

ABSTRACT

Relationship between Self-efficacy Beliefs and Socio-cultural Adjustment of International Graduate Students and American Graduate Students

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There are many benefits to the presence of international students on American campuses such as increase in diversity and economic contribution (AEC, 2000). However, many international students struggle with adjusting to a new culture (Hubbard, 1994) which may result in attrition, diminished performance, and difficulties in interpersonal relationships (Matsumoto et al., 2001). Researchers have found that students' beliefs and feelings about themselves are likely to positively correlate with their overall adjustment. Therefore the purpose of this study was to examine the cultural adjustment of international graduate students as compared to American graduate students and to examine the factors that contribute to self-efficacy beliefs in students from both groups. The research was conducted at a private, midsized university in Texas and a mixed method design was employed. Quantitative data were collected through the General Self-efficacy Scale, the Socio-cultural Adaptation Scale, and a demographic form. Qualitative data were gathered through responses to open-ended questions. The sample was stratified based on age and gender and consisted of 100 international graduate students and 100 American graduate students. Major conclusions include the following: general self-efficacy beliefs and students' perceptions of their cultural

adjustment were not related to one another when examined with samples of international graduate students and American graduate students at an American university. In addition, there was no difference between the general self-efficacy beliefs of the international graduate students as compared to general self-efficacy (GSE) beliefs of American graduate students. Students in both samples scored high on GSE as compared to normative sample, and students' status did not appear to have an influence on their general self-efficacy beliefs. A statistically significant difference was found between international graduate students and American graduate students' perceptions of their socio-cultural adaptation, $p \leq .001$. Students' responses to open-ended items were consistent with previous findings that factors such as academic performance, social networks, goodness of the match between the individual and university's resources, and perceived satisfaction influence students' adjustment to their new environment.

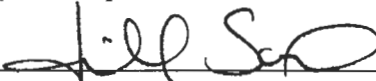
Relationship Between Self-Efficacy Beliefs and Socio-Cultural Adjustment of
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by

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A Dissertation

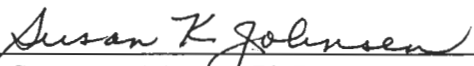
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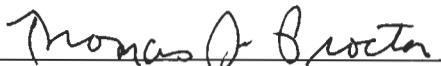
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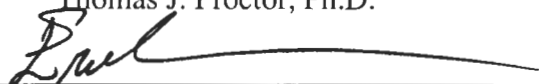
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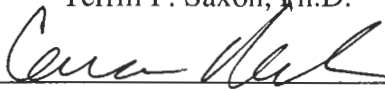
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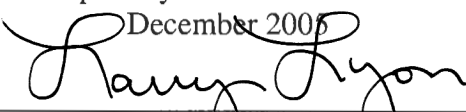


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CHAPTER ONE

Introduction

According to a 2001 American Council on Education (ACE) survey, Americans feel that their lives will be influenced by international issues. Successful participation in a global economy will require an understanding of other cultures and customs (ACE, 2001). In addition to the ACE study, the U.S. Department of Education recognizes that it is critical that people are capable of working with one another in today's global environment. In order to develop those skills, students' academic learning has to be supplemented with opportunities for acquiring a wide range of international skills that will enable them to successfully interact and cooperate with foreigners (U.S. Department of Education, International Education Portal, 2004). The *State of International Education in the United States*, published on November 15, 2004, on the U.S. Department of Education website, contains assertions that international skills are paramount to the issues of national security, to keep America competitive on international economic markets, to assure academic development, and last but not least, to develop understanding of the world necessary for promotion of peace and freedom around the world.

American universities have addressed the issue of globalization by creating study abroad opportunities. Today, more than ever before, American college-bound students choose to study abroad (Pickert, 1992). In 2000 academic year, there were over 143,000 American students involved in study abroad programs. Conversely, many European countries encourage their students to expand their intercultural proficiency via study abroad programs (Bollag, 1995; 1994).

Another way that universities have created diversity and opportunities for learning about other cultures is through the recruitment of international students to pursue their studies in America. The international student population in the U.S. has increased dramatically over the past fifty years. Currently, the United States has the highest number of international students in the world. According to the 2003-2004 Report on International Educational Exchange, the Institute of International Education estimated that 572,509 international students were in the United States, which is approximately 4.3% of total enrollment (Open Doors, 2003-2004).

Studies showed that study abroad programs are one of the effective ways of increasing students' cross-cultural skills and global understanding (Kitsantas, 2004). Conversely, interactions between American and international students on U.S. campuses can be expected to bring similar benefits. Another tangible benefit of not only attracting but also retaining international students comes from their economic effects. It is estimated that international students contribute to the U.S. economy by spending over \$12 billion dollars on tuition and expenses (AEC, 2000).

International students in America pursue a wide range of majors from business to fine arts (Kauffman, Martin, Weaver & Weaver, 1992) and cite various reasons for pursuing international education (Bacon, 2002). Some international students' stay in America last for only a few months and some opt to prolong their study abroad experience until they obtain a degree (Pickert, 1992). In fact, academic experience, obtaining a degree, and gaining professional qualifications were rated as the most important reasons for choosing to study at a foreign university, while culture learning was rated as of marginal importance (Bochner, 1973; Klineberg & Hull, 1979). Students

appear to be motivated by prospective tangible rewards they believe will result from their international education (Bochner, 1979).

Whatever the length of study or reasons for participation, universities want to retain international students in their programs and international students want their stay to be successful. Successful completion of graduate studies can require a great deal of adjusting and adapting to the new environment on the part of the student.

Adjustment to College Life

Adjustment to college life can be defined as making a successful transition to a new learning and social environment that can be characterized as taking advantage of available resources and may require letting go of past attitudes, values, and behaviors and learning new ones in their place (Church, 1982). Adjustment to college life can also be defined as successful negotiation of various obstacles commonly faced by college students while utilizing available resources (Pederren, 1991; Perucci & Hu, 1995).

College education is filled with social, academic, and emotional stressors. In spite of that, a majority of students find ways to cope with adversity and achieve their academic goals. At the same time, a large portion of the undergraduate student body seems to be significantly less successful at attaining their educational goals with about 40% of entire college student population never receiving their diplomas (Porter, 1990). At the graduate level, only about one half of enrolled students will actually complete their studies leading to obtaining a Ph.D. and an estimated one third will not survive the first year of graduate school (Bowen & Rudenstine, 1992; Golde, 1996). This situation has many negative implications. For example, universities lose money in unrealized tuition, fees, and alumni contributions. The decision to leave early has also far reaching

detrimental consequences for the college dropouts, putting them in an inferior position on the job market (National Center for Educational Statistics, 1989).

Even in light of those staggering statistics, attrition rates have not improved in the last few decades (Porter, 1990) and, what is even more troubling, research findings on students' retention yield inconclusive results. Few facts are known that could add to our understanding of factors that contribute to student retention (Gerdes & Mallinckrodt, 1994; Milem & Berger, 1997; Tross, Harper, Osher, & Kneidinger, 2000). Clear identification of risk factors could result in designing intervention programs targeting at risk students and increasing retention rates (Clark & Halpern, 1993) for both American and international students.

In addition to aforementioned difficulties faced by many students while transitioning to college, international students often are faced with additional hurdles stemming from challenges of living in a foreign country. Those additional obstacles are described in the next section.

Intercultural Adjustment

Intercultural adjustment can be defined as the level of psychological comfort experienced by an individual who temporarily stays in a new place (Black & Gregersen, 1991). The issues of intercultural adjustment are of importance to all people who have experienced or will experience the stress of living in a different culture (Matsumoto, Jeffrey, LeRoux, Bernhard & Gray, 2004). The ability to adjust one's behavior to function in the host country is a main predictor of success (Harrison, Chadwick, and Scales, 1996), particularly in a cultural environment that is significantly different from the milieu one comes from (Matsumoto et al., 2004).

Numerous studies have shown that international students may experience difficulties in adjusting to a new culture (i.e., Crittenden, Fugita, Bae, Lamung, & Lin, 1992; Hubbard, 1994). Negative consequences of poor adjustment include psychological and psychosomatic concerns (Shin & Abel, 1999; Kim & Gudykunst, 1988), the perception of experienced emotional stress (Furukawa & Shibayama, 1995; Pacer, Hunsberger, Pratt, & Alisat, 2000; Prichard & Wilson, 2003), and communication problems (Gao & Gudykunst, 1991; Okazaki-Luff, 1991). Other known negative effects associated with poor adjustment include depression, anxiety, diminished school and work performance, and difficulties in interpersonal relationships (Matsumoto et al., 2001). Poor adjustment may prompt individuals to shorten their stay in a foreign country and return home (Montagliani & Giacalone, 1998).

On the other hand, adjustment is enhanced by a variety of factors. The adjustment process can be positively affected by personal, social, financial, and educational factors. Parker and McEnvoy (1993), reported that the most frequently cited personal characteristics positively influencing intercultural adjustment include cultural empathy (Korbin, 1984), integrity and sincerity (Harbir & Conway, 1986), and stress tolerance (Stenning & Hammer, 1992). Ample social and financial resources are also known to ease cross-cultural transition (Ward & Kennedy, 1999). In addition, attained educational level has been shown to be significantly related to successful socio-cultural adaptation (Ataca, 1996). Many researchers have also found that students' self-beliefs are likely to determine their academic success (Beane, 1994) and correlate with the degree of success in their overall adjustment (Black, Mendenhall, & Oddon, 1991; Chemers, Hu, & Garcia; Harrison, Chadwick, & Scales, 1996). Specifically, Bandura (1986; 1997) argued that

self- beliefs about one's abilities and personal competence, known as self-efficacy beliefs, positively correlate with adjustment.

Self-efficacy

According to Bandura (1995), motivation, affective states, and actions displayed by humans frequently result from what they believe rather than from an objective assessment of the situation. In other words, perceived causative capabilities are a source of human agency and the efficacy theory explains in great details how humans can develop and enhance their efficacy beliefs (Bandura, 1995). Bandura believed perceived efficacy to be the fundamental basis of human motivation and action (Zimmerman & Schunk, 2003) and described the perceived self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (Bandura, 1997, p.2). The ability to exercise personal control is attractive because it helps people secure values outcomes and avoid undesirable ones. Control over life circumstances makes events more predictable and allows people opportunity to prepare for them accordingly (Bandura, 1995). Bandura claimed that high self-efficacy leads to increase in efforts and prolonged engagement in an activity. People with high self-efficacy focus their efforts on what needs to be done to accomplish a task successfully. On the other hand, people with low levels of self-efficacy focus on personal shortcomings and generally avoid challenging tasks perceiving them as threatening. They often mistake unsatisfactory performance with lack of aptitude, which leads to discontinuation of their efforts to succeed at a task (Bandura, 1993).

In 1977, Bandura published Social Learning Theory, where he summarized his research on self-efficacy and self-regulation. He identified three determinants in triadic

reciprocal causation model and described the constant and complex interaction between them. These factors include: personal, behavioral, and environmental determinants (Bandura, 1977, 1986). The triadic perspective is best described using Bandura's own words:

What people think, believe, and feel affect how they behave. The natural and extrinsic effects of their actions, in turn, partly determine their thought patterns and affective reactions (1986, p. 25).

An important characteristic of self-efficacy beliefs is their malleability (Bandura, 1997). In other words self-efficacy beliefs can be increased and strengthened through the use of various mastery experience, vicarious experience, physiological and affective states, and verbal persuasion (Bandura, 1986).

Self-efficacy and Adjustment

According to Bandura (1986), students with high levels of self-efficacy in regards to their ability and personal competence are at lower risk for emotional maladjustment. Therefore, the relationship between self-efficacy beliefs and adjustment appears to be positive. This statement has been confirmed by results of empirical studies (i.e., Black, Mendehall, & Odden, 1991; Harrison, et al., 1996; Hirose, Wada, & Watanabe, 1999; Leung & Berry, 2001). For example, high self-efficacy among Hispanic college students had a positive influence of personal adjustment to college and a negative relationship to psychological distress (Chemers, et al., 2001; Solberg & Villarreal, 1997). Similarly, first-year minority students who self-reported greater sense of self-efficacy beliefs also reported more success in coping with various stressful situations related to college life (Phinney & Haas, 2003).

Coffman and Gilligan's (2003) research yielded results consistent with those findings. They conducted a study examining the impact of perceived stress, self-efficacy, and social support on reported life-satisfaction among first-year college students and found that higher levels of self-efficacy positively correlated with higher satisfaction with life. In addition, individuals high in self-efficacy are more likely to assess a potentially stressful situation as challenging rather than threatening as compared to students low in self-efficacy (Jerusalem & Schwarzer, 1992; Jerusalem & Mittag, 1995) and subsequently report less anxieties and better physical health as compared to those students low in self-efficacy (Jerusalem & Mittag, 1995). Positive self-efficacy beliefs help protect individuals from various environmental stressors often found in a university settings and have significant influence on academic, emotional, and social adjustment of university students with learning disabilities (Leung & Berry, 2001; Saracoglu, Minden, & Wilchesky, 1989).

The relationship between self-efficacy and adjustment has also been examined in international settings and with samples of international students. Harrison et al. (1996) looked at American military professionals residing in Europe and found that individuals high in self-efficacy experienced greater level of cultural adjustment than those low in self-efficacy. They found that expatriates high in self-efficacy were better adjusted to their general environment than those low in self-efficacy. Studies involving samples consisting of international students also confirmed those results. Hirose, Wada, and Watanabe (1999) found a positive relationship between self-efficacy and career adjustment among part-time employed Japanese college students while Leung and Berry (2001) found that international students enrolled at a Canadian university reported lower

self-efficacy as compared to Canadians or even second generation migrants and that lower self-efficacy correlated with more adjustment problems. These findings suggest that personality variables such as self-efficacy should be taken into consideration when selecting expatriates for assignments or studying in other countries. Based on these studies, high self-efficacy appears to be positively related to adjustment.

Statement of the Problem

The accelerated social and technological change and global interdependence forces people to seek ways enabling them to exercise control over their lives (Bandura, 1995). Transition to the next educational level can be perceived as a stressful move where students are expected to adapt to situations previously never encountered (Coffman & Gilligan, 2003). Self-efficacy has been found to be a major factor helping individuals cope with stressful life transitions and ease their adjustment to the new environment. Most studies have looked at the relationship between self-efficacy and the adjustment of first year and undergraduate college students (Coffman & Gilligan, 2003; Chemers et al., 2001) including Hispanic and other minority students (Solberg & Villarreal, 1997) and students with learning disabilities (Saracoglu et al., 1989). The link between self-efficacy and adjustment has been explored in international settings with American workers in overseas assignments and international students in Canada and Japan (Harrison et. al., 1996, Leung & Berry, 2001). However, beyond these studies, researchers have not examined the relationship between general self-efficacy and overall adjustment of graduate students. In addition, there have been no studies comparing international graduate students to American graduate students. The present study aims to bridge this gap in the current literature.

The Purpose of this Study

The purpose of this study is (a) to examine the self-efficacy beliefs of international graduate students as compared to their American counterparts and (b) to examine the factors that contribute to the socio-cultural adjustment of students from both groups. The following specific questions will be addressed in this study:

1. Is there a relationship between international graduate students' general self efficacy beliefs and their perceptions of their cultural adjustment?
2. Is there a relationship between American graduate students' general self efficacy beliefs and their perceptions of their cultural adjustment?
3. Is there a difference between the general self-efficacy beliefs of the international graduate students as compared to the general self-efficacy beliefs of American graduate students?
4. Is there a difference between international graduate students' perceptions of their cultural adjustment and the perceptions of American graduate students?
5. What are the factors that influence general self-efficacy beliefs and socio-cultural adjustment of international graduate students as opposed to their American counterparts?

Glossary of terms

International students – foreign students who temporarily stay in the United States to accomplish their educational goals (Sakurako, 2000). In this study, the phrase “international student” will be used interchangeably with a word “sojourner” that also denotes a person (a businessman, a diplomat, a foreign worker, a students, or a voluntary worker) who is staying at a new, unfamiliar and different environment for a medium

length of time, usually ranging anywhere from six months to five years, with a clear intent to return home and clear and specific motives for living in a foreign place (Furham, 1987).

Graduate students - students who continue their studies after obtaining a bachelor's degree.

General self-efficacy beliefs – “beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (Bandura, 1997, p. 2).

CHAPTER TWO

Literature Review

The following chapter contains relevant literature that provides the necessary background for this study. The reviewed research is organized as follows. First, a definition of general self-efficacy and its distinction from other self-constructs is presented. Second, a theory of and a review of factors influencing the general self-efficacy beliefs are summarized. Then, the general theory of adjustment followed by the adjustment of international students and the adjustment of American graduate students is presented along with factors influencing the adjustment process of those respective groups. Next, studies exploring the relationship between general self-efficacy and adjustment are reviewed. Finally, the research is summarized, noting the gaps and inconsistencies in the field that lead to the current study.

Self-efficacy and Other Self-construct

The literature on self-beliefs is full of self terms that can be easily mistaken as interchangeable while, in fact, they represent quite distinct constructs. Therefore, it is important to note the distinctions between general self-efficacy and other self-concepts frequently encountered in the literature and reasons for including general self-efficacy, rather than other constructs, as a variable in this study.

The general self-efficacy refers to “beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (Bandura, 1997, p. 2). It is different from the concept of self-competence, which was defined by White (1959) as an intrinsic desire to feel competent. The main distinction between these two

terms is that general self-efficacy can be acquired while self-competence represents an innate desire (Zimmerman, 1995). Another notion often confused with general self-efficacy is self-concept. Self-concept refers to general self-assessment without focusing on one's ability (or lack thereof) to successfully accomplish a particular task (Bandura, 1986). Therefore, it is not included in this study because it is too vague and imprecise. Also, often confused with general self-efficacy beliefs are self-esteem beliefs, which stem directly from appraising one's self-worth. Simply put, self-esteem reflects whether one likes or dislikes oneself. It is possible to have high self-esteem and low self-efficacy regarding a particular activity (Bandura, 1997).

Both self-efficacy theory and the notion of perceived control (Rotter, 1966) deal with outcomes. However, the notion of perceived control refers to the overall expectation that outcomes can be controlled. People with internal locus of control believe that they are in control of outcomes while people with external locus of control believe that the environment or others control the outcomes. On the other hand, general self-efficacy beliefs influence what outcomes are expected by an individual. Highly efficacious individuals expect positive outcomes and individuals low in confidence often envision failure even before the task begins (Pajaras, 2002).

Because self-efficacy beliefs are the most specific and the most malleable of all self-concepts reviewed above, they are included as a variable in this study.

Theory of Self-efficacy

The theory of perceived general self-efficacy beliefs is a part of a Social Cognitive Theory (Bandura, 1986) briefly outlined in this section.

According to the social cognitive theory, people are neither objects nor agents, but rather, at any given moment, they act as both agents and objects simultaneously.

Bandura's (1986) triadic reciprocal causation model of self and society described the constant interaction between the personal factors including cognitive, affective, and biological factors, the behavior, and the environment. Interaction between those three determinants is governed by reciprocity and bidirectional influence. Depending on a particular situation, the strength of influence of any one of those factors on the other factors will vary (Bandura, 1997).

Central to the social cognitive theory is the notion of human agency, which refers to the claim that, to a certain degree, people are capable of exercising control over what they do and over their life circumstances. The notion, however, does not propose that humans are sole determiners of what takes place but rather that they are fully contributing to it. According to social cognitive theory, "personal agency operates within a broad network of sociocultural influences" (Bandura, 1997, p. 6). Furthermore, human agency refers to intentional acts and purposeful pursuit of goals. It does not refer to control over consequences as many actions carried out intentionally and in good faith produce adverse consequences. Human agency includes beliefs of personal efficacy. People who do not trust that they have the power to bring about desired results will not initiate actions. In other words, human agency assumes generative and proactive actions rather than just reactions to environmental stimuli (Bandura, 1997).

Since the publication of Bandura's *Self-efficacy: Toward a Unifying Theory of Behavioral Change* (1977), where the concept of general self-efficacy was first introduced, the researchers have been able to make great strides toward understanding the

factors influencing general self-efficacy beliefs formation and enhancement as well as their effects on cognitive processes.

Factors Influencing Self-efficacy Beliefs

Bandura (1977) defined general self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situation” (p.2). High general self-efficacy leads to increase in efforts and prolonged engagement in an activity. People with high general self-efficacy focus their efforts on what needs to be done to accomplish a particular task successfully. On the other hand, people with low levels of general self-efficacy focus on personal shortcomings and generally avoid challenging tasks perceiving them as threatening. They often mistake unsatisfactory performance with lack of aptitude, which leads to discontinuation of their efforts to succeed at a task (Bandura, 1993).

General self-efficacy is not an innate trait but rather a generative capability (Bandura, 1997). However, acquiring a sense of personal efficacy is a complex process. It is much easier to say that one is capable of succeeding at a task than it is to actually believe it (Bandura, 1986, 1993). Efficacy beliefs greatly influence our day-to-day functioning and they can be acquired from several sources (Bandura, 1986).

First and foremost, efficacy information can be conveyed through enactive mastery experiences, which are learners’ own experiences of success or failure at a given task. They are usually the most powerful source of efficacy beliefs (Bandura, 1986). Unfortunately, individuals with low self-efficacy are likely to deny themselves credit for succeeding at a task and, therefore, mastery experiences are only one factor contributing to individual’s self-appraisal (Pajares, 2002).

A second way of acquiring general self-efficacy beliefs is via vicarious experiences, which refer to observing others succeeding or failing at a task. The role model has a substantial influence on the learner. The more competent the role model is, the more likely other individuals are to follow him or her. In addition, coping models are shown to be more effective than mastery models. In other words, observing those who initially struggled and had the same fears before eventually mastering a task is more beneficial for learners than observing someone who already exhibited mastery performance. Finally, peer models are also beneficial to remedial and handicapped students (Bandura, 1986; Schunk, 1987).

A third way of acquiring general self-efficacy beliefs is via verbal persuasion. Verbal persuasion refers to the information that learners receive from others about their abilities. Verbal persuasion is likely to result in an increase in general self-efficacy that will lead to greater effort and more persistence instead of dwelling on personal shortcomings when faced with problems (Schunk, 1989).

Last but not least, physiological states are a source of efficacy information (Bandura, 1982). These physiological states are sometimes referred to as “gut feelings”. Highly efficacious people are likely to interpret their physiological arousal as energizing and stimulating while people with low levels of self-efficacy will perceive their feelings as limiting and debilitating (Bandura, 1995). Consequently, whether affective states are labeled as symptoms of fear versus symptoms of anticipation will influence how individuals approach a given situation (Bandura, 1986). Kerr, Johnson, and Krumrine (2004) found that the ability to accurately identify emotions and talk about them is positively related to students’ adjustment. The results are consistent with previous

findings that uncertainty about one's emotional state leads to maladjustment (Salovey et al., 2002).

While these four sources of efficacy information are the most common, people do not always use all of them. Even when they do have access to varied information, they often choose to put greater emphasis on information coming from one source and disregard the other sources. These differences provide additional support for the claim that the formation of general self-efficacy beliefs is a complex process requiring reflection, appraisal, and integration of information from multiple sources (Oettinger, 1995).

Effects of General Self-efficacy Beliefs

Self-efficacy beliefs affect cognitive processes in many ways. For example, how individuals assess their capabilities dictates their goal setting behavior. Individuals with high general self-efficacy set higher goals and exhibit more commitment to them as compared to those low in general efficacy beliefs. Because most actions originate in human mind, general self-efficacy beliefs result in more lofty plans and contribute to the construction of more challenging undertakings. Highly self-efficacious individuals often visualize success and focus on those events that they can predict and control rather than dwell on shortcomings (Bandura, 1994).

Self-efficacy beliefs also affect motivational processes. Much like courses of action, motivation has cognitive origins. The notion of general self-efficacy beliefs can be found in attribution theory, expectancy-value theory, and goal theory. According to expectancy-value theory, people are motivated to act when they believe that those actions will secure desired outcomes. General self-efficacy beliefs play into outcome-

expectancies by influencing people's beliefs about their capabilities and hopeful or pessimistic outlook on possible outcomes. Individuals high in self-efficacy will be much more optimistic about the expected outcomes and thus more motivated to take on the necessary course of actions (Bandura, 1994). Self-efficacy beliefs also play into goal theory as they dictate the types of goals people set for themselves, level of effort, commitment, and resilience when faced with obstacles (Bandura, 1994).

Furthermore, general self-efficacy beliefs affect causal attributions made by individuals in that highly self-efficacious people perceive their failures as resulting from lack of effort while those low in self-efficacy see their failures as reflections of their low ability.

Affective processes are influenced by self-efficacy beliefs in several ways. For example, coping abilities are influenced by self-efficacy beliefs as highly efficacious individuals perceive much more control over stressful factors and therefore experience less anxieties. Individuals low in self-efficacy experience difficulties controlling their thought processes and generate more disturbing thoughts that lead to anxieties, added stress, and depression (Bandura, 1994).

Finally, the selection processes are influenced by self-efficacy beliefs in that highly self-efficacious individuals believe they can exercise more control over their environments and the types of activities they are involved in. The type of selected environments and activities that lead to development of certain skills and social networks that exert profound influence on the course one's life and personal development. Career choices including graduate education are an example of how general self-efficacy beliefs exert influence on selection processes (Bandura, 1994).

Adjustment

According to Erickson (1964), young adults ages 20-40 deal with an important issue of achieving intimacy versus isolation. Intimacy refers to making a long-term commitment to a partner. Achieving intimacy leads to gratifying and lasting friendships, higher level of tolerance for others and, cooperation rather than competition. On the other hand, failure to achieve intimacy leads to shying away from close interpersonal relationships, emphasis on competition, and less acceptance of others different than self.

From a developmental perspective, young adulthood is full of transitions in areas of cognition, physical, emotional, and social development. Much like Erickson, Levinson (1978, 1996) claimed that resolution of issues of intimacy is a central task of young adulthood. In addition, career consolidation is a major task for 20-40 year olds. Overall, most developmental psychologists concur that achieving quality in interpersonal relationships and consolidating one's career are the major tasks in young adulthood (Erickson, 1964; Levinson, 1978, 1996; Vaillants, 1977).

It is important to note that different cultures set very different timetables for when major developmental tasks should be achieved. Such timetables are often referred to as social clocks. Varieties of culturally prescribed social clocks result in cross-cultural as well as individual differences in such developmental milestones as getting a first job, getting married, childbearing, and so forth (Berk, 2003).

Young adulthood is also the time when physical development peaks, and body functioning starts to decline gradually even though it is hardly noticeable. Athletic skills peak between ages 20 and 30 and decline afterwards. Staying in good physical shape requires attention to nutrition and a conscious commitment to exercise routine is required.

Young adults' reproductive capabilities also peak resulting in childbearing and parenthood.

According to Schaie (1977, 1978), young adulthood can most ably be described as the achieving stage. This period is characterized as requiring constant cognitive adaptation and adjustment to new situations such as marriage or employment or parenthood. Those situations, contrary to earlier experiences in classrooms, often do not have one single "right" answer or solution, which may lead to increase in stress and cause psychological strain. From a cognitive perspective, young adulthood marks a climax in intelligence test performance, with the age of 35 considered as the zenith followed by a drop.

In summary, young adulthood is marked by undergoing changes in areas of emotional, social, physical, and cognitive development that can potentially be a source of stress for young individuals. It is hypothesized that high general self-efficacy beliefs may help young people successfully transition to new roles in their personal and professional lives as well as are help them deal with new, more demanding tasks and responsibilities brought on by those transitions.

Adjustment of American Graduate Students

The topic of undergraduate student persistence and departure has received much attention in literature dedicated to higher education (Mohr, Eiche, & Sedlacek, 1998). This line of research has led to a great understanding of factors influencing student attrition and retention at an undergraduate level. Research in this area has focused predominantly on students in their first and second years of college, however, a large

body of research also includes the entire student body, or just college seniors (Tinto, 1993; Mohr, Eiche, & Sedlacek, 1998).

Unfortunately, the same zeal has not been demonstrated in research on graduate students. In fact, the graduate student experience has been called “the great unaddressed academic issue in higher education” (Pruit-Logan & Isaac, 1995, p.1). Although it is estimated that one out of four students will go on to pursue graduate training, when it comes to graduate students “surprisingly little has been written about the general pattern of completion rates” (Bowen & Rudenstein, 1992, p.107).

Although empirical studies on graduate students and their experience are scarce and lacking (Hodgson & Simoni, 1995), the general rule of thumb commonly known among faculty members and administrators is that only half of enrolled students will actually complete their studies leading to obtaining a Ph.D. What is more, one third of all doctoral students will not survive the first year of graduate school (Bowen & Rudenstein, 1992; Golde, 1996).

One of the reasons for so little available data on graduate students’ retention rates is the very nature of graduate training that is characterized by much less imposed structure and higher degree of individualization, especially at the Ph.D. level, as compared to undergraduate programs. In addition, graduate students have the freedom to take time off from taking classes each semester which makes it hard for administrators to distinguish them from drop-outs. There may be additional factors confounding retention statistics at graduate level, such as students who change degree programs before graduating or students holding a non-degree status (Isaac, 1993). Golde’s (1996) dissertation in doctoral students’ attrition led to identification of frequent reasons for

leaving graduate programs in four departments: geology, biology, history, and English. He found that one of the most commonly cited factors was dissatisfaction with the one-sided lifestyle and lack of overall balance that followed from that. Other reasons for leaving included perceived mismatch between an individual and the department or an individual and an advisor, lack of desirable job prospects, or just feeling that one's expectations were not being met (Golde, 1998).

In summary, it is easy to notice that research on graduate student attrition and retention is limited and confounded by numerous personal factors varying from individual to individual that remain beyond the control of faculty or administrators (Lipschutz, 1993). However, the fact is that estimated one and a half million students are enrolled in graduate programs (Baird, 1993) and only about 50% Ph.D. candidates successfully complete their programs. Therefore, it follows that research should be conducted to identify factors that can contribute to higher completion rates among graduate students, especially those pursuing Ph.D.

Factors Influencing Adjustment of American Graduate Students

The existing literature describes many problems commonly faced by American graduate students as they embark on and pursue their studies. Specifically, factors likely to hinder the well-being of American graduate students include taking time off between attending undergraduate and graduate school, task overload, taxing family and community obligations, full-time employment, and lack of opportunities to interact with other students in similar situations.

Social Groups and Relation to Other Students

Students entering graduate school can usually be divided into two groups. One group consists of students enrolling directly from undergraduate colleges and the other group consists of those who took some time off upon graduating from a four-year institution. Both groups arrive in a new, highly challenging environment (Baird, 1995), with the latter group facing additional obstacles in finding peers with whom they can related easily (Fisher & Zigmond, 1998).

Graduate students deal with double load of transition concerns involving academic and social integration (Tinto, 1993). At the same time, they are trying to prepare for a new profession (Golde, 1998). They are also getting acquainted with departmental norms, exploring areas of emphasis, and understanding degree requirements (Weidman, Twale, & Stein, 2001). In addition, contact with graduate students who are further along in their studies is often difficult, hence the opportunity to exchange valuable information and ease the integration process is scarce (Polson, 2003).

Socialization into the Role of a Graduate Student

Goplerud's (1980) study suggested that the first year of graduate school is often filled with many stressful life events that have negative influence on graduate student physical and emotional health. Stress was found to exert influence on graduate students across fields. Life changing events such as change in job status, financial, and social relationships were reported to have negative effects on the well-being of graduate students. In addition, many graduate students report high levels of anxiety, depression, sleep problems, and various physical symptoms (Goplerud, 1980).

Normal frustrations common to the college experience, such as poorly taught and constructed courses or stressful examinations are also a part of graduate student existence. However, in addition, graduate students have to deal with a greater number of activities with the same amount of time at their disposal. In addition to securing a satisfactory grade in their respective courses, graduate students are expected to be involved in an active research program, prepare for comprehensive examination, read extensive literature, complete a thesis or dissertation project, and carry out assistantship duties or off-campus employment (Dukelow, 1980).

Graduate students, unlike their traditional undergraduate counterparts, often find themselves in multiple roles involving family obligations, full-time or part-time employment, and community involvement. Critical to their success is the ability to juggle all these different demands that are placed upon them by establishing priorities, time management, and wise use of internal and external resources (Polson, 2003; McClusky, 1970). The perception of available support from faculty members and the university is also crucial to the academic and psychological well-being of graduate students (Hodgson & Simoni, 1995).

Adjustment of International College Students

Domestic and international students, whether undergraduate or graduate, face common problems when transitioning to go to college. Those common problems include academic pressures, financial problems, loneliness, interpersonal conflicts, difficulty in adjusting to change and problems with developing personal autonomy (Baker & Siryk, 1986). However, those common problems with developing problems of coping with a new environment are likely to be even more challenging for international students who

deal with additional obstacles (Perucci & Hu, 1995). Those additional difficulties may include cultural shock, new customs, language barrier, and possibly different food or meal schedule, to mention only a few. International students are also likely to have less resources at their disposal to cope with those various problems (Pedessen, 1991). Making a successful transition requires letting go of past attitudes, values, and behaviors and learning new ones in their place (Church, 1982).

One of the differences between American students and international students is that Americans know the underlying principles, values, and practices common in American higher education. Those “standard procedures” are not always explicitly communicated to the incoming foreign scholars as American students and teachers unconsciously share many assumptions and expectations about classroom conduct and everyday practices. This implicit knowledge is precisely what international students are often unaware of (Robinson, 1992). For example, international students may lack the understanding of the importance of participating and contributing to class discussion. They are often surprised that American professors expect students to ask critical questions and challenge the existing knowledge (Althen, 1988). International students who are used to a lecture method of delivery in a classroom often refrain from class discussion and comments because they feel that the professors know better or that they might give the wrong answer (Moyers, 1989). This in turn often leads to a perception held by American professors that international students are uninterested or uncommitted. The American notion of learning and the learning process is well depicted by Althen (1988). The following passage clearly illustrates the difference between the American and international students’ approach to classroom participation:

Learning at all levels is thus considered not just a process of memorizing as much as one can of a more or less fixed body of knowledge that already exist in books and in scholars' mind. Learning is an enterprise of exploration, experimentation, analysis, and synthesis. Students can engage in those activities, in the American view, just as well as teachers and professors can (Althen, 1988, p. 58).

In addition, the competitive environment prevalent in most American classrooms, frequently comes as a shock to international students habituated to more cooperative styles of learning (Craig, 1981; Edwards & Tonkin, 1990).

International students need explicit instruction in several areas to be successful in their academic studies. Those include conducting independent research and assuming individual responsibility for academic progress (Winskowski-Jackson, 1991). Overall, a much greater deal of initiative and independence is required of a student at an American university as compared to universities outside the U.S. (Baron, 1975).

Last, but not least, the informal nature of student-teacher interactions can be confusing and sometimes even troubling to international students who are, by and large, used to a greater power distance in student-professor interactions existing in their home countries (Craig, 1981; Edwards & Tonkin, 1990). American professors sometimes ask their students to address them using their first names and act very openly and friendly. This may falsely lead international students to believe that there are no boundaries when, in fact, there still exist clear status differences, although displayed in a more subtle ways (Althen, 1988, Goodnow, 1990).

In conclusion, research has demonstrated that many international students experience difficulties in adapting to life in a new culture, which, in turn, may lower their chances for achieving their educational objectives (Pedersen, 1995; Stoyanov, 1997).

Challenges include adjustment to a new academic and social environment, overcoming the language barrier, financial considerations, and getting used to the local customs.

Factors Influencing Adjustment of the International Students

Several variables are readily identifiable in the literature as relating to the adjustment of the international students. Factors contributing to adjustment include social contacts with host nationals, assertiveness, graduate status, and in some instances gender.

Social Interactions

As an essential part of international students' college experience in the United States has to do with their social life (Lacina, 2002). The amount of social interactions with local people has been shown by the researchers to exert influence on international students' satisfaction with their overall experiences abroad (Klineberg & Hull, 1979; Torbiorn, 1982). Lack of social contacts with host nationals has been linked to anxiety, depression, and alienation (Chen, 1999; Hull, 1978), as well as diminished perception of being adjusted to the new environment (Heikenheimo & Shute, 1986; Zimmerman, 1995). International students who choose to socialize with their countrymen or only with other international students are likely to experience more adjustment problems (Surdam & Collins, 1984). Participation in peer programs has been shown especially effective in increasing adjustment and decreasing drop-out rates (Abe, Talbot, & Geelhoed, 1988). Even the number of American acquaintances has an impact on the adjustment of the international students. Establishing and cultivating numerous social contacts with Americans has been shown to lessen the stress about living in a new culture (Olaniran, 1993).

International students who fail to integrate themselves into social life of a university also often experience a lack of academic success (Boyet & Sedlacek, 1988). Boyer and Sedlacek (1988) further asserted that when it comes to international students “feeling confident, determined, and independent, and having another individual to whom to turn in crisis were important determinants of adjustment to academic demands and attainment of academic success” (p.220). In other words, they found that contact with host nationals is an essential factor contributing to the adjustment of international students to the university life (Heikinheimo & Shute, 1986; Surdam, & Collins, 1984). Researchers have been able to point out several barriers to extensive relations of international students with local people. Those barriers include, but are not limited to, graduate status, language barrier, cultural differences, and gender.

Graduate Status

Graduate status is one of the factors limiting international students’ social interactions with host members because international graduate students are often enrolled in time consuming and challenging programs, which consequently leave little time for socializing. Furthermore, graduate students residing with spouses and/or their children may choose to spend their limited free time with their families rather than with fellow American students or local hosts (Chapdelaine & Alexitch, 1995) leading to limited opportunities for developing culture specific social skills crucial for successful adjustment of sojourners (Chapdelaine & Alexitch, 2004; Furnham & Bochner, 1982; Klineberg & Hull, 1979; Ward & Searle, 1991).

Language Barrier

Language has been identified as another obstacle in forming social connections with locals. Poor English lead to poor adjustment (Surdam & Collins, 1984), less friends (Heikenheimo & Shute, 1986), and an inability to gain cultural insight that only comes from fluent knowledge of local language. Good English skills significantly contribute to the international students' favorable rating of their experiences in a foreign country (Fletcher & Stern, 1989). Although America is a multicultural society, Americans by and large remain xenophobic (Crawford, 2000; Lessow-Hurley, 2000) and often appear impatient with foreign students speaking with a thick accent vastly different from their own (Crawford, 2000). This reaction can hinder the international students' confidence and further obstruct the process of adapting to the new social environment (Lacina, 2002).

Cultural Differences

Inability to express assertiveness in social and academic interaction has been identified as another major problem affecting international students and contributing to their adjustment difficulties (Althen, 1991; Chen, 1992). Conversely, students with higher levels of assertiveness report fewer adjustment problems (Poyarazi, Arabona, McPerson, Pisecco, & Nora, 2002). It has been empirically shown that Finnish and Japanese college students as well as female Korean and female Asian students are much less assertive than American students (Althen, 1991; Thompson & Klopff, 1995). This culturally dictated discrepancy in exhibited level of assertiveness can lead to added difficulties in day-to-day interactions and surviving in the new culture (Chen, 1992).

America is known to be a highly individualistic society where individuals perceive their own personal needs and wants as of foremost importance. This attitude, in turn, influences all forms of social contact and actions. For example, friendships are seen by Americans as much more superficial and less permanent, which may lead to misunderstandings and even the perception that Americans are rude and insincere. It may take a while for international students to become comfortable with and embrace their new concept of friendship (Bulthuis, 1986).

Gender

Gender is another factor influencing the amount of interactions with host nationals and current research yields mixed results. For example, Yang, Teraoka, Eichenfield, and Audas (1994) found that among Asian students females were more likely to socialize with American males. Quite the opposite was found by Manese, Sedlacek, and Leong (1988) and Fletcher and Stern (1989). Those authors found that female international students find it harder to adapt to the new social and academic environment than males. Yet other researchers found that gender is not a significant factor in predicting the frequency of interactions with local people (Owie, 1992; Perrucci, & Hu, 1995; Trice, 2004).

In summary, there are many factors contributing to international students' adjustment. Researchers have shown through empirical studies that lack of regular contact with host nationals, regimen of graduate studies, insufficient knowledge of host language and local customs as well as gender can negatively influence the overall adjustment and well-being of international students (Chapdelaine & Alexitch, 1995; Chen, 1992; Fletcher & Stern, 1989; Klineberg & Hull., 1979; Surdam & Collins, 1984).

Self-efficacy and Adjustment

Until the early 1980s, research offered some support for the claim that personality variables may relate to aspects of adjustment (i.e. Church, 1982; Kealey & Ruben, 1983). However, those studies were often criticized on the account of being largely anecdotal, descriptive, and exploratory in nature (Church, 1982). Starting in the early 1980s, researchers undertook much more stringent empirical studies designed to examine the influence of personal traits on adjustment to foreign cultures. Kealey's (1989) study empirically confirmed that personality traits can explain and predict level of success that sojourners will experience in another culture.

This line of research has also been undertaken with college students' samples. In 1983, Sherer and Adams examined the relationship between general self-efficacy and students' adjustment to their college environment. They found that high scores on general self-efficacy positively correlated with high scores on adjustment (Sherer & Adams, 1983). High general self-efficacy beliefs of Hispanic and first-year minority students were also found to be positively correlating with personal adjustment to college various stressful situations related to students life and negatively correlating with psychological distress (Chemers, Hu, & Garcia, 2001; Phinney & Haas, 2003; Solberg & Villarreal, 1997). Coffman and Gilligan's (2003) research yielded further results consistent with those previous findings. The negative impact of perceived stress was found lower among those first-year college students who reported higher self-efficacy. At the same time, higher levels of self-efficacy positively correlated with higher satisfaction with life. In addition, individuals high in self-efficacy were found more likely to assess a potentially stressful situation as challenging rather than threatening as

compared to students low in self-efficacy (Jerusalem & Schwarzer, 1992; Jerusalem & Mittag, 1995) and subsequently tend to report less anxieties and better physical health as compared to those students low in self-efficacy (Jerusalem & Mittag, 1995). Recently, self-efficacy has become a recognized factor in the international literature. Kealey's (1989) study looking at Canadian technical assistance advisors sent to assignments in various developing countries confirmed that personality traits can explain and predict the level of success that sojourners will experience in another culture. He found that personality traits dictate whether individuals perceive situations as constraining or liberating. It follows logically that individuals perceiving their new environment as restraining experienced more dissatisfaction and lower levels of adjustment.

Harrison et al. (1996) conducted the first empirical research looking at the association between self-efficacy and adjustment in cross-cultural settings. They surveyed 99 American military expatriates residing in Europe and examined the relationship between self-efficacy and expatriates' general, interaction, and work adjustment. Harrison et. al. (1996) found that expatriates scoring high on general self-efficacy were also better adjusted than expatriates scoring low on self-efficacy. Subsequently, a positive relationship between self-efficacy and career adjustment among part-time employed Japanese college students studying in Japan was found by Hirose, Wada, and Watanabe (1999). Leund and Berry (2001) extended this line of research looking at college student population. They examined factors influencing adaptation of international and migrant students at a Canadian university. Among other personal variables taken into consideration, they looked at self-efficacy beliefs. They found that international students enrolled at Canadian university reported lower self-efficacy as

compared to Canadians or even second generation migrants. The researchers also found that higher self-efficacy beliefs, as self-reported by the students, correlated with better adjustment as evidenced by lower psychological distress (Leung & Berry, 2001).

As evidenced by this review of literature, both general self-efficacy and adjustment respectively are well-researched concepts in the educational literature. The influence of self-efficacy and adjustment of American college students has received attention from researchers in the last two decades and results continuously add proof to the claim that higher levels of self-efficacy positively correlated with students' adjustment. More recently, researchers took on the task of examining the relationship between self-efficacy and adjustment of expatriates and students in international settings. Although limited in number, studies looking at international students studying in Canada and Japan as well as U.S. military personnel stationed in Germany also found that self-efficacy plays a paramount role in successful adjustment to studying and performing job assignments in cross-cultural settings. However, even in light of the recent attention that the relationship between self-efficacy and adjustment of students in domestic and international settings has received from the academic community, there have been no studies looking at the population of international graduate students studying at American universities. With that in mind, the current study is aiming to bridge this gap in the current literature.

CHAPTER THREE

Methods

Increasing our understanding about factors that contribute to successful adjustment of international graduate students is important for several reasons. Successful adjustment of first year college students is correlated with academic success (Van Heyningen, 1997) while adjustment problems are often followed by withdrawal from college and higher attrition numbers with consequent economic implications to students and universities alike (Gerdes & Mallinckrodt, 1994; Rickison & Rutherford, 1995, 1996; Hodgson & Simoni, 1995). Clearly identifying factors contributing to graduate student retention may help lessen these economic, social, and psychological costs (Hodgson & Simoni, 1995). Therefore, the purpose of this study was (a) to examine the self-efficacy beliefs of international graduate students as compared to their American counterparts and (b) to examine the factors that contribute to socio-cultural adjustment in students from both groups.

Research Design

This current research was a descriptive study using a mixed method approach. Both quantitative and qualitative approaches were employed for data collection and analysis. The researcher used the quantitative data as the dominant mode of inquiry, using qualitative data as complementary source of information. The mixed method was the best design for this research because it allowed for converging qualitative and quantitative data sources (Jick, 1979). In addition, the advantage of using the mixed method design was the assumption that qualitative and quantitative approaches to

collecting data each has its limitations and biases and hence, collecting both types of data can lead to the most comprehensive understanding of the research problem (Creswell, 2003; Jick, 1979).

Quantitative Research

This study used a correlational research design in order “to determine whether, and to what degree, a relationship exists between two or more variables” (Gay, 1996, p.316). Correlational design was used in this study to examine the relationship between the general self-efficacy beliefs and socio-cultural adjustment of international graduate students and the relationship between the general self-efficacy beliefs and socio-cultural adjustment among American graduate students. Additionally, a t-test for independent samples was used to answer the question whether there was a difference between the general self-efficacy beliefs of the international graduate students as compared to the general self-efficacy beliefs of American graduate students and whether there was a difference between international graduate students’ perceptions of their cultural adjustment and the perceptions of American graduate students.

Qualitative Research

Given the number of factors that contribute to students’ general self-efficacy beliefs and their perceived level of socio-cultural adjustment, the participants were asked to answer five open-ended questions in an attempt to allow them to express their own point of view without limiting those responses to survey categories (Patton, 2002). The responses were analyzed using the constant comparative method (Glasser & Strauss, 1967; Glasser, 1992; Staruss, 1987). According to Tesch (1990), most tasks involving analysis employ the method of comparing and contrasting that leads to formation of

categories and assigning data to categories. “The goal is to discover conceptual similarities, to refine the discriminative power of categories, and to discover patterns” (Tesch, 1990, p. 96).

Research Questions

The following specific questions were addressed in this study:

1. Is there a relationship between international graduate students’ self-efficacy beliefs and their perceptions of their cultural adjustment?
2. Is there a relationship between American graduate students’ self-efficacy beliefs and their perceptions of their cultural adjustment?
3. Is there a difference between the general self-efficacy beliefs of the international graduate students as compared to the general self-efficacy beliefs of American graduate students?
4. Is there a difference between international graduate students’ perceptions of their cultural adjustment and the perceptions of American graduate students?
5. What are the factors that influence self-efficacy beliefs and socio-cultural adjustment in international graduate students as opposed to American graduate students?

This chapter contains detailed descriptions of the research design, sample selection technique and sample description, instrumentation, procedures for collecting data, and data analysis.

Site for this Study

The site for this study was a midsized private university in central Texas. The total enrollment consisted of 13,799 students with 11,580 students who were enrolled in the undergraduate programs and 1,214 students in the graduate school. Of the total

international population at the university, 171 international students were in the undergraduate program and 176 in the graduate programs. The university offers 23 master's degrees with 75 programs of study, one educational specialist program, and 21 doctoral degree programs. The university enrollment typically includes students from all 50 states, the District of Columbia, and approximately 90 foreign countries.

Sample

The method for selecting the sample for this study represented a sampling technique known as purposeful sampling. Purposeful sampling refers to being deliberate in selecting the participants so that they can provide the most information that will help clarify and answer the research questions (Patton, 2002). Purposeful sampling also allows the researcher to take advantage of his or her experience and knowledge of the group to be sampled (Gay, 2003). In addition to being purposeful, the sample in this study was also stratified. Gay and Airasian (2003) explain the purpose of selecting a stratified sample:

Stratified sampling is the process of selecting a sample in such a way that identified subgroups in the population are represented in the sample in the same proportion that they exist in the population” (p. 106).

In order to select a stratified sample for this study, the researcher first identified and described the population of international graduate students at the university. A total of 176 international graduate students and 1038 American graduate students enrolled in classes during the summer and fall of 2005 were asked to fill out the surveys. Then, the researcher identified variables and strata for which appropriate, equal representation was desired. The variable of gender was divided into a male group and a female group. The variable of age was divided into four age categories: 21-24 years old, 25-29 years old, 30-

34 years old, 35-39 years old, and 40 years old and above. All members of the international graduate students' population at Baylor were classified as members of one of the identified groups. From the returned surveys filled out by the international graduate students, the researcher randomly selected (using the table of random numbers) an "appropriate" number of individuals from each of the subgroups. *Appropriate* in this case means an equal (or as close as possible), percentage representation in each subgroup of the sample as compared to the entire population of international graduate students at the university. Once the sample of international graduate students had been selected, the researcher proceeded to select the sample of American graduate students. From the entire population of American graduate students (1038), about 300 chose to fill out the research packets. All returned surveys were divided into two groups: males and females. Using the table of random numbers, the researcher selected the same number of males and females as represented in the international sample. Then, the researcher went on to further divide the American graduate sample into age strata so that each subgroup of American graduate students would as closely as possible resemble the selected sample of international graduate students. The aforementioned steps were taken to ensure that the selected samples resembled the percentage breakdown of both populations with regards to gender and age (within 5 percent). (See Table 1).

International Graduate Students

The sample of international graduate students consisted of 100 students, 41 females and 59 males (see Table 1). Seventeen percent identified themselves as Caucasian, 3 percent as African-American, 52 percent as Asian, and 28 percent checked "other". The international graduate students represented 34 countries, with the most

represented country being China (26 percent), followed by India (13 percent) and Venezuela (10 percent). The majority of international graduate students in the sample were between 25-29 years old (45 percent) and over 70 percent identified themselves as single. The mean reported GPA was 3.7, with only one student reporting a GPA of 2.8 and as many as 12 students reporting a perfect 4.0 GPA.

Table 1
Demographic Characteristics of International and American Graduate Students in both samples and at the University

	International		American sample n = 100	All Graduate students n = 1214
	sample n = 100	population n = 176		
Gender	59	62	59	51
Male	41	38	41	49
Female			30	
Age			43	
21 - 24	28	24	22	68
25 - 29	45	45	3	21
30 - 35	22	21	2	11
36 - 39	3	5		
40 - plus	2	4		
Sources of finances			34	
Research Assistantship	45		21	
Teaching Assistantship	40		13	
Fellowship	11		32	
Family	27		30	
FAFSA				
Finances sufficient				
Yes	61		73	
No	39		27	
English proficiency				
Limited proficiency	8			
Somewhat Proficient	49		1	
Extremely Proficient	34		99	
Not Specified	9			
Attended US undergraduate				
Yes	28			
No	72			

The most common source of financial support for international graduate students were research assistantships (45 percent) and teaching assistantships (40 percent) in their respective departments. In addition, 27 percent of international graduate students reported being financially supported by their families and 11 percent indicated fellowships as their source of income while pursuing graduate studies. It is important to note that many students indicated having several simultaneous sources of financial support. Overall, the majority of students reported having sufficient financial resources (61 percent). Only 28 percent of international graduate students in the sample indicated attending an undergraduate college in the US and on average, international graduate students spent 6.7 semesters in the U.S. Majority of international graduate students (83 percent) felt that they were either somewhat or extremely proficient in English. At the time of data collection, 62% of students were pursuing their master's degree and 38 percent were working on their doctoral degrees. The international graduate students in this study came from 32 countries (see Table 2).

American Graduate Students

Once the sample of international graduate students was selected and defined, a sample of American graduate students of equal number ($n = 100$) was selected matching on the same two variables: age and gender. The researcher was able to select a perfectly matched sample with the variable of gender. The proportion of males to females in the American graduate sample is the exact proportion of males to females in the sample of international graduate students: 59 percent males and 41 percent females. With respect to the age variable, the sample of American graduate students matches very closely the

sample of the international graduate students. Thirty percent of American graduate students in the sample were in the 21 – 24 years of age category, 43 percent were in the group of 25-29 years old, 22 percent belonged to the 30-34 age group, 3 percent were in the 35-39 age group, and 2 percent were in the 40 plus age group.

Table 2
Comparison of countries of origin of the international graduate sample in the study versus international graduate population at Baylor

Country of origin	international graduate sample n = 100	international graduate population at Baylor n = 176
Bahamas	1	1
Canada	2	9
China	27	51
Columbia	2	1
Costa Rica	1	4
France	3	3
Germany	3	3
Ghana	1	1
Greece	3	3
Guatemala	1	1
Honduras	2	2
Hungary	1	1
India	13	29
Japan	1	5
Korea	4	8
Malaysia	2	2
Mali	1	1
Mexico	2	7
Nepal	5	7
Nicaragua	1	1
Panama	1	1
Peru	1	2
Philippines	1	1
Poland	2	2
Russia	1	3
Sri Lanka	3	6
Taiwan	1	7
Uganda	1	1
United Kingdom	1	1
Venezuela	10	10
Vietnam	1	1
Zimbabwe	1	1

Like the international graduate students, most American graduate students indicated that they were single. Similar to the international graduate students, the American graduate students in the sample often also indicated the research and teaching assistantships as the most common source of earnings with students in both samples often checked more than one sources of financial income.

Unlike the international graduate sample, the majority of American graduate students identified themselves as Caucasian (84 percent). Fewer American graduate students were pursuing doctorates (only 21 percent) with a majority working toward various master's degrees. Many more American graduate students (73 percent) indicated that they had sufficient financial resources and, unlike the international graduate students, were able to rely on their families and loans (i.e. FAFSA) to supplement their income while in graduate school.

Instruments

The following qualitative and quantitative assessments were used to address the research questions:

(a) The General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995) was administered to assess the international graduate students and the American graduate students' self-beliefs to cope with a variety of difficult demands in life. The scale explicitly refers to personal agency, which is the belief that one's actions are responsible for successful outcomes. Adjustment to life in a new culture requires dealing with various situations and facing many challenges and, therefore, general self-efficacy is the most appropriate way to assess factors related to sojourners' adjustment. The scale consists of 10 items. The scoring procedure consists of adding up all responses to a sum

score and computing a mean score. Numerous research projects have used the scale with reported range of internal consistency of $\alpha = .70 - .91$. The instrument can be found in Appendix C.

(b) The Socio-cultural Adaptation Scale (Ward & Kennedy, 1999) was used to assess the international graduate students and the American graduate students' perceptions of their socio-cultural adjustment. The scale consists of 29 items and has been found to hold sound psychometric properties that have been proven robust across a wide range of cultural diverse sojourning groups, including students and adult samples. The scale has a reported average internal consistency of $\alpha = .85$ (Ward & Kennedy, 1999).

(c) The Demographic Information Form, developed by the researcher, was distributed to gather data regarding relevant background information. The form was developed by the researcher with questions addressing gender, age, education level, major, country of origin, marital status, presence or absence of spouse in the U.S., length of time spent in the U.S. as a graduate student, source of support while in the U.S., GPA, and GRE/GMAT scores, and perceived English fluency. Data obtained from the Demographic Form helped describe the sample. The Demographic Information Form also helped identify variables that may have influenced performance of self-efficacy and adjustment measures.

(d) Open-ended Questions Form was distributed to gather more detailed personal thoughts on students' self-efficacy and overall satisfaction. The Open-ended Questions Form can be found in Appendix D.

Table 3
Quantitative and Qualitative Measures Used to Gather Data

Instrument	Description
Quantitative Measures	
GSE	A 10-item scale presented in a 4-item Likert scale format, ranging from 1 (strongly disagree) to 4 (strongly agree). Designed to measure a person's sense of general self-efficacy beliefs to cope with a variety of difficult demands in life (see Appendix A).
SCAS	A 29-item scale presented in a 5-item Likert scale format, ranging from 1 (no difficulty) to 5 (extreme difficulty). Designed to assess how much or how little difficulty a person experiences in adapting to a new socio-cultural environment (see Appendix B).
DIF	A 17-item form requesting demographic information such as age, gender, ethnicity, educational background, number of semesters in the U.S., etc. Designed to elicit information that present the researcher with a comprehensive demographic profile of participants (see Appendix C).
Qualitative Measures	
OQF	A survey composed of 5 open-ended items requesting elaboration regarding the participants' beliefs about (a) their success at pursuing their graduate studies, (b) their satisfaction of their overall experience at the graduate level, and (c) their feelings about whether or not they perceive the university to be a good or bad match for them academically and personally (see Appendix

Special expertise. The primary investigator had a first hand knowledge of the issues addressed in this research project since she has been an international graduate student and lived among international graduate students for over eight years.

Procedures

Before initiating this study, the research protocol was approved by the university's Institutional Review Board. Then, meetings were scheduled with the representatives of the International Student Office and the Graduate School in order to secure their cooperation and help with the distribution of the questionnaires. The purpose of the meetings was to explain the rationale for this study, procedures for distribution and collection of surveys and to assure the secure storage of data and confidentiality of responses. All surveys, the Demographic Information Form, and the Informed Consent

Form were assembled to form individual research packets ready to be distributed to individuals.

During the initial contact, the International Student and Scholar Services office and the Graduate School were asked to advertise the study to the entire population of international graduate students and American graduate students at the university and distribute the surveys via e-mail. The copy of the e-mail body can be found in the Appendix F. Attached to the e-mail were the Generalized Self-Efficacy Scale, the Socio-cultural Adaptation Scale, the Open-ended Questions Form, and the Demographic Information Form. In addition, the Informed Consent Form was also attached to the e-mail to allow students to review their rights as participants at any time during their participation.

In order to assure maximum participation from the graduate students' population, the researcher personally contacted various instructors in the graduate school and secured their consent and assistance in distributing the data packets after or before classes. The researcher personally distributed packets including the Generalized Self-Efficacy Scale, the Socio-cultural Adaptation Scale, the Demographic Information Form, and the Open-ended Questions Form. No more than 15 minutes were required to complete all forms.

All of the above methods of distributing surveys were used to assure maximum participation and to increase the response rate.

Data Analysis

In order to address Question One and Question Two, Pearson's product moment bivariate correlation coefficient was used to describe the relationship between general self-efficacy and socio-cultural adjustment. The Pearson's product moment bivariate

correlation coefficient was calculated to show the anticipated linear relationship between variables (McMillan & Schumacher, 1997). The Pearson's r takes into account each and every score in both distributions and it is also the most stable measure of correlations. The Pearson's r was the most appropriate measure because the variables that were correlated were either interval or ratio.

In order to answer Questions Three and Question Four, t-test for independent samples was used. The t-test is the most commonly used method to evaluate the differences in means between two groups. In this study, the t-test for independent samples is used to determine whether there is a significant difference between the means of two independent samples (Gay & Airasian, 2003).

In order to analyze Question Five all survey responses were transcribed and analyzed using the constant comparative method (Glasser & Strauss, 1967; Glasser, 1992; Staruss, 1987). The following steps were taken to analyze data:

1. Categorizing data bits in order to reduce their complexity (Bruner, Goodnow, & Austin, 1972) and to allow for ordering relating classes of events. Analyzing the content of surveys involves identifying, coding, and categorizing patterns in the data (Patton, 1990, 2002). "The qualitative analyst's effort at uncovering patterns, themes, and categories is a creative process that requires making carefully considering judgments about what is really significant and meaningful in the data (Patton, 1990, p.406).

2. Comparing data. In order to compare responses, data were organized by grouping like responses with like responses. After dividing like-responses into separate piles, the researcher compared observations looking for similarities and differences. The researcher also looked for patters across the different data piles (Dey, 1993).

3. Refining categories. According to Dey (1993), the fit between data and categories is not always a clear one and, therefore, a certain degree of flexibility is necessary to accommodate all data. “In defining categories, therefore, we have to be both attentive and tentative – attentive to the data, and tentative in our conceptualization of them” (p. 102).

4. Theory building. Under normal circumstances, constant comparative method involves creating a new theory or strengthening the old theory. In this study, the researcher related the formed categories back to Bandura’s Social Cognitive Theory.

5. Lastly, a Chi-square nonparametric test of significance was performed for each of the items in order to compare the proportions actually observed in a study to the proportions expected to determine if they were significantly different. The use of Chi-square was appropriate in this study because the data gathered to answer Question 5 was in the form of frequency counts and the data were a nominal scale and fell into true categories: International graduate students vs. American graduate students (Gay & Airasian, 2003).

CHAPTER FOUR

Results

Introduction

The study focused on the concept of general self-efficacy and its relationship to graduate students' adjustment. The specific purpose of this study was twofold: (a) it examined the cultural adjustment of international graduate students as compared to their American counterparts, and (b) it examined the factors that contribute to self-efficacy beliefs in students from both groups. The following questions guided this research study:

1. Is there a relationship between international graduate students' general self-efficacy beliefs and their perceptions of their cultural adjustment?
2. Is there a relationship between American graduate students' general self-efficacy beliefs and their perceptions of their cultural adjustment?
3. Is there a difference between the general self-efficacy beliefs of the international graduate students as compared to the general self-efficacy beliefs of American graduate students?
4. Is there a difference between international graduate students' perception of their cultural adjustment and the perceptions of American graduate students?
5. What are the factors that influence general self-efficacy beliefs in highly self-efficacious international graduate students as opposed to highly self-efficacious American graduate students?

This chapter will present the results related to each of these questions.

Data Analysis by Research Questions

Before analyzing particular questions, the researcher first converted all raw scores into standardized scores in order to be able to compare scores from different instruments. First, all raw scores were converted into z-scores, and then z-scores were converted into T-scores to avoid negative numbers. In addition, the scoring direction of the General Self-efficacy Scale was reversed so that both scales would be score in the same direction, which allowed for comparisons between the GSE and SCAS. Next, the researcher examined how the participants performed on the General Self-efficacy Scale and the Socio-cultural Adaptation Scale using descriptive statistics. Since both scales were scored in reversed direction, lower scores actually represented better performance. Therefore, the mean score of 50.62 obtained by international graduate students on the General Self-efficacy Scale actually represented slightly lower performance than the mean score of 49.37 obtained by American graduate students. The standard deviation for the international graduate students' sample was 9.5, while the standard deviation for American graduate students' sample was 10.48.

On the Socio-cultural Adaptation Scale, the mean score for the international graduate students was 54.08, which again signified lower performance, than the mean score of 45.91 achieved by American graduate students. The standard deviation for the international graduate students' sample was 10.67 while the standard deviation for American graduate students' samples was 7.29. The summary of descriptive statistics of the General Self-Efficacy Scale and the Socio-cultural Adaptation Scale for both samples are presented in Table 4. As the table shows, there is a greater difference between the American and international sample on the SCAS. In addition, there was more variability among the international sample on the SCAS than among the American sample.

Table 4
Means and Standard Deviations for Generalized Self-efficacy Scale (GSE) and Socio-cultural Adaptation Scale (SCAS) using T-scores

status	measure	<i>M</i>	<i>SD</i>
International sample <i>n</i> = 100	GSE	50.62	9.50
	SCAS	54.08	10.67
American sample <i>n</i> = 100	GSE	49.37	10.48
	SCAS	45.91	7.29

Research Question 1

In order to address the question of relationships among international graduate students' ratings of their general self-efficacy beliefs and ratings of their socio-cultural adjustment, a correlation coefficient was computed between the Generalized Self-efficacy Scale (GSE) and the Socio-cultural Adaptation Scale (SCAS). A *p*-value of .05 was required for significance. The results of the statistical analysis showed that the correlation was not significant $r(198) = -.047, p = .639$. International graduate students' scores on the General Self-efficacy Scale did not correlate with their scores on the Socio-cultural Adaptation Scale. Given these findings, there appeared to be no relationship between international graduate students' performance on the General Self-efficacy Scale and their performance on the Socio-cultural Adjustment Scale. In other words, scores obtained by international graduate students on those two respective scales were unrelated to each other.

Research Question 2

In order to address the question of relationships between American graduate students' ratings of their general self-efficacy beliefs and their ratings of their socio-cultural adjustment, a correlation coefficient was computed between the Generalized

Self-efficacy Scale (GSE) and the Socio-cultural Adaptation Scale (SCAS). A p -value of .05 was required for significance. The results of the statistical analysis showed that the correlation was not significant $r(198) = -.053, p = .603$. American graduate students' scores on the General Self-efficacy Scale did not correlate significantly with their scores on the Socio-cultural Adaptation Scale. Given these findings, there appeared to be no relationship between American graduate students' performance on the General Self-efficacy Scale and their performance on the Socio-cultural Adjustment Scale. Scores obtained by American graduate students on one scale were unrelated to scores obtained on the other scale.

Research Question 3

In order to address the question of difference between the general self-efficacy beliefs of the international graduate students as compared to the general self-efficacy beliefs of American graduate students, an independent-samples t -test was conducted. The null hypothesis was stated as: "There is no difference between general self-efficacy beliefs of international graduate students and general self-efficacy beliefs of American graduate students". The t -test is the most commonly used method to evaluate the differences in means between groups. In this study, the use of t -test for independent samples was appropriate because the international graduate students' sample and the American graduate students' sample are independent of each other.

The results of statistical analysis revealed that the t -test was not statistically significant, $t(198) = .883, p = .378$. Therefore, the results confirmed the research hypothesis of no significant difference between the average scores of the international graduate students and the American graduate students obtained on the General Self-

efficacy Scale. Furthermore, the analysis of means and standard deviations for both groups revealed that both the international graduate students and the American graduate students scored above the mean for the normative sample on the General Self-efficacy Scale. The scores obtained by both groups were also almost perfectly distributed forming a normal curve with the majority of students falling within plus one/ minus one standard deviation from the mean.

Research Question 4

In order to address the question of difference between international graduate students' perceptions of their cultural adjustment and the perceptions of American graduate students, an independent-samples t-test was conducted. The null hypothesis was stated as: "There is no difference between socio-cultural adjustment of international graduate students and socio-cultural adjustment of American graduate students".

The results of the statistical analysis revealed that the test was statistically significant, $t(198) = 6.325$, $p = .001$. Therefore, the results were counter to the research hypothesis of no significant difference between the average scores of the international graduate students and the American graduate students obtained on the Socio-cultural Adaptation Scale. The American graduate students' responses on the Socio-cultural Adaptation Scale revealed their better adaptation to the socio-cultural environment of the university and the surrounding community. In addition, further examination of standard deviations showed that the American graduate students' scores showed less variability. Although the outcome of the statistical analysis run counter to the research hypothesis, the results seem intuitive since it might be expected that American graduate students

would exhibit more socio-cultural adjustment when compared to international graduate students who are pursuing their education in the U.S.

Research Question 5

While the analysis of the quantitative data provided essential information about the general self-efficacy beliefs and the socio-cultural adjustment of international and American graduate students, the more in-depth information about factors contributing to these beliefs and perceptions were gathered from participants' responses to open-ended items. The following questions were addressed:

1. How successful are you at pursuing your studies at the graduate level?
2. What factors contribute to your perceptions of your success at pursuing your studies at the graduate level?
3. How satisfied are you with your overall experience at the graduate level?
4. What factors contribute to your satisfaction of your overall experience at the graduate level?
5. What makes this university a good match or not a good match for you personally and academically?

The responses are organized by each of the open-ended questions.

In Item 1, the students were asked to rate how successful they perceived themselves to be at pursuing their studies at the graduate level. During the coding stage, five separate categories of responses emerged: very successful, successful, somewhat successful, neutral, and not successful. It is important to note that standards for measuring success were not defined for students, which allowed them to talk about success in their own terms.

As evidenced by the percentage breakdown of students' responses (Table 5), most international graduate students' responses (41%) fell into the "somewhat/ relatively

successful” category. The responses in that category were characterized by phrases and words such as “doing OK”, “above the average”, “not too bad”, “moderately”, “OK”, “reasonably successful”, and “quite good”.

Table 5
Comparison Between International and American Graduate Students’ Success in Pursuing Graduate Level Studies

Reported categories	international sample n = 100	American sample n = 100
Very successful	27	37
Successful	9	25
Somewhat/ relatively successful	41	23
Not successful	4	---
No response/Neutral	19	15

Twenty seven percent of international graduate students indicated that they felt “very successful”. For example, one student (Int.1.1) said: “I am very successful at pursuing my graduate studies. I am at the top of my class”. Another student (Int.1.11) in this category said: “Very successful. Only single male graduate student in the last two years in my program not to drop out of the program.” Nine students indicated that they felt successful and in their responses used words such as “successful” and “well”. One student (Int.1.99) in this group elaborated: “I consider myself successful in the matter of graduate studies although, I believe that if I had the proper resources my graduate studies would be better”. Nineteen students responded in a neutral manner saying that they were either “not sure” (Int. 1.70) or that they “had just begun their studies” and couldn’t mention the degree of success (Int.1.73). Four students said they perceived themselves to be unsuccessful. Two of them simply stated that they were not successful (Int.1.31) or not satisfied (Int.1.94), one indicated lack of success and a desire to change major (Int.1.15),

and the 4th (Int.1.32) indicated not doing well in research. Twelve percent of international graduate students did not respond to this item.

Unlike the international graduate students, the American graduate students' responses to item 1 fell mostly into the very successful category. Their responses were characterized by words and phrases such as "doing great" (A.1.1), "very successful" (A.1.25), and extremely successful (A.1.31). One student (A.1.57) said: "Very successful. I have the best cumulative GPA I have ever had including undergraduate. I have been voted by my peers and professors to take a leadership position in this coming big MBA project". Forty-eight percent of American students rated themselves to be either successful or somewhat/relatively successful (23% and 25% respectively). Those students wrote statements such as: "I feel I am successful based on academic success and work with clients" (A.1.19), "pretty successful, I manage to keep track of most of my responsibilities, though I forget things sometimes" (A.1.32), "I am successful" (A.1.52), and "So far, moderately successful" (A.1.33). An interesting finding was that no American graduate students rated themselves as "not successful". Fifteen percent either left the item blank or were not sure.

In addition, a Chi-square nonparametric test of significance was performed to examine if a significant difference existed between status and perceived success at the graduate level. A contingency table analysis was conducted to answer this question. The two variables were international graduate students and American graduate students respectively. There were five categories of responses: very successful, successful, somewhat/relatively successful, not successful, and no response. The results of the Chi-square test showed statistical significance (Chi-square [4, N = 200] = 18.625, $p = 0.001$)

and the researcher concluded that students' ratings of their perceived success were dependent on students' status (American versus international). Specifically, American graduate students were more likely to perceive themselves as very successful than international graduate students.

Item 2 asked the participants to identify those factors that contributed to their perceived success at pursuing their graduate studies. During the coding stage, the researcher was able to identify the following factors as mostly contributing to the international graduate students' perception of success: evidence of good academic performance (i.e. GPA, faculty feedback, publishing record, satisfactory progress toward degree completion), perseverance (motivation, experience, flexibility), hard work (time spent studying and time management), social networks (relationship with mentors and students, job prospects). As evidenced by the percentage breakdown of students' responses (see Table 6), 42 percent of international graduate students indicated evidence of academic performance and 22 percent mentioned hard work as factors most contributing to their perception of being successful. They cited "published papers" (Int.2.15), "hard work and study" (Int.2. 22), faculty feedback (Int.2.56), and "good grades" (Int.2.63). They also often referred to "social network" as highly contributing to their well-being and success. One international graduate student (Int.2.18) responded saying: "My graduate advisor and fellow students. Mentors and social networks". Another student (Int.2.3) said: "Patient and understanding mentors". Students who pointed to perseverance as the source of perceived success used words and phrases such as "patience" (Int.2.39), "flexibility" (Int.2.58), "determination" (Int.2.72). Nine percent indicated perseverance. For example, one student (Int.2.55) said: "I am smart". Another

student (Int.2.98) in this category said: “Nothing else but God. He had provided all I have needed to be successful”. Another student (Int.2.2) said: “I think one of the main factors is that I love what I am studying right now. My passion is oboe, music and that what keeps me going” Fifteen percent of students left the item without a response.

Table 6
Comparison Between Factors Contributing to Perceived Success among International Graduate Students and American Graduate Students

Reported categories	International sample	American sample
Evidence of good academic performance	42	48
Social networks	12	16
Perseverance	9	15
Hard work	22	14
No response	15	7

Similar to the international graduate students, the American graduate students’ responses also most frequently fell into the evidence of good academic performance and hard work (62%). They cited “faculty feedback”, “good grades”, “improvement in papers”, and “verbal praise” (A.2.6; A.2.9; A.2.26; A.2.52). The following response from one American graduate student (A.2.45) is very representative: “I perceive that I am successful because of grades received in graduate courses, feedback from professors, positive work experience involving what I have learned in my graduate courses, and my own perceptions of my performance”. Sixteen students fell into the category of social networks. For example, one student (A.2.41) said: “Strong mentors, good relationships with peer group.” Another student (A.2.13) referred to a church as a factor contributing to perceived success: “Being part of a church that cared for my needs”. Twenty nine percent of American students pointed to perseverance and hard work while seven students chose not to answer.

In addition, a Chi-square nonparametric test of significance was performed to examine if there was a relationship between students' status and factors they identified as contributing to their perceived success at the graduate level. A two-way contingency table analysis was conducted to answer this question. The two variables were international graduate students and American graduate students respectively. There were five levels of responses: academics, social networks, perseverance, hard work, and no response. The Chi-square test revealed lack of statistical significance (Chi-square [4, N = 200] = 7.38, $p = .10$) and the researcher concluded that American and international graduate students tended to identify similar factors that contributed to their success.

Item 3 asked the participants to describe how satisfied they were with their overall experience at the graduate level. The percentage breakdown of responses in categories that emerged during the analysis is presented in Table 8. As evidenced by the tabular presentation, most international graduate students felt "satisfied" to "very satisfied" with their overall experience at the graduate level (62%). For example, Int.3.7 stated: "I was extremely satisfied and therefore I went on to start my doctorate". Int.3.38 echoed this sentiment stating: "Greatly satisfied, excellent faculty and course work." Another student (Int.3.49) offered: "Good. It is a little bit more manageable than undergraduate. Since less homework and the papers are more self-motivated". Thirteen percent students said they were moderately/ relatively satisfied with their experiences. Their responses were characterized by words and phrases such as: relatively OK, I feel OK, somewhat successful. Int.3.15 commented: "I am happy I met a lot of friends and begin to get familiar with another culture. At the same time I find I don't like my major. Eleven percent expressed dissatisfaction with their overall experiences as graduate students.

Table 7
*Comparison Between Satisfaction with the Overall Experience at the Graduate Level among
 International Graduate Students and American Graduate Students*

Reported category	International sample n = 100	American sample n = 100
Very satisfied	34	45
Satisfied	28	23
Moderately/relatively satisfied	13	23
Not satisfied	11	5
Not sure/ no response	14	3

Students pointed to lack of practical relevance of majority of their courses (Int.3.19) while other simply said they were dissatisfied. Int.3.10 expressed a lot of anger over the issues of being underpaid by comparison with other universities and working as hard as faculty members. As many as 14 percent left the item blank or indicated they were not sure.

Majority of American graduate students said they were very satisfied with their overall experience at the graduate level. A.3.13 said: “I loved going to Baylor and doing my masters there was a very rewarding experience. I certainly learned a lot more things in my major,” while others simply said they were very satisfied or highly satisfied and did not elaborate. A total of 46 percent rated their experience as satisfactory to moderately or relatively satisfactory. A.3.4. noted: “On a scale of 1-10, I’d give it a 7”. Another student stated: “I am moderately satisfied with my experience. I feel I could have been more beneficial in other areas of research”. Yet another student (A.3.64) mentioned the slow pace of his program and lack of flexibility available to more knowledgeable students. Three American graduate students left the item blank and five students indicated being not satisfied.

In addition, a Chi-square nonparametric test of significance was performed to examine if a significant difference existed between students' status and their perceived satisfaction of their overall experience at the graduate level. A contingency table analysis was conducted to answer this question. The two variables were international graduate students and American graduate students respectively. There were five categories of responses: very satisfied, satisfied, moderately satisfied, not satisfied, and not sure/ no response. The results of the Chi-square test revealed statistical significance (Chi-square [4, N = 200] = 14.660, $p = .001$) and the researcher concluded that students' ratings of their perceived satisfaction were dependent on students' status (American or international). American graduate students were more likely to be very satisfied with their overall experience at the graduate level than their international counterparts.

Item 4 asked students to identify those factors that, in their opinion, contributed to their overall satisfaction of their experience at the graduate level. As evidenced by data in Table 13, students from both samples responded in a very similar manner. Fifty-two percent of international graduate students and 69 percent of American graduate students pointed to academic-related factors as most heavily weighing on their perception of being satisfied with their experience. They cited factors like grades, progress toward degree, faculty support (A.4.37; Int.4.3), being able to coordinate research (A.4.38; Int.4.8), having the opportunity to get into specific classes (A.4.44), and access to resources (A.4.58; Int.4.66). About 12 percent of students in both groups pointed to having a balance between academic endeavors and life outside of university. For example, A.4.35 said: "Knowing I will be out soon with a degree that I can use. Staying up on my research and friends, social outings occasionally that suit me." Another student (Int.4.81) noted

faculty, Christian values, university facilities, friends, fellow MBA students as sources of balance in her life. Others in this category cited working out, time for relaxation, and financial stability. About 5 percent in both groups pointed to having a rewarding social life as evidenced by having lots of friends, feeling integrated, enjoying relationships with people around them. One percent of students in each group cited finances while 22 percent of the international graduate students and 7 percent of American graduate students did not answer or were not sure.

In addition, a Chi-square nonparametric test of significance was performed to examine whether a significant difference existed between students' status and the factors they identified as contributing to their overall satisfaction at the graduate level. A two-way contingency table analysis was conducted to answer this question. The two variables were international graduate students and American graduate students respectively. There were six categories of responses: academics, social life, balance, enjoyment, finances, and not sure/ no response.

Table 8
Comparison of Factors Contributing to the Overall Satisfaction at the Graduate Level among International Graduate Students and American Graduate Students

Reported category	International sample n = 100	American sample n = 100
Academics	52	69
Social life	8	5
Balance between academics and outside life	12	12
Enjoyment of current pursuits and feeling successful	5	6
Finances	1	1
Not sure/ no response	22	7

The result of the chi-square test was not statistically significant (Chi-square [4, N = 200] = 10.930, $p = 0.10$) and the researcher concluded that American and international

graduate students tended to identify similar factors that contributed to their overall satisfaction.

Item 5 asked participants to identify whether they perceived this university to be a “good match” or a “bad match” for them academically and personally. As shown in Table 9, about 70 percent of students in both samples felt that this university was a good match for them. More than 10 percent in each group indicated that this university was a good match in some respects but a bad match in regards to other factors. Three percent of international graduate students and six percent of American graduate students felt this university was a bad match for them and 18 percent of international graduate students and 11 percent of American graduate students did not comment at all.

Table 9
Comparison between International Graduate Students and American Graduate Students’ Ratings of the University as a Good Match vs. Bad Match

Reported category	International sample n = 100	American sample n = 100
Good match	67	72
Some good/some bad	12	11
Bad match	3	6
No response	18	11

More than 10 percent in each group indicated that this university was a good match in some respects but a bad match in regards to other factors. Three percent of international graduate students and six percent of American graduate students felt this university was a bad match for them and 18 percent of international graduate students and 11 percent of American graduate students did not comment at all.

Those international graduate students who indicated that this university was a good match cited strong academics, financial assistance, small size of the university

which led to more interaction with faculty, enjoyable social and work atmosphere, enjoyment of small town life, Christian mission of the university, and conservative values. For example, Int.5.11 said: “The practical experience and training opportunities provided. Baylor’s Psy. D. program is one of the best Psy. D. programs in the nation for in-depth practical training in clinical psychology”. Another student (Int.5.28) offered: “In this university I find the resources to run a research endless. Is a good place to have a calm lifestyle while working on your research” while Int.5.41 added:” I selected this university because it is a highly reputable school of education. It was also convenient because my husband got a job here in Waco. The math education program is quite good”. Of those international graduate students who felt that this university was a good match in some regards and a bad match in other aspects, most responses were similar to the elaborate reaction of Int.5.64:

It is not a good match personally for the fact that it is a very homogeneous student population...far from the reality of many serious universities. It does not provide the opportunity to experience diversity almost in any sense. It is also not a good match personally because of the religious issues. I would prefer a more open environment and more tolerance with other beliefs or ways of thinking, including atheism, agnosticism, etc. The local culture also appears too conservative to me. Academically, it is a very good match, since I have found a very competitive team of coworkers and a very big opportunity to do high quality science as well as an interesting academic program of studies. This will enhance my resume and open more opportunities for me.

International graduate students who stated that this university was a bad match for them cited the fact that the university is not a research institution and hence lack of research resources (Int.5.87), high cost of attending, and small size of departments which led to less experimental research options (Int.5.94).

Similar to the international graduate students, the American graduate students who claimed that this university was a good match for them also cited strong academics,

small university and hence small classes and more interaction with faculty, matching religious affiliation and conservative values, friendly atmosphere of a small town. For example, A.5.97 stated:” Good match because of small communities of learning, personal contact with faculty, resources available” and A.5.55 echoed this sentiment in his response: “It is a good match personally because of Christian environment. Academically is a good match because I am interested in the studies conducted by various professors”. The response of A.5.12 is representative of answers given by students in the good match/bad match category:

Personally, the small, intimate nature of my graduate program is a good match for me. I feel like I can establish meaningful relationships with peers and faculty alike and there is a great deal of comfort in that. The conservative stance of the university is not a good match for me and outside my program I feel like I have to censor myself in some ways to be accepted by the dominant culture in Waco. Academically, the coursework and expectations are rigorous enough but are balanced in the feasibility. I don't feel overwhelmed usually but time constraints can be difficult. The faculty members are dedicated and interesting and have a great deal to impart.

Only six graduate students in the American sample did not perceive this university to be a good fit for them. In their answers they pointed to not being a conservative Baptist, not enjoying the small size of the university, or simply stated it was not a good match.

In addition, a Chi-square nonparametric test of significance was performed to examine whether a difference existed between students' status and their perception of this university as a good match, some good/ some bad match, or a bad match. A two-way contingency table analysis was conducted to answer this question. The two variables were international graduate students and American graduate students respectively. There were four categories of responses: good match, good/bad match, bad match, and not sure/

no response. The results of the chi-square test showed lack of statistical significance (Chi-square [3, N = 200] = 2.912, $p = 1.00$), which allowed the researcher to conclude that students' status and their perceptions of the match between the university and their personal and academic needs were not dependent on one another. Both groups of graduate students reported that there was a good match between the university and their academically and personal needs.

Summary

The results of statistical analyses showed similarities and differences between the American and international groups. First, there appeared to be no correlation between the performance on the General Self-efficacy Scale and the performance on the Socio-cultural Adaptation Scale for both the international graduate students and the American graduate students. Second, students in both groups possessed almost equally high levels of self-efficacy beliefs. Third, American graduate students did score better on the Socio-cultural Adaptation Scale, which was an expected result. Fourth, differences were found between how international graduate students and American graduate students rated their perceived success at the graduate level. Differences were also found between how international and American graduate students rated their perceived satisfaction with their overall experience at the graduate level. Finally, both groups cited similar factors contributing to their satisfaction with regards to their overall experience at the graduate level. Both groups perceived that there was a good match between the university and their academic and personal needs. More in-depth discussion of these findings as well as the description of limitations of this current study and implications for future research will be discussed in chapter five.

CHAPTER FIVE

Summary and Discussion

Introduction

Globalization has touched all areas of life including education, business, and politics. Creating diverse environments and opportunities for young people to become fluent in interacting with various cultures has therefore become a necessity. The United States, as a world leader in numerous arenas, has always attracted young people in their pursuit of higher education, and currently has the highest number of international students in the world (Open Doors, 2003-2004). The presence of international students on American campuses adds the essential diversity and an opportunity for Americans to learn about other societies and ethnic groups not represented within the American population. The international students' presence on U.S. campuses is also valuable because of their economic contribution in the form of paying tuition and other expenses (AEC, 2000).

In light of these many benefits, American institutions want to retain international students in their programs and help the students be successful. A step toward this goal is recognizing that successful completion of graduate studies may require a great deal of adjusting and adapting to the new environment on the part of the student. In fact, numerous studies have shown that international students may experience difficulties in adjusting to a new culture (Hubbard, 1994). Some of the known negative effects associated with poor adjustment include depression, anxiety, diminished school and work performance, and difficulties in interpersonal relationships (Matsumoto et al., 2001). Poor adjustment may prompt individuals to shorten their stay in a foreign country and

return home (Montagliani & Giacalone, 1998). On the positive side, many researchers have found that students' beliefs and feelings about themselves, such as self-efficacy (Bandura, 1997) are likely to determine their academic success (Beane, 1994) and correlate with the degree of success in their overall adjustment (Black et al., 1991; Chemers et al., 2001; Harrison et al., 1996). With empirical evidence revealing adjustment problems among students studying abroad and research studies suggesting the influence of self-efficacy on the process of adaptation, examining the relationship between self-efficacy beliefs and adjustment appears to have important implications for education.

Summary of Results by Questions

It has been empirically confirmed that personality traits influence the level of success that sojourners experience in another culture (Kealey, 1989). Thus far, the relationship between self-efficacy beliefs and adjustment of college students has been investigated in domestic settings and the results showed that high levels of self-efficacy beliefs positively correlate with higher life satisfaction and better adjustment (Chemers et al., 2001; Coffman & Gilligan, 2003; Jerusalem & Schwarzer, 1992; Jerusalem & Mittag, 1995; Leung & Berry, 2001; Phinney & Haas, 2003; Solberg & Villarreal, 1997). However, there have been no studies focusing on the population of international graduate students at American universities examining their self-efficacy beliefs and perceived adjustment as compared to the American graduate students. Therefore, this study attempted to extend the current literature through the investigation of the relationship between self-efficacy beliefs and socio-cultural adjustment of international graduate students and their American counterparts.

The sample in this study consisted of 100 international graduate students and 100 American graduate students at a midsized private university in central Texas. Qualitative and quantitative data were collected during the summer and fall of 2005 academic year.

The first two questions attempted to identify any relationships between general self-efficacy beliefs and socio-cultural adjustment of international graduate students and American graduate students. The next two questions examined the differences in self-efficacy and adjustment between international graduate students and American graduate students by comparing their performance on the General Self-efficacy Scale and the Socio-cultural Adaptation Scale. The final question examined the participants' responses to five open-ended items about factors influencing their self-efficacy beliefs and perceived socio-cultural adjustment.

Relationship between international graduate students' general self-efficacy beliefs and their perceptions of their socio-cultural adjustment

The results of statistical analysis showed that international graduate students' scores on the General Self-efficacy Scale did not correlate significantly with their scores on the Socio-cultural Adaptation Scale. Given these findings, there appeared to be no relationship between international graduate students' performance on the General Self-efficacy Scale and their performance on the Socio-cultural Adjustment Scale. In other words, scores obtained by international graduate students on those two respective scales were unrelated to each other. This finding was contrary to the expectations based on the review of the literature. Specifically, the study conducted by Leung and Berry (2001) showed that international students enrolled at a Canadian university reported lower self-efficacy as compared to Canadian students or even second generation migrants. The study also showed that lower self-efficacy beliefs correlated with lower adjustment.

The lack of relationship in this study may be attributed to two factors: characteristics of instrumentation and sample. Specifically, the Socio-cultural Adaptation Scale consists of 29 items covering a wide range of aspects of living and performing in a foreign culture, which perhaps turned out to be not specific enough to the university culture to truly assess international graduate students' level of comfort as related to being foreign students at an American university. In future studies, a shorter and more specific scale that focuses on the university culture might be used to better sample the concept of socio-cultural adaptation of international graduate students. Additionally, the reason why the current research results did not replicate previous findings linking self-efficacy to adjustment could be the difference in sample make up. The current study's sample consisted of graduate students while previous studies looked at undergraduate students. Graduate students are different from undergraduates in that they are usually older and therefore have accumulated more experiences relating to university life and life in general. With this in mind, it can be expected that the performance of these two respective groups would be different.

Relationship between American graduate students' general self-efficacy beliefs and their perceptions of their cultural adjustment

The results of the statistical analysis showed that American graduate students' scores on the General Self-efficacy Scale did not correlate significantly with their scores on the Socio-cultural Adaptation Scale. Given these findings, there appears to be no relationship between American graduate students' performance on the General Self-efficacy Scale and their performance on the Socio-cultural Adjustment Scale. In other words, scores obtained by American graduate students on those two respective scales were unrelated to each other. Therefore, findings of previous studies on relationship

between self-efficacy and adjustment, which demonstrated a positive correlation between self-efficacy beliefs and adjustment in college students in domestic settings were not replicated here (Chemers et al., 2001; Coffman & Gilligan, 2003; Phinney & Haas, 2003; Solberg & Villareal, 1997).

This lack of relationship may be attributed to sample characteristics and the students' definition of "culture". Similar to the discussion of results with international students, the instrument was not directly related to the graduate experience and the sample was different than previous studies. Finally, while American graduate students who participated in the present study were studying in a domestic setting (an American campus), they also had to adapt to a new, highly challenging environment (Baird, 1995) – a graduate studies environment, where particular graduate departments create different cultures with new set of rules and expectations that vary greatly from undergraduate education. Therefore, much like it was the case with the international sample, socio-cultural adaptation of American graduate students cannot be attributed to self-efficacy characteristics alone but instead, a combination of situational and self-efficacy factors could better account for the level of adjustment of American graduate students.

Differences between the general self-efficacy beliefs of international graduate students as compared to the general self-efficacy beliefs of American graduate students

The results of the statistical analysis revealed that the difference between the two groups on their performance on the General Self-efficacy Scale was not significant. In the present study, both international graduate students and American graduate students performed high on the General Self-efficacy Scale as compared to the normative sample (Scholtz et al., 2002). This result is not surprising since graduate students, who have already experienced academic success at undergraduate level and secured admission to

graduate programs, would feel highly self-efficacious with regards to their abilities to learn and their overall academic qualifications.

Differences between international graduate students' perceptions of their socio-cultural adjustment and the perceptions of American graduate students

In line with the hypothesis, the results of the statistical analysis revealed that there was a statistically significant difference in the performance between international graduate students and American graduate students on the Socio-cultural Adaptation Scale. It was not surprising that American graduate students performed significantly better on the Socio-cultural Adaptation Scale than their international counterparts because, even though both groups had to adjust to a new culture of the graduate studies (Baird, 1995; Stoyanov, 1997), American graduate students did not have to adjust to two new cultures simultaneously since they had been raised in the American culture.

Further insight about the reason for the differences was obtained from the analysis of students' responses to open ended items. Twenty five percent of international graduate students reported being not satisfied or reported being not sure about their satisfaction level of their overall experience at the graduate level. On the other hand, only five percent of American graduate students reported being not satisfied and only three percent said they were not sure. Moreover, over forty percent of international graduate students rated themselves as only somewhat or relatively successful and four percent felt they were not successful. These lower ratings of perceived success and lower perceived satisfaction as compared to American graduate students might be another reason for international graduate students scoring lower on the SCAS.

Factors influencing general self-efficacy beliefs and socio-cultural adjustment in international graduate students as compared to American graduate students

To identify factors that influenced general self-efficacy beliefs and perceived socio-cultural adaptation, international graduate students and American graduate students responded to five open-ended items.

First, the results of the analysis of these open-ended items showed that more American graduate students perceived themselves as successful to very successful while more international graduate students rated themselves as somewhat or relatively successful. These results may relate to real differences or to the success criteria used by international or American students. Since no criteria for defining success were provided, international graduate students may have rated themselves more harshly because of higher expectations related to higher sacrifices made to attend an American university.

Both international and American graduate students cited evidence of good academic performance as the main factor contributing to their perceived success at graduate studies followed by social networks. This finding was consistent with previous research indicating that satisfaction with academic program and social relationships as having a positive effect on well-being of graduate students (Goplerud, 1980; Perucci & Hu, 1995).

In addition, in examining their satisfaction with their overall experience at the graduate level, more American graduate students self-reported being very satisfied than their international counterparts. Furthermore, more international graduate students reported being not satisfied with their experience than their American counterparts. These differences might be due to higher expectations that international graduate students could have for their experience on American university's campus stemming from higher

investment. Both groups cited academics including grades, feedback from professors, and access to resources as the number one factor contributing to their overall satisfaction at the graduate level. This is consistent with previous research demonstrating that the perception of available support from faculty members has been shown to exert crucial influence on academic and psychological well-being of graduate students (Hodgson & Simoni, 1995). Followed by academic-related factors, American graduate students assigned almost equal weight to social networks, perseverance, and hard work as factors further contributing to their perception of success, which is also consistent with results of previous research (Hodgson & Simoni, 1995; Polson, 2003).

Second, a majority of graduate students in both groups agreed that this university was a good match for them both academically and personally citing academic excellence, financial assistance, and the religious character of the university. Those students who indicated that they perceived the university to be a bad match for them cited lack of balance and mismatch between their personal and academic needs and the university's resources, which confirms results of Golde's (1998) study, which showed that lack of balance and perceived mismatch between an individual and university's resources is a common source of dissatisfaction among graduate students.

In summary, although the proportions of responses to specific items were different, for the most part both groups identified the same factors that were contributing to their perceptions of success and satisfaction of their graduate experience. In addition, categories that emerged during the constant comparative analysis of the qualitative data were subsequently related back to Bandura's Social Cognitive Theory and his triadic reciprocal causation model of self and society (Bandura, 1986) that assumed constant

interaction between the individual factors (including affective, cognitive, and biological aspects), the behavioral factors, and the environmental factors (see Figure 1). Identified categories were related back to these three determinants as follows. First, social networks, including social life, relationships with mentors and other students, academics, and goodness of the match between university and individuals' needs and expectations were categorized under the larger determinant of environment. Second, students' perseverance, such as motivation, experience, and flexibility, and students' overall satisfaction, feeling successful, and enjoyment of current pursuits were categorized under larger determinant of individual characteristics. Third, evidence of academic performance, the selection of balance between social and academic life, and hard work including publishing record and satisfactory progress toward degree completion were categorized under the determinant of behavior. Overall, the results of the constant comparative analysis in the present study showed that these three categories may interact with one another in a student's academic career. All factors named by graduate students in the present study are also reciprocal and bidirectional in nature and, depending on a specific situation, the strength of influence of any one of these factors on a particular graduate student' adjustment may vary.

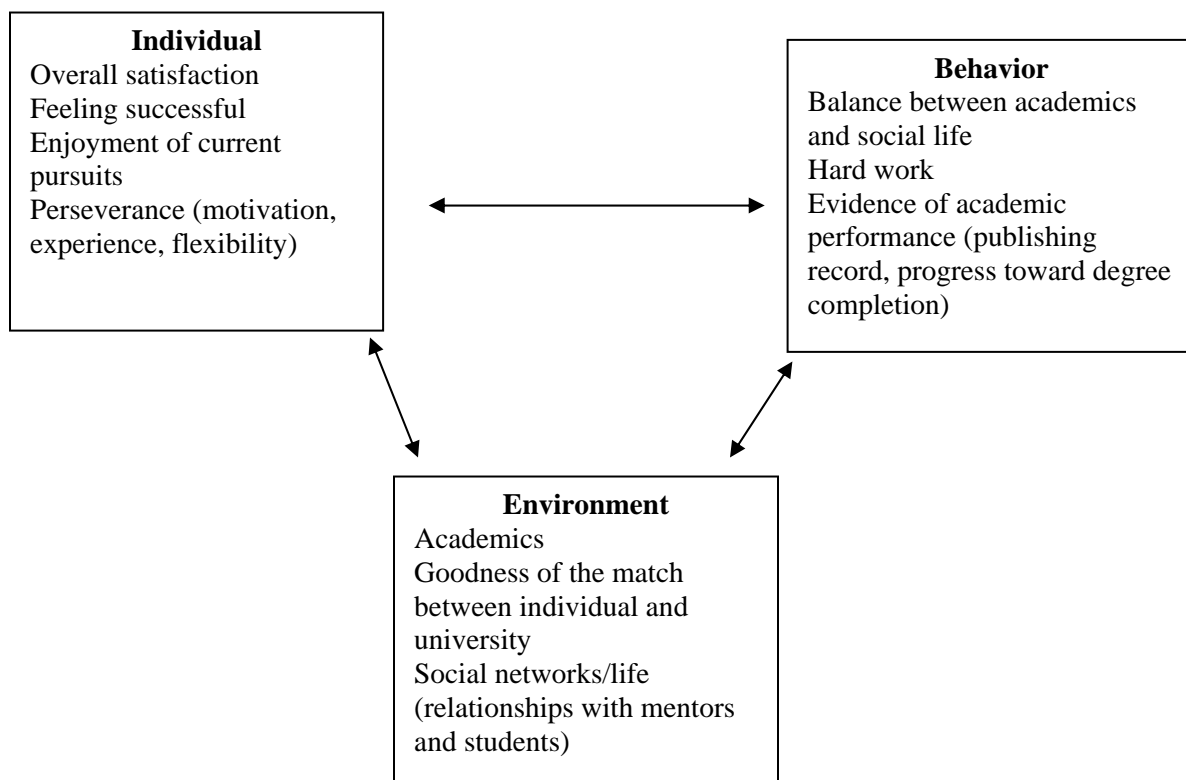


Figure 1. Results of the constant comparison analysis as related to Bandura's (1986) triadic reciprocal causation model of self and society.

Summary

Overall, the results of the current study showed that general self-efficacy beliefs and students' perceptions of their cultural adjustment were not related to one another when examined with samples of international graduate students and American graduate students at an American university. In addition, the current study's results yielded that there was no difference between the general self-efficacy beliefs of the international graduate students as compared to the general self-efficacy beliefs of American graduate students. Students in both samples scored high as compared to normative sample and students' status, international versus domestic, did not appear to have influence on their

general self-efficacy beliefs. A statistical difference was found between international graduate students and American graduate students' perceptions of their socio-cultural adaptation. Also, students' responses to open-ended items revealed that American graduate students perceived themselves as more successful and more satisfied with their overall experience at the graduate level than their international counterparts. Overall, students' responses to open-ended items were consistent with previous studies identifying factors influencing satisfaction and adjustment of both international and American graduate students. Factors such as academic performance, social networks, goodness of the match between individuals and university's resources, and perceived satisfaction have been shown to influence students' satisfaction and adjustment to their new environment (Chen, 1992; Golde, 1998; Goplerud, 1980; Hodson & Simoni, 1995; Perucci & Hu, 1995).

Implications

The overall conclusion of this study is that there exist numerous individual and social factors that influence the experience of both international and American graduate students while they pursue their advanced degrees. Although differences exist between international and American graduate students with regards to the weight of each factor in their overall satisfaction and adjustment, several factors emerged that were common to both groups. Knowledge of these factors can be useful to college advisors, faculty, and counselors, as well as college students themselves. College staff may focus on establishing interventions facilitating social support networks and thus, enhance socio-cultural adaptation of students. For example, creating orientation programs that include social opportunities and provide overview of common problems and obstacles

encountered by graduate students may be more beneficial than orientations that focus solely on academic requirements or maintaining legal status. On the basis of the current research, it could be hypothesized that programs that enhance socio-cultural adaptation of all graduate students would increase their satisfaction and lead to an increase in overall adjustment. Facilitating such programs would probably work best at the level of particular academic departments rather than left to the discretion of international student office or the graduate school. Regular gatherings involving students and faculty might lead to higher satisfaction and adjustment among graduate students. At the same time, it is important to note that college staff can implement many programs but the students' willingness to participate is essential. Especially at the graduate level, students may find themselves hard-pressed about the lack of time for social endeavors but those students should be made aware of empirical evidence of benefits stemming from social integration, such as better adaptation.

Limitations

In discussing the results of the present study, interpretations should be made with great caution on several counts. First, the characteristics of the Socio-cultural Adaptation Scale must be critically evaluated. Some of the items on the scale are stated in rather general terms and therefore might be inadequate to properly assess students' actual level of comfort with regards to socio-cultural aspects in a university setting. In addition, the SCAS was primarily designed to be distributed to international students or sojourners and it was possible that the American graduate students were unclear as to how they needed to interpret the questions. Perhaps a more specific scale can be used in future studies.

Second, it is important to note that data used in all analyses in this study was obtained from students' self-reports, which may contain bias leading to inflation or lowering of students' ratings of themselves. Another problem with self-reports is that participants often have tendencies to respond in a socially desirable way rather than state their actual feelings and perceptions. Last but not least, caution must be exercised with regards to generalizability of the findings of the present study. The university where the sample was selected from differs from other graduate institutions in that it is a private midsized institution, with strong affiliation with Baptist religion, and conservative climate present on university's campus.

Directions for Future Research

Given the importance of this topic and limited number of previous research, it is hoped that this study will challenge others to pursue this line of inquiry. Findings of the current study could be explored with different samples of graduate students drawn from state-funded, nondenominational institutions.

Future research on self-efficacy and situational aspects of students' adjustment is recommended. Are certain students more predisposed to better cross-cultural adjustment or is adjustment a function of particular situation? To what degree is students' socio-cultural adjustment dependent on personality variables, such as self-efficacy? It is recommended that new approaches for explaining and predicting socio-cultural adjustment of both international and American graduate students be applied. In addition, it is also suggested that future studies should experiment with the use of other socio-cultural scales.

In conclusion, continued study on this topic is crucial. The findings of the current study identify numerous challenges faced by both international and American graduate students as they strive to adjust to their role as graduate students and to their new environment. The current study also showed that there still exists a lack of consistent evidence for what contributes to adjustment of graduate students and subsequently, what factors improve their adjustment. Maintaining diversity on American campuses and increasing retention of current graduate students, both international and American, depends upon successful negotiation of these issues.

APPENDICES

APPENDIX A

Generalized Perceived Self-Efficacy Scale (Schwarzer & Jerusalem, 1995)

Using the scale provided below, estimate how much you agree or disagree with the following statements. Next to each item, circle a number that best describes the level of your agreement or disagreement with regard to that statement. Return the survey as an e-mail attachment.

Scale
Strongly disagree 1-2-3-4 Strongly agree

Statement	Your rating
1. I can always manage to solve difficult problems if I try hard enough.	1 2 3 4
2. If someone opposes me, I can find means and ways to get what I want.	1 2 3 4
3. It is easy for me to stick to my aims and accomplish what I want.	1 2 3 4
4. I am confident that I could deal efficiently with unexpected events.	1 2 3 4
5. Thanks to my resourcefulness, I know how to handle unforeseen events.	1 2 3 4
6. I can solve most problems if I invest the necessary effort.	1 2 3 4
7. I can remain calm facing difficulties because I can rely on my coping abilities.	1 2 3 4
8. When I am confronted with a problem, I can usually find several solutions.	1 2 3 4
9. If I am in trouble, I can usually think of something to do.	1 2 3 4
10. No matter what comes my way, I am usually able to handle it.	1 2 3 4

APPENDIX B

Socio-cultural Adaptation Scale (Ward, C., & Kennedy, A., 1999)

Please, indicate how much difficulty you experience in _____ (host country) in each areas. Use the following 1 to 5 scale. 1= no difficulty, 2= slight difficulty, 3= moderate difficulty, 4= great difficulty, 5= extreme difficulty.

- | | |
|---|-----------|
| 1. Making friends. | 1 2 3 4 5 |
| 2. Finding food that you enjoy. | 1 2 3 4 5 |
| 3. Following rules and regulations. | 1 2 3 4 5 |
| 4. Dealing with people in authority. | 1 2 3 4 5 |
| 5. Taking a _____ (host country perspective on the culture. | 1 2 3 4 5 |
| 6. Using the transport system. | 1 2 3 4 5 |
| 7. Dealing with bureaucracy. | 1 2 3 4 5 |
| 8. Understanding the _____ (Host country) value system. | 1 2 3 4 5 |
| 9. Making yourself understood. | 1 2 3 4 5 |
| 10. Seeing things from a _____'s (Host national's) point of view. | 1 2 3 4 5 |
| 11. Going shopping. | 1 2 3 4 5 |
| 12. Dealing with someone who is unpleasant. | 1 2 3 4 5 |
| 13. Understanding jokes and humor. | 1 2 3 4 5 |
| 14. Accommodation. | 1 2 3 4 5 |
| 15. Going to social gatherings. | 1 2 3 4 5 |
| 16. Dealing with people staring at you. | 1 2 3 4 5 |
| 17. Communicating with people of a different ethnic group. | 1 2 3 4 5 |
| 18. Understanding ethnic or cultural differences. | 1 2 3 4 5 |
| 19. Dealing with unsatisfactory service. | 1 2 3 4 5 |
| 20. Worshipping. | 1 2 3 4 5 |
| 21. Relating to members of the opposite sex. | 1 2 3 4 5 |
| 22. Finding your way around. | 1 2 3 4 5 |
| 23. Understanding the _____(host country's) political system. | 1 2 3 4 5 |
| 24. Talking about yourself with others. | 1 2 3 4 5 |
| 25. Dealing with the climate. | 1 2 3 4 5 |
| 26. Understanding the _____(host country's) world view. | 1 2 3 4 5 |
| 27. Family relationships. | 1 2 3 4 5 |
| 28. The pace of life. | 1 2 3 4 5 |
| 29. Being able to see two sides of an inter-cultural issues. | 1 2 3 4 5 |

APPENDIX C

Demographic Information Form

1. Age:

2. Gender: Male ____ Female ____

3. Ethnicity: Caucasian ____ African American ____ Asian ____ Other ____

4. Marital status: Married ____ Single ____

5. Number of persons living in the household ____

6. I live with (check all that apply):

A husband/ wife ____ Child(ren) ____ Relative(s) ____ A person who is not related to me ____

7. Degrees obtained. (Check all that apply and specify):

Bachelors ____ Specialist ____ Masters ____ Doctoral ____

8. Family education. (Check all that apply):

Mother: Attended college ____ completed B.A/ B.S. degree ____ completed graduate degree ____

Father: Attended college ____ completed B.A./B.S. degree ____ completed graduate degree ____

Siblings: Attended college ___ completed B.A./ B.S. degree ___ completed graduate degree ___

9. Currently pursuing this degree: _____ Major area of emphasis: _____

10. Current GPA : _____

11. Other test scores: GRE _____ GMAT _____ TOEFL _____

12. English language proficiency:

Not proficient ___ Limited proficiency ___ Somewhat proficient ___ Extremely proficient ___

13. Source of financial support. (Check all that apply):

Research Assistant _____ Teaching Assistant _____ Fellowship _____
Family _____ FAFSA _____ Other (specify) _____

14. Do your financial resources sufficiently meet your needs? Yes ___ No ___

15. Country/ state of origin: _____

16. If you are an international student, how many semesters have you spent in the U.S. Please, count each summer term as a semester: _____

17. Did you attend an undergraduate program in the U.S.? Yes ___ No ___

APPENDIX E

Informed Consent Form

The following information is provided for you to decide if you wish to participate in this study. The purpose of this research is to examine the cultural adjustment of international graduate students as compared to their American counterparts and to examine the factors that contribute to self-efficacy beliefs in students from both groups. You will be asked to fill out two brief surveys assessing your self-efficacy beliefs and perceived level of cultural adjustment and one brief open-ended questionnaire form. Completion of all questionnaires should not take more than 15-20 minutes.

Participation in this research is completely voluntary, and you may refuse to participate or withdraw your participation at any time during this study. You may elect to skip any of the questions on either of the survey instruments which you feel uncomfortable answering.

The sole risk of participation in this research is the potential that information you provide may be read by a third party. However, all steps possible will be taken to minimize the likelihood of this occurring. Code numbers will be placed on all returned questionnaires and they will be stored in a locked cabinet. Only the principal investigator will have access to these files. In addition, only group data will be reported in any published or presented results of this investigation. Individual results will not be reported.

You will not receive any direct benefits as a result of participation in this research, however, the results may help university instructors/ staff members/

administrators better understand the graduate international students' needs and help lower the attrition rate.

As you may be aware, electronic communication may be subject to interception, while the information is in transit. Therefore, it is possible that your information might be seen by another party, and I cannot control whether that happens. Although none of the information requested is of a personal nature, if you are concerned about your data security, I suggest that you fill out one of the hard copies of the questionnaire package available at the Graduate School, the International Student and Scholars Services office, or obtain the questionnaires directly from the researcher herself and return the completed surveys to the principal investigator, Patrycja Gajdzik, at the address indicated below.

Please, contact Patrycja Gajdzik, graduate student/ principal investigator conducting this research, should you have any questions about the nature of this research and your rights as a participant. You may also Dr. Mathew S. Stanford, Chair of the Baylor University Institutional Review Board (IRB).

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I have read and understood this form and am aware of my rights as a subject. By returning the surveys, I agree to participate in this study.

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