confront: the extent to which they wish to maintain their minority cultural identity and the desired degree of intercultural contact with (and participation in) majority society. By posing the two issues simultaneously, four acculturation attitudes can be defined: Integration (reflecting positive orientations toward both culture of origin and host culture). Assimilation (accepting the host culture and rejecting major cultural features of the society of origin). Separation (holding strongly to the culture of origin while avoiding contact with host members and culture), and Marginalization (harboring
negative attitudes toward both cultures and societies). Results of a growing body of research show positive relationships between acculturation attitudes and measures of psychological and sociocultural adaptation of immigrants and sojourners (Berry & Sam, 1997; Ward, 1996). In most studies, the integration attitude is highly correlated with positive outcomes, whereas marginalization seems to contribute to (or to reflect) poor psychological adjustment. Several research results indicated that acculturative stress increases when the gap between the student’s traditional culture and the host culture is larger (Andrews, 2000; Graham, 1983).

In other acculturation studies, Laroche, Kim, and Hui’s (1997) review of acculturation literature notes four commonly cited dimensions of the acculturation process: host language fluency and usage, host society interaction frequency and depth vis a vis home society interaction, culturally linked habits and customs, and the most recent added dimension, host media utilization and preference. The following propositions predict relationships between four dimensions and high or low acculturation levels (Laroche, Kim, & Hui, 1997):

- **P1a:** International students who report higher preference for the use of English in media and interpersonal communication will have higher acculturation scores than international students who prefer to use their native language.

- **P1b:** International students who state higher interaction with Americans (vs. their own cultural/ethnic group) will demonstrate higher acculturation scores than international students who report low interaction with Americans (vs. their own cultural/ethnic group).
$\varepsilon$P1c: International students who believe more in American values will reveal higher acculturation scores than international students who believe more in their own cultural/ethnic group values.

$\varepsilon$P1d: International students with high acculturation scores will report less native language media usage than international students with low acculturation scores.

Acculturation and Adaptation

Psychological adaptations to acculturation are considered to be a matter of learning a new behavioral repertoire that is appropriate for the new cultural context. It may be accompanied by some moderate “cultural conflict,” and individuals may experience “acculturative stress” if they cannot easily change their behavior (Berry, 1997; Berry, Kim, Minde, & Mok, 1987). Adaptation refers to changes that take place in individuals or groups in response to environmental demands. These adaptations can either occur immediately or be extended over the longer term. Short-term changes during acculturation are not always positive. Sometimes these are negative and disruptive in character. However, for most acculturating individuals, after a long-term period of time, some long-term positive adaptations to the new cultural context usually take place (Beiser et al., 1988).

Regarding language fluency, Yeh and Inose (2003) found that higher frequency of use, fluency level and the degree to which participants felt comfortable speaking English, predicted lower levels of acculturative distress among international students. In addition, time in the host country influences acculturation levels. Research shows a strong correlation between time in a foreign culture and assimilation with that culture (McCracken, 1986; Wallendorf & Amould, 1988). International students living in the
U.S. for longer time periods will have higher levels of acculturation. International students who had lived 6+ years in the United States were significantly more acculturated and used English significantly more than did those who had lived 3 to 5 years and 0 to 2 years.

Age at the time of an international move or immigration is another factor said to affect acculturation. Studies have shown international relocation later in life leads to less acculturation to a host society (Pefialoza, 1994).

Some studies investigated the relationship between acculturation and affect (Liem, Lim, & Liem, 2000). Liem et al. (2000) found a similarity in emotional responses between Anglo-American and Asian Americans who were most assimilated to the dominant Anglo American culture. These research results indicated that people became similar to people in the host culture in the process of acculturation.

As international students adjust to life in the United States, they make decisions as to whether or not they will return to their homeland or remain in their host country. Parr, Bradley and Bingi (1992) found that only eight percent of international students planned to return to their homeland; the majority (72%) planned to reside permanently in the U.S. (20% were uncertain or undecided about their future residency plans). According to Spencer-Rodger (2000), many international students come to America with hopes and dreams of immigrating to the U.S. This study found that close to 70% of the participants indicated a desire to reside permanently in this country.

Cultural variables, such as acculturation level and worldview, could influence the assessment process. These variables also may serve as moderating variables for positive psychological constructs and must be evaluated in the practice of positive psychological
assessment. For example, a person’s worldview determines the way in which she or he is socialized to perceive, think, feel, and experience the world (Myers, 1992).

Personality

The new conceptualization of traits as independent rather than dependent variables is based on several lines of research (McCrae et al., 2000). Longitudinal studies have shown that traits are stable over long periods despite intervening life events. Cross-cultural studies have suggested that both the five-factor structure of personality traits and their developmental course in adulthood are universal. Cultures may yet have some detectable influence on personality traits but in a very profound way traits transcend culture (McCrae, 2001). What cultures incontestably do influence are the acquired skills, habits, attitudes, interests, roles, and relationships that McCrae and Costa (1999) have called characteristic adaptations. For example, a garrulous Frenchman and a talkative Korean share the same extraverted tendencies, but they express them in culture-specific form and language. The Five-Factor Model of personality show very similar structures in all the cultures in which they have so far been examined (McCrae, Costa, del Pilar, Rolland, & Parker, 1998; Paunonen, Jackson, Trzebinski, & Forsterling, 1992). It is the strong evidence of universality that makes the study of traits across cultures possible. McCrae and Costa (1999) found that Germany, Portugal, China, Korea and Japan shared a personality factor structure similar to America by using the (NEO-PI-R) which is the original personality inventory of NEO-FFI. Five factors were found when a translated version of the NEO-PI-R was administered to Filipino and French populations and analyzed by factor analysis (McCrae, Costa, del Pilar, Rolland, & Parker, 1998). These research results imply the NEO-PI-R is a culture free personality assessment. Therefore,
the NEO-FFI results of international students have less risk of bias due to different personality concepts in various cultures. The Five-Factor Model of personality (N, E, O, A & C) is not an invention of western psychologists; it is part of human nature dimensions of enduring dispositions that some how find expression in every culture. How group differences in the levels of these traits are related to group processes and outcomes is as yet largely unknown, but it is a topic that should be of great interest to all social scientists (McCrae, 2001).

With regard to adjustment, research has found that certain personality traits aid in adjustment (Crano & Crano, 1985). Characteristics such as open-mindedness, flexibility, cultural sensitivity and extraversion are positively correlated with positive adjustment. Personality researchers have found that extraversion, tends to correlate moderately with pleasant affect but only slightly or not at all with unpleasant affect (Costa & McCrae, 1980). Diener, Diener, and Diener (1995) ranked 55 cultures with respect to mean subjective well-being, a variable inversely related to N and directly related to E in individual analyses of Western samples (Costa & McCrae, 1980). The correlations of N and E with subjective well-being were -.35 and .64 respectively, with the latter attaining statistical significance (p< .01). O, A and C were unrelated to subjective well-being.

Acculturation studies (McCrae, Yik, Trapnell, Bond, & Paulhus, 1998) are particularly useful in sorting out the possibilities-of why cultures differ in the level of a personality trait—because individuals from the same gene pool are studied under different cultural conditions. Acculturation used as a contextual variable can explain cultural differences. An example provided by McCrae, Yik, Trapnell, Bond, and Paulhus (1998) found that compared to American norms, Hong Kong College students were lower in
extraversion, which may be a result of the emphasis on restraint in Chinese culture. To test the contextual variable of acculturation as an explanation of cultural differences, a follow-up study included three groups of Chinese in Canada: recent immigrants, immigrants who had been in Canada for a longer period of time, and Canadian-born Chinese. The study showed that Canadian-born Chinese showed the highest level of extraversion, followed by immigrants who had been in Canada for a long time, and then by recent immigrants.

**Support Systems**

International students’ adjustment can be facilitated by close contact with people in the host culture (Tanaka, Takai, Kohyma, Fujihara, & Minami, 1997; Amarasingham, 1980). Interpersonal relationships are one of the most important factors in international students’ adjustment and especially interpersonal relationships in which Americans help international students learn culturally appropriate behaviors and attitudes in American society (Parr, Bradley, & Bingi, 1992). Mallinckrodt and Leong (1992) investigated the significance of social support among international students and found that the quality of the support system had not only a direct but also a buffering effect when international students were undergoing psychological stress. These authors concluded that social support is essential to the welfare of international students. Due to differing cultural values with how they perceive social support systems, how satisfied international students are with their social support networks may influence their levels of acculturative stress.

In order to understand how international students relate to others in an unfamiliar cultural environment, it is also important to understand their sense of social
connectedness in addition to their satisfaction with their social support systems.
Specifically, social connectedness is defined as an aspect of the self that manifests the subjective recognition of being in close relationship with the social world (Lee & Robbins, 1995, 1998). This lasting sense of connectedness then directs individuals’ feelings, thoughts, and behaviors in social situations (Lee & Robbins, 1998). Thus, an individual with a high sense of connectedness can easily form relationships with others and participate in social groups and activities, whereas, people who lack connectedness are inclined to experience low self-esteem, anxiety, and depression (Lee & Robbins, 1998). For example, Lee, Keough, and Sexton (2002) found that college female students with low social connectedness tended to view university campus life more negatively, which in turn contributed to their perceived stress levels.

Individualistic and Collectivistic Quality of Life

Quality of life, denoted by well-being and life satisfaction, is expressed differently for individuals from an individualistic society than individuals from a collectivistic society. For example, well-being is optimized when people adhere to the script (interdependence or independence) that is central to their culture. Personality factors are also relevant: The big five factor of openness to experience (high among individualists) is related to self-esteem, while the agreeableness factor (high among collectivists) is related to harmonious relationships. Self-esteem and good relationships determined life satisfaction (Kwan, Bond, & Singelis, 1997). However, self-esteem was found to be more important in the individualist cultures and agreeableness was more important in the collectivist cultures.
Extraverts choose to interact intensively with others, and it might seem that they would be found in collectivistic cultures. But in fact, collectivism is associated with close interaction only with one’s in-group; it is people in individualist cultures who are very good at meeting outsiders, forming new in-groups, and getting along with new people (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). This suggests the hypotheses that collectivism is an institutional compensation for low levels of E. Social interaction is essential for the survival of every culture; if people are not temperamentally inclined to interact, then perhaps collectivistic institutions must arise to guide them in social directions.

Diener and Diener (1995) also found that life satisfaction correlated positively with self-esteem across all of the 31 nations they examined. The size of this correlation differed substantially across nations. Self-esteem and life satisfaction correlated .60 in samples from U.S. and from Canada, whereas correlated .08 among Indian and .27 among Bahrain women. Across the entire pool of nations, individualism of nations correlated .53 with the size of the self-esteem and life satisfaction relation. Thus self-esteem predicts life satisfaction more strongly in individualist than in collectivist societies. Evidence indicates that positive self-regard is positively associated with life satisfaction across cultures (Diener & Diener, 1995; Grob, Little, Wanner, Wearing, & Euronet, 1996; Kwan, Bond, & Singelis, 1997; Leelakulthanit & Day, 1993; Majumdar & Dasgupta, 1997; Oishi, Diener, Lucas, & Suh, 1999). However the centrality of positive self-regard to well-being appears to vary across cultures, notably between individualist and collectivist countries. Based on data collected from 49 universities in 31 countries, Diener and Diener (1995) examined the relations between domain satisfaction and global
life satisfaction. Consistent with Triandis’s (1995) individualism-collectivism theory and Markus and Kitayama’s (1991) cultural theory of the self, self-esteem was a stronger predictor of global life satisfaction in individualist nations than in collectivist nations. For instance, the correlation between self-esteem and life satisfaction in India was 0.08 among Indian women, whereas it was 0.06 among American women. Similarly, in a large international study, Oishi, Diener, Lucas, and Suh (1999) tested the role of individualism-collectivism in the relations between domain and global life satisfaction, controlling for the effect of economy. Based on college student samples from 29 nations, these researchers found that satisfaction with self was a stronger predictor of life satisfaction in individualist nations than in collectivist nations, even after controlling for national income.

Kwan, Bond, and Singelis (1997) hypothesized that maintaining a harmonious relationship with others may be a particularly important source of life satisfaction in collectivist cultures. It has been found that in a typical collectivistic society, individual psychological well-being is subordinate to the well-being of the group; that is, maintenance of social harmony is one of the most important values (Iwata, Saito, & Roberts, 1994). Because of this socialization, one is less likely to generate positive feelings and more likely to inhibit the expression of positive feelings (Iwata & Higuchi, 2000). According to Diener, Suh, Oishi, and Shao (1996) not only is the ideal level of life satisfaction lower in the East Asian cultures, but positive emotions, such as joy and happiness, are also not as highly valued by East Asians as they are by Americans (Diener, Suh, Oishi, & Shao, 1996). The cultural value placed on the concept of subjective well-being as a whole, thus, seems to vary between individualist and collectivist cultures.
CHAPTER 3

METHODS

The goal of this study is to investigate the effects of positive psychology constructs of hope, optimism and problem solving as well as personality traits and support systems as international students acculturate within the United States. In order to expand the research base in this area, the nine research questions that have been chosen vary in form and focus. The questions call for an examination of hopefulness with international students. The relationship between personality traits and hope and the relationship between social support and hope were each examined. Additionally, the questions call for the examination of international students’ acculturation in the United States. Acculturation is examined in the following five areas: (1) hope, (2) optimism, (3) problem solving, (4) support systems and, (5) personality traits. Finally, the mediation of problem solving; with the relationship between hope and acculturative stress and the relationship between optimism and acculturative stress were each examined.

Participants

An Institutional Review Board (IRB) proposal to work with human subjects was submitted and accepted prior to the start of data collection (project # 2004-10787-0). The study consisted of all adults (18 or older) who are undergraduate and graduate international students at a large university in the southeast. International students in this study are defined as college students studying in a country other than that of their citizenship. As of the fall of 2003 there were 2,058 international students at the university
(Allen, 2003). Included in this data are both resident and nonresident aliens. The country of origin indicated in the data is the country of residence at the time of application to the university. Eight hundred and ten of these students were undergraduate students, while 1,248 were graduate students. International students make up 6% of the student population. The most frequent fields of study for international students are Business Management, Biological/Life Sciences and Education. International students most frequently represent China, Korea, India, Canada and United Kingdom (respectively).

The study consisted of 83 participants. There were 157 packets received by international students. 157 international students responded to the study through the various recruitment measures (as indicated subsequently) that were established. 85 packets were returned (54% return rate). Two were omitted because they did not qualify as international students as they were both raised in the United States. The participants were predominately female (60% female and 40% male). The ages ranged from 18 years to 42 years, the mean age is 26.3 years, the modal age is 24 and the median age is 25 years. Thirteen percent of the participants represent countries within Africa, 29% represent The Americas, (consisting of Central America, South America, Northern America and the Caribbean), 42% represent Asia, 15% represent Europe and 1% represents Oceania. Eighty two percent of participants were not married and 18% were married. Twenty percent are undergraduate students and 80% are graduate students. Fifty five percent of the participants have been in the United States from 0 to 2 years and 28% of the participants have been in the United States from 3 to 5 years with 17% of the participants having been in the United States for 6+ years.
Several methods were utilized to recruit participants. Through the Office of International Student Life (ISL), the study was posted on the ISL listserv (this listserv is accessible to all international students registered with ISL) and the international student organizations listserv. In addition, the study was announced at the international coffee hour, the summer pool parties sponsored by ISL and international student organization’s monthly meeting with organization’s presidents and leaders. The study was also posted on the Graduate and Professional Scholars (GAPS) listserv and the Graduate Student Association (GSA) listserv. Through Family and Graduate Housing, the study was posted on the listserv as well as the “Village Monthly”, the Family and Graduate Housing newsletter. Participants were also recruited via networking opportunities with friends who are international students.

Instrumentation

Participants were asked to complete a Consent Form (see Appendix A), a Demographic Questionnaire for International Students (researcher developed questionnaire), the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994), the International Personality Item Pool (IPIP-NEO) (Goldberg, 1999), the Future Scale (Snyder, Harris, et al., 1991), the Life Orientation Test-Revised (LOT-R) (Scheier, Carver, & Bridges, 1994) and the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982). Description of constructs (see Table 1), respective instruments and what they measure are indicated.

The Demographic Questionnaire for International Students

Respondents were asked to provide information about their age, gender, marital status, educational level, country of origin, length of stay in the U.S., visits to country of
origin and support systems. Participants were provided with a 4-point Likert scale to select their responses. Their support system was assessed using scores from the four following questions:

1. “How satisfied are you with the friendships you have made, as part of your support system, in the U.S.?”

2. “How satisfied are you with your family’s involvement to participate in your support system when you are in the U.S.?”

3. “What is your overall satisfaction with your support system within organizations in the U.S.?”

4. “How satisfied are you with your educational relationships (e.g. mentor, advisor, professors, instructors, coach, tutor, graduate assistant) in the U.S.?”

**Hope Scale**

The Hope Scale (Snyder, Harris, et al., 1991) is a self-report measure consisting of 12 items. Each item is rated on a 4-point scale (1=definitely false, 2= mostly false, 3=mostly true, 4=definitely true), respondents answer to the extent each item applies to them. The Hope Scale is administered under the title “Future Scale” so the construct being assessed is not made explicit. The scale is comprised of 12-items, four each loading into Agency (factor 1) and Pathways (factor 2) and four distracters. The four agency items tap the overall sense of successful goal-related determination, specifically one item reflects the past, two items reflect the present, and the last reflects the future. The four pathway items apply to individuals’ cognitive assessments of their capabilities to create means to reach goals and overcome goal-related obstacles. The highest possible score is 32 (16 agency and 16 pathway). Average scores for college students are approximately
24 with significantly lower scores for people who are seeking psychological help and those persons who are inpatients at a psychiatric hospital.

The Hope Scale has been administered over 10,000 times but primarily to college students. The original validation study in 1991 by Snyder and his colleagues (Snyder, Harris, et al., 1991) examined eight different samples ranging from 97-508 subjects and Babyak and his associates (Babyak, Snyder, & Yoshinobu, 1993) did a confirmatory analysis with four samples ranging from 472-955 subjects. All subjects were college students with the exception of two samples: 97 patients of an outpatient stress center and 109 inpatients at a state hospital. No gender difference has been found in regard to the Hope Scale, and no difference among race has been found with the Hope Scale (Lopez et al., 2002).

In the original 1991 (Snyder, Harris, et al., 1991) instrument validation, full-scale internal consistency reliability coefficients using Cronbach’s alpha ranged from .74 to .84. For the agency subscale Cronbach’s alpha ranged from .71 to .76 and for the pathway subscale Cronbach’s alpha ranged from .63 to .80. Nunnally (1978; Snyder, Harris, et al., 1991) indicates that for research purposes internal reliability coefficients of .70 to .80 are acceptable because they are not affected by any great degree of measurement error. The test-retest correlation was .85 over a 3-week interval and .76 and .82 over 10-week intervals in two samples. Additionally, in 1993, reliability estimates ($R^2$) ranged from .26 to .86 for scale items and .96 to .99 for the agency and pathways factors (Babyak, Snyder, & Yoshinobu, 1993).

In 1991 (Snyder et al, 1991) concurrent validation was reported through positive correlations to several instruments including the Life Orientation Test (LOT) developed
by Scheier and Carver (Scheier & Carver, 1985) that correlated .60 and .50 with the Hope Scale in two separate studies. The Hope Scale correlated .58 (p<.005) with responses to the Rosenberg Self-Esteem Scale (Rosenberg, 1965). The Hope Scale correlated negatively -.62 (p<.005) with the Problem Solving Inventory (PSI; Heppner & Petersen, 1982; lower scores on the PSI indicate greater perceived problem solving ability). The Hope Scale correlated negatively -.51 (p<.005) with The Hopelessness Scale. Snyder and his associates concluded that the hope scale has “good discriminant utility in the prediction of coping styles and overall psychological well-being beyond variance attributable to other related constructs” (Snyder, Harris, et al., 1991).

It has also been hypothesized that hope is related to coping styles. In support of this hypothesis, Irving, Snyder, and Crowson (1998) found that hope significantly predicted positive coping responses in four imaginal situations involving cancer among college women after controlling for previous academic achievement, knowledge about cancer, experience with cancer, and negative affectivity. Among older adults with vision loss, Jackson, Taylor, Palmatier, Elliott, and Elliott (1998) found that hope was significantly correlated with a number of coping style scales from the Millon Behavioral Health Inventory (MBHI; Millon, Green, & Meagher, 1982): Inhibited (avoidant; r=-.46), Cooperative (r=-.25), Sociable (proactive; r=.43), Confident (r=.45), and Sensitive (r=-.36).

Magaletta and Oliver (1999) investigated the relations between hope, agency and pathways, self-efficacy, optimism, and general well-being. A factor analysis of the items from the Hope Scale, the Self-Efficacy Scale (SES; Sherer et al., 1982), the Life Orientation Test (LOT; Scheier & Carver, 1985), and the General Well-being
Questionnaire (GWBQ; Wheeler, 1991) resulted in the extraction of four factors that represent the SES, LOT, pathways, and agency. In addition, multiple regression analyses that involved general well-being as the outcome variable indicated that hope accounted for unique variance after controlling for self-efficacy and optimism. Therefore, hope is related but not identical to self-efficacy and optimism.

Because the instrument is designed to reflect the two separate but related theoretical components of a greater construct of hope, a factor analysis was performed to explore the presence of agency and pathways for factor structure (Snyder, Harris, et al., 1991). The four items hypothesize to tap agency, demonstrated high loading on Factor 1 and not Factor 2, and the four pathway items demonstrated high loading on Factor 2 but not Factor 1. The two Factors accounted for 52% to 63% of the variance across samples. In 1993, Babyak and his associates tested the tenability of this two-factor model as compared to the one factor model. Their results suggest “that while agency and pathways are highly related they do not constitute a single factor, rather they are relatively distinct entities that converge upon a broader latent construct”-hope (Babyak, Snyder, & Yoshinobu, 1993). They note that this is consonant with Snyder and associates’ hope theory (Snyder, Harris, et al., 1991).

**Acculturative Stress Scale for International Students (ASSIS)**

ASSIS (Sandhu & Asrabadi, 1994) was developed in order to assess the adjustment of international students. It is a 36-item scale using a 5-point Likert scale (1=Strongly disagree to 5=Strongly agree). The ASSIS consists of the following subscales: Perceived discrimination (eight items), Homesickness (four items), Perceived
hate (five items), Fear (four items), Stress due to change (three items), Guilt (two items), and Miscellaneous (10 items).

The seven subscales include: Perceived discrimination (“I am treated differently in social situations”), Homesickness (“I miss the people and country of my origin”), Perceived hate (“People show hatred toward me nonverbally”), Fear (“I fear for my personal safety because of my different cultural background”), Stress due to change (“I feel uncomfortable to adjust to new cultural values”), Guilt scale (“I feel guilty to leave my family and friends behind”) and Miscellaneous (“I feel nervous to communicate in English”).

The global scores on the ASSIS range from 36 to 180. The mean score of this scale is 66.32 and the standard deviation is 21.16. Within two standard deviations, mean scores from 108.64 or 109 are normal. Since not all international students experience the same level of acculturative stress, a score higher than 109 should be interpreted as a warning sign for counseling and psychological intervention.

Sandhu and Asrabadi (1994) encourage the use of the total score of the ASSIS. In the case of using the total scores, higher scores are indicative of greater acculturative stress perceived by the respondents. They also suggest it is possible to use the subscale scores when researchers or practitioners are interested in determining the specific sources of acculturative stress.

The instrument developed through an initial pool of 125 statements in Likert-type format was constructed by using two strategies. First, 13 international students, 8 men and 5 women, were interviewed at an urban university in the southern United States to take into consideration their personal experiences and perspectives. These students
included two from China, one from Egypt, one from Ethiopia, two from Germany, two
from India, one from Iran, one from Japan, two from Venezuela, and one from
Nicaragua. Second, recurrent themes of adjustment difficulties with high face validity
were identified from the prevalent counseling literature related to international students.
Specifically, works of Alexander, Klein, Workneh, and Miller (1981), Allen and Cole
(1986), Johnson (1971), Klineburg and Hull (1979), Manese, Sedlacek, and Leong
(1988), Pedersen (1991), Spaulding and Flack (1976), Walton (1971), and Zikopoulos
(1993) were closely examined for this purpose. The initial 125-item Acculturative Stress
Scale for International Students was pilot tested with 17 undergraduate and 9 graduate
international students.

The Cronbach’s coefficient alpha is calculated to be 0.9464 for 36 items. The
calculated value of the Guttman split-half statistic is 0.9690 with 0.9399 as the
correlation between halves. These statistics support a very high measure of reliability.
Factor 1, Perceived Deprivation, captured the highest percentage of total variation
(37.6%), one can conclude that perceived deprivation/alienation is of the most concern
with the item “Others are biased toward me” as the highest contributor. This item has a
loading of 0.78 and communality of 0.73. The second-highest contributor of Factor 1 is
the item “I feel that I receive unequal treatment,” with a loading if 0.73 and communality
of 0.699. These findings are consistent with some previous studies. Bois’s (1956)
observations made about perceived discrimination over four decades ago seem to still
hold true: “Probably relatively few foreign students have had personal experiences with
the cruder varieties of racial discrimination. More suffer from difficulties of strangeness...sensitive students may interpret social distance as racial discrimination”.

The second major factor was found to be Loneliness, which contributed 8.6% to the total variance. This sense of loneliness is caused by homesickness, missing significant others in the native country, and a sense of being lost in the unfamiliar surroundings. Most of all, this perceived sense of loss is caused by the lack of emotional and social support as indicated by the items “I feel sad leaving my relatives behind” and “Homesickness bothers me”. Coping with loss of family and friends, and country could be a very painful and extremely stressful experience (Aubrey, 1991).

The third factor, which contributed 7.4% to the total variance and is named Perceived Hate Rejection in this study, seems to be unique in the existing counseling psychology literature on international students. The item “People show hatred toward me verbally,” with loading of 0.73, is the highest contributor. The participants reported strong negative feelings toward host nationals in response to culturally biased verbal and nonverbal communications and actual derogatory behaviors.

The fourth factor, Fear, contributing 5.3% to the total variance, was also found unusual in the literature in foreign students. This fear seems to be related to the perceived sense of insecurity in unfamiliar surroundings, sense of inferiority, and off and on hostile relations between foreign student’s native country and the United States. The items “I fear for my personal safety because of my different cultural background” and “I generally keep a low profile due to fear,” with a loading of 0.86, are the highest contributors to this factor.
The fifth factor, Stress Due to Change, contributed 37.7% to the total variance, is the most researched topic in the literature of foreign students (Alexander, Klein, Workneh, & Miller, 1981; Bochner, 1986; Mena, Padilla, & Maldonado, 1987; Padilla, Alvarez, & Lindholm, 1986; Thomas & Althen, 1989). Most of the stress is caused by multiple pressures placed on international students because of migration to a strange land. Foreign students are a high-risk group, under considerable stress; this stress is more likely to be experienced in the form of physical complaints than psychological complaints (Alexander, Klein, Workneh, & Miller, 1981). It may be noted, however, that the items “I feel uncomfortable to adjust to new foods” and “multiple pressures are placed upon me after migration” with factor loadings of 0.80 and 0.79, respectively are the two highest contributors.

The last factor, Guilt, contributed 3.4% to the total variance and like the factors of Perceived Hate/Rejection and Fear in this study, was also found to be unique. Adopting the host culture’s values was perceived as being insincere to their own culture by these participants. International students seem to be in a double bind, caught between the old values of their cherished native culture and the new values of the host culture, which they are pressured to adopt.

The ASSIS was published in 1994, and there have been several studies using the Acculturative Stress Scale for International Students. Ansari (1996) studied the validity of the ASSIS by examining the difference in acculturative stress between American and international students. The participants consisted of 51 American college students and 53 international college students. The data on seven subscales were submitted to multivariate analysis of variance (MANOVA). The MANOVA indicated the groups were significantly
different on the linear combination of the seven subscales, $F(7, 96) = 5.59$, $p = .0001$ (Wilks’s lambda = .71), with international students scoring higher than the American students. This indicated that international students experienced significantly higher acculturative stress than American students. Ansari (1996) reported the internal consistency of the total ASSIS scores as .87. In addition, the reliabilities for all the subscales were relatively high, ranging from .74 to .87 except for Guilt (.58) and Culture Shock (.55), which are considered moderate.

Using the ASSIS, Michailidis (1996) conducted a study to research the factors that contribute to gender differences in acculturative stress. This study also investigated differences existing in acculturative stress among students from first, second and third world countries. A total of 118 full-time international undergraduate and graduate students enrolled at a university in the northeastern United States participated, 83 males and 55 females. The highest percentage of undergraduate students was juniors (30.2%) and the highest percentage of the graduate students was doctoral students (33.9%). The age range was 19 to 48 with a mode of 30 and median of 27. Engineering majors were the highest percentage (33.1%). Most of the students (63.3%) had been in the United States for 3 years or less. First world students in the total sample had the highest percentage rate (38%), followed by the third and second world students (32% and 30% respectively).

Possible gender differences were examined as they related to acculturative stress. ANOVA and the students’ Gender and Origin were used as the independent variables with the subscale scores of Perceived Discrimination, Safety, and Adjustment used one at a time as the dependent variables. ANOVA was used to determine whether the factors exhibited a statistically significant difference across Gender and Origin and to examine
any potential interaction between these factors. The results indicated that only the Perceived Discrimination factor was significant with gender, with highly significant difference at the .01 alpha level (df = 2, 116; p<.01). The statistical analysis also indicated that the students’ gender influenced the amount of acculturative stress they experienced; male students perceived to experienced more discrimination than female students. A post hoc Tukey (HSD) test indicated that the group with the highest significant difference on Perceived Discrimination was the male students from the third world countries with an unweighted mean of 19.5. The study also reported gender differences in acculturative stress among international students: international male students suffer higher levels of acculturative stress than females. As a result, they should be considered at higher risk for academic and social failures.

In another study, Gholamrezaei (1996) reported that a higher level of acculturative stress is associated with a lower level of acculturation. Heikinheimo and Shute (1986) reported that students from developing countries in Canadian universities generally had to make more substantial adjustments than their counterparts from Europe and Caribbean countries.

Yeh and Inose (2003) investigated the extent international students’ age, gender, English fluency, social connectedness and social support network satisfaction predicted acculturative distress, as measured by the ASSIS. Results indicated that English language fluency, social connectedness and social support network satisfaction were significant predictors of acculturative distress. Yeh and Inose (2003) showed that age and gender were not significant predictors of acculturative stress.
The Life Orientation Test-Revised (LOT-R) (Scheier, Carver, & Bridges, 1994) is a ten-item measure that is reported to measure dispositional optimism. The LOT-R consist of three positively-worded items, three reverse-coded items and four filler items. The original LOT (Scheier & Carver, 1985) was a 10-item scale with two filler items, four positively worded items, and four reverse-coded items. Respondents indicate their degree of agreement with statements such as, “in certain times, I usually expect the best,” using a five-point response scale ranging from “strongly disagree” to “strongly agree.” Negatively-worded items are usually reversed, and a single score is obtained.

The scale has been used as a measure of the extent to which individuals have positive expectancies of life outcomes (Scheier, Carver, & Bridges, 1994). It has been used extensively in studies of stress, both with college students and with people going through stressful events, such as medical populations facing or recovering from serious diseases or treatments.

Factor analyses indicate that the LOT-R can be construed as unidimensional, with one score representing whether a person is an optimist or pessimist (Scheier and Carver, 1987). Scheier, Carver, and Bridges (1994) originally developed the LOT-R to be unidimensional. To date, factor analytic research of scores on the LOT reveal that optimism and pessimism may not be bipolar, but independent of one another (Hummer, Dember, Melton, Howe, & Schefft, 1992; Marshall & Lang, 1990). Recently, Lightsey (1996) stated in a review of the optimism and pessimism literature, that the LOT-R should analyze an overall scale score and two subscale scores. The internal reliability for the unidimensional use of the LOT-R (Cronbach’s alpha= .78) and test-retest reliability
(r=.68 over a four-week interval, r=.60 over twelve months, r=.56 over twenty-four months, and r=.79 over twenty-eight months). Evidence of convergent validity is demonstrated by the significant correlations in the expected directions with other constructs, e.g., depression, hopelessness, self-esteem, perceived stress, and locus of control (Scheier, Carver, & Bridges, 1994). Further construct validity comes from studies showing that the scores are strongly correlated with physical and psychological well-being (Scheier & Carver, 1992).

**Problem Solving Inventory**

The Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982) has been used in over 100 investigations and has been referred to as one of the most widely used self-report inventories in problem solving (Nezu, Nezu, & Perri, 1989). The PSI assesses an individual’s awareness and evaluation of his problem-solving abilities or style, and thus provides a global appraisal of that individual as a problem solver (i.e., problem-solving appraisal). The PSI is a self-report measure, and thus assesses perceptions of problem solving as opposed to actual problem-solving skills. Although the accumulative evidence seems to suggest a clear link between problem-solving appraisal and problem-solving performances, these constructs should not be considered synonymous (Heppner, Witty, & Dixon, 1995). Moreover, the PSI is a noninvasive, nonthreatening inventory that does not pathologize individuals in terms of a medical illness or disease.

The PSI consists of 35 six-point Likert items (1= strongly agree to 6=strongly disagree), which constitute three factors: Problem-Solving Confidence, Approach-Avoidance Style, and Personal Control. Problem-Solving Confidence is defined as self-
assurance while engaging in a wide range of problem-solving activities, a belief and trust in one’s problem-solving abilities. A sample item is, “When I make plans to solve a problem, I am almost certain that I can make them work.” This factor is best conceptualized as a general measure of problem-solving self-efficacy, or belief in one’s ability to effectively cope with problems. The research suggests that Problem-Solving Confidence is positively associated with personal agency, curiosity, positive affectivity, and negatively associated with anxiety, anger, depression, and eating disorders. Moreover, this factor is positively associated with coping activities reflective of coping efforts directed at solving the problem (problem-focused coping), and related to behavioral outcomes such as academic performance (Heppner et al., 1995).

The second factor within the PSI is Approach-Avoidance Style and is defined as a general tendency to approach or avoid different problem-solving activities. Additionally, lower scores in this factor are associated with approaching problems, and higher scores are associated with avoiding problems. A sample item is, “When confronted with a problem, I consistently examine my feelings to find out what is going on in a problem situation.” The approach-avoidance dimension has a long history in psychology, perhaps made most prominent by Dollard and Miller (1956); interestingly, this dimension has been found across a number of problem-solving or coping inventories (Cook & Heppner, 1994). Moreover, approaching problems is a defining characteristic of resilient adults who overcame traumatic childhood events (Higgins, 1994). Whether a person has a tendency to approach or avoid problems is very critical in the problem-solving process because it affects subsequent problem-solving behaviors, such as attempts at defining the problem and trying to find solutions. Research has found that the Approach-Avoidance
factor is related to personal agency, curiosity, a rational decision-making style, coping
directed at solving the problem, and effective utilization of helping resources (Heppner et al., 1995).

The third PSI factor is Personal Control, and it is defined as believing one is in
control of one’s emotions and behaviors while problem solving. This factor seems to
reflect emotional over-reactivity and behavioral control. A sample item is, “I make snap
judgments and later regret them.” Personal control has been a major personality construct
for the last 30 years (Lefcourt, 1966; Rotter, 1966). The research literature suggests that
the Personal Control factor is positively associated with personal agency, and is
negatively associated with anxiety, curiosity, anger, depression, martial distress, and
bulimia (Heppner et al., 1995). Moreover, this factor is negatively related to coping
activities associated with emotional reactions to problems and disengagement from
finding a solution to the problem.

The three PSI factors have been replicated across samples and populations in the
United States as well as across cultures (Heppner et al., 1995). Likewise alpha
coefficients (.90 for the total inventory, and for each factor, .85, .84, and .72) across a
number of populations and cultures provide a strong empirical support for the internal
consistency of the PSI. Estimates of stability (test-retest) also provide strong empirical
support for the stability of the PSI, with only small decrements over time (Heppner et al.,
1995). For example, the reliability coefficients for the total inventory and for each factor
at 2 weeks were .89, .85, .88, and .83 respectively. At 3 weeks they were .81, .78, .77,
and .81. The last retesting produced coefficients of .60, .65, .61, and .44 (Heppner, 1998).
Research has clearly indicated that problem-solving appraisal as measured by the PSI is related to a broad range of indices of psychological adjustment (Heppner et al., 1995). Thus, people who appraise their problem solving negatively have been shown to be more likely to report (a) depression (e.g., Bonner & Rich, 1987), (b) hopelessness (Bonner & Rich, 1992), (c) suicidal ideation (Dixon, Heppner, & Rudd, 1994), (d) more anxiety (Nezu, 1985), (e) lower self-concepts (Heppner, Reeder, & Larson, 1983), and (f) more dysfunctional thoughts (Heppner, Kampa, & Brunning, 1987). Moreover, when people encounter stressful life events, the people who appraise themselves negatively are much more likely to experience depression than are those who appraise their problem solving positively (Nezu, Nezu, Saraydarian, Kalmar, & Ronan, 1986). Thus, knowledge of one’s PSI score will allow practitioners to generate some hypotheses about the individual’s psychological well-being.

Evidence for the generalizability of problem-solving theory was provided for a group of Turkish university students (Sahin et al., 1993). It was found that Turkish men did not differ from American men on total scores on the Problem Solving Inventory, but significant differences were found between Turkish and American women, with Turkish women reporting more positive problem-solving abilities. Negative problem-solving appraisal was related to higher levels of depression and anxiety among Turkish students and American students. Pretorius (1993) study also indicated that the PSI was a reliable instrument with black South African students and that self-appraised ineffective problem-solvers reported lower self-esteem and personal competence, and higher level of depression and anxiety than self apprised effective problem-solvers. These results were consistent with previous research concerning differences between effective and
ineffective problem-solvers in terms of dispositional characteristics (Heppner et al., 1982), and psychological distress (Nezu, 1985).

**IPIP-NEO**

The International Personality Item Pool (IPIP; Goldberg, 1999) version of the NEO-PI-R (Costa & McCrae, 1992) is referred to as the IPIP-NEO short form (Johnson, 2000). The IPIP-NEO short form consists of 120 items and responses to the items are scored on a five-point scale (1= very inaccurate to 5= very accurate). It measures five domains of personality: Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C). The IPIP-NEO correlates with the NEO PI-R domain scales at .73 (.94 when corrected for scale unreliability) in a sample of 501 adults in Oregon. A Procrustes rotation (McCrae, Zonderman, Costa, Bond, & Paunonen, 1996) was performed to align the IPIP-NEO with the NEO PI-R. The results of this rotation yielded a close fit between the two structures: All factors and item congruence scores are above .90, indicating that on the whole, the IPIP-NEO replicates the structure found using the NEO PI-R. High scores on the N scale indicate the general tendency to experience negative affects such as fear, sadness, and embarrassment, and low scores in the N scale indicate emotional stability and ability to deal with stressful situations without becoming upset. People who score high on the E scale tend to be sociable, and those who score low on the E scale are introverted. The O scale measures openness to experiences. People who score high on the O scale enjoy novelty, variety and change, and those who score low on the O scale have narrow, common interests. The A scale indicates interpersonal tendency. People who score high on the A scale are usually altruistic, and people who score low on the A scale are prone to be egocentric. The C scale concerns the way in
which we control, regulate, and direct our impulses. People high on the C scale avoid
trouble and achieve high levels of success through purposeful planning and persistence,
and those low on the C scale are unreliable and lack ambition (Costa & McCrae, 1992).

McCrae and Costa (1999) found that Germany, Portugal, China, Korea and Japan
shared a personality factor structure similar to America by using the Neuroticism
Extraversion Openness Personality Inventory Revision (NEO PI-R). The five factors
were found when a translated version of the NEO PI-R was administered to Filipino and
French populations and analyzed by factor analysis (McCrae, Costa, del Pilar, Rolland, &
Parker, 1998). These research results imply the NEO PI-R is a culture neutral personality
assessment. Therefore, the IPIP-NEO results for international students have less risk of
bias due to different personality concepts in various cultures.

In Leininger’s (2002) study examining the relationships between Vietnamese
personality, culture, and acculturation in the United States, Vietnamese Americans were
administered a translation of the IPIP-NEO. It was found that unacculturated Vietnamese
Americans are low in Openness relative to Americans and acculturated Vietnamese
Americans.

McCrae, Yik, Trapnell, Bond, and Paulhus (1998) administered the NEO PI-R to
Canadian born Chinese and Chinese immigrants and found Canadian born Chinese had
significantly higher scores in Extraversion, Openness, and Agreeableness scales than
Chinese immigrants.

When the NEO PI-R was administered to Canadian born Europeans and Chinese,
Europeans had significantly higher scores on the Extraversion scale and significantly
lower scores on the Agreeableness scale than Chinese.
<table>
<thead>
<tr>
<th>Construct</th>
<th>Instrument</th>
<th>Scales</th>
<th>What it measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hope</strong></td>
<td>Future Scale</td>
<td>Agency</td>
<td>Motivational component to reach desired goals. Perceived capabilities at generating workable routes to desired goals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pathways</td>
<td></td>
</tr>
<tr>
<td><strong>Problem Solving</strong></td>
<td>Problem Solving Inventory (PSI)</td>
<td>Problem-Solving Confidence</td>
<td>Self-assurance while engaging in a wide range of problem-solving activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Approach-Avoidance Style</td>
<td>Tendency to approach or avoid different problem-solving activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personal Control</td>
<td>Believing one is in control of one’s emotions and behaviors while problem solving</td>
</tr>
<tr>
<td><strong>Acculturation</strong></td>
<td>Acculturative Stress Scale for International Students (ASSIS)</td>
<td>Perceived Discrimination</td>
<td>Perceived sense of alienation/deprivation from the host country</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Homesickness</td>
<td>Perceived sense of loss in the unfamiliar surroundings due to lack of emotional and social support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perceived Hate</td>
<td>Perceived sense of negative feelings toward host nationals in response to culturally biased verbal and nonverbal communications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fear</td>
<td>Perceived sense of insecurity in unfamiliar surroundings.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stress Due To Change</td>
<td>Perceived sense of pressure placed on participant due to migration to a strange land</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Guilt</td>
<td>Perceived sense of insecurity to participant’s own culture while adopting the host</td>
</tr>
<tr>
<td><strong>Personality</strong></td>
<td><strong>International Personality Item Pool</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroricism</td>
<td>Extraversion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraversion</td>
<td>Pronounced engagement with the external world.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openness</td>
<td>Agreeableness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reflects individual differences in concern with cooperation and social harmony.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conscientiousness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The way in which we control, regulate, and direct our impulses.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neuroticism</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The tendency to experience negative feelings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Openness to Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A dimension of cognitive style that distinguished imaginative, creative people from down-to-earth, conventional people.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Optimism</strong></td>
<td>Optimism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Orientation Test-Revised (LOT-R)</td>
<td>Optimism</td>
<td>Bias in perceptions and expectations in favor of positive features in life.</td>
<td></td>
</tr>
</tbody>
</table>
Procedures

*Data Collection*

During the initial meeting participants completed two consent forms. The investigator kept a copy and a copy was given to the participants. In addition, participants were asked to complete The Demographic Questionnaire for International Students, the Acculturative Stress Scale for International Students (ASSIS), the IPIP-NEO, the Future Scale, the Life Orientation Test-Revised (LOT-R) and the Problem Solving Inventory (PSI).

*Research Questions*

1. What is the relationship between international students’ personality traits and their level of hopefulness?
2. What is the relationship between international students’ support system and their level of hopefulness?
3. What is the relationship between international students’ level of hopefulness and their level of acculturation?
4. What is the relationship between international students’ optimism and their level of acculturation?
5. What is the relationship between international students’ problem solving abilities and their level of acculturation?
6. What is the relationship between international students’ support system and their level of acculturation?
7. What is the relationship between international students’ personality traits and their level of acculturation?
8. What is the relationship between international students’ level of hopefulness and their level of acculturation mediated by their problem solving abilities?

9. What is the relationship between international students’ optimism and their level of acculturation mediated by their problem solving abilities?

Research Design

A quantitative research design was implemented with international students. A sample of convenience was employed, as random assignment did not take place. Sampling was comprised of international students’ demonstration of an interest in completing the questionnaires. In addition, none of the variables were manipulated and no intervention was administered to participants. This study attempted to account for naturally occurring variance with international students’ acculturation.

The independent variable for Research Question 1 was personality traits, and the independent variable for Research Question 2 was support systems. The dependent variable for Research Question 1 and 2 was hope. The independent variables for Research Questions 3, 4, 5, 6 and 7 were hope, optimism, problem solving abilities, support systems and personality traits. The dependent variable for Research Questions 3, 4, 5, 6 and 7 was acculturative stress. The independent variable for Research Question 8 was hope, with acculturative stress as the dependent variable and problem solving abilities as a mediating variable. The independent variable for Research Question 9 was optimism, with acculturative stress as the dependent variable and problem solving abilities as a mediating variable.
Treatment of Data

Data will be maintained confidentially using identification numbers. The evaluator utilized SPSS version 11.5 for scoring and analyses of the data. The statistical analyses utilized within this study are comparison of means, correlations, multiple regression analysis and path analysis. Comparison of means was utilized to examine the variables within the five geographic regions (these analyses were subsidiary to the nine research questions). Correlational analyses were utilized to examine the relationships between the variables. Multiple regression analyses were utilized to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable.

Path analysis was developed as a method of decomposing correlations into different pieces for interpretation of effects. Path analysis can be referred to as “causal modeling”, as theoretical propositions can be tested about the cause and effect without manipulating variables. Path analyses are utilized if two or more pre-specified causal hypotheses can be represented within a single input path diagram, the relative sizes of path coefficients in the output path diagram may determine which hypothesis, is better supported by the data. For example (see Figure 1) using four variables A, B, C and D. It is proposed that A has a direct effect on B. However indirect effects of A on B are also suggested; A affects C which in turn affects B, A affects D which in turn affects B and A affects D which affects C which affects B. D and C have direct affects on B.
The present study is an effort to explore positive experiences of international students as they acculturate in the United States empirically within the positive psychology context of problem-solving abilities, hope and optimism as well as personality traits and support systems constructs. The questions therefore that are being investigated vary in an attempt to capture the breath of international students’ acculturation within the United States.

Questions one and two (Figure 2) will be analyzed with a multiple regression analysis. This analysis will investigate how personality traits and support systems relate to level of hope.

Figure 1. Path Analysis Diagram

Figure 2. Relationship of Personality and Support Systems with Hope
Questions three, four, five, six and seven (Figure 3) will be analyzed with a multiple regression analysis. This analysis will investigate how personality traits, level of hope, problem solving abilities, optimism and support systems relate to the acculturation of international students.

**Figure 3. Relationship of Hope, Optimism, Problem Solving, Support System and Personality with Acculturative stress**

Question eight (Figure 4) will be analyzed with a path analysis to determine if there is a direct relationship between hope and problem solving abilities as well as hope and acculturative stress. Concurrently, problem solving will be used as a mediating variable to examine if hope affects acculturation indirectly, via its effect on problem solving.
Question nine (Figure 5) will be analyzed with a path analysis to determine if there is a direct relationship between optimism and problem solving abilities as well as optimism and acculturative stress. Concurrently, problem solving will be used as a mediating variable to examine if optimism affects acculturation indirectly, via its effect on problem solving.

Figure 4. Problem Solving Mediating the Relationship Between Hope and Acculturative stress

Hope    Problem solving abilities    Acculturative stress

Figure 5. Problem Solving Mediating the Relationship Between Optimism and Acculturative stress

Optimism    Problem solving abilities    Acculturative stress
CHAPTER 4

RESULTS

The purpose of the present study is to empirically explore the acculturation of international students through the use of multiple positive psychology constructs (hope, optimism and problem solving) with international students together with personality and support system assessments. First, measures are taken to determine the relationship between international students’ personality traits and their level of hope. Second, international students’ support system in relation to their level of hope. Third, hope in relation to international students’ acculturation. Fourth, optimism in relation to acculturation. Fifth, problem solving ability in relation to acculturation. Sixth, international students’ support system in relation to acculturation. Seventh, personality traits in relation to acculturation. Eighth, hope in relation to acculturation mediated by problem solving abilities. Finally, this study explored optimism in relation to acculturation mediated by problem solving abilities. This study offered a preliminary view of the ways in which international students are able to attain a positive experience in the United States. The quantitative analyses used in this study utilized comparison of means, Pearson correlation, multiple regression and path analysis.

Variables in Relation to Geographic Representation of International Students

The purpose of these analyses (these analyses are in addition to the analyses for the nine research questions) was to explore the regions that appeared to exhibit hopefulness, optimism, acculturative stress, problem solving appraisal. As well as a
demonstration of five personality characteristics: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience and the utilization of four support systems: family, friendships, organizations, and education. The countries that were representative of the sample were clustered into five regions; Africa, The Americas, which consist of Central America, South America, Northern America and the Caribbean, Asia and Oceania. As illustrated (see Table 2) the Means and Standard Deviations of each variable were examined against the geographical regions.

Table 2

Means and Standard Deviations for Region Clusters with Six Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Region</th>
<th>N</th>
<th>M</th>
<th>SD</th>
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<tr>
<td>1. Hope</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>11</td>
<td>26.18</td>
<td>2.71</td>
<td></td>
</tr>
<tr>
<td>The Americas</td>
<td>24</td>
<td>25.96</td>
<td>3.06</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>35</td>
<td>24.46</td>
<td>2.65</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>12</td>
<td>27.00</td>
<td>3.59</td>
<td></td>
</tr>
<tr>
<td>2. Optimism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>11</td>
<td>17.91</td>
<td>4.13</td>
<td></td>
</tr>
<tr>
<td>The Americas</td>
<td>24</td>
<td>17.13</td>
<td>4.04</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>35</td>
<td>16.20</td>
<td>3.21</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>12</td>
<td>16.25</td>
<td>3.72</td>
<td></td>
</tr>
<tr>
<td>3. Problem Solving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>11</td>
<td>75.09</td>
<td>16.81</td>
<td></td>
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<tr>
<td>The Americas</td>
<td>24</td>
<td>86.42</td>
<td>19.33</td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td>Count</td>
<td>Mean</td>
<td>SD</td>
<td></td>
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<td>--------------</td>
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<td>--------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>35</td>
<td>88.06</td>
<td>16.06</td>
<td></td>
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<tr>
<td>Europe</td>
<td>12</td>
<td>82.50</td>
<td>14.61</td>
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</table>

4. Acculturative Stress

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<tbody>
<tr>
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<td>90.00</td>
<td>12.17</td>
</tr>
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<td>The Americas</td>
<td>24</td>
<td>82.77</td>
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</tr>
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<td>Asia</td>
<td>35</td>
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<td>Europe</td>
<td>12</td>
<td>79.00</td>
<td>25.68</td>
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5. Five Personality Characteristics:

Extraversion

<table>
<thead>
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<th>Region</th>
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<th>Mean</th>
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<td>Africa</td>
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<td>48.36</td>
<td>22.82</td>
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Agreeableness

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<td>55.83</td>
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Conscientiousness

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### Neuroticism

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<td>22.70</td>
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<td>34.04</td>
<td>28.51</td>
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<td>Asia</td>
<td>35</td>
<td>41.34</td>
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</tr>
<tr>
<td>Europe</td>
<td>12</td>
<td>36.67</td>
<td>18.08</td>
</tr>
</tbody>
</table>

### Openness to Experience

<table>
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<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>11</td>
<td>39.36</td>
<td>19.79</td>
</tr>
<tr>
<td>The Americas</td>
<td>24</td>
<td>40.13</td>
<td>25.97</td>
</tr>
<tr>
<td>Asia</td>
<td>35</td>
<td>29.14</td>
<td>21.04</td>
</tr>
<tr>
<td>Europe</td>
<td>12</td>
<td>67.42</td>
<td>22.99</td>
</tr>
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</table>

6. Four Support System Resources:

**Family**

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<th>Region</th>
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<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3.27</td>
<td>.79</td>
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<td>Asia</td>
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</tr>
<tr>
<td>Europe</td>
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<td>.94</td>
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**Friendship**

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</thead>
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<td>.70</td>
</tr>
<tr>
<td>Europe</td>
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<td>3.17</td>
<td>.83</td>
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</table>

**Organizations**

<table>
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<th>Sample Size</th>
<th>Mean</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>Africa</td>
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<td>1.91</td>
<td>1.38</td>
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<tr>
<td>Geographic Region</td>
<td>Sample Size</td>
<td>Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------</td>
<td>------</td>
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<tr>
<td>The Americas</td>
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<td>1.46</td>
<td>1.64</td>
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<td>1.46</td>
</tr>
<tr>
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<td>35</td>
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<td>.80</td>
</tr>
<tr>
<td>Europe</td>
<td>12</td>
<td>2.67</td>
<td>.98</td>
</tr>
</tbody>
</table>

**Note.** Due to the small sample size of the geographic region of Oceania (n=1) it was excluded from the analyses. Higher scores represent a higher amount of hope, optimism, support, acculturative stress, personality trait and a lack of problem solving appraisal.

Before the main analyses were conducted the variables were examined by computing their means and standard deviations within the four geographical regions. These results were expressed qualitatively to obtain data as to how the Means were dispersed. For the Hope Scale, individuals from Europe (M=27.00, SD=3.59) appeared to be the most hopeful with individuals from Asia (M=24.46, SD=2.65) the least hopeful. For optimism, individuals from Africa (M=17.91, SD=4.13) appeared to be the most optimistic with individuals from Asia (M=16.20, SD=3.21) the least optimistic. For problem solving appraisal, individuals from Africa (M=75.09, SD=16.81) appeared to represent the most positive self-appraisals of problem-solving abilities with individuals from Asia (M=88.06, SD=16.06) with the least positive self-appraisals of problem-solving abilities. For acculturative stress, individuals from Europe (M=79.00, SD=25.68) appeared to have the least amount of stress with individuals from Africa (M=90.00,
SD=12.17) the most amount of stress. Within the five personality characteristics, with extraversion, individuals from Europe (M=62.42, SD=31.03) appeared to be the most extraverted with individuals from Africa (M=48.36, SD=22.82) the least extraverted. With agreeableness, individuals from Africa (M=74.55, SD=15.21) appeared to be the most agreeable with individuals from Asia (M=52.54, SD=27.07) the least agreeable. With conscientiousness, individuals from Africa (M=83.45, SD=16.84) appeared to be the most conscientious with individuals from Europe (M=53.08, SD=22.39) the least conscientious. With neuroticism, individuals from Asia (M=41.34, SD=24.08) appeared to be the most neurotic with individuals from The Americas (M=34.04, SD=28.51) the least neurotic. With openness to experience, individuals from Europe (M=67.42, SD=22.99) appeared to be the most open with individuals from Asia (M=29.14, SD=21.04) the least open. Finally, within the four support system resources, with family, individuals from Africa (M=3.27, SD=.79) appeared to be the most satisfied with their family support with individuals from Europe (M=2.83, SD=.94) the least satisfied. With friendships, individuals from The Americas (M=3.29, SD=.91) appeared to be the most satisfied with individuals from Africa (M=3.00, SD=.77) the least satisfied. With organizations, individuals from Africa (M=1.91, SD=1.38) appeared to be the most satisfied with organizational support, with individuals from The Americas (M=1.46, SD=1.64) the least satisfied. And with education, individuals from Asia (M=3.06, SD=.80) appeared to be the most satisfied with educational support with individuals from Europe (M=2.67, SD=.98) the least satisfied.
Relationship Between Hope, Personality Traits and Support Systems

The purpose of this analysis is to determine the relationship between hopefulness with international students’ inherent personality traits (the subscales were further analyzed to determine the subscales that had a strong relationship with the dependent variable) and the systems that provide a supportive environment for them as they pursue their educational goals.

Question 1

Does international students’ personality traits as measured by the International Personality Item Pool NEO (IPIP-NEO) (Goldberg, 1999) relate to their level of hopefulness as measured by the Hope Scale (Snyder, Harris, et al., 1991)? A Pearson correlation coefficient was computed with the subscales of hope as well as between hope and personality traits. A multiple regression analysis was also computed with hope and personality traits.

Table 3

Intercorrelations Between Hope and the Subscales of Agency and Pathways

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hope</td>
<td>-</td>
<td>.792**</td>
<td>.864**</td>
</tr>
<tr>
<td>2. Agency</td>
<td>-</td>
<td></td>
<td>.376**</td>
</tr>
<tr>
<td>3. Pathways</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01
Table 4

Intercorrelations Between Hope and Five Personality Traits

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hope</td>
<td>-</td>
<td>.467**</td>
<td>.325**</td>
<td>.272*</td>
<td>-.330**</td>
<td>.288**</td>
</tr>
<tr>
<td>2. Extraversion</td>
<td>-</td>
<td></td>
<td>.247*</td>
<td>.045</td>
<td>-.380**</td>
<td>.456**</td>
</tr>
<tr>
<td>3. Agreeableness</td>
<td>-</td>
<td></td>
<td></td>
<td>.383**</td>
<td>-.219*</td>
<td>.264*</td>
</tr>
<tr>
<td>4. Conscientiousness</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td>-.355**</td>
<td>-.045</td>
</tr>
<tr>
<td>5. Neuroticism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.077</td>
</tr>
<tr>
<td>6. Openness to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01

Results indicated (see Table 3) that all the intercorrelations within the Hope Scale which includes agency and pathways were highly significant (p < .01) with the strongest relationship, between hope and the pathways subscale (r(83) = .864). In addition (see Table 4), the strongest relationship (r(83) = .467, p < .01) was obtained between hope and extraversion and the weakest (r(83) = .272, p < .05) between hope and conscientiousness. Results indicated the strongest relationship among the five personality traits were between extraversion and openness to experience (r(83) = .456, p < .01). The relationship between extraversion and conscientiousness (r(83) = .045) as well as neuroticism and openness to experience (r(83) = .077) were not statistically significant.

Results with the multiple regression analysis indicated personality traits was statistically significant with hope, F (5, 77) = 7.10, p = .00, with extraversion highly significant with hope t(82) = 2.67, p = .01. With the other four personality traits removed
to reduce their variance with hope, extraversion and hope was further analyzed through a regression analysis which indicated a stronger statistical significance, $F(1, 81) = 22.64, p = .00$. Further analysis indicated that the six subscales of extraversion (friendliness, gregariousness, assertiveness, activity level, excitement-seeking, and cheerfulness) were statistically significant with hope, $F(6, 76) = 5.64, p = .00$, with cheerfulness and hope highly significant, $t(82) = 2.58, p = .01$. With the other five subscales removed to reduce their variance with hope, cheerfulness and hope were further analyzed, results indicated a stronger statistical significance, $F(1, 81) = 17.71, P = .00$.

**Question 2**

Does international students’ support systems as measured by the Demographic Questionnaire for International Students (researcher developed questionnaire) relate to their level of hopefulness as measured by the Hope Scale (Snyder, Harris, et al., 1991)? A Pearson correlation coefficient was computed with the four subscales of support systems as well as between hope and the support systems. A multiple regression analysis was also computed with hope and support systems.
Table 5

*Intercorrelations Between Hope and Support System Resources*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hope</td>
<td>-</td>
<td>.026</td>
<td>.316**</td>
<td>.167</td>
<td>.015</td>
</tr>
<tr>
<td>2. Family</td>
<td>-</td>
<td>.183</td>
<td>.269*</td>
<td>.383**</td>
<td></td>
</tr>
<tr>
<td>3. Friendships</td>
<td>-</td>
<td>.264*</td>
<td>.084</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Organization</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Education</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05; ** p < .01

The results indicated (see Table 5) a medium and highly statistically significant relationship between hope and friendship (r(83) = .316, p < .01). Furthermore, results indicated that a medium relationship among support systems were between family support and educational support (r(83) = .383, p < .01). The relationship between family support and friendships (r(83) = .183), and educational support and organizational support (r(83) = .084) were not statistically significant.

Results with the multiple regression analysis indicated that the support systems were statistically significant with hope, F (4, 78) = 2.50, p =.05, with friendship highly significant with hope, t(82) = 2.75, p =.007. With the other three support systems removed to reduce their variance with hope, friendship and hope was further analyzed through a regression analysis which indicated a stronger statistical significance, F (1, 81) = 8.99, p =.004.
Relationship Between the Subscales Within Two Variables

The purpose of this analysis is to discern how the subscales related to each other.

Within the study there are two variables to be examined that encompass subscales:

Acculturative Stress, and Problem Solving.

Table 6

*Intercorrelations Between the Subscales of Acculturative Stress*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived</td>
<td>-</td>
<td>.019</td>
<td>.678**</td>
<td>.582**</td>
<td>.281*</td>
<td>.322**</td>
<td>.641**</td>
<td>.846**</td>
</tr>
<tr>
<td>Perceived</td>
<td></td>
<td>.007</td>
<td>.143</td>
<td>.185</td>
<td>.223*</td>
<td>.146</td>
<td>.278*</td>
<td></td>
</tr>
<tr>
<td>2. Homesickness</td>
<td></td>
<td>.007</td>
<td>.143</td>
<td>.185</td>
<td>.223*</td>
<td>.146</td>
<td>.278*</td>
<td></td>
</tr>
<tr>
<td>Homesickness</td>
<td></td>
<td>.007</td>
<td>.143</td>
<td>.185</td>
<td>.223*</td>
<td>.146</td>
<td>.278*</td>
<td></td>
</tr>
<tr>
<td>3. Hate</td>
<td></td>
<td>.661**</td>
<td>.321**</td>
<td>.275*</td>
<td>.660**</td>
<td>.811**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hate</td>
<td></td>
<td>.661**</td>
<td>.321**</td>
<td>.275*</td>
<td>.660**</td>
<td>.811**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Fear</td>
<td></td>
<td>.385**</td>
<td>.336**</td>
<td>.483**</td>
<td>.733**</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Fear</td>
<td></td>
<td>.385**</td>
<td>.336**</td>
<td>.483**</td>
<td>.733**</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5. Stress</td>
<td></td>
<td>.223*</td>
<td>.306**</td>
<td>.505**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td>.223*</td>
<td>.306**</td>
<td>.505**</td>
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<tr>
<td>6. Guilt</td>
<td></td>
<td>.188</td>
<td>.423**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>.188</td>
<td>.423**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Miscellaneous</td>
<td></td>
<td>.855**</td>
<td></td>
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<td>Miscellaneous</td>
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<td>.855**</td>
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<td></td>
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<tr>
<td>8. Acculturative</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05; ** p < .01*
Table 7

*Intercorrelations Between the Subscales of Problem Solving Appraisal*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Confidence</td>
<td>-</td>
<td>.384**</td>
<td>.353**</td>
<td>.766**</td>
</tr>
<tr>
<td>2. Approach-Avoidance</td>
<td>-</td>
<td></td>
<td>.371**</td>
<td>.844**</td>
</tr>
<tr>
<td>3. Personal Control</td>
<td>-</td>
<td></td>
<td></td>
<td>.641**</td>
</tr>
<tr>
<td>4. Problem Solving Total</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* * p < .05; ** p < .01

Results (see Table 6) indicated the strongest relationship among the subscales of acculturative stress were perceived discrimination and hate (r(83) = .678, p > .01). The relationship between perceived discrimination and homesickness (r(83) = .019); homesickness and hate (r(83) = .007); homesickness and fear (r(83) = .143); homesickness and stress (r(83) = .185); homesickness and the miscellaneous subscale (r(83) = .146); and guilt and the miscellaneous subscale (r(83) = .188) were not statistically significant. Also the strongest relationship between the subscales and the acculturative stress total was represented by the miscellaneous subscale (r(83) = .855, p < .01).

Finally, all of the subscales of problem solving (see Table 7) were highly statistically significant (p < .01). There was a medium sized relationship among the subscales which was represented between confidence and the approach-avoidance style (r(83) = .384, p < .01). Also the strongest relationship between the subscales and the problem solving total was represented by approach-avoidance (r(83) = .833, p < .01).
Relationship Between Acculturative Stress and Hope, Optimism, Problem Solving, Support Systems and Personality Traits

The purpose of this analysis is to determine how variables relate to Acculturative stress. These variables include: Hope, Optimism, Problem Solving, Support Systems and Personality Traits. And therefore determine the variables that encapsulate the strongest and highly statistically significant relationship with acculturative stress. In addition, variables with subscales were further analyzed to determine the subscale(s) that had a strong relationship with the dependent variable.

Question 3

Does international students’ level of hopefulness as measured by the Hope Scale (Snyder, Harris, et al., 1991) relate to their acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)? A Pearson correlation coefficient was computed with hope and acculturative stress. In addition, a multiple regression analysis was also computed with acculturative stress and hope.

Question 4

Does international students’ level of optimism as measured by the Life Orientation Test-Revised (LOT-R) (Scheier, Carver & Bridges, 1994) relate to their acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)? A Pearson correlation coefficient was computed with optimism and acculturative stress. In addition, a multiple regression analysis was also computed with acculturative stress and optimism.
**Question 5**

Does international students’ level of problem solving abilities as measured by the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982) relate to their acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)? A Pearson correlation coefficient was computed with problem solving and acculturative stress. In addition, a multiple regression analysis was also computed with acculturative stress and problem solving.

**Question 6**

Does international students’ support systems as measured by the Demographic Questionnaire for International Students (researcher developed questionnaire) relate to their acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)? A Pearson correlation coefficient was computed with support systems and acculturative stress. In addition, a multiple regression analysis was also computed with acculturative stress and support systems.

**Question 7**

Does international students’ personality traits as measured by International Personality Item Pool NEO (IPIP-NEO) (Goldberg, 1999) relate to their acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994)? A Pearson correlation coefficient was computed with the five personality traits and acculturative stress. In addition, a multiple regression analysis was also computed with acculturative stress and personality traits.
Results indicated (see figure 6) a medium negative relationship between hope and acculturative stress ($r(83) = -.374, p < .01$). Results with the regression analysis indicated that hope was statistically significant with acculturative stress, $F(1, 82) = 13.17, p = .00$. The two subscales of hope (agency and pathways) were also examined with acculturative...
stress. Results indicated significance, F (2, 82) = 6.53, P = .002, with agency highly significant with acculturative stress, t(82) = -2.00, p = .05 and pathways highly significant with acculturative stress, t(82) = -2.04, p = .04.

The relationship between optimism and acculturative stress (r(83) = -.211) was not statistically significant. Results with the regression analysis indicated that optimism was not statistically significant with acculturative stress, F (1, 82) = 3.78, p = .06.

Results also indicated a medium relationship between low problem solving and acculturative stress (r(83) = .289, p < .01). Results with the regression analysis indicated that problem solving was statistically significant with acculturative stress, F (1, 82) = 7.40, p = .008. The three subscales of problem solving (confidence, approach-avoidance style, and personal control) were also examined with acculturative stress. Results indicated significance, F (3, 82) = 4.41, P = .006, with confidence highly significant with acculturative stress, t(82) = 3.03, p = .003. With the other two problem solving subscales removed to reduce their variance with acculturative stress, confidence and acculturative stress was further analyzed through a regression analysis which indicated a stronger statistical significance, F (1, 81) = 12.63, p = .001.

Among the four support systems; friendships had the strongest negative relationship with acculturative stress (r(83) = -.402, p < .01), where the relationship between organizational support and acculturative stress was not statistically significant (r(83) = -.198). Results with the multiple regression analysis indicated that support systems were statistically significant with acculturative stress, F (4, 78) = 6.37, p = .00, with friendship highly significant with acculturative stress, t(82) = -2.92, p = .005. With the other three support systems removed to reduce their variance with acculturative
stress, friendship and acculturative stress was further analyzed through a regression analysis which indicated a stronger statistical significance, F (1, 81) = 15.60, p = .00.

In addition, results indicated among the five personality traits, extraversion had the strongest negative relationship with acculturative stress (r(83) = -.411, p > .01), where the relationship between agreeableness and acculturative stress was not statistically significant (r(83) = -.172). Results with the multiple regression analysis indicated that personality traits was statistically significant with acculturative stress, F (5, 77) = 4.53, p = .001, with extraversion highly significant with acculturative stress, t(82) = -2.12, p = .04. With the other four personality traits removed to reduce their variance with acculturative stress, extraversion and acculturative stress was further analyzed through a regression analysis which indicated a stronger statistical significance, F (1, 81) = 16.49, p = .00. Further analysis indicated that the six subscales of extraversion (friendliness, gregariousness, assertiveness, activity level, excitement-seeking, and cheerfulness) were statistically significant with acculturative stress, F (6, 76) = 4.09, p = .001, with friendliness and acculturative stress highly significant, t(82) = -2.22, p = .03. With other five subscales removed to reduce their variance with acculturative stress, friendliness and acculturative stress were further analyzed, results indicated a stronger statistical significance, F (1, 81) = 20.14, P = .00.

The Mediation of Problem Solving Between Hope and Acculturative Stress and Optimism and Acculturative Stress

The purpose of this analysis is to determine if there is a direct relationship between hope and problem solving and optimism and problem solving. Problem solving
will be used as a mediating variable to examine if hope affects acculturation indirectly and if optimism affects acculturation indirectly, via its effect on problem solving.

**Question 8**

Does international students’ level of hopefulness as measured by the Hope Scale (Snyder, Harris, et al., 1991) relate to their acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994) via its effect on problem solving as measured by the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982)? A path analysis was computed with hope, problem solving and acculturative stress.

**Question 9**

Does international students’ level of optimism as measured by the Life Orientation Test-Revised (LOT-R) (Scheier, Carver & Bridges, 1994) relate to their acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994) via its effect on problem solving as measured by the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982)? A path analysis was computed with hope, problem solving and acculturative stress.
Results indicated (see figure 7) a medium negative relationship between hope and acculturative stress, $r(83) = -.374$, $p < .01$ (direct effect). Results between hope and problem solving also indicated a strong negative relationship, $r(83) = -.603$, $p < .01$. In addition, there was a medium relationship between low problem solving and acculturation, $r(83) = .289$, $p < .01$. The mediating effect of problem solving on hope and acculturative stress ($-.603 \times .289 = -.174$) indicates a small effect of problem solving on
the relationship between hope and acculturative stress (indirect effect). Results indicated a strong total causal effect between hope, problem solving and acculturative stress (\(-.374 + -.174 = -.548\)).

Additionally, results indicated (see figure 8) that the relationship between optimism and acculturative stress \((r(83) = -.211)\) was not statistically significant (direct effect). Results between optimism and problem solving indicated a medium negative relationship, \(r(83) = -.329, p > .01\). In addition, there was a medium relationship between low problem solving and acculturation, \(r(83)= .289, p < .01\). The mediating effect of problem solving on optimism and acculturative stress \((- .329 \times .289 = -.095)\) indicates a small effect of problem solving on the relationship between optimism and acculturative stress (indirect effect). Results indicated a moderate total causal effect between optimism, problem solving and acculturative stress \((- .211 + -.095 = -.306)\).
CHAPTER 5

DISCUSSION

There has been a void in the literature with studies that examine the positive measures international students utilize to adapt within the United States (Tseng & Newton, 2002). With this in mind, the purpose of this dissertation is to provide some preliminary exploration into the acculturation of international students through the use of multiple positive psychology constructs (hope, optimism and problem solving) together with personality and support system assessments. Additionally, as hope is a construct that has not been examined with international populations (Lopez, Gariglietti, et al., 2000) this dissertation explored the relationship between personality and hope as well as the relationship between support system and hope. This was done to explore the relationship of the hope construct with international students. Further, problem solving ability was examined with the two positive psychological constructs of hope and optimism as well as being utilized as a mediating variable to determine if it mediates the relationship between hope and acculturation as well as the relationship between optimism and acculturation.

The current chapter interprets these findings in relation to the existing theoretical and literature base. Further, the discussion includes implications of the findings for theoretical, clinical, and future research application.

International Students’ Context

Throughout the data collection process, the investigation was met with hesitancy and inquiry surrounding the research. This was demonstrated through international
students’ persistency about the confidentiality of the research. It was evident throughout the data collection process that the participants needed reassurance that the results were contained within the confines of the study and that their names would not be directly associated with their responses. Although some participants were skeptical about the research, there were no measures integrated within the study that could verify that international students’ behavior and response is a result of the terrorist attack. In addition, without pre-attack data, it is impossible to determine with certainty whether the suspiciousness is a direct result of the September 11th attacks. Further research should be undertaken to explore this area and if there is a link to the events of September 11th 2001.

Much of the research on terrorism has focused on post traumatic stress disorder (PTSD) symptomatology in those present at the attacks, directly affected individuals (Amir, Kaplan, & Kotler, 1996; Benight, Freyaldenhoven, Hughes, Ruiz, & Zoschke, 2000; Desivilya, Gal, & Ayalon, 1996; Kleinman, 1989; Shalev, 1992). However, there is little research on the effect of stressors related to terrorism on those not present at the events, indirectly affected individuals (Liverant, Hofmann, & Litz, 2004). There has not been reported research specifically regarding the effect of the terrorist attacks on international students’ cognitions and emotions. However, Liverant, Hofmann, and Litz’s (2004) research found that indirectly affected college students endorsed anxiety symptoms through negative maladaptive coping strategies such as denial, behavioral disengagement, mental disengagement, and focus on and venting of emotions, as well as anger, and feelings of vulnerability after the September 11th attacks.

Regarding some of the changes that have taken place post September 11th, as the 2001-2002 academic year came to a close, congress passed the Enhanced Border Security
and Visa Entry Reform Act of 2002. The act implemented the Student Exchange Visitor Information System (SEVIS) on January 1\textsuperscript{st} 2003 with a mandatory compliance date of January 30\textsuperscript{th} 2003. The system is used to track foreign students and take action against those who violate the terms of their authorized stay. In addition to SEVIS, the act calls for an electronic data system (chimera system) to be made available to consular officers who issue visas as well as Federal officers responsible for enforcement, intelligence or adjudications related to aliens (Mantle, 2003). Therefore international students applying for student visas would be screened more closely based on the data systems. In addition, there is a new registration program for nonimmigrant aliens from specified countries. This program has the potential to impact many international students. Those required to register will have to register within ten days of each anniversary of the date on which they were registered at one of the designated INS interviewing offices. There are also airport screeners for foreigners with the U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT) that takes photographs and inkless fingerprints at U.S customs when foreigners enter the United States.

It is important to gain an understanding of how the attacks relate to international students as all international students are constantly reminded of the September 11\textsuperscript{th} attacks with the multiple screening measures in place. Within the university environment, according to Mantle (2003) as international students come to realize the enforcement role that university administrators play in the process, fear and suspicion may rise and the effectiveness of international student services offices, which are there to assimilate international students into the student body and benefit from their diversified backgrounds, will lessen.
Interpretation

Question One

The first question asks if personality, as measured by the International Personality Item Pool NEO (IPIP-NEO) (Goldberg, 1999), predicts hope as measured by the Hope Scale (Snyder, Harris, et al., 1991). Personality traits are in many respects universal, showing the same structure in widely different cultures. Specifically, the Five-Factor Model (N, E, O, A, and C) specifically the Five-Factor Model encompasses enduring dispositions that find expression in every culture (McCrae, 2001). The findings suggest that international students with the personality trait of extraversion, specifically cheerfulness, experienced higher levels of hopefulness. The result is analogous to another study that examines the positive psychological construct of subjective well-being. For example, Diener, Diener, and Diener (1995) examined 55 cultures and their personality traits with respect to subjective well-being (SWB). The results indicated statistical significance between extraversion and subjective well-being. According to Snyder, Cheavens, and Sympson (1997) hope may appear to be a self-oriented motive but actually has its roots and functions in the promotion of a collective’s well-being. It has been found that extraversion and neuroticism scores were able to predict life satisfaction over a four year period (Magnus & Diener, 1991). In fact, personality was a stronger predictor of life satisfaction than actual life events. The other three personality traits (agreeableness, conscientiousness, and openness) had very weak relations with subjective well-being constructs. Seidlitz (1993) suggested that the relations between agreeableness, conscientiousness, openness, and SWB are weaker because they are formed by rewards in the environment rather than by biological reactivity. Extraversion and neuroticism have a
theoretical link to emotions and affect and consistently correlate in a predictable pattern with pleasant affect, unpleasant affect, and life satisfaction (Diener & Lucas, 1999).

An explanation for the results from question one is that individuals who are extraverted invite others around them. In particular, international students are removed from their country of origin; with family and friends to reside in a foreign country where they pursue their educational goals. In the host country, international students try to establish friendships with others, which may be easier for an extravert than an individual who is introverted. Hence, the extraverts become hopeful as they reside in the new country.

Observations based on regions. Results also indicated that extraversion was highest among individuals from Europe and lowest among individuals from Africa. Countries in Europe are viewed as individualistic and countries within Africa are viewed as collectivistic. Collectivism is associated with close interaction only with one’s ingroup, people in individualist cultures are very good at meeting outsiders, forming new ingroups, and getting along with new people (Triandis, Bontempo, Villareal, Asaï, & Lucca, 1988). This suggests that collectivism relates to low levels of extraversion. Individualism is associated with both extraversion and openness to experience: self-assertive and free-thinking people are found in cultures that value the individual over the group (McCrae, 2001). The results also indicated that for openness to experience, it was the highest among individuals from Europe and the lowest for individuals from Asia.

The aforementioned results mirrored the results for hope, which was highest among individuals from Europe and lowest among individuals from Asia. Studies have shown that high-hopers’ emotions are consistently flavored with friendliness, happiness,
and confidence (Snyder, Cheavens, & Michael, 1999; Snyder, Harris, et al., 1991; Snyder, Sympon, Michael, & Cheavens, 2001). Although the Hope scale (Snyder, Harris, et al., 1991), the most widely used scale to measure hope, has been translated into different languages and used with culturally diverse groups (Lopez, Gariglietti, et al., 2000), a review of the literature reveled no published studies to date with international populations. However, with regards to happiness Diener, Diener, and Diener’s (1995) international comparisons show that Africa, India and Asia have low average happiness scores. According to Diener, Diener, and Diener (1995) these can partly be explained in terms of national differences in average income, income dispersion, and political freedom.

Question Two

The second question asks if support systems, as measured by the Demographic Questionnaire for International Students (researcher developed questionnaire), predicts hope as measured by the Hope Scale (Snyder, Harris, et al., 1991). The findings suggest that international students with friendships as part of their support system, experienced higher levels of hopefulness. Research literature agrees that international student satisfaction and well-being in the United States are integrally tied to host country interaction in general and specifically with the development of close friendships with Americans (Locke, 1988; Rohrlich & Martin, 1991, Searle & Ward, 1990).

An explanation for the results being that with international students in a foreign country, the friendships they establish as a means of having bonds and connections within their host country provide support. The immediacy and accessibility of friendships in times of need make them an important facet for international students’ support system.
and thus provides a sense of hopefulness. It is important to be cognizant of the fact that international students’ family members reside in their country of origin making them less accessible to international students. In addition, according to Kwon (2002) when encountering stressors, high-hope people can call on their family and friends; persons with whom they share a satisfying sense of mutuality. Higher hope is associated with better social adjustment both with friends and one’s extended family. Also, high-hope adults have positive views about interpersonal relationships and form strong attachments to others (Snyder, Cheavens, & Sympson, 1997). Therefore, higher levels of hope are related to less loneliness (Sympson, 1999), more social competence (Snyder et al., 1997), and more perceived social support (Barnum, Snyder, Rapoff, Mani, & Thompson, 1998). In the process of enjoying their interactions with friends, high hopers also appear to be interested in their goals and others’ goals (Snyder, 1994b; Snyder, Cheavens, & Sympson, 1997). Likewise, high-hope people are forgiving of their friends and tolerant of other people in general (Tierney, 1995). People tend to gravitate toward high-hope people and away from low-hope people (Cheavens, Taylor, Kahle, & Snyder, 2000).

Observations based on regions. Results also indicated that individuals from The Americas (Caribbean, Central America, South America, and Northern America) found the highest amount of support from friendships and individuals from Africa found the lowest amount of support from friendships. Whereas individuals from Africa found their highest amount of support from family and individuals from Europe found the lowest amount of support from family. Research has reported that while graduate students from Asia and Africa are most limited in their host country interactions (Locke, 1988), Europeans are comparatively satisfied with this facet of their stay (Hull, 1978). Therefore
in contrast to Asian and African students, Europeans often come to the United States primarily to gather cultural experience (Hull, 1978). This may shed light as to why students from Africa held closer support ties to their family as opposed to their friendships. Within the African culture communalism represents commitment to interdependence, community affiliation, others and the idea of we (Nwosu, Taylor, & Blake, 1998). This may be an indicator, as shown in the results, of African students’ benefit of student organizations, for example the African Student Organization, as a support system. Communalism is manifested through the extended family system. The kinship relationship is a vital force in the social system, in that it shapes the behavior of the individual toward the others (Taylor & Nwosu, 2001). However, Europeans are willing to give up familial ties to establish relationships in the United States.

A study in five European countries found that one of the main causes of joy were said to be relationships with friends (Scherer, Walbott, & Summerfield, 1986). People are in a more positive mood with friends compared to being with family or alone (Larson, 1990). In addition, in the United States and other Western cultures, an individual is often defined by rebellion against the family and sets out to become independent, task-oriented, and autonomous, pursuing a flexible, many-sided life with much self-indulgence, and assigning a secondary role to the original family in adulthood (Brown, 1986; Singh, Huang, & Thompson, 1962). Individualists feel free to leave jobs, homes, churches and extended families in search of better opportunities for themselves. For collectivists, social networks provide one’s bearings and help define who one is and extended families are close knit. Collectivists may have fewer relationships, but they are deeper and longer-lasting (Myers, 1999).
Results also indicated that individuals from The Americas (Caribbean, Central America, South America, Northern America) found friendships as a very important component of their support system and organizations as a least important support system. These results could be indicative of their warm, sensual, fun loving and hospitable nature as they are able to find a lot of comfort and support through friendships established.

Other results indicated that Asians found educational support to be the most beneficial and Europeans found it to be the least beneficial. According to Mallinckrodt and Leong (1992) social support, especially from one’s academic program, is essential to the welfare of international students. Some studies have correlated education with levels of happiness. The effects of education with happiness in most European countries are small. However, education has more effect in Austria, South Korea, Mexico, Yugoslavia, the Philippines and Nigeria (Veenhoven, 1989). This may be a reason why individuals from Europe would not seek the educational system for support. Asian students place pride in their educational pursuits in a foreign country and would therefore seek support through their professors and advisors to increase academic performance. Education is the primary reason for Asians to study in a foreign country and support from this system would provide a sense of satisfaction.

**Question Three**

The third question asks if hope, as measured by the Hope Scale (Snyder, Harris, et al., 1991), predicts acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS)(Sandhu & Asrabadi, 1994). The findings suggest that International students who are hopeful have decreased levels of acculturative stress.
It has been found that high hope people report that they have helpful social support networks to be called upon during times of stress, and that they have coping skills to sustain their well-being (Snyder, Harris, et al., 1991).

An explanation for the results is that when international students have the ability to envision, set goals and the course to work towards attainment of their goals, they are able to adapt to life in the United States which is a way of minimizing the acculturation stress faced when being in a foreign country. Regarding the subscales of hope, results also indicated that there was a stronger negative relationship between pathways and acculturative stress as opposed to agency and acculturative stress which suggests that international students’ ability to have the necessary routes to achieve goals is an important facet in goal attainment as well as minimizing acculturative stress.

There have also been correlation studies that have explored the relationships of hope to psychological adjustment; with a consistent finding that higher hope is related to better overall adjustment (Kwon, 2002). For example, college students with high as compared to low hope have reported feeling more confident, inspired, energized, and challenged by their life goals (Snyder, Harris, et al., 1991); moreover, they reported elevated feelings of self-worth and life satisfaction and low levels of depression (Chang, 1998; Kwon, 2000; Snyder et al., 1997; Snyder et al., 1996). Likewise, high-relative to low-hope people are more prone to find benefits in their attempts at coping with stressors (Affleck & Tennen, 1996; Tennen & Affleck, 1999).

*Observations based on regions.* Results also indicated that African students were more likely to experience acculturative stress, while European students were least likely. It has been noted that international people of color endorsed the experience of prejudice,
which literature has shown that American racial-ethnic minorities, as well as people of color experience (Smith, 1985; Sue, 1981). Accordingly a study by Sodowsky and Plake (1992) found that Africans, Asians, and South Americans (respectively) perceived prejudice more than the Europeans. Consequently, the Europeans disagreed that there was prejudice. This may be a factor as to why Africans, Asians and individuals from The Americas (respectively) felt the more acculturative stress in the United States than Europeans.

According to Yeh and Inose (2003) European students may experience less acculturative stress as they may encounter less racism and discrimination than other international students. American cultural values are based on European norms (Carter, 1991), therefore international students from Europe may have experienced less of a contrast in cultural patterns of behavior and value systems, allowing for smoother adjustment. Sodowsky and Plake (1992) also found that Europeans used mostly English and some of their first language, Africans used both equally, whereas Asians and the South Americans used mostly their first language. This study also indicated that European students also expressed higher levels of extraversion which may also factor into their lower levels of acculturative stress. Extraversion was a key component in international students’ ability to adapt as well as provide a sense of hopefulness which in turn increases their capacity to establish friendships.

**Question Four**

The fourth question asks if optimism, as measured by the Life Orientation Test-Revised (LOT-R)(Scheier, Carver & Bridges, 1994), predicts acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS)(Sandhu &
Asrabadi, 1994). The findings suggest that there is no effect between international students who are optimistic and acculturative stress. Scheier and Carver (1985) defined optimism as a general outcome expectancy that good things will happen and developed the Life Orientation Test to reflect this definition (LOT). Although Scheier and Carver propose that outcome expectancies, corresponding to hope pathways, are the best predictors of behavior, other researchers have proposed that optimism is related specifically to hope agency and that hope pathways was Snyder’s unique contribution above and beyond what is offered by optimism (Peterson, 2000). According to Snyder (1995), an optimist may believe that things will turn out as he or she wants but does not possess the pathways necessary to pursue and acquire the goals. It was hypothesized that factor analysis on all of the items on the LOT-R and Hope Scale would show that the optimism items of the LOT-R and the agency items of the Hope Scale load on one factor. And with correlations of the subscales, the LOT-R optimism items should relate more strongly to the agency than the pathways subscales of the Hope Scale. The predicted findings would support the speculation that hope may add predictive power beyond optimism in that both agentic and pathways components are explicitly tapped by the Hope Scale (Snyder, Symson, Michael, & Cheavens, 2001). The only reported study related to the aforementioned point was a factor analysis conducted by Magaletta and Oliver (1999), who found that the pathways component in the Hope Scale was independent of the items. Therefore focusing on one expectancy (outcome) will not tap the cognitive set and will lessen the predictive impact of the cognitive set on subsequent goal-related activities (Snyder, Harris, et al., 1991).
An explanation for the results is that there is a component within goal directed behavior that is not being highlighted when examining optimism with acculturative stress. The findings illustrate the importance for international students to not only have the believe that “things will work out” but to also have the ability to produce the routes in reaching goals. This is a significant piece for international students as they alleviate acculturative stress (as indicated in the results as the relationship between pathways and acculturative stress was stronger than agency, which is a reflection of optimism, and acculturative stress). Studies have shown that after controlling for optimism that there was prediction between hope and coping or that optimism had a weaker prediction. For example, hope has predicted problem-focused coping and mental health outcomes after controlling for optimism, whereas optimism failed to predict these same outcomes when controlling for hope (Kashdan et al., 2002; Snyder, Harris, et al., 1991). Likewise, hope has predicted subjective well-being even after controlling for the variance due to self-efficacy and optimism (Magaletta & Oliver, 1999). In studies examining hope and college academic success, although optimism has been related to choosing achievement goals, it either predicted very little (Pajares, 2001) or no variance in observed (Stewart, Lam, Betson, Wong, & Wong, 1999) or expected (Stoecker, 1999) college grades. In contrast, Hope scale scores have related to higher semester and overall GPAs for college students (Chang, 1998; Curry, Maniar, Sondag, & Sandstedt, 1999; Curry, Snyder, Cook, Ruby, & Rehm, 1997).

Observations based on regions. Results also indicated that individuals from Africa were the most optimistic and individuals from Asia the least optimistic. These results are consistent with Chang (1996) who found that Asians have a tendency to be
more pessimistic than non-Asians. In Eastern cultures where self-effacement is normative, expressions of optimism might be considered incongruent with the expectations of most Asian people.

Creed, Patton, and Bartrum (2002) found that high optimism was associated with high levels of career planning, exploration, decision-making confidence, and career-related goals. With individuals from Africa with high optimism it can be inferred that they have the ability to set goals and solve problems. This coincides with them having the strongest perception than the other regions in their ability to solve problems as indicated in the findings. However the findings are inconclusive and would require further exploration as Chang (1998) concluded that optimistic students are better adjusted physically and psychologically and were found to be lower in mood disturbance when they respond to a wide range of stressful situations. The dubiousness is due in part to the findings that demonstrated that African students in comparison to students from other regions highly endorsed acculturative stress and therefore there may be other factors playing into their acculturative stress.

*Question Five*

The fifth question asks if problem solving, as measured by the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982), predicts acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994). The findings suggest that international students with a perception of their problem solving abilities being effective will experience lower levels of acculturative stress. It has been found that effective self-appraised problem-solving ability has been significantly and consistently associated with lower distress and

An explanation for the results is that international students with the ability to solve their problems are in a better position to cope with the stressors of being in a foreign country. Specifically, problem-solving confidence (PSC), which was one of the subscales of problem solving, had a stronger relationship with acculturative stress. Problem-solving confidence is defined as self-assurance while engaging in a wide range of problem-solving activities, a belief and trust in one’s problem-solving abilities (Heppner & Baker, 1997). Research suggests that problem-solving confidence is positively associated with personal agency, curiosity, positive affectivity, and negatively associated with anxiety, anger and depression. This factor is positively associated with coping activities reflective of coping efforts directed at solving the problem (problem-focused coping), and related to behavioral outcomes (Heppner & Baker, 1997). Elliott, Herrick, MacNair, and Harkins, (1994) found that PSC was a consistent predictor of positive emotionality. Studies have found PSC to be a particularly salient predictor of extraversion as measured by other instruments (Chartrand, Rose, Elliott, Marmarosh, & Caldwell, 1993; Elliott, Herrick, MacNair, & Harkins, 1994; Elliott, Sherwin, Harkins, & Marmarosh, 1995).

Observations based on regions. Results also indicated that African students had a greater perception of problem solving skills as being effective than Asian students. In Asian cultures children are taught to be more dependent on others in making decisions including their parents, family members, and even peers. Therefore they become confused while making decisions that focus on everyday problems (Sharma, 2004). In
addition, for Asian Americans pessimism was found to be associated positively with the use of coping strategies (problem solving and expressing emotions) (Chang, 2001). It has been hypothesized that pessimism helps Asians incur positive consequences therefore by anticipating the worst, Asians may paradoxically gain an immediate sense of certainty or control in their uncertainty about future outcomes (Chang, 1996). This may provide an explanation for Asian students having lower levels of optimism, hope as well as their perception of problem solving abilities which allows them to place lower expectations for themselves, therefore less self-blame will incur if expectations are not fulfilled.

Whereas research has found in particular to black South Africans and problem solving that South African students’ assessment of their problem-solving skills was relatively higher than those of a comparable North American sample (Pretorius, 1993). It has been found that the consensual approach to decision making used in many African cultures is consistent with African cultural values that emphasize the dignity inherent in giving people a say in decision making (Mbigi, 1993). This may also give credence to the high value placed on family for support for African students as they may be helping them through the problem solving process which would in turn help ease some of the burden on themselves. On the other hand their high acculturative stress is an indication of having to go through the acculturation process with family at home and with friendships being a low form of support, they digest more of the acculturative stress than other students.

**Question Six**

The sixth question asks if support systems, as measured by the Demographic Questionnaire for International Students (researcher developed questionnaire), predicts acculturative stress as measured by the Acculturative Stress Scale for International
Students (ASSIS)(Sandhu & Asrabadi, 1994). The findings suggest that international students with friendships as part of their support system, experienced lower levels of acculturative stress. Yeh and Inose (2003) found that social connectedness and social support network satisfaction were both significant predictors of acculturative distress among international students. This study posed to tease out the various support systems of international students into four areas (family, friends, education, organization) with the results suggesting that friendships was a strong predictor of acculturative stress. An explanation for the results being that for international students experiencing difficulties adjusting to a new cultural setting, close connections and social support networks through friendships with others are critical ways of coping and dealing with stress, especially when they are far away from their families.

Regarding international students interactions with Americans it has been found that interaction with fellow nationals can alleviate some of the adjustment stress and consequently be of vital importance to sojourners (Bochner, McLeod, & Lin, 1977). Accordingly, students who primarily socialized with non-Americans reported more acculturative stress than students who socialized with Americans. In addition, the students who socialized with non-Americans reported less social support and more acculturative stress compared with those who interacted equally with both groups (Poyrazli, Kavanaugh, Baker, & Al-Timimi, 2004). Therefore a prolonged and exclusive reliance on home country support can have distinct disadvantages. Thus, it has been shown that sojourn satisfaction increases the more close friends are from the host country and the fewer close friends are from the home country (Locke, 1988). Isolation from host
country interactions can create a vicious cycle of impeded English improvement and perpetual contact difficulties (Bochner, Hutnik, & Furnham, 1985).

**Question Seven**

The seventh question asks if personality, as measured by the International Personality Item Pool NEO (IPIP-NEO)(Goldberg, 1999), predicts acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS)(Sandhu & Asrabadi, 1994). The findings suggest that international students with the personality trait of extraversion, specifically friendliness, experienced lower levels of acculturative stress. Extraversion is a personality factor that has been found to influence successful adjustment and intercultural interaction (Althen, 1988; Gudykunst, 1991; Kim, 1989, 1991; Paige, 1983; Rohrlich, & Martin, 1991; Searle & Ward, 1990).

An explanation for the results being that international students who are able to have the personality trait, which in this study is extraversion, are better able to have the ability to establish friendships whether it is with other international students, individuals from their home country or individuals from the host country. This in turn helps them create a sense of connection which alleviates the acculturative stress. It has been found that the consensus among extraverted and introverted international students was that it is essential to go out and make an active effort in making friends with Americans (Gareis, 1995).

**Question Eight**

The eighth question asks if problem solving as measured by the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982) mediates the relationship between hope, as measured by the Hope Scale (Snyder, Harris, et al., 1991) and
acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994). Problem solving is defined as the complex inter-play of cognitive, affective, and behavioral processes for the purpose of adapting to internal or external demands or challenges (Heppner & Krauskopf, 1987). The findings suggest that the perception of problem solving had a small effect on the relationship between hope and acculturative stress (indirect effect). However, there was a medium relationship between hope and acculturative stress (direct effect). Therefore the inclusion of problem solving as a mediating variable had less of an effect on the relationship between hope and acculturative stress than the direct effect between hope and acculturative stress.

In addition, it is important to note that there was a very strong relationship between hope and problem solving which corroborates the argument that the explicit pathways component of hope theory helps to contribute the additional predictive power in explaining variance related to problem solving and in turn goal attainment (Snyder, Sympson, Michael, & Cheavens, 2000). Studies have indicated a strong interaction between hope and problem solving. For example, high-hope individuals were found to be creative and effective problem solvers (Snyder, Harris, et al., 1991; Snyder, Irving, & Anderson, 1991) and have positive perceptions of competency for problem solving in multiple areas (Snyder et al., 1997) and demonstrate persistence in the face of problem-solving difficulties. With regards to problem solving, problem solving focuses on finding a route upon which to base the problem solving solution (D’Zurilla, 1986); this focus parallels the pathways component of the Hope theory. Effective problem solving skills provide individuals with a greater sense of control and serve as an important coping
mechanism for reducing emotional distress (Nezu, 1985). Therefore, it can be concluded that the strong effect of hope with problem solving would contribute to international students’ ability to adapt and acculturate within the United States.

**Question Nine**

The ninth question asks if problem solving as measured by the Problem Solving Inventory (PSI) (Heppner, 1998; Heppner & Petersen, 1982) mediates the relationship between optimism, as measured by the Life Orientation Test-Revised (LOT-R) (Scheier, Carver, & Bridges, 1994) and acculturative stress as measured by the Acculturative Stress Scale for International Students (ASSIS) (Sandhu & Asrabadi, 1994). Optimists report a dispositional tendency to rely on active, problem-focused coping, and they reported being more “planful” when confronting stressful events (Carver, Scheier, & Weintraub, 1989). The findings suggest that problem solving had a small effect on the relationship between optimism and acculturative stress (indirect effect). However, there was not a significant relationship between optimism and acculturative stress (direct effect). Therefore the inclusion of problem solving as a mediating variable impacted the relationship between optimism and acculturative stress.

In addition, there was a significant relationship between optimism and problem solving and problem solving and acculturative stress. Therefore the results indicate that there may be something attributing to the non-significance of the relationship between optimism and acculturative stress that has not been examined. The results may be a consequence of specific countries that were examined. For example, Chang (2001) found that a lack of optimism appeared to be a strong predictor of psychological and physical adjustment among Asian Americans. This may provide some credence to the non-
significant relationship between optimism and acculturative stress as some cultures may be apt to having a pessimistic worldview to adjust. Another conjecture for the non-significance between optimism and acculturative stress is found in the examination of hope. Hope embodies pathways; the routes in attaining goals, which is not encapsulated in optimism. Pathways is an important component that lends itself to a reduction in acculturative stress of international students, indicated in the results by the significant relationship between hope and acculturative stress.

Implications

Some preliminary steps have been taken to validate positive psychology’s constructs across cultural groups. The construct within positive psychology that has been researched most often with ethnic groups and international samples is well-being (Diener & Suh, 2002), with a vast amount of data collected by the World Values Study Group. There have been cross-cultural applications of some well-being measures for example, Tepperman and Curtis (1995) provided construct validity for a measure of life satisfaction (taken from the world values data set), thus providing support that it may be a reliable and valid measure across cultural groups.

There is much room to improve the status of positive psychological assessment with regard to cultural applicability of measures and findings. Initial data have shown that some constructs generalize across groups, however multiple studies are needed before it can be stated with confidence that positive psychology theories and measures are valid with individuals in other countries.

This study proposed to expand the positive psychology theory through the examination of international students’ personality traits and support systems within the
context of hope, as there have not been published studies examining hope with international populations (Lopez et al., 2002). This study also expanded the literature base through the use of constructs such as optimism, problem solving and hope (support systems and personality traits also used) with international students within the context of their acculturation. This study therefore contributes to the current understanding of applications of positive psychology theories and measures as international students acculturate within the United States. The study explores international students’ acculturation through a positive psychological perspective rather than through the context of their struggles and challenge. Further studies would be needed to build on this exploratory study of international students and how they acculturate within the United States through a positive psychology context.

In addition, the research further emphasized the importance of conducting future research through varying designs. The use of a longitudinal design, will examine the progression of international students’ acculturation within the United States and allow for an in depth analysis and discovery of the path taken by international students’ to acculturate within the United States. Also a qualitative study would allow for a comprehensive analysis of international students’ acculturation.

Further, this study demonstrated that there are factors that help international students through the acculturation process. Instead of viewing the acculturation process through their challenges and struggles the findings indicated significance between positive psychological constructs and acculturative stress. In addition, this research allows for the use of these factors as a way to intervene effectively with international students.
The findings of this study suggest the need for the improvement in the functioning and status of international students by building on their strengths and values. This can be helpful for international student life offices and other university officials (student affairs, residence life and counseling services) that work with international students. Factors that enable international students to be resilient and decrease acculturative stress are predictors that can be fostered within a university setting rather than emphasizing their trials and tribulations.

University officials need to be aware and proactive with regards to creating a smoother transition for international students especially with regards to building their support system. The findings indicated that the friendships formulated are important in helping international students’ acculturate. In addition, international students’ support system does not have to encapsulate fellow nationals as research noted (Locke, 1988; Rohrlich & Martin, 1991; Searle & Ward, 1990) that relationship with individuals from the host country aids with acculturation. Involvement in student organizations representative of varying countries may not be a way to decrease acculturative stress, as it may be viewed as “forced relationships” as they may feel that there may be an expectation to be a part of their national organization. There are cases where international students want to move beyond their national group and embrace different cultures. Therefore providing international students the opportunity to interact with American students may prove to be beneficial. For example, establishing multicultural student organizations in addition to varying national run student organizations may prove to be beneficial.
Limitations to Construct Validity

In relation to the positive psychological constructs of hope, optimism and problem solving as well as the constructs of personality traits, support systems and acculturative stress, the current investigation does present a mono-method bias due to only using one measure to capture the aforementioned constructs and this limits the construct validity. The other components within the constructs that are not assessed by the instruments may play a significant role in the way in which international students approach life. Research that integrates indigenous ways of coping used by various cultural groups (e.g., traditional spiritual practices) may be useful for identifying culture-specific ways of coping.

In addition, a response style may exist across cultural groups and reflect their norms such that emotions may consistently be reported at either extreme or at midlevels. For example, in cultures that value collectivism and place higher value on group conformity, behaviors that draw attention to individuals may be frowned on (Sue & Sue, 1999). Therefore individuals from these cultures may respond to Likert-scaled items in the mid-range. In addition the measures were in English, therefore international students who have not mastered the English language may have placed different meanings on survey questions.

This study incorporated self-reported surveys rather than a study of actual behavior, which would be difficult to achieve. As such, participants may have answered questions in a socially desirable manner to avoid the stigma associated with admitting personal inadequacies. Therefore some measurement error is expected and no attempt was made to follow up with students to corroborate their responses. For these reasons
there are some limits to the instruments ability to actually capture the essence of the constructs being measured.

Also, research is needed to examine the reliability and predictive validity of positive psychological constructs among international samples. Findings from studies that use positive psychological measures without normative psychometric data for particular groups should be considered with caution (Flores & Obasi, 2003).

Limitations to Internal Validity

The research design and method of inquiry included limitations with regard to internal validity, even though some results were found to be significant. Within the study for the analyses that were correlational, no explicit causal conclusion could be drawn from the findings.

In addition, there was no normative data from which to determine how distressed the sample has been compared with norms. Specifically, a control group was not utilized. One method would be to use a pre-measure to determine the stress level of the sample which could have been utilized to discern a group of international students who may be predisposed to being stressed. This group would then be examined with a group of international students without the predisposition, therefore examining the effect of the two groups on the varying constructs. Another method incorporating a control group would be examining if the variance of the constructs utilized were due in part to the experience of being a college student. A control group utilized in this design would be a sample of American students.

Further, there were no measurements that took into account the global context in which international students are presently studying. For example, research should directly
study the impact of September 11th 2001 on the acculturative stress of international students. As a result of the systematic changes that have incurred after the terrorist attacks within institutions of higher education and the government.

Limitations to External Validity

There were several issues raised that would limit external validity and the ability to generalize across groups. With a small return rate, analyses were conducted with a relatively small sample. As a result not only is the generalizability of the results limited but there may be important differences between participants and those who did not respond to the surveys. In addition to having a small sample size, the data were analyzed by geographic region rather than by specific country of origin. However, these analyses were in addition to the analyses of the nine research questions. The sample reported 34 different countries of origin which would be impossible to analyze statistically given the amount of participants within each sample. The designations for geographic region was based on previous research using international student samples (Sodowsky & Plake, 1992; Spencer-Rodgers, 2000; Yeh & Inose, 2003), there are vast cultural differences within each of the regions that were not addressed. Groups may have masked important within-group differences among students from different countries. Cultural variations, attitudes, and values can render unique differences in students’ perception and reactions to stressors.

With culture-specific differences (within group) additional investigations should utilize qualitative and quantitative methods of inquiry to examine such differences among international students. Specifically, research designs that incorporate qualitative
methodologies may be salient in uncovering specific issues related to cultural adjustment of international students in the United States.

Further, this study was limited to international students from a university in the southeastern region of the United States. While international students from this location may share similar experiences with other international students, these common characteristics were not empirically tested and generalizability of our findings should be cautioned. Future research should explore the experience of international students in other geographic locations and universities.

Future Directions

Research regarding international students’ acculturation would benefit from further exploration. For example, a research study implementing a repeated measures design to examine the constructs throughout international students’ sojourn studying in the United States. This analysis would explore if there were any changes within international students’ acculturative stress, hopefulness, optimism, problem solving ability, support systems and if there were any fluctuations in their personality as they are followed throughout their educational experience within the United States. To take the research a step further, a follow up study with international students a few years post-college would be beneficial. Therefore examining the factors that were influential in their decision to return home or remain in the United States. In addition, what factors were helpful with their adjustment and now that they have been in the United States for several years what would have been helpful when they were students?

Research has indicated that international students’ support systems are important in helping with their acculturation within the United States (Hayes & Lin, 1994;
Mallinckrodt & Leong, 1992; Pedersen, 1991; Sandhu, 1995). Through a qualitative
design, future research can examine in detail the systems that impact international
students to attain a global picture of the students. For example, interviews with
international students’ family, friends and organizations. Specifically with friendships,
the study indicated that friendships were an important component in decreasing
acculturative stress. Additional information would be helpful to determine the specific
nature of the friendships. If for example friendships consisted of mostly individuals from
the host country, nationals or other international students. In addition how much time is
spent with friends? Are there common factors that facilitate connections? Therefore
obtaining an in depth perspective of the support systems from the students’ perspective as
well as gaining insight from the systems.

Much can be learned from the present study to bolster future research including
using a control group. For example, a study implementing a control group utilizing a
group of American students. In addition, varying parts of the country can be used for
comparison. For example, international students in rural setting verses international
students in urban settings. Would acculturation into American culture be easier for
international students in urban settings that encompass enclaves such as Little Italy or
Chinatowns? And from a positive psychological perspective, what binds these
international communities together? Or would international communities make it more
difficult, based on the premise that international students have a better experience with
acculturation when establishing bonds with Americans (Locke, 1988; Rohrlich & Martin,
1991; Searle & Ward, 1990) as opposed to their nationals?
With the global climate constantly in a state of flux, as mentioned previously, examining international students’ state of mind in light of the terrorist attacks, as they pursue their studies in the United States, will give credence to their perspectives and the ways in which they are able to adapt in a foreign country.

With few studies examining positive psychological constructs with diverse populations (Lopez et al., 2002), there should be further examination of the relationship of positive psychology constructs to other psychological variables in different cultural groups.

Summary

Researchers have devoted a great amount of effort to the study of adjustment problems and issues of international students (Cheng, 1999; Han, 1996; Kaczmarek, Matlock, Merta, Ames, & Ross, 1994; Lin & Yi, 1997; Ying & Liese, 1994). This has resulted in a void in the literature with regards to the positive ways in which international students experience living and studying abroad (Tseng & Newton, 2002).

The purpose of this study was to gain greater knowledge of international students’ personality traits and support systems within the context of hope. In addition to examining hope, optimism, and problem solving which provides a context for positive psychology, which was also largely ignored in the existing research with regards to international populations (Lopez et al., 2002) within the acculturation process. An additional purpose of this study was to gain greater understanding of support systems and personality traits within the acculturation process, thereby contributing to the literature base by means of empirical investigation. Finally, another purpose was to examine
problem solving as a mediating variable within the context of hope and acculturative stress as well as optimism and acculturative stress.

With an absence of published studies with hope and international students (Lopez et al. 2002), the main findings suggest that international students who are hopeful tend to be extraverted, and have friendships as part of their support system.

The main findings also suggest that international students who were extraverted, hopeful, confident in relation to problem solving abilities and with friendships as part of their support system experienced less acculturative stress. While findings were not significant regarding optimism and acculturative stress, further research in this area is recommended. However, the aforementioned results may suggest, in looking at the relationship between hope and optimism, the importance for international students to not only have the belief and motivation to attain goals which hope and optimism suggests but hope takes the construct a step further which is inclusive of the routes or paths to the desired goals. The findings indicated a significant relationship between hope and acculturative stress, which highlights the importance of the two components that are essential for international students’ attainment of their goals.

In addition, problem solving proved to have a small effect on the relationship between hope and acculturative stress as well as optimism and acculturative stress. Therefore, international students’ hope and optimism can affect their perception of their problem solving ability which in turn affects the way in which they address their stress as a result of acculturation.

These findings provide the groundwork in examining hope in relation to international students. In addition to the factors that aid in international students’
acculturation process, which allows them to sustain a sense of resiliency that minimizes the stress associated with acculturation. The study also examined problem solving within the context of hope and acculturative stress and optimism and acculturative stress. However, there are some unanswered questions as international students pursue their education in the United States. What enables international students to attain their goals as they reside in a foreign country? What motivates them to stay in a country for an extended period of time as they pursue their degree? Are there other factors or driving forces involved in their ability to adapt to the cultural norms of a foreign country?

Research has emphasized that a positive psychological focus has been ignored in the existing literature regarding international populations (Tseng & Newton, 2002) and there has been a void in the literature with regards to the positive ways in which international students adapt to American culture in lieu of an emphasis of their challenges. It is the investigator’s hope that these areas should be further studied to uncover the facets that enable international students to have positive experiences as they pursue their studies in the United States.
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APPENDIX A

CONSENT FORM

I, _____________________________________ agree to participate in a research study titled “A STUDY OF THE CONTRIBUTION OF SELECT FACTORS IN THE ACCULTURATION OF INTERNATIONAL STUDENTS WITHIN THE UNITED STATES” conducted by Shari-ann James, from the Department of Counseling and Human Development Services at The University of Georgia (542-1812) under the direction of Dr. Campbell, Department of Counseling and Human Services, University of Georgia (542-4067). I understand that my participation is voluntary. I can stop taking part without giving any reason, and without penalty. I can ask to have all of the information about me returned to me, removed from the research records or destroyed.

PURPOSE
The purpose of this study is to assess international students’ level of hopefulness and acculturation in the U.S. as a function of their personality traits, support systems and problem solving abilities.

BENEFITS
I will benefit from the activities by providing quantitative data for a research study that can impact not only myself but also the greater international student body at The University of Georgia. The data that I contribute to the study may lead to a greater understanding of international students’ positive experiences within a university environment as they acculturate within the U.S.

PROCEDURES
If I volunteer to take part in this study, I will be asked to do the following things:
1. I will read and sign this consent form (5 minutes).
2. Fill out The Demographic Questionnaire for International Students (10 minutes).
3. Fill out The Acculturative Scale for International Students (10 minutes).
4. Fill out The IPIP-NEO (15 minutes).
5. Fill out The Future Scale (5 minutes).
6. Fill out LOT-R (5 minutes).
7. Fill out The Problem Solving Inventory (10 minutes).
8. I understand that I may elect not to participate in any part of the activity without having to explain why.

DISCOMFORTS/STRESSES/RISKS/CONFIDENTIALITY
There are not foreseen physical discomforts, stressors, or risks involved with participating in this research project.

I understand that if I have additional questions regarding the research project, I may contact the researcher (Shari-ann James), by using the contact information listed above.

The data that I contribute to the project will be generated through my completion of the questionnaires listed above. All of the information obtained will be confidential and will be identified by a number.
FINAL AGREEMENT & CONSENT FORM COPY
My signature below indicates that the researcher has answered all of my questions to my satisfaction and that I consent to volunteer for this study. I have been given a copy of this form.

________________________
Name of Researcher
Telephone: __________________
Email: ________________________

________________________
Name of Participant

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your rights as a research participant should be addressed to Chris A. Joseph, Ph.D. Human Subjects Office, University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu
APPENDIX B

THE DEMOGRAPHIC QUESTIONNAIRE FOR INTERNATIONAL STUDENTS

Please do not place your name anywhere on this or any other form. You have been assigned a research ID#, which is located on line 1, below. If you have any questions, please do not hesitate to ask them. Thank you for your participation!

1. Research ID#: __________
2. Age: __________
3. Gender: □ Male □ Female
4. Marital status: □ Single □ Married a) If Married, is spouse in the U.S.? □ Yes □ No
5. Children: □ Yes □ No
6. Race: __________
7. Country of Origin: ____________________________________________
   a) Ethnicity: ____________________________________________
8. Number of years in the U.S. __________________________
9. Education:
   Undergraduate: □ BA □ BS □ BSW
   □ Other (please list): _______________
   Where & when: ______________
   Type of program (computer science, education, etc.): _______________
   □ Currently in bachelor program:
   □ 1st year □ 2nd year □ 3rd year □ 4th year
   Masters: □ MA □ MS □ MEd □ MSW
   □ Other (please list): ____________________________
   Where & when: ______________
   Type of program: ____________________________
   □ Currently in master’s program:
   □ 1st year □ 2nd year
Doctoral: □ PhD □ EdD □ PsyD
□ Other (please list): ________________________

Where & when: ____________________________

Type of program: ________________________

□ Currently in doctoral program:
□ 1st year □ 2nd year □ 3rd year
□ 4th year □ 5th year □ Internship year

□ Other (please list): ______________

10. How satisfied are you with your current program of study:

1                                           2                              3                              4
Very unsatisfied                             Unsatisfied              Satisfied                 Very satisfied

11. How many times a year do you visit your country of origin? ______________

a) Do you wish you could visit more often?  □ Yes  □ No

12. Do you have plans to return home permanently?  □ Yes  □ No

a) If No, do you plan to:  □ Work  □ Continue with your education

13. Do you have any family in the U.S.?  □ Yes  □ No

a) If Yes, where__________________ relationship _______________________________

b) Are you satisfied with the frequency of your visits with them?

1                                           2                              3                              4
Very unsatisfied                             Unsatisfied              Satisfied                 Very satisfied

14. Do your family members visit you in the U.S.?  □ Yes  □ No

a) If Yes, do you wish they could visit more often?  □ Yes  □ No

b) If No, do you wish they could visit?  □ Yes  □ No

15. How satisfied are you with your family’s involvement to participate in your support system when you are in the U.S.?

1                                           2                              3                              4
Very unsatisfied                             Unsatisfied              Satisfied                 Very satisfied

16. Are you actively involved in any religious affiliation?  □ Yes  □ No

a) If Yes, how satisfied are you with your religious affiliation?

1                                           2                              3                              4
Very unsatisfied                             Unsatisfied              Satisfied                 Very satisfied
17. Are you a member of a student organization?  □ Yes  □ No
   a) If Yes, which one(s)___________________________________________________________
   b) What is your overall satisfaction with your support system within organizations in the U.S.?
      1                                        2                              3                              4
      Very unsatisfied                 Unsatisfied              Satisfied                 Very satisfied

18. Are you a member of an off-campus organization (e.g. Turkish Association, Asian Association, Caribbean Association) in the U.S.?  □ Yes  □ No
   a) If Yes, which one(s)___________________________________________________________
   b) What is your overall satisfaction with your support system within organizations in the U.S.?
      1                                        2                              3                              4
      Very unsatisfied                 Unsatisfied              Satisfied                 Very satisfied

19. How satisfied are you with the friendships you have made, as part of your support system, in the U.S.?
      1                                        2                              3                              4
      Very unsatisfied                 Unsatisfied              Satisfied                 Very satisfied

20. How satisfied are you with your educational relationships (e.g. mentor, advisor, professors, instructors, coach, tutor, graduate assistant) in the U.S.?
      1                                        2                              3                              4
      Very unsatisfied                 Unsatisfied              Satisfied                 Very satisfied