

## Promoting Diversity: Recruitment, Selection, Orientation, and Retention of International Students

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The number of international students attending U.S. higher learning institutions has decreased over the past decade (excluding students from China and Saudi Arabia) from 40 percent to 30 percent. These students are an important resource for the U.S. and their native countries in terms of education, culture, and economy.

Differences between international and domestic students currently enrolled in a private university were assessed using a new American College of Testing Survey of Student Opinion combined with a sociocultural adaptation scale. Those analyzed results were incorporated into a customized 18 question survey and interview process to assess international and domestic students who had not graduated. These analyzed assessments identified and increased the understanding of needs—academic and non-academic—so that recommendations could be made to the university on how to better satisfy those needs and thereby recruit and retain more international students.

A total of 136 surveys and interviews were analyzed. Significant differences between international and domestic students in sociocultural adaptation and financial security and other notable differences in international graduate and undergraduate students exist. Recommendations focused on improving programs and services—orientation, advising, counseling, sociocultural, student governance, and support—to better integrate and promote diversity in meeting academic and nonacademic needs.

The Institute of International Education (IIE) reports a record number of 723,277 international students attending U.S. institutions of higher learning during the 2010-2011 academic year and contributing more than \$21 billion to the overall U.S. economy—tuition, living expenses, and related costs (Open Doors 2011). The National Association for Foreign Student Affairs (NAFSA) estimates more than a \$20.23 billion contribution to the U.S. economy based on the College Board tuition and living expense figures, enrollment figures from the IIE's 2011 report, and a data analysis conducted at Indiana University's Bloomington's Office of International Services (Economic Benefits of International Education to the United States of America—A Statistical Analysis, 2010).

Data from the U.S. Department of Commerce characterize *higher education* as the

country's *fifth largest export* in the service sector. The U.S. is known for welcoming men and women worldwide and remains a premier destination for international students. However, the strongest increase came only from two countries, China and Saudi Arabia. International students and scholars and U.S. citizens studying abroad enrich their own study fields, but also provide a dynamic force in growing the global economy and expanding world knowledge. International students constitute a significant economic, educational, and cultural resource for the United States as a whole as well as for higher learning institutions, communities, and states in which they are studying and acculturating. They also constitute an important resource for their own nations and the world by engendering and promoting long-term goodwill between nations.

Students from all over the world see the opportunity to study in the U.S. as being beneficial because the culture is looked on as a trendsetter and is, in many ways, unique from other cultures. Attitudes and cultures vary according to regions and are normally fast paced. In leaving their home country, most international students are suddenly and immediately confronted with a completely new environment beginning with the travel to the U.S, and continuing well past their arrival at their final destination. Airports, cities, streets and houses look different, food is different, the weather is different, and even things like showers and toilets do not work in the same way as those in their home country. In addition, the students are surrounded with many people they do not know and who speak a different language.

International students often experience a period of adjustment known as culture shock. Some students may have the opportunity to travel with other students from their home country, or may have traveled before, but many travel alone for the first time. Disparities between what students expect as compared to what they can achieve continue to influence their adjustment. Some students discontinue their studies when experiencing difficulties and problems. Finding a way to acculturate these students into communities and campuses will not only enrich their lives, but will increase the possibility of retaining them as students and allowing them to complete their educational goals.

### Statement of the Problem

Acclimating to a new culture takes time. A positive transition can result in better language development, acculturation, and the attainment of educational and individual objectives. Experiences of international students provide a myriad of interaction opportunities for growth and learning. The most *important aspect* of these experiences is often thought *to be the students' in-class experiences* with instructors and other students. Indeed, this aspect of international students' experiences is critical. Equally important, however, are those students' *out-of-class learning experiences* including

involvement in residence halls, student organizations, volunteer projects, intramural activities, and travel. Obong (1997) stresses the importance of meeting both the academic and nonacademic needs in the context of student performance and multi-cultural environments.

Because of the interest and importance given to international students' attendance, a closer look was taken of one private university in South Texas. Of the 382 international students studying there during a three year period between Fall 1999 to Spring 2002 (exclusive of exchange students):

- 18% graduated
- 38% continued their studies
- 44% were not retained by the university

According to the Consortium for Student Retention Data Exchange (2002), which has a membership of 407 colleges and universities, the first-year retention rates are 85.7% on highly selective institutions and average 78.3% among all institutions within the CSRDE.

Therefore, one might reasonably ask why retaining and increasing the number of international students will facilitate diversity, increase cultural understanding, and benefit the campus and learning community as a whole.

### Purpose of Study

The purpose of the study was to collect data regarding (a) whether there are differences among domestic and international students in terms of academic (educational) and non-academic (support) needs, (b) how international students acclimate and succeed in satisfying those needs, and (c) why international students are not being retained. International students beginning, continuing, or discontinuing their studies in the Fall 1999 through the Spring of 2002 semester periods were researched through questionnaires and conversation, and their responses were analyzed. The analyzed data were used to answer the research questions as well as to formulate recommendations for improving international student retention rates.

## Research Questions

Data were collected in order to answer the three broad issues discussed above. When broken down to more manageable size, the issues resulted in the following research questions being studied and analyzed in a three-stage methodology:

1. Is there a difference between how currently enrolled domestic and international students view the importance of college services, environment, impressions and experiences? (First Stage).
2. How do currently enrolled domestic and international students rate their satisfaction level regarding the above terms? (First Stage)
3. Is there a difference between currently enrolled domestic and international students in terms of socio-cultural adaptation? (First Stage).
4. What are the effects, if any, of age, gender, educational level, and residency status on current students' responses to the issues and questions #1 and #2? (First Stage).
5. Why were 44% of the first year international students not retained? (Second and Third Stages).
6. What aspects of the campus climate are beneficial or detrimental to international and domestic students in achieving their educational goals? (Second and Third Stages).

## Significance of Study

Accurately assessing what caused 44% of first year international students to leave a well respected, academically sound institution prematurely could facilitate an increase of international student retention rates, improve the students' quality of life, and further enhance the reputation of the university. Through effective use of this assessment, corrective interventions can be identified, described, and developed to make the institution more successful in its outreach to international students.

## Review of Literature

Beginning with the Theoretical Perspective, this section reviews the professional literature related to Higher Education, Adjustment Challenges and Student Retention.

### Theoretical Perspective

Adjustment to college is a challenging process for many first time university students. Almost all of the students face some developmental challenges. The needs of international students are addressed by several developmental theories and support the research questions found in the following chapter. The first of these theories by Arthur Chickering, a leading theorist in the psychological development of university students, identifies seven vectors of development in his *Education and Identity Theory* through which young adults, like college students, typically experience in their college years. Identity development occupies a central place in this theory, and his seven vectors can be viewed as giving greater specificity to this central construct (Pascarella & Terenzini, 1991). Ellison and Simon (1973) refer to Chickering's theory as "the model's model," one that remains sensitive to international students' development stages (p. 22).

*Achieving Competence*, the first vector, is the growth in a student's sense of competence, the confidence one has in one's ability to cope with what comes and to achieve successfully what (one) sets out to do. The second vector, *Managing Emotions*, is developing an increased capacity for passion and commitment, accompanied by increasing capacity to implement passion and commitment through intelligent behavior. This capacity may be particularly important given the cultural changes that have occurred since the initial formulation of his model and that have complicated the way our culture deals with lust and hate (Pascarella & Terenzini, 1991)

*Developing Autonomy*, the third vector, is the independence of maturity which requires both emotional and instrumental independence, and recognition of one's interdependence. The next vector, the fourth, is *Establishing Identity*

and depends in part on growth along the competence, emotions, and autonomy vectors. The concept of identity remains in general a solid sense of self and one that may undergo change over a lifetime. The development of this vector fosters and facilitates changes along the remaining three vectors (Pascarella & Terenzini, 1991)

The fifth vector is the *Freeing of Interpersonal Relationships*. As personal identity is shaped, and the increased ability to interact with others emerges; this interaction reveals increased tolerance and respect for those of different backgrounds, habits, values, and appearance, and a shift in the quality of relationships with intimates and close friends. (Pascarella & Terenzini, 1991)

*Developing Purpose*, the sixth vector, is where the individual develops answers not only to the question “Who am I?” but also to “Who am I going to be?” and not just “Where am I?” but “Where am I going?” The final vector, *Developing Integrity*, involves the clarification of a personally valid set of beliefs that have internal consistency and provide at least a tentative guide for behavior (Pascarella & Terenzini, 1991).

The most important thing for universities to learn from Chickering is that international students do not stand on a still point in this turning world. Everything in their lives has suddenly changed, and they are in the midst of often dizzying personal change. If these social and psychological realities aren't respected, universities might make the mistake of attributing their academic problems simply to *indolence, irresponsibility, or absence of self-discipline*. And while these words do describe some international students' behavior, they may also be symptomatic or superficial descriptions, not causes, of more important changes international students are experiencing. Often, appreciating the social and psychological realities of international students will allow the university insights into their behavior. With these insights, universities may become even more effective in mentoring students and facilitating their adjustment with changes – unexpected or not (Pascarella & Terenzini, 1991).

Besides challenges of developmental tasks, international students deal with other stresses such as adjusting to a new culture. The adjustment process itself is a challenge for many international students. One of the issues that international students face during this process is *Culture Shock*. Culture Shock, a theory created by Oberg, an anthropologist, refers to the idea that entering a new culture is potentially a confusing and disorientating experience, and this concept has been widely used (and misused) to explain the difficulties of the cross-cultural sojourn. Oberg invented the expression in order to define the kind of uncertain and troubled feeling which generally occurs when people are faced with organizing their daily life in a new cultural environment. This anxiety can be traced back to several factors. One important aspect is that self-evident behavioral traits are not valid any longer. In addition, values the person has always held in his familiar environment are not shared or may even be rejected by members of the new culture. Further, the encounterer of the new culture suddenly comes in touch with unfamiliar behavior that may seem to be odd and abnormal to him. Eventually culture shock means the general state in which the individual has to cope with the adjustment to a new environment (Funham & Bochner, 1986).

Oberg divided Culture Shock into four stages:

- Honeymoon: Initial reaction of enchantment, fascination, enthusiasm, admiration, cordiality, friendliness, and superficial relationships with hosts.
- Crisis: Initial differences in language, concepts, values, familiar signs and symbols leading to feelings of inadequacy, frustration, anxiety and anger.
- Recovery: Where the crisis is resolved by a number of methods such that the person ends up learning the language and culture of the host country.
- Adjustment: Period where the sojourner begins to work in and enjoy the new culture, even though occasional instances of anxiety and strain still exist.

During the 1970s and 1980s researchers developed a new idea of how to cope with culture shock. The resulting Culture Learning model (Furnham & Bochner, 1986) stressed that an individual only needs to learn and adapt to key features of the new society. Instead of adapting to a new culture, the individual learns how to operate in the new culture; he does not have to embrace all, or even most, aspects of the society. This is a significant change in thought. Under previous ideas, if one adjusted to the new culture, that culture would become a part of the individual; almost as if the person developed two cultures. Furnham and Bochner think that by learning and adapting to only key features, one can then discard those features upon return to one's native land (Milton, 1997).

In Culture Learning, one learns the salient features of a culture in order to effectively function in it. A person will still experience frustration, bewilderment, and other emotions, but by learning only key parts of the culture, one can work around the difficulties caused by culture shock. Information giving and cultural sensitization are to aid this endeavor. If people are made aware of the cultural differences as well as their values, and understand their own biases, then they are more able to adapt to a new culture (Milton, 1997).

Socio-cultural adaptation, earlier defined, refers to how well an acculturating individual is able to manage daily life in a new cultural context. Socio-cultural adaptation grew from a culture learning perspective. Changes in socio-cultural adaptation are predictable; adaptation improves rapidly in the earliest stages of transition, reaches a plateau and then appears to stabilize. With the focus on the learning experience, the application is preparation, orientation, and acquisition of culturally relevant social skills (Furnham & Bochner, 1986). Socio-cultural adaptation is more strongly affected by variables as quantity and quality of relationships with host nationals, cultural distance, and length of residence in the host country.

Ward (1995) proposed that cultural contact is a major life event which leads to stress, demands cognitive appraisal of the situation, and cognitive, affective and behavioral responses for stress management, and requires learning

culture-specific skills, as well. Ward refers to the outcome as involving behavioral competence. This reflects the extent to which a newcomer fits into the new culture, and includes adaptation to social and cultural aspects of the host culture. Furthermore Searle and Ward (1990), and Ward and Kennedy (1992, 1993b) found that socio-cultural adaptation preceded and predicted the psychological adaptation.

### *Higher Education*

Within institutions of higher learning, organizational cultures and subcultures form based on beliefs, values, and artifacts and are influenced by size and location. Institutions of higher learning also reflect the multiple cultures of students, administration, and staff in meeting academic, career, and support needs. In meeting these needs, change will be necessary. Earlier organizational research "illustrated the impact of culture on many aspects of organizational life (Peterson & Spencer, 1991)" and how, as Berquist notes (as cited in Kezar and Eckel, 2002, p. 436) "university cultures will be related to the change process; specifically, change processes can be thwarted by violating cultural norms or enhanced by culturally sensitive strategies". Academe itself has strong cultural aspects that guide and shape the way the business of education is done. Faculty subculture and attitudes about diversity are important aspects when change is desired. (Cummins & Worley, 2001; Hofstede, 1997; Hofstede, 2001; Schein, 1992; Trower & Chait, 2002; Yukl, 2002).

In the United States, enrollment rates are increasing with more people attending college and more degrees being awarded. Enrollment in degree-granting postsecondary institutions increased by 9 percent between 1989 and 1999. Between 1999 and 2009, enrollment increased 38 percent, from 14.8 million to 20.4 million. Much of the growth between 1999 and 2009 was in full-time enrollment; the number of full-time students rose 45 percent, while the number of part-time students rose 28 percent. (U.S Department of Education, 2011).

Adding to this diversity, 723,277 international students attended U.S. institutions of higher learning during the 2009-2010 academic years. This provided a cultural,

educational, and economic resource for the U.S. and a cultural and educational resource for the countries of origin, as well as a world resource by engendering and promoting long-term goodwill between nations (Open Doors 2010).

Diversity is being addressed in the accreditation process of the six major accrediting agencies across the United States. Each agency has diversity elements in their standards along with National Council for Accreditation of Teacher Education and other accrediting organizations (Moss, 2000).

Johnson (2003) stresses the importance of diversity following September 11 when he states:

The residual affection and respect for the American people, as opposed to official America, are priceless assets for us. Where does that admiration come from? How is it sustained, even through times when people in other countries genuinely do hate our policies? It comes fundamentally from the sheer power of the American idea, which continues to inspire the world. And it is nurtured through exchanges, through programs that bring people into contact with America and Americans, including those that have brought millions of foreign students and scholars to this country. (p. B7)

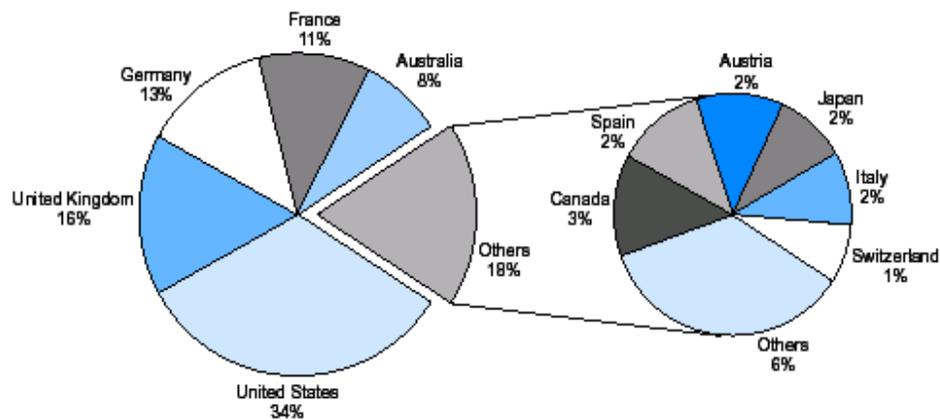
Increases in diversity have led to changes in higher education. The English language has become a standard in science and scholarship.

Combined with the Internet, other technologies, and increased student mobility, higher education has become more global and is converging, rather than diverging. The experience of others has been perceived as beneficial in understanding, addressing, and resolving issues. Other issues such as the increasing demand for education, expanding graduate education, privatization, an academic profession in crisis, and accountability have been considered when comparing and analyzing include how the activities of education and work should feed one another (Altbach, 1999).

Internationalization, increasing worldwide integration (David, 1999), and shifting demographics (U.S. Census Bureau, 2000; Organization for Economic Cooperation and Development, 2001), have changed how organizations in general, and higher education specifically, respond in multi-cultural and more diverse environments. Understanding diversity and culture and their benefits, and how to implement effective programs promoting them, are integral in making and sustaining changes.

Understanding the degree of diversity within the international student population and how international student migration impacts higher education are necessary in identifying programs to meet their needs. In one of these studies, the Organization for Economic Cooperation and Development (2001) examined the comparative trends in international student migration and sources of students as portrayed in the following chart.

Chart II.3. Main receiving countries of foreign students, 1998  
Percentages



Note: Only non-resident foreign students for the United States, Canada, Australia, the United Kingdom, Switzerland and Japan.  
Source: OECD database on Education.

Figure 1. Main Receiving Countries of Foreign Students (OECD)

In the 2009-10 academic year, average growth rate was 5 percent. The significant increase (China and Saudi Arabia) masks a serious decline in the number of students from

other countries. Increases/decreases from 20 countries matriculating in the United States are shown in Figure 2 below (McMurtrie, 2011).

Table 1  
Top Places of Origin of Foreign Students In The U.S., 2009-10

Major Places Of Origin Of International Students In The U.S. 2009 - 2010	
<b>1-Year Decrease</b>	<b>1-Year Increase</b>
<i>Japan -15%</i>	<i>China +30%</i>
<i>Mexico -9%</i>	<i>Saudi Arabia +25%</i>
<i>Indonesia -8%</i>	<i>Kenya +11%</i>
<i>Taiwan -5%</i>	<i>Hong Kong +4%</i>
<i>Canada -5%</i>	<i>Malaysia +4%</i>
<i>South Korea -4%</i>	<i>France +4%</i>
<i>Germany -3%</i>	<i>Vietnam +2%</i>
<i>Thailand -2%</i>	<i>India +2%</i>
<i>Russia -2%</i>	<i>Turkey +2%</i>
<i>Pakistan -1%</i>	<i>Brazil +1%</i>

Universities have become involved in international students' learning experiences inside and outside the classroom. This involvement has included many aspects of educational and organizational life such as

foreign students' affairs, colleges' roles and rewards, culture, curriculum, university climate, faculty interaction, student recruitment, selection, orientation, mentorship, and retention. In addition, because students' learning

experiences and faculty involvement occur within the context of the institution, organizational behavior and development have been accepted as providing an insight on the structures, support, and services that may either explain, enhance, or mitigate against these experiences and involvement. Creating a satisfying environment has become an essential goal in higher education.

Higher education's responsibility to educate students in a global perspective is greater than ever. The ability to live and work in a pluralistic society and in a polarized and frightening world is not an optional skill. As colleges expand their international reach, they can engage in entrepreneurial activities and foster students' global competence. But in the rush to globalize, college leaders must be clear about their purpose and keep their eyes on the educational needs of all their students (Green & Baer, 2001). International and intercultural education themes should be pervasive throughout the curriculum, in remedial and developmental courses, general education and area studies, and liberal arts and professional studies (Scott, 1994). By internationalizing the curriculum, universities can increase students' knowledge of history, culture, and languages from a global perspective. Through course work in all disciplines, this initiative strives to promote sensitivity to political, economic, environmental, and social issues within an international context.

### **Challenges of Adjustment to University Life In The U.S.**

Learning a new culture and learning in a new culture which may have different beliefs and values can be difficult. Even though international students are subject to the same stresses of academic and personal life as their U.S. counterparts, these stresses are compounded by being in an unfamiliar culture and surrounded by challenges of communication and language. Language is the most frequently reported barrier to adjusting to U.S. university life, followed by financial difficulties and problems adapting to the culture.

Female students, older students, students enrolled in scientific and technology courses, and students with limited exposure to foreign

cultures are more likely to experience difficulties adjusting to university life in the U.S. (Dee & Henkin, 1999).

As the world is increasingly becoming to a multi-cultural, understanding the differences between cultures is becoming increasingly important. In this growing multi-cultural environment, members of this environment need to understand the strengths and weaknesses of their own culture in order to avoid their own blind spots. The work of Geert Hofstede (1997, 2001) helps us clearly see these differences. Hofstede's work suggested it is necessary to gain insights into other cultures so that organizations can be more effective when interacting with people in other countries. If understood and applied properly, this information should reduce people's level of frustration, anxiety, and concern. It is critical to understand other cultures in order to create a multi-cultural or globalize environment.

Hofstede (1997, 2001) conducted extensive research on cultures and found a total of five categories to be instrumental in defining, understanding, and bridging cultural barriers to achieve organizational success. The first category, Power Distance Index (PDI) focuses on the degree of equality, or inequality, between people in the country's society where a high index indicates that inequalities of power and wealth have developed as opposed to a low index where differences between power and wealth have been de-emphasized. The second, Individualism (IDV), is differentiating between individuality and individual rights versus a more collectivist nature, one where extended families and collectives take responsibility for their group. Masculinity (MAS) is the third category and is the degree of reinforcing a masculine work role, control, and power, high being where males dominate the society and power structure and low where males and females are treated equally.

Uncertainty Avoidance Index (UAI) as the fourth category is a level of tolerance for uncertainty and ambiguity within the society. High avoidance indicates a low tolerance where rules, laws, and other controls are used to reduce the uncertainty. Low avoidance allows a variety of opinions, less rules, more risk taking, and accepting change more readily. The last

category, Long-Term Orientation (LTO) is the degree or level that the society focuses on traditional and forward thinking values. A high orientation is a commitment to the long term and tradition. A low orientation is just the opposite; allowing more change or less impediments by

long term commitments and tradition to change. This last dimension emerged from a study with Chinese employees and managers.

A representative sample from Hofstede's Dimension of Cultural Scales. (2010) follows in Table 2.

Table 2 - *Sampling of Hofstede's Dimensions*

Dimensions	PDI	IDV	UAI	MAS	LTO
Arab Countries	80	38	68	53	
USA	40	91	46	62	29
Germany	35	67	65	66	31
Mexico	81	30	82	69	
Philippines	94	32	44	64	19
Taiwan	58	17	69	45	87
China					118
Turkey	66	37	85	45	
South Korea	60	18	85	39	75
Japan	54	46	92	95	80
Brazil	69	38	76	49	65

As an example, Germany's PDI of 35 is low, indicating that differences between power and wealth have been de-emphasized, as opposed to Arab Countries index of 80, which indicates that inequalities of power and wealth have developed. Likewise, an index of 91 for IDV in the United States differentiates it in reference to individuality and individual rights versus a more collectivist nature, like that in Taiwan with an index of 17.

Hofstede's continuing research has been instrumental in understanding how culture is related to developing, learning, and engaging at all levels within organizations.

Craven and Kimmel (2002) focused enculturation on multicultural interdisciplinary doctoral studies addressing globalization and new cultures in the learning discussion and observed similar cultural differences as those indicated by Hofstede (1997, 2001). These differences included

group learning versus individual learning, uncertainty avoidance (the degree to which cultures tolerate ambiguity), masculinity (the degree to which the dominant cultural values focus on assertiveness, performance,

and material success), and time orientation (the degree to which cultures are either long- or short-term oriented). (p.60)

Like the frequent language barrier reported in Dee and Henkin (1999), Craven and Kimmel (2002), experienced this barrier first hand in using a constructivist approach and Feuerstein's (2001) mediated learning experience (MLE), a learning experience "based on the concept of cognitive modifiability" versus Piaget's (1975/1985) concept of cognitive development (p. 62).

Besides the language barrier, some of the challenges that international students face: sense of loss when they move into a new culture; stress of learning new skills, language, and other cultural impacts; stereotypes about international students' culture; low self-esteem; self-identity problems; gender differences; lack of social support; alienation from domestic students; culture shock; and a new educational system.

Unmet needs are the other challenges in the adjustment process. These needs of the international students are often non-academic in nature and result because their cultural backgrounds are different from those of the domestic students. Harold J. Adams made two

relevant points pertaining to the matters of international students' needs: that unsatisfied needs tend to negatively affect the personality of some students, which results in feelings of inadequacies; and that failure to meet certain biological or psychological needs of some students often leads to reduced academic performance. Basically, not meeting certain needs tends to reduce a student's ability to concentrate on academically related tasks. (Obong, 1997)

Satisfying both academic (educational) and basic non-academic (support services) needs related to educational goals, living conditions, finances, social relations, and acculturation is essential for students enrolled in institutions of higher education. If these needs are neglected or unsatisfied, they may pose serious problems for the students and the institutions in which the students are enrolled.

### **Studies about International Students**

International students' problems and concerns have been examined in many studies. In one of these studies, Parr, Bradley, and Bing (1992) studied international students' adjustment patterns. Concerns and feelings of international university students attending a variety of colleges and universities throughout the United States were examined in the study. Findings from 163 international students revealed that they were most concerned about extended family, cultural differences, finances, and school. They found that international students are mostly happy and well adjusted, with more positive than negative feelings. Feelings are higher (more positive) in the first year of study.

Hart (1974) investigated international students' problems in selected public community colleges in Texas focusing on perceptions of international students and international student advisors. Two hundred and twenty international students and 30 international student advisors in 30 community colleges were administered Michigan International Student Perception Inventory. Results indicated that international student advisors and international students perceived the greatest problems in the areas of English language, financial aid, admissions and selection, and academic advising and records.

Moreover, female students showed significantly different perceptions in several areas when compared with male students.

Besides problems, needs of international students and their satisfaction were also commonly examined in international students' adaptation process. In one of these studies, Obong (1984) examined the impact of non-academic needs of all college students. He compared 100 domestic and 100 international students. This study of non-academic services administered to international and non-international college and university students had three purposes: exploration of differences that might exist between the non-academic social service needs of international and non-international students; identification of a mean level of non-academic needs; and determination of the correlation between the non-academic needs of students and the student services provided. The study investigated student services, living conditions, student finances, social relations, and acculturation for a sample population of 100 international and 100 domestic students. The American College Testing Student Opinion Survey was used to collect data. Significant differences of opinions were found in the following areas: satisfaction with involvement in campus activities; involvement in religious activities; availability of instructors; opportunities for student employment; accuracy of pre-enrollment information; and flexibility to design a unique course of study. Both groups were satisfied with honors programs and dissatisfied with availability of courses desired.

Selvadurai (1991) examined the international students academic needs and satisfaction with the services provided on campus. One hundred and thirty seven international students were administered a 33-item questionnaire. Responses highlight academic needs for all 15 categories examined and inadequacies in all but 2 of 17 personal services. It was found that students were not satisfied even to minimum levels. Some areas that needed change were: improvements in English, counseling in curriculum programming, academic advising, rapport with faculty, availability of tutoring services, and orientation to the academic setting.

Gomez (1987) reviewed the needs of international students in California's community colleges. Demographic characteristics of international students and their academic, social, and recreational needs were investigated. A questionnaire administered to determine the population of international students in California Community Colleges, the characteristics of these students, the effectiveness with which foreign students were being served; and the extent of social recreational programs available for international students. Major findings of this study showed that there were serious lack of administrative support for providing autonomous departments of international student affairs with only moderate support was given to the provision of appropriate levels of staffing; and less than half of the colleges currently seek or provide community support such as family housing, student clubs, or social functions for international students.

Tabdili (1984) examined the effectiveness of international student office services in meeting needs of international students in colleges and universities. Five hundred and six international students and twenty international student office officials near San Francisco Bay were sampled in the study. The main questions of the research addressed differences between student and advisor perceptions regarding the frequency use, importance, and effectiveness of the services provided by the international student advisors. Results indicated that international students were significantly more negative in most areas and perceived the services as significantly less effective.

As Lee, Abd-Ella, and Burks (1981) pointed out, universities need to examine international students' needs and construct programs accordingly. It is crucial to be aware of effective factors in order to improve international students' success and satisfaction with their academic experiences and for retention purposes.

As a common finding, academically related needs and achievements are very important for international students. Britton, Chamberlain, Davis, Easley, Grunden, and Williams (2003) noted several factors for international students to be more successful in academic settings. These are international student faculty interactions,

instructional methods, and the effectiveness of instructional tools. For this study, 19 undergraduate international business students at a highly competitive and prestigious business school in Midwest were contacted through e-mail and classroom solicitation. The caring or approachable nature of faculty, use or lack of inclusive examples and illustration, preference for visual instructional tools, challenging and valuable group projects, and the students' assertiveness in the classroom were all factors in the results.

Molinar (1996) investigated the factors in student retention at Barry University, a private urban comprehensive university. Data were gathered from 3,000 students entering the university between Fall 1991 and Spring 1995. The students were surveyed on expectations during orientation classes, and again on satisfaction with college experience after six weeks of classes. The research showed that students' academic success was the dominating retention factor. Social and psychological outcomes, measured by satisfaction with social experiences and the on-campus social environment, were next in importance. Findings of this research clearly stated that institutional strategies to improve students' academic performance and speed progress toward a degree may help improve their motivation.

Zhao, Kuh, and Carini (2001) concluded in their research that international students were more engaged in educationally purposeful activities than domestic students. For this study, researchers examined levels of engagement in effective educational practices of 3,000 undergraduate international students and more than 67,000 domestic students at 317 universities. For this research, the College Student report was designed to measure the degree to which students participate in educational practices that prior research shows are linked to valued outcomes of college. This survey consists of 69 items which measured involvement in different types of in-class and out-of-class activities; amount of reading and writing; participation in selected educational programs, such as study abroad, internships and senior capstone courses; perception of the campus environment including the quality of students' relationships with peers, faculty

members, and administrators; and student satisfaction with academic advising and their overall collegiate experience. The independent t-tests indicated that international first-year students scored higher than domestic students on level of academic challenge, active and collaborative learning, student-faculty interaction, and technology use. Results showed that first-year international students spent less time relaxing and socializing, and were less satisfied compared with American students. The findings from this study indicate that international students are more engaged in some areas than American students, particularly in the first year of college, and less engaged in others. First-year international students surpassed their American counterparts in level of academic challenge, and student-faculty interaction.

The research done by Liu and Liu (1999) found that characteristics of students and academic variables affect student attrition. This research study was conducted at a medium-size midwestern commuter campus with a sample of 14,476 students. To ensure diversity, the sample included subjects of various levels of scholastic achievement, different ethnicities, religions, both sexes, and transfer students, as well native freshmen. Throughout the study, it became increasingly apparent that student-faculty relationships were often crucial to student retention. Student-faculty relationships consist not just of formal interaction in the classroom, but also informal contact, such as discussions during office hours. Thus, student retention requires faculty to relate to the student body. Consequently, high student retention requires more racial diversity among the faculty. The same study proved that minority students, native students, and older adults had lower retention rates due to dissatisfaction with the environment they were in.

Providing social support to international students is essential. Results of Klineberg and Hull's (1979) study reported that social contact with those locals was a significant factor in the coping process. Also results of this research showed that feelings of alienation from university life have been significantly more severe for international students than for students from the United States. In this manner, counseling services and their possible effects

can be pointed out for smoother adaptations. Gilbert (1989) pointed out that providing special counseling and related services is vital to international student success. Academic progress may be overshadowed by students needing help with living arrangements, medical/health issues, or working with social agencies and immigration offices. Additionally, Gilbert felt that discussing the special needs of the less elite international student is vital.

Although counseling services are very important resources for international students, counseling services are not used frequently. As Boyer and Sedlacek (1988) reported in their study, only 13% of the international students use counseling center services, while 87% never attempted to use this service. Moreover gender difference is also a critical factor. A study done by Manes, Leong and Sedlacek (1984) indicated that females have a greater need to talk to a counselor than did males.

International counseling service was researched by Barrow, Cox, Sepich, and Spivak (1989) to find out how students would use counseling services. This study examined the degree to which surveyed student needs were indicative of counseling groups and workshops that students actually used over four-year period. Needs assessment was only modestly indicative of group and workshop services student used. Results support the contention that multiple sources of information should be used to assess student's needs and that needs should be assessed continually. Students were mostly satisfied but felt more specialized clubs were needed as well as assistance from a stand-alone international education office.

### **Student Retention**

While diversity and tolerance issues are often emphasized as a continuing concern of colleges and universities (Ballobin, 1993), retention is still a top priority in most cases (Tinto, 1993; Gerdes & Mallinckrodt, 1994).

The successful integration of students into the university environment is a crucial element in raising retention rates. Some common efforts at universities to achieve such integration are freshman seminars, mentoring programs involving faculty and staff (Nelson, 1993; Clark,

1995), and strategies developed to create a supportive campus climate (Szelenyi, 2001). It is also important to meet needs of international students for retention purposes. Zhao, Kuh, and Carini (2002) looked specifically at international student needs and U.S. educational practices and discovered differences between international and domestic students related to the density of students on campus.

Orientation is one of the most significant elements of retention process. The importance of orientation programs for international students is critical, not only in welcoming and introducing them even prior to their actual arrival, but also in providing a continuous support infrastructure to fully integrate them both socially and academically. Meyer (2001) presents a comprehensive framework in designing and executing orientation programs, showing how meeting needs—academic and non-academic—improves retention and the achievement of educational goals—not only for the student but for the university as well. These orientation programs are long term and integrated with other university programs. The framework utilizes four concepts: common needs, principles in design and execution, components, and approaches. Seven unique needs are articulated for international students:

- cross-cultural adjustment (read culture shock, understanding, and adaptation)
- adjusting to the American education system and achieving success
- enhancing English language proficiency
- establishing interpersonal relationships and social support networks
- maintaining physical and psychological well-being
- managing finances
- knowing immigration regulations

Design and implementation principles, based on theories, research, and experiences include meeting international student needs

based on Maslow's hierarchy of needs, definite purpose (explicitly stated goals), theory guiding orientation practice where international student professionals use Maslow, Erikson (psychological development), and Wladkowski (adult motivation theory) and others, facilitating learning and helping students learn how to learn, promoting intercultural learning and cross-cultural adjustment, cultural and language sensitivity, collaboration, and assessment. The above principles, when combined with the common needs of international students, provide a guideline and a base for determining the components, content and structure of comprehensive international student orientation programs. Unique in this research and framework is considering returning orientation for departing international students as they return to their home countries (Meyer, 2001).

The other important element is to encourage international students to use available support services in campus. Once problems do occur, students should be encouraged to use counseling services of practitioners trained in cross-cultural counseling. According to Surdam & Collins (1995) only 10% of international students seek personal counseling, and only 6% seek academic advisement, preferring instead to make contact with faculty and peers from the country of origin (Huntley, 1993).

International students need assistance in admissions and orientation, information about institutional facilities and services, and an understanding of laws regarding their international status. On-going security issues from September 11, 2001 are now addressed in the United States by a new Homeland Security Department and the Patriot Act and have resulted in more stringent immigration procedures.

International students are often unfamiliar with U.S. society and aspects of university life. An international student counselor can facilitate the student's adjustment considering social relationships, carrier counseling, and return adjustment as additional concerns. The job of a full time international student advisor is complicated by the different cultures and different needs – academic and non-academic of international students.

By becoming aware of their home culture, different learning styles, and frustrations in adjusting to school life and in overcoming cultural shocks, educators and administrators can assist international students in adjusting and learning about the culture and U.S. educational system. To facilitate international and domestic student learning, the professor needs to be cognizant of cultural differences. International students tend to regard and revere the professor as very important, so caution is needed to prevent any student embarrassment (Cable, 1974).

Faculty members often emphasize the learning styles influenced by their own cultural background. However, these instructional practices may not be congruent with the educational preferences and learning styles of international students. In overcoming these obstacles, faculty should be aware of how their cultural framework shapes their teaching styles. Faculty participation in study groups and workshops addressing issues of racial identity is one way of facilitating conversations of the diverse needs of today's student populations. In addition, teachers should structure their instructional activities based on the diverse learning preferences represented in their classrooms (Szelenyi, 2001). To help ease international students into a new and unfamiliar educational environment English classes, cultural orientations, and peer support programs are also essential (Huntley, 1993).

### **Methodology**

Using the American College Testing Student (ACT) Opinion Survey, Obong (1984) studied and surveyed international and domestic students to determine if their non-academic needs were being satisfied, and found significant differences between student populations. Later, Obong (1997) found that not meeting non-academic needs results in students not being able to fully satisfy their academic needs and goals. Zhao, Kuh, and Carini (2001) concentrated on academic needs and found international students more engaged than domestic students. Concentrating on meeting both non-academic and academic needs, this current research study concentrates on using a quantitative

methodology, verified by selected interviews, to understand and determine what challenges international and domestic students and institutions of higher learning face in meeting educational goals and retaining students.

### **Research Design**

A phased and sequential method was used to obtain the data in the present study. Creswell (2002) categorizes this method as explanatory where qualitative aspects are used to follow up (verify) the quantitative data. Comprised of three stages, the first two stages used a quantitative approach involving the collection and analysis of numerical data, testing the existence of relationships between variables, and making inferences about the samples. In the first stage, current students were administered a new edition of the ACT Survey of Student Opinion Questionnaire (Appendix A). Based on the results of the first stage, a new survey developed by the researcher was administered in the second stage to students who discontinued their studies.

Following the quantitative methodology, an interview process was used to verify and confirm what was learned in the first two stages. As Taylor and Bogdan (1984) define it, qualitative research is committed to understanding social phenomena from the actor's own perspective and characterized by five traits:

- natural setting is the direct source of data and research is the key instrument
- written results are descriptive
- focus is on process rather than simply on outcomes
- data are analyzed inductively, and
- intended meaning is of essential concern (Bogdan & Biklen, 1992; Creswell, 1994).

In the present study, qualitative research—interviews and open-ended questions—allowed further exploration of the how faculty, staff, and international students are involved, in addition to the in-class and out-of-class learning experiences. Twelve students who participated

in the second stage of the present study were interviewed by phone to more clearly identify and articulate the phenomenon at hand—retention of international students and the campus climate.

Factors considered in this research included travel from the native country to the U.S., introduction and orientation, on and off-campus housing, testing and outcome assessment, placement (determination of which academic program to pursue), enrollment, degree program satisfaction, previous experiences in studying abroad, reasons for wanting to study abroad, and desire to return to their native country before completing the first regular semester.

Participants were purposefully selected, rather than randomly chosen from a large population. An action-based research was implemented in the study to better document the phenomena—context, process, and experiences.

The keys in the study are carefully identifying the samples, piloting (testing), modifying, collecting, and effectively using the data. Combined effects, regression and other validity threat as noted by Greene (1997) make the interpretation of results more difficult. The reliability studies in the first stage and the verification process used in the third stage helped to overcome these difficulties.

### **Procedure**

This study was comprised of three stages, the *first stage* involved administering a standardized questionnaire, ACT Survey of Student Opinion, (Appendix A) to 88 students currently enrolled at the university (45 international and 43 domestic) to determine where students demonstrated differences. The results of this survey were provided in a summary report (ACT Evaluation / Survey Service, 2003). Using SPSS 11.5 (2000), these

results were further analyzed and set the groundwork for the next stage. In the *second stage*, the researcher used the results of the first survey and by selecting the areas of the greatest dissatisfaction, developed a new survey. It was piloted, revised, and then e-mailed to 150 former domestic and 150 former international students who had departed the university without graduating. The *last stage* involved developing questions based on the second survey and interviewing six non-graduating former domestic and six non-graduating former international students. These interviews served to verify, or “spot check” the researcher’s interpretation of the previous results.

### **Sample**

A purposeful sampling strategy, defined as choosing particular subjects, and suggested by Bogdan and Biken (1992) was used to inform and achieve the purpose of the study.

### **First Stage Sample**

The Survey of Student Opinions ACT (Appendix A) was administered on campus to 88 (43 international, 45 domestic) current university students. The age range of the sample was 19 to 29. Of those participating in this survey, 46 were female and 41 male, with 40% working only occasional jobs. Of all the students, 26.1% of the parents held a bachelor’s degree. Graduate students represented 35.2% of the sample and 92% of the students were full-time.

Domestic and international student characteristics are portrayed in Figure 2:

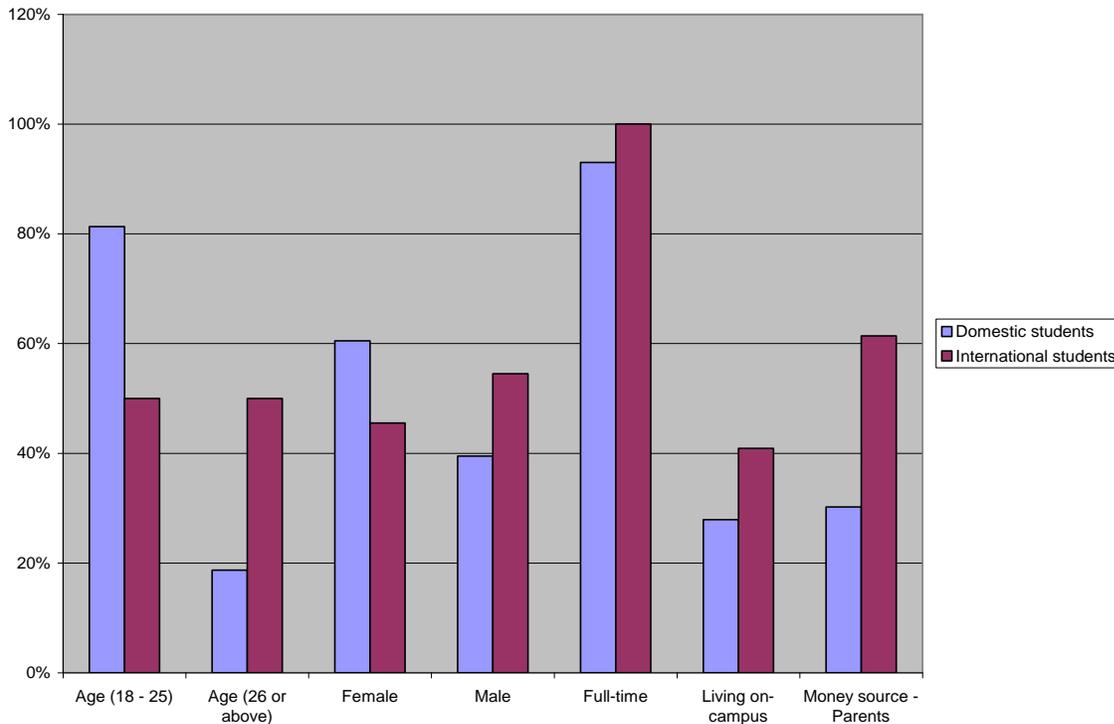


Figure 2. Characteristics of the Sample—Domestic and International

#### *Domestic Student Characteristics*

- Majority of domestic students (81.3%) were between 18 and 25 years of age.
- Majority of students replying to this questionnaire were female (60.5%)
- Mothers (51.2%) had some college or above compared to fathers (58.1%) with some college or above experience.
- Undergraduate students represented 88.4% compared to 11.6% graduate or post graduate.
- Full time students amounted to 93%.
- Only 27.9% of the domestic students reside on campus.
- Major source of education funding was either parents or relatives for 30.2%.
- Other funding (69.8%) included scholarships, grants, loans, or from their personal savings for their education.

#### *International Student Characteristics*

- Ages between 18 and 25 represented 50% with the other half being 26 or above.
- Unlike domestic students, the majority of the international students were male (54.5%)
- Fathers had some college experience or above (79.6%) and mothers of mothers had some college or above (70.5%).
- Undergraduate students numbered 40.9% compared to 59.1% graduate and post graduate students.
- All of the international students were full-time.
- Those staying on campus comprised 40.9%.
- Majority (61.4%) said their major source for funding their higher education comes from either from their parents or relatives.

#### **Second Stage Sample**

For the second stage, the researcher designed a customized survey by using the

results from the first survey. Results of the first survey were analyzed to find the problem areas and the second survey was developed based on those problem areas and piloted to 10 currently enrolled domestic and 10 currently enrolled international students as a validity study for this questionnaire. After piloting and analyzing the results, the survey was finalized, administered on a different set of 10 currently enrolled domestic and 10 currently enrolled international students, and found to be valid.

Domestic and international students, 150 each respectively, who had already left the

university, were sent this validated survey via email; however, 50% of these questionnaires immediately came back as undeliverable mail. Of 150 delivered mails, 40 former students (combination of domestic and international students) replied. Of 40 responding, there were 4 who had already graduated leaving 36 answered surveys (14 domestic and 22 international students).

Table 3

*Respondents to Second Survey*

NUMBER OF STUDENTS REPLYING TO SECOND SURVEY	
Domestic Students	14
International Students	22

**Third Stage Sample**

During this final stage, 12 former international and domestic students who left the university before the completion of their studies were specifically selected and interviewed over the phone. The 12 candidates were chosen from 36 previous second stage participants who had provided telephone numbers and consented to a follow up.

**Data Collection Instruments**

The survey research method and interview technique were used in the present study. Three surveys were used in the first two stages of the study: American College Testing (ACT) Survey of Student Opinions, an additional survey contained within the ACT survey (Section VI) using the Sociocultural Adaptation Scale (Ward & Kennedy, 1999), and a researcher developed survey. The interview technique was used in the third stage of the study based on a semi-structured format and follow-up.

The Survey of Student Opinions, a national standardized instrument by American College Testing Program (ACT), was used to assess students' perceptions of the importance of, and satisfaction with, a full range of programs,

services, and environmental factors at the college they are attending. Also included were an extended set of background items and a set of items related to students' impressions of, and experiences at, the college. The survey consists of 6 sections. In Section I, background information is assessed. In Section II, importance of and satisfaction with college services and programs were assessed with 21 items by using 5 point scales ranging from 1 no importance to 5 very great importance, and 1 very dissatisfied to 5 very satisfied. Three of the sample questions in this section asked participants about college-sponsored activities and programs, both orientation and cultural. In Section III, *importance of* and *satisfaction with* college environment were assessed with 43 items by using 5 point scales ranging from 1 no importance to 5 very great importance, and 1 very dissatisfied to 5 very satisfied. Two of the sample questions focused on out of class availability of one's instructor and flexibility to design one's own program of study.

In Section IV, college *impressions* were assessed by 4 different subsections. In the first subsection, 8 items (impressions) were measured using a 5 point scale ranging from 1 *strongly disagree*; to 5 *strongly agree*. One of the sample questions queried if this college had helped him

or her meet the goals they came to achieve. The second subsection asked students' ratings (first, second, third, and fourth choices) of the college, the third subsections asked students if they would choose the same college again if they could, and the final section asked students' overall impression. In Section V, students' *experiences at the college* were assessed by 5 questions using a 5-point scale ranging from *1 none to 5 very great*. One of the sample questions asked about individual growth—acquiring knowledge, skills, ideas, concepts, and analytical thinking.

One of the last sections, Section VI was utilized to insert and measure the Sociocultural Adaptation Scale (Ward & Kennedy, 1999). This scale measures intercultural competence with emphasis on behavioral domains and cognitive domains. It requires respondents to indicate the amount of difficulty experienced in 29 areas by using a five-point scale ranging from *(1) no difficulty to (5) extreme difficulty*. A high score indicates high difficulty. Some of the areas are making friends and understanding the U.S. perspective on the culture. The very last section, Section VII was available for comments and suggestions.

The researcher developed customized survey was comprised of two parts, the first part containing 18 Yes or No questions on cultural adaptation, services, academic programs, and understanding of the U.S. system of higher education and the second part asking what were the three most important reasons in leaving the university.

The interview technique, based on a semi-structured format, focused on allowing the interviewee to express and articulate their reasons for deciding to leave the university and then asking follow-up questions based on their responses.

### Data Analysis Process

Prior to the analysis of the data, reliability studies were conducted on the first stage sample. Data were analyzed with item analysis and Cronbach's alpha to determine item function and reliability. Cronbach's alpha, the most common index of reliability, is associated with the variation accounted for by the true score of the

hypothetical variable that is being measured. Alpha coefficient ranges in value from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (i.e., rating scale: *1 = poor, 5 = excellent*). The higher the score, the more reliable the generated scale is (Reynaldo & Santos, 1999). Nunnally (1978) has indicated 0.70 to be an acceptable reliability coefficient, but lower thresholds are sometimes used in the literature.

Data were then analyzed by using the *t*-test on the first stage sample to determine the difference between currently enrolled domestic and international students in terms of opinions regarding college services, environment, impressions, experiences, and differences in socio-cultural adaptation. Also *t*-tests and one-way analysis of variances (ANOVAs) were conducted to analyze current students' opinions regarding their experiences in college in terms of age, gender, educational level, and residency status. In the second stage, frequency distribution was used along with graphs to demonstrate significant differences between international and domestic students' dissatisfaction regarding university services. Statistically, if  $p < .05$ , there is a significant difference.

In the third and final stage using the interview technique, each participant was queried based on a semi-structured format. Each interview was tape-recorded for the purpose of capturing all the data, questions, follow-up, and other comments. These data were transcribed and then analyzed ascertaining themes and verifying the overall direction of the research.

### Data Analysis

This chapter presents the data analyses of all three-study stages obtained by studying the samples—reliability studies, surveys, statistics, and interviews.

#### *Reliability Studies—Survey of Student Opinions*

Internal Consistency coefficients of the sections of the Survey of Student Opinions were obtained by calculating the Cronbach alpha

coefficients. The coefficients are presented in Table 4.

Table 4  
*Internal Consistency Coefficients of Sections of Survey of Student Opinions*

Sections	
College Services	
Importance	.91
Experience & Satisfaction	.88
College Environment	
Importance	.96
Experience & Satisfaction	.92
College Impressions-Part A	
Experience at the College	.88

As can be seen in Table 4, the Cronbach alpha coefficients of sections ranged between .88 and .96 and indicate acceptable reliability beyond .70.

*Reliability Studies of Social Adaptation Scale*

Item-total correlation coefficients, Cronbach alpha coefficients, and factor structures were examined. As seen in Table 5, the item-total correlations of Sociocultural Adaptation Scale ranged between .40 and .84.

Table 5  
*Item-Correlations of Sociocultural Adaptation Scale items*

Items	Item-total correlations	Items	Item-total correlations
1	.55	16	.61
2	.40	17	.65
3	.77	18	.70
4	.75	19	.54
5	.78	20	.75
6	.52	21	.60
7	.59	22	.75
8	.70	23	.78
9	.84	24	.69
10	.76	25	.65
11	.62	26	.71
12	.58	27	.73
13	.67	28	.73
14	.72	29	.63
15	.71		

**Internal Consistency Reliability of the Sociocultural Adaptation Scale**

Cronbach’s alpha reliability coefficient for this scale was reported as .89. In the present study and sample, reliability of the scale was

tested and the Cronbach's alpha coefficient was found as .96 using SPSS 11.5 (2000).

#### *Factor Analysis*

##### *Item Loadings of Sociocultural Adaptation Scale*

Item loadings were examined by analyzing 29 items of Sociocultural Adaptation Scale through

principal component with varimax rotation, a technique that simplifies factors by maximizing the variance of the loadings within factors in order to interpret factors easily. An eigenvalue of 1.00 was set as the criterion. The item loadings of the items are presented in Table 6.

Table 6

##### *Item Loadings of Sociocultural Adaptation Scale and their Communalities*

Items	Item-loadings	Communalities
1		.67
2		.75
3	.64	.75
4	.83	.74
5	.46	.75
6	.53	.60
7	.50	.71
8	.68	.83
9	.73	.79
10	.63	.76
11	.63	.75
12	.58	.79
13	.80	.67
14	.60	.72
15	.64	.72
16	.53	.60
17	.69	.74
18	.50	.70
19	.63	.74
20	.66	.78
21	.58	.63
22	.64	.79
23	.72	.80
24	.72	.78
25	.63	.68
26	.71	.73
27	.70	.73
28	.64	.81
29	.72	.67
	.70	
	.66	

As seen in Table 6, the values of factor loadings of the items changed between .46 and .83. It can be seen that item loadings are high.

#### *Factor Loadings of the Scale*

Results from principal component analysis and the varimax rotation method yielded a 6-factor solution to the Sociocultural Adaptation Scale. The first factor accounted for 49.61 % of the total variance, and factor 2 accounted for 6.64 % of the variance, factor 3 accounted for 4.87% of the variance, factor 4 accounted for 4.56% of the variance, factor 5 accounted for 4.01% of the variance, and factor 6 accounted for 3.62% of the variance. A total of 79.39% of the variance was accounted for by six factors. The eigenvalues associated with Factors 1-6 were, respectively, 14.38, 1.93, 1.41, 1.32, 1.19 and 1.05.

According to the factor compositions, factor 1 consisted of 7 items, factor 2 consisted of 6 items, factor 3 consisted of 4 items, factor 4 consisted of 5 items, factor 5 consisted of 5 items, and factor 6 consisted of 2 items.

#### *Analysis Results—First Stage*

All the current students' opinions regarding their college and social adaptation were initially examined. The purpose was to provide a broader picture of current students' opinions by examining certain variables, namely *age, gender, educational level and residency status*, and form a base for further comparison studies between international and domestic students. These same categories are addressed at the last part of this first stage analysis in terms of importance of and satisfaction with without age, gender, educational level, and residency status.

#### *Student's Opinions about College Services and College Environment*

Students' opinions about importance of college services were investigated in the present study. According to the results, the *most important* services ranked by the students on the campus were:

1. Computer Support and Services

2. Academic Advising Services
3. Library Facilities and Services
4. Financial Aid Services and
5. Parking Facilities and Services.

Students also ranked the *most satisfying* college services on the campus as:

1. Library Facilities and Services
2. Student Health/Wellness Services
3. Academic Advising Services
4. Personal Counseling Services
5. Student Employment Services

Parking facilities and services were found to be the least satisfying services on the campus; however, they were also shown to be the least important.

When students ranked the *importance of the college environment*, the results were as follows:

1. quality of instruction in the major field
2. course content in the major field
3. value of the information provided by the advisor
4. attitude of the faculty towards student
5. availability of the courses at the times that can be taken

Students ranked the *most satisfying college environment factors* in the campus as:

1. class size relative to the type of course
2. personal security/safety at the college
3. attitude of the faculty towards students
4. classroom facilities
5. out-of-class availability of instructors.

#### *Differences in Students' Opinions*

The differences in importance of and satisfaction with college impression, experiences, services, and environment along with social adaptation were analyzed using *t*-tests in terms of gender, age, educational level

and residency status of the 88 currently enrolled students.

### *College Impression*

Table 7

*Means and Standard deviations of scores indicating college impressions in terms of gender, educational level and residency status*

Variables	Categories	N	Mean	SD	t
Gender	Female	48	76.54	12.84	.04
	Male	40	76.66	16.27	
Educational level	Undergraduate	51	75.08	12.37	-1.37
	Graduate	33	79.47	16.93	
Residency status	On campus	31	79.82	12.57	1.56
	Off campus	57	74.84	15.14	

A significant difference was found in terms of educational level and age; however, there were no significant differences in terms of gender and residency status. Results indicated that the means for educational level of students differed significantly,  $p = .033$ ,  $p < .05$ . According to the results, undergraduates ( $M=31.86$ ) were more satisfactorily impressed with the college than graduate students ( $M=28.66$ ). To examine whether college impression changed by age, a one-way Analysis of Variance (ANOVA) was conducted. There was a significant effect for age  $F(3, 84) = 2.49$ ,  $p < .01$ . A Tukey procedure showed

The difference in students' opinions regarding college impression as defined in Section IV of the ACT survey was examined. Means and standard deviations are presented in Table 7.

significant differences between students aged 19 to 22, and 23 to 25. Students aged 19 to 22 ( $M=31.69$ ) were more impressed with the college than students aged 23 to 25 ( $M=27.14$ ).

### *College Experiences*

The difference in students' opinions regarding college experiences as defined in Section V of the ACT Survey was examined. Means and standard deviations for the scores of college experiences in terms gender, educational level and residency status of are presented in Table 8.

Table 8

*Means and Standard deviations of scores indicating college experiences in terms of gender, educational level and residency status*

Variables	Categories	N	Mean	SD	t
Gender	Female	48	18.13	3.86	-1.98
	Male	40	19.69	3.53	
Educational level	Undergraduate	51	19.65	3.47	1.82
	Graduate	33	18.12	4.15	
Residency status	On campus	31	18.74	3.93	-.44
	Off campus	57	19.11	3.66	

Results indicated that there were significant differences in terms of gender and educational level; however, there were no significant differences in terms of age and residency status. For gender, the means differed significantly  $p = .051$ ,  $p < .01$ . According to the results, female students ( $M = 19.69$ ) reported better college experiences than male student ( $M = 18.13$ ). For educational level, the means differed significantly,  $p = .07$ ,  $p < .01$ . Undergraduates ( $M = 19.65$ ) reported better college experiences than graduate students ( $M = 18.12$ ). To examine whether college experience changed by age, a one-way ANOVA was conducted. No significant effect for age  $F(3, 84) = 1.34$  was found.

#### *College Services and Environment*

The differences in importance of and satisfaction with college services and college environment were examined. Means and standard deviations for the scores of importance of and satisfaction with college services and college environment are presented in Table 9.

Table 9. Means and standard deviations for the scores of importance of and satisfaction with college services and college environment in terms gender, educational level and residency status

	Variables	Categories	N	Mean	SD	t
Importance of College Services	Gender	Female	48	76.54	12.84	.04
		Male	40	76.66	16.27	
	Educational level	Undergraduate	51	75.08	12.37	-1.37
		Graduate	33	79.47	16.93	
	Residency status	On campus	31	79.82	12.57	1.56
		Off campus	57	74.84	15.14	
Satisfaction with College Services	Gender	Male	48	54.67	18.91	.69
		Female	40	51.96	17.48	
	Educational level	Undergraduate	51	51.05	17.29	-1.30
		Graduate	33	56.35	19.52	
	Residency status	On campus	31	55.30	16.72	.81
		Off campus	57	52.04	18.84	
Importance of College Environment	Gender	Male	40	164.65	29.54	-.83
		Female	48	169.52	25.51	
	Educational level	Undergraduate	51	169.05	26.69	.46
		Graduate	33	166.20	29.27	
	Residency status	On campus	31	172.83	25.87	1.41
		Off campus	57	164.30	27.90	
Satisfaction with College Environment	Gender	Male	40	137.73	28.20	.01
		Female	48	137.67	26.47	
	Educational level	Undergraduate	51	138.96	22.61	.42
		Graduate	33	136.41	33.72	
	Residency status	On campus	31	145.52	25.69	2.03
		Off campus	57	133.44	27.13	

Regarding *satisfaction with college environment*, there was a significant difference in terms of residency status. The means differed significantly  $p = .04$ ,  $p < .05$ . According to the results students who were living on campus ( $M=145.52$ ) were more satisfied with the college environment than the students who live off campus ( $M=133.44$ ). On the other hand, in the present study no significant difference was found in *importance\_of* and *satisfaction with college services*, and the importance, not

satisfaction, of *college environment* in terms of gender, age, educational level and residency status.

#### *Social Adaptation*

The difference in students' social adaptation levels was examined using *t*-tests. Means and standard deviations of social adaptation scores are presented in Table 10.

Table 10

*Means and Standard deviations of scores indicating social adaptation in terms of gender, educational level and residency status*

Variables	Categories	N	Mean	SD	t
Gender	Female	48	59.74	24.39	2.39
	Male	40	48.27	17.30	
Educational level	Undergraduate	51	46.50	18.65	-2.91
	Graduate	33	60.70	21.78	
Residency status	On campus	31	59.34	20.97	2.11
	Off campus	57	49.02	20.49	

Results indicated that there were significant differences in students' social adaptation scores. A significant difference was found in terms of gender. The mean of scores indicating social satisfaction of female students is 48.27 with the standard deviation of 17.30. The mean of male students is 59.74 with the standard deviation of 24.39. The means differed significantly  $p = .02$ ,  $p < .05$ . According to the results, male students ( $M = 59.74$ ) had more difficulty in social adaptation than female student ( $M = 48.27$ ).

A significant difference was found in terms of education level. The mean of scores for social satisfaction of undergraduate students is 46.50 with a standard deviation of 18.65. The mean of graduate students is 60.70 with a standard deviation of 21.78. As results indicated the means differed significantly,  $p=.005$   $p < .05$ . Graduate students ( $M= 60.70$ ) had more difficulty in social adaptation than undergraduate students ( $M= 46.50$ ).

According to the results, a significant difference in residency status of social adaptation was found with the means differing significantly,  $p=.04$   $p < .05$ . The mean score of students' social adaptation who stay on campus is 59.34 with the standard deviation of 20.97. The mean score of students who stay off campus is 49.02 with the standard deviation of 20.49. Students who were living on campus ( $M= 59.34$ ) had more difficulty in social adaptation than students who were living off campus ( $M= 49.02$ ). To examine whether college experience changed by age, one -way ANOVA was conducted. No significant effect for  $F(3, 84) = 1.95$  was found.

*Differences Between International And Domestic Students (Without Consideration to Age, Gender, Educational Level, And Residency Status)*

*Satisfaction with College Environment*

The difference between international and domestic students in terms of satisfaction scores

with college environment was investigated by using *t*-tests. Means and standard deviations for the satisfaction scores with college environment are presented in Table 11.

Table 11

*Means and Standard deviations of satisfaction scores with college environment of international and domestic students*

<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>t</b>
<b>International</b>	43	131.34	28.16	-2.198
<b>Domestic</b>	45	143.77	24.87	

The means differed significantly at the  $p < .05$  level ( $p = .03$ ). The mean of satisfaction scores with college environment of international students is 131.34 with the standard deviation of 28.16. The mean of domestic students is 143.77 with the standard deviation of 24.87. Results indicated that domestic students ( $M=143.77$ ) were more satisfied than international students ( $M = 131.34$ ) in terms of the college environment.

*College Impression (International vs Domestic Students)*

The difference between international and domestic students in terms of college impressions was investigated by using *t*-tests. Means and standard deviations for the satisfaction scores of college services are presented in Table 12.

Table 12

*Means and Standard deviations of college impressions of international and domestic students*

<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>t</b>
<b>International</b>	43	28.93	6.98	-2.21
<b>Domestic</b>	45	32.00	6.03	

The means differed significantly at the  $p < .05$  level ( $p = .03$ ). The mean of college impressions of international students is 28.93 with the standard deviation of 6.98. The mean of

domestic students is 32 with the standard deviation of 6.03. Results indicated that domestic students ( $M = 32$ ) had better college

impressions than international students ( $M = 28.93$ ).

#### *College Experiences*

The difference between international and domestic students in terms college experiences was investigated using  $t$ -tests. Means and standard deviations for the satisfaction scores of college services are presented in Table 13.

Table 13

*Means and Standard deviations of college experiences of international and domestic students*

<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>t</b>
<b>International</b>	43	17.63	4.21	-3.52
<b>Domestic</b>	45	20.27	2.69	

The means differed significantly at the  $p < .05$  level ( $p = .01$ ). The mean of college experiences of international students is 17.63 with the standard deviation of 4.21. The mean of domestic students is 20.27 with the standard deviation of 2.69. Results indicated that domestic students ( $M = 20.27$ ) had better college experiences than international students ( $M = 17.63$ ).

#### *Importance of College Services*

The difference between international and domestic students in terms of scores indicating importance given to college services was investigated by using  $t$ -tests. Regarding importance of college services, no significant difference at the  $p < .05$  level ( $p = .76$ ) was found.

#### *Satisfaction with College Services*

The difference between international and domestic students in terms of scores indicating satisfaction with college services was investigated using  $t$ -tests with the results indicating that the means did not differ significantly at the  $p < .05$  level ( $p = .77$ ).

#### *Importance of College Environment*

The difference between international and domestic students in terms of scores indicating importance given to college environment was investigated with the  $t$ -test results indicating that there was not a significant mean difference ( $p = .11$ ,  $p < .05$ ).

#### *Social Adaptation*

The difference between international and domestic students in terms of social adaptation scores was investigated by using  $t$ -tests. Means and standard deviations for the scores of social adaptation are presented in Table 14.

Table 14

*Means and Standard deviations of social adaptation scores of international and domestic students*

Group	N	Mean	SD	t
<b>International</b>	38	64.14	19.66	5.088
<b>Domestic</b>	37	43.37	15.37	

The means differed significantly at the  $p < .05$  level ( $p = .00$ ). The mean of social adaptation scores of international students is 64.14 with the standard deviation of 19.66. The mean of domestic students is 43.37 with the standard deviation of 15.37. According to the results, international students ( $M = 64.14$ ) had more difficulty in social adaptation than domestic students ( $M = 43.37$ ).

*Analysis Results—Second Stage*

Questionnaires were sent to 300 randomly selected former students by e-mail. About 50% of these questionnaires came back as undeliverable mail. Out of second 150 questionnaires, 40 former students replied. Analysis was only done on 36 students because the remaining 4 had already graduated or were exchange students who were on campus for only a short period of time.

As seen in Figure 3, over 70 percent of domestic students who left the university were female as compared to over 60 percent the international students who were predominantly male.

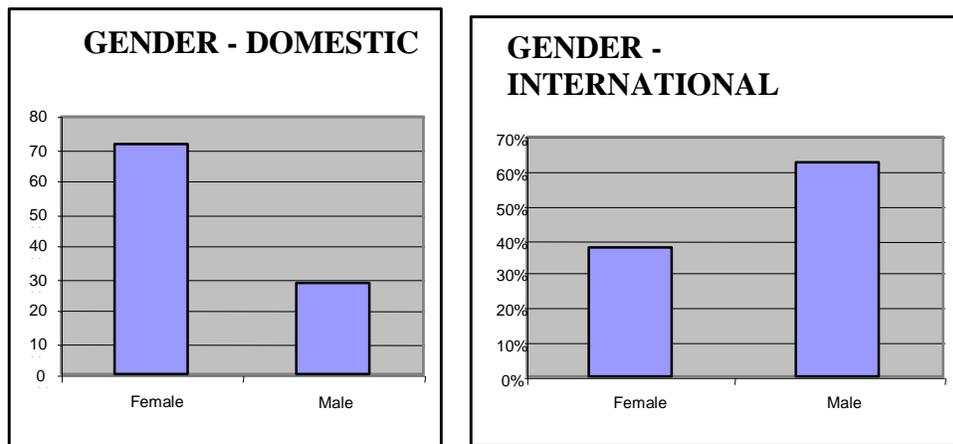


Figure 3. Gender of Domestic and International Students

On the first question, students were asked if they were welcomed and comfortable at the university. All of the domestic students stated they felt welcomed and were comfortable. Of the international students who responded, 71

percent felt welcomed while 28.5 percent did not.

On the second question, students were asked if financial reasons contributed to their early departure. As seen in Figure 4, over 50 percent of the responding domestic students left the

university because of financial reasons; on the other hand, over 60 percent of the responding international students indicated that financial

reasons were not the main factor for international students leaving the university.

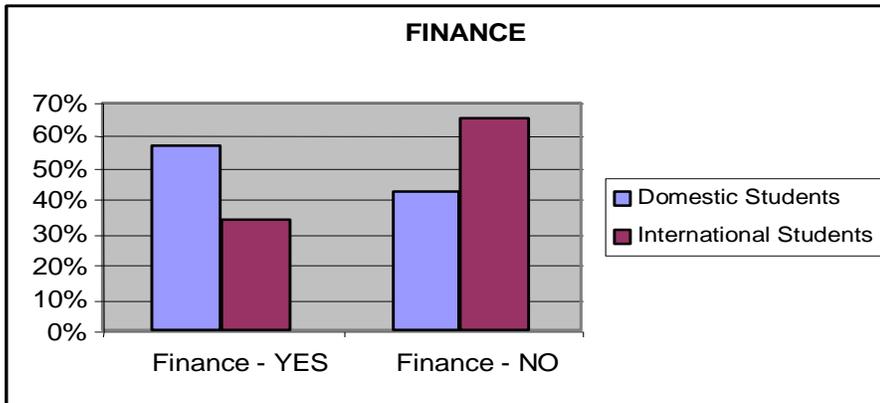


Figure 4. Financial Reasons for Departing

On the third question, students were asked if the social and cultural activities were adequate for their needs. As shown in Figure 5, domestic students were satisfied with cultural

and social activities within the university. However, international students clearly stated that they were not satisfied with the social and cultural activities within the university.

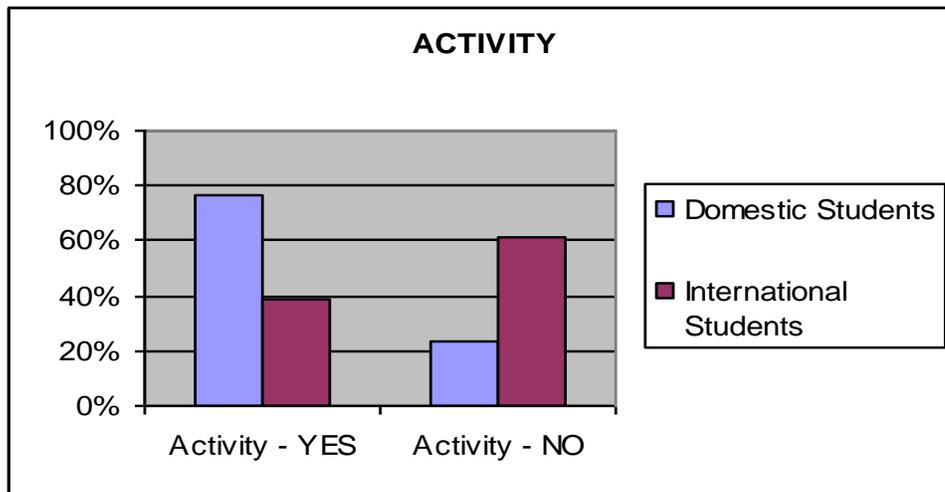


Figure 5. Cultural and Social Activities

Next, students were asked if the university courses offered were available and flexible enough to fit their needs. As shown in Figure 6,

international students found that courses were not available and flexible enough to fit their needs compared to domestic students who reported no problems in that area.

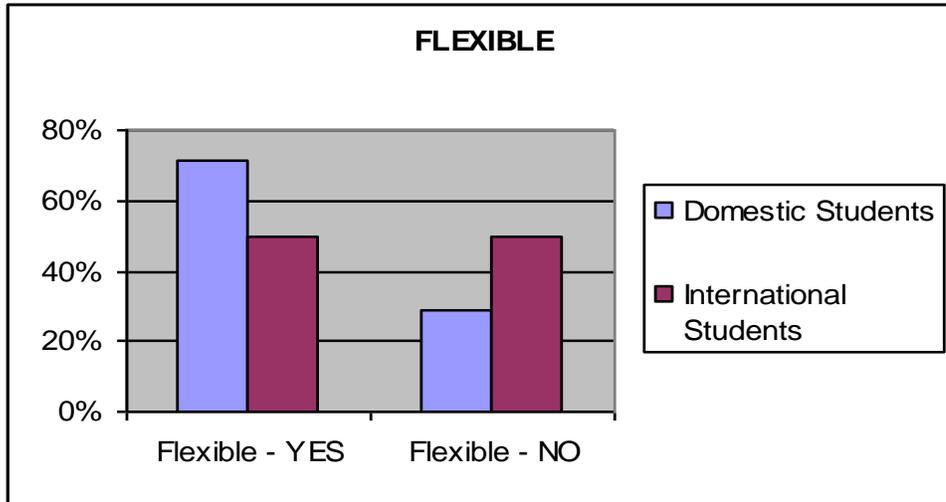


Figure 6. Flexibility and Availability of Courses

The fifth question involved the degree of voice at the university in terms of policies and student government. There was a difference

between domestic and international students on this question as shown in Figure 7.

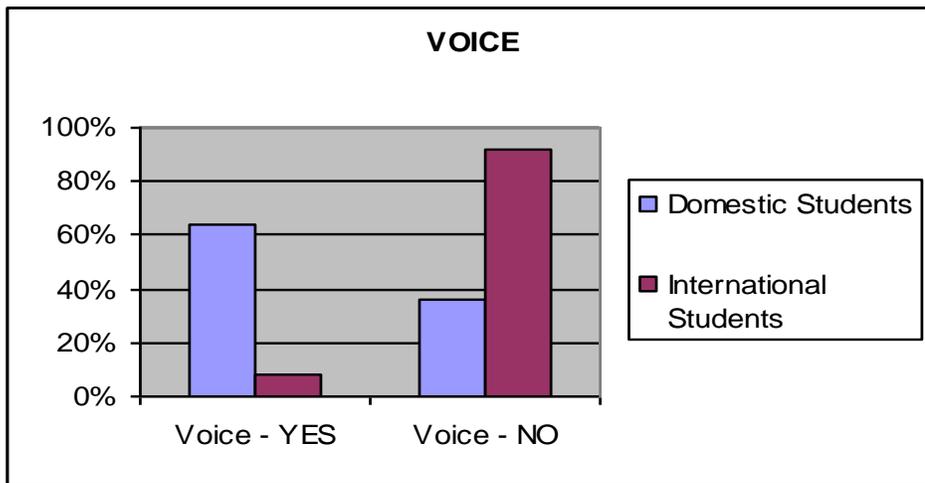


Figure 7. Degree of Voice

The next question asked if the campus provided adequate health and wellness services. Of the respondents, 67 percent of the domestic students replied yes and 8 percent replied no. Of international students, 57 percent replied yes and 42 percent replied no.

Question number seven asked students if they felt they had an adequate variety of food available for them at a reasonable cost. As shown in Figure 8, neither group was happy with the food service at the university.

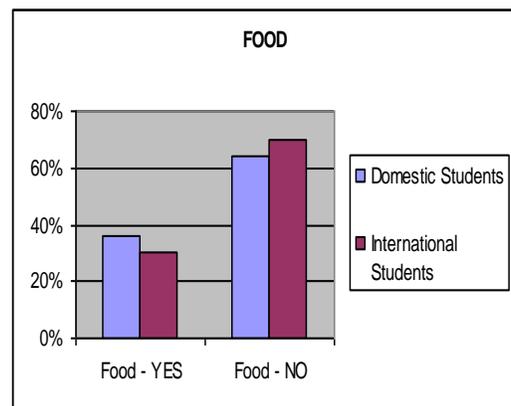


Figure 8. Food Services

Next, students were asked if they had been given enough information during the orientation program. As shown in Figure 9,

there was a difference between the two groups. International students were not satisfied with the orientation process compared to domestic students.

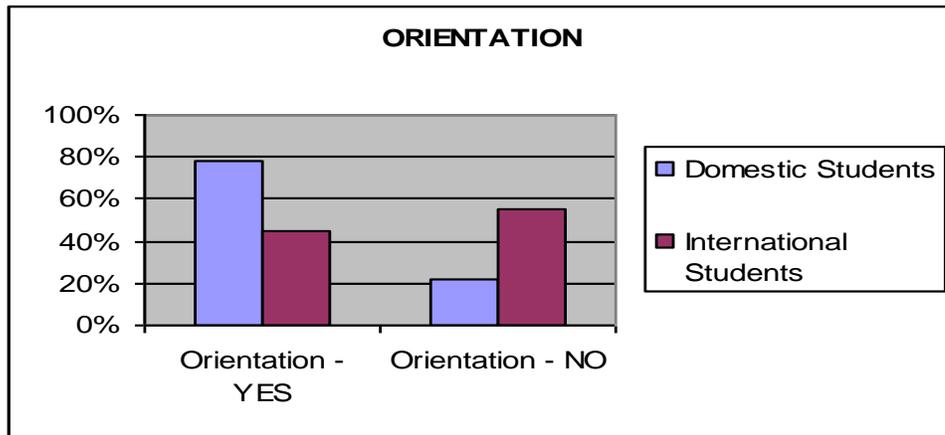


Figure 9. Orientation Satisfaction

Question number nine asked if the learning resources were adequate and available to meet the students' needs. Of the domestic students, 72 percent agreed that resources were adequate. Of the international students, 71

percent agreed. As seen in Figure 10, there was a difference in satisfaction with the university's dormitory between the two groups. The international dissatisfaction rate was 20 percent higher than the domestic dissatisfaction.

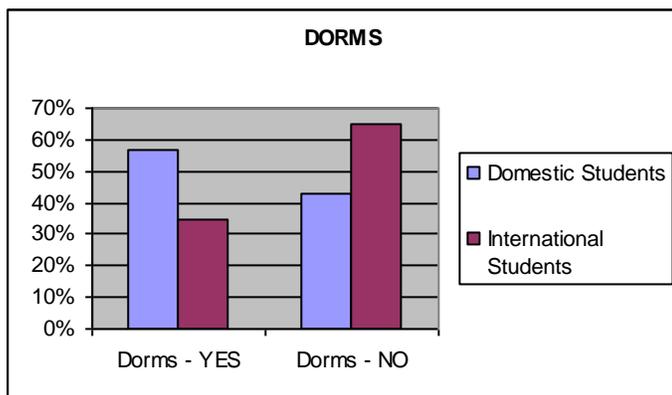


Figure 10. Dormitory Satisfaction

Next, students were asked if they were able to practice their religious beliefs both on and off the campus. Sixty-nine percent of the domestic students answered yes, and 75 percent of the international students answered yes.

the domestic students responded yes while 62 percent of the international students responded yes.

Both domestic and international students were asked if they understood the value system of the U.S. higher education. Seventy percent of

Question number 13 asked students if they felt the offices of Personal Counseling, Career Planning, Job Placement, and Academic Advising were available and helpful to them. There was a difference in the degree of

satisfaction with services offered from different offices within the university. International students stated they were not getting enough

help from these offices whereas domestic students were satisfied with them.

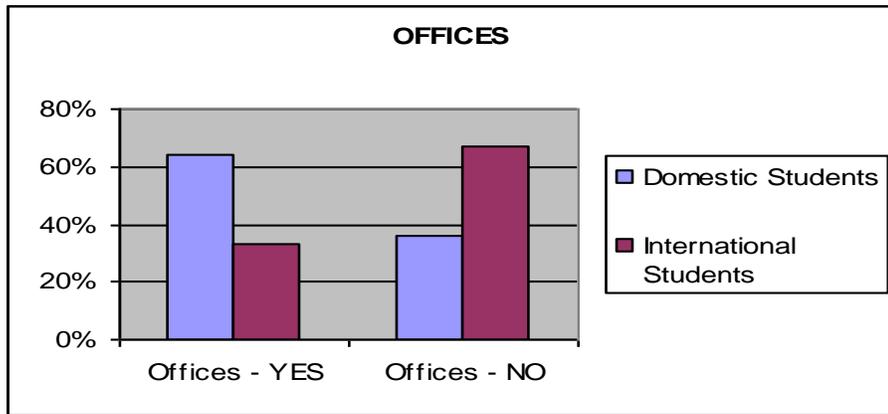


Figure 11. Satisfaction of Services Offered

The following question asked students if they were comfortable dealing with bureaucracy and people in authority at the university. There was a difference between the domestic and

international students with very few domestic students responding “no” as compared to almost 50 percent of international students responding “no”.

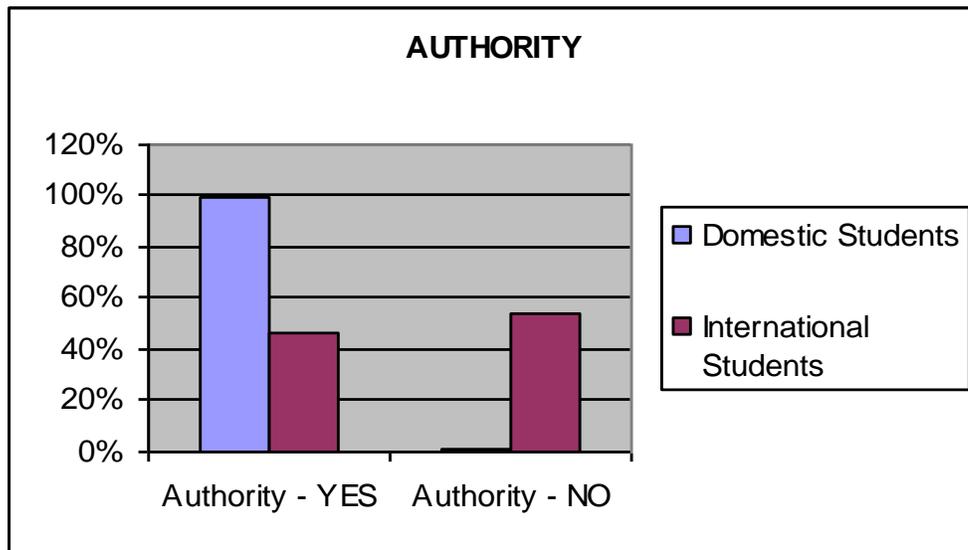


Figure 12. Authority

The next question involved the accuracy and realism of the information they received before enrolling. Of domestic students responding, 64 percent felt the information was accurate while 57 percent of the international students also felt the same.

Question number 16 asked if they were able to make themselves understood at the university in terms of their culture and language. Of domestic students responding, 73 percent said they were able to, while 76 percent of the international students were able to.

The last question asked if the city of San Antonio was a good setting for their university

experience. The domestic students agreed with this statement 72 percent of the time while the international students agreed 81 percent of the time.

Students were asked to provide additional comments about their experiences on campus. For international students, four significant factors were identified: (a) Students feeling alone or homesick on campus in terms of missing their family and not having friends, (b) meeting needs in academic terms of receiving assistance and avoiding bureaucracy, (c) meeting non-academic needs in terms of utilizing the International Student Office and other services, and (d) having some control (voice and participation) in terms of influencing and understanding their environment. For domestic students, the main concern focused on finances in terms of rising tuition costs, losing company educational benefits when terminated or laid off, and not being able to afford the overall costs of the educational program being pursued.

#### *Analysis Results—Third Stage*

The third stage was intended to validate or verify the accuracy of the data gathered in all previous stages based on the researcher's interpretation of those surveys and the interviews. Out of 150 previously enrolled students, 6 domestic and 6 international students were randomly chosen and contacted by phone. All interviews were recorded and transcribed.

#### *Transcript Analysis*

Step 1: The transcripts were reviewed a minimum of three times in order to obtain all relevant themes and improve comprehension of the interviewee's responses.

Step 2: By identifying common meanings, themes were comprised into two groups—international and domestic.

Step 3: Themes were derived by comparing and contrasting the interviewee's responses with the most common theme labeled as the majority. This theme was analyzed further and developed into one concept and/or experience.

Step 4: The concept and/or experience was titled and placed in the text. The theme was

described and supported by the interviewee's statements.

Step 5: The final stage was to articulate the importance of the themes with the content of the replies.

#### *Thematic Analysis for Leaving—Domestic and International*

##### *Domestic student themes were:*

- Quality and challenge

Quality expectations were not met in terms of the instructional team, the value placed on graduates by employers, and the variety of academic and non-academic programs. Most of the participants stated that they loved the university; however, they decided to leave because their expectations were not being met because they wanted something more challenging and more contemporary. For example, participant # 8 left the university because she did not think the university had an international quality. She said, "You know, I didn't, I didn't leave it because I didn't think it was a good school or because I have had any problems there. It's not, it's not national quality. You know, it's not really an international quality university. You know? It's just a small, religious school."

Participant # 9 stated that she wanted to go to a more liberal university that had organizations that were interesting to her and is currently attending a university that meets those needs. She continued saying that she never really heard anything about clubs at her former university. She found the San Antonio to be very conservative in a lot of ways, and that's not for her. She wanted to move somewhere that had political outlets, other activities and interest groups.

Name reputation and more challenging schools are dreams of most of the domestic students. Nearly every domestic student wants to graduate from a university that will be recognized by many others, including employers. Also having a good teaching team established by devoted instructors who make the educational environment more challenging is also the dream of many American students.

Some of the students stated that this university was a small religious school and did

not have enough diversity in the degree programs.

- Finances

Finance was the second concern among domestic students, which led them to leave the university without completing their degree programs. Participant # 12 transferred to a public university because the individual could no longer afford the private university tuition and said, "I just left. So it was just because I was going to transferring out anyway because of the expenses. It was too expensive." Participant #7 also left the university because of financial reasons. This person's tuition had been supported by his former employer but as he said "...that company was paying my tuition and I am no longer with the company, so I don't, do not, um, have the same support that I used to."

Besides wanting more challenging or affordable institutions, domestic students' reasons included: not being ready for college; moving to some other city because of military; not knowing how to manage their time, being dissatisfied with the food quality; institution not of international quality; small religious school, not enough degree and social programs; too conservative, or the amount and variety of activities.

Overall, all the domestic participants agreed on one point, stating that they loved this university, but they had to leave because of reasons not related to dissatisfaction with this university. For example, Participant #10 said "I don't have anything bad to say about [this university], it's a wonderful school, and I hope my kids go there."

*International student themes were*

- Making friends and interacting with domestic students

International students had difficulty in making domestic friends—they felt that domestic students discriminated against them and as a result international students made friends with other international students. This feeling of discrimination made it more difficult to belong or at least feel a sense of belonging. The social and language barriers were significant in this theme.

Participant #1 stated that domestic students looked at them like they were aliens from Mars;

therefore, they kept to themselves or in their own groups of international students.

Participant # 2 said most of his friends were other international students. He also said "Actually my trouble was, when I first came here my English was not good and I had that accent. And then I am doing my presentations and some of them started laughing and..." [SIC]

- Food

Dining and the quality of the food on the campus were the second big issues for international students and were precipitating factors in their leaving the university. More expensive, less diverse, and not as tasty as compared to food off campus was a recurring concern. Also recurring was a lack of sensitivity to religious restrictions and traditions. Compounding this situation was the mandatory meal card plan required for all students, especially international students, living on campus and the hours of operation. Participant number 2 stated that he was bored eating the same thing everyday. Participant number 3 found prices were more expensive on campus than off campus and it was less diverse. Participant number 4 found food less tasty on campus.

- International Student Office

"I think my reason to leave the University was the lack of assistance with the International Students' Office" (participant #4). This lack of assistance, at times, translated into a feeling of discrimination, similar to the discrimination felt by international students toward domestic students. Furthermore, it resulted in international students avoiding or having minimal contact with this office.

- Academic Assistance

The perception of a lack of dedicated and approachable advisors and administrative staff who could facilitate the attainment of academic needs was strongly expressed in the third stage. Participant #2 stated that he did have an advisor but could never find him. Participant number 4 elaborated about academic assistance by making the following statement, "I needed more academic assistance, I believe. For international students the new environment is very exhausting, because the international student has to adjust to a new environment, to a new

language, to a new country, and a new educational system. And it's really hard for an international student to adjust all this in a small amount of time. And, actually, we need more assistance than domestic students." He continued saying, "Actually domestic students have problems with their degree program, so it's very normal that international students could have more problems. And I believe that for international students they actually need [a] specific person assigned to these students so that anytime these students have any kind of problem, this person can help them. So I think there is a problem with the assistance in academic." [sic] An even more interesting comment came from participant #5 who said, "What is an academic advisor?"

- Cultural & Social Activities

An inadequate network was indicated, the lack of which caused some international students to become even more isolated. All the international students indicated that they lacked the network of social support that existed for them in their home country, including immediate and extended family, friends, and colleagues. Some international students withdraw into isolation and others group together with fellow nationals. Some choose the company of other international students where acceptance and understanding may be more easily found than among students of the students of the host country.

- Housing

"Uh, well housing was not the best .... At the end I finished renting an apartment" (participant #1) stated. Too many restrictions caused dissatisfaction with the housing process. Also frequent and short notice relocations by the housing staff exacerbated the discontent with housing.

- Incorrect information prior to arrival

Incomplete or inaccurate information caused a lack of trust in the recruitment and orientation process.

- Availability of Courses and Flexibility in Scheduling Within Degree Plans

Following the initial orientation, international students found that when registering, the courses were not available and little or no flexibility in the scheduling process

was evident. Students from the previous semester had registered earlier and courses were not available. Students expected more, especially from a private university.

- Other Reasons

Social and academic adaptation within a new environment was predominant along with the availability of resources and research opportunities—graduate and undergraduate.

### *Verification and Informing the Study*

In the first stage, identifying differences among the international and domestic student populations in statistical terms, a better understanding was gained about the sample and issues related to retention were discovered. Some issues, like the quality of college services and social adaptation in meeting both academic and non-academic needs provided direction through the second stage where adaptation issues became even more focused on orientation, participation, and integration of both international and domestic students. Academic issues (availability, flexibility, advisory, and other services) along with non-academic issues (finance, campus life, housing/food, orientation, and bureaucracy/authority) became more evident. In the third stage, issues of students receiving the same quality and level of services in their pursuit of challenging higher educational goals were more clearly defined and understood. Also, issues of campus infrastructure and its integration in providing overall services to students evolved.

### *Summary—Data and Themes*

First stage results clearly showed there is a significant difference between current domestic and international students in the areas of importance and degree of satisfaction with the university in general. The second stage was intended to identify perceptual difference between former domestic and international students who did not complete their studies. After preliminary analysis and piloting, the second stage survey identified reasons why domestic and international students discontinued their studies prematurely. The third stage verified earlier results, thereby confirming the

direction of the study, refining issues, and indicating how former domestic and international students differ on various identified themes.

### **Discussion, Implications, And Recommendations**

This discussion is organized by the three broad areas identified in the purpose of the study: (a) whether there are differences among domestic and international students in terms of academic (educational) and non-academic (support) needs, (b) how international students acclimate and succeed in satisfying those needs, and (c) why international students are not being retained. Following the discussion, recommendations are made in specific areas and also for further research.

#### *Discussion*

The first stage explored the differences between international and domestic students in terms of their opinions about the importance of, and satisfaction with college—services, environment, impression, experiences, and social adaptation. Effects of gender, age, educational level, and residency status were also studied.

In terms of services provided on campus, the most important service was found to be computer support followed by academic advising, library facilities, financial aid, and parking facilities respectively. In regard to *satisfaction* with the services, the most satisfying college service in the campus was found to be the library facilities and, followed by student health/wellness, academic advising, personal counseling, and student employment. By comparison, parking facilities were found to be the least satisfying service on the campus. According to the results, students were satisfied with the academic advising services and library services which were reported as the most important services in campus. Moreover, students were found to be satisfied with the main support services in campus as personal counseling, student health and wellness services and student employment services. However, a few problematic areas were also found.

Although computer services were found to be the most important services in campus, students were not satisfied with this service at all. In addition, parking was found to be a significant problem for the majority of the students.

Regarding campus environment, the most important college factor in the campus was found to be the quality of instruction in the major field. The other important factors were course content in the major field, value of the information provided by the advisor, attitude of the faculty towards student, and availability of the courses at the times that can be taken, respectively. In contrast to the expressed dissatisfaction with some advisor and administrative staff, the respondents express satisfaction with the quality of the instruction. In terms of satisfaction with the campus environment factors, the most satisfying campus environment factor was found to be the class size relative to the type of course, followed by the personal security/safety at the college, attitude of the faculty towards students, classroom facilities, and out-of-class availability of instructors. Academic factors were found to be the most important and the most satisfying college environment factors in the study. In addition, there was a consistency between the importance of college environment factors and satisfaction.

Significant effects of gender, age, educational level, and residency status on students' opinions were found in the study. Regarding satisfaction with college environment, a significant difference was found between students who were living on campus and those living off campus. According to the results students who were living on campus were more satisfied with the college environment than the students who live off campus. In terms of college experience, female students and undergraduate students were found to have better college experiences. As to college impression, students aged 19 to 22 were found to be more impressed about the college than students aged 23 to 25. Moreover, consistent with the previous finding, undergraduates were found to be more impressed about the college than graduate students.

Moreover, results indicated that there were significant differences in students' social

adaptation scores in terms of gender, residency status and educational level. According to the results, male students, graduate students and students who were living on campus were found to have social adaptation difficulties

The study pointed out significant differences between currently enrolled international and domestic students in terms of their opinions about the college experience. Domestic students were found to be more satisfied with the college environment, and have better college experiences and impressions than international students. Moreover, international students were found to have more difficulty in social adaptation than domestic students. The researcher, also an international student, recognizes some obvious issues for such students. Education in a foreign country is exciting but also can be a stressful and overwhelming experience. Being educated in a different language, trying to adjust to a new culture and environment, and trying to adapt to the social life in the new environment are challenging for many international students. The professional literature referred to earlier states the importance of understanding the adaptation process for international students. As seen in the results, international students experience difficulties regarding college environment, and problems regarding social adaptation. As a result their college experience is not as satisfactory as domestic students. These findings provide important data on what further actions or interventions could be considered to remedy the number of international students discontinuing their studies.

In the second stage of the study, comparison in terms of opinions and adaptation between domestic and international students who left college were found. The differences included the importance of finance, the opportunity to not only participate but be heard in campus activities, and whether needs were being met.

Financial and personal concerns were the main reason for *domestic* students to leave the university, but not for *international* students. Financial concerns, looking for a better or more challenging university, or looking for a less conservative city were found to be significant reason for domestic students to drop out. For a majority of the international students, the main

factor in leaving the university was related to adaptation problems. Students perceived the interaction between students and university to be very weak. Moreover, academic reasons were also influential in international students' decisions to leave.

Validation of the previous findings was accomplished in the last stage using techniques of interviewing and thematic analysis of the students' reasons for leaving the college. Having some form of recognition, being able to express (having voice), and / or participating in the campus environment where this recognition and participation could result in change was a significant retention finding for international students. Research indicated that international students wanted to be part of the university but did not feel their voice was heard or considered important in campus climate.

Both domestic and international students had concerns over food service. They thought it was expensive, lacking variety, and appeal. They did not feel they get what they deserve for the money they paid, especially, in this case since many more economical restaurants and food establishments exist nearby. For that reason, students expressed they are being cheated because they could get the food they want at half the price.

#### *Implications for Retention*

The results of the study pointed out significantly similarity between the opinions of currently enrolled international students and those international students who dropped out before graduation. Current international students were found to be less satisfied with their experiences in college, and less impressed about the college than domestic students. Moreover, international students were found to have more social adaptation difficulties than domestic students. Also significant was the finding that the university was less appealing and less satisfying to graduate students than undergraduate students. These findings taken together could serve to alert the university faculty and staff in advance of possible drop out behavior for future international students. The findings also are similar to those of Obong (1997) and Zhou, Kuh, and Carini (2001) who

studied the meeting of academic and non-academic needs of international students and their engagement.

In order to prevent drop out behavior, and improve retention some precautions are crucial. The primary step is the acknowledgement of challenges, especially first time college students face, and the differences between the demands and needs of domestic and international students.

First-year students may need special assistance in adjusting to the demands of the university. Whether they come from high school, community college, or other universities, students encounter new demands and difficulties in academic performance and social adjustment. Students who are new to the United States face additional challenges. When international students come to the United States, they have to deal with many things such as language, accents, food, friends, and so forth. Being an international student can be considered as just like being a new born baby growing up. The whole process of acculturation is just like growing up. Therefore, being in a new culture without guidance can be a very difficult and sometimes very discouraging situation for international students.

### *Specific Recommendations*

This researcher provides the following recommendation in order to make the best use of the data gathered. Some of the recommendations reflect the researchers international status, which provides an additional insight with the analyzed data.

- Fully integrate the International Student Office (ISO) both functionally and geographically into all aspects of campus and off campus life.
- Integrate international and domestic students using comprehensive orientation programs developed and implemented by the ISO and Campus Life.

When international students arrive to their main destinations in the U.S., international student office is the first place they go on

campus as a source of support and guidance. And usually the head of international student office is the first person they meet and interact. The international student office's job is to protect and help international students throughout their educational life in the university. This office is the first port of call for most international students, with or without problems, and should be an office that every international student feels at home and welcome in despite any concerns or difficulties. This office should also be the focal point for international student activities, academic or non-academic, and actively coordinate with other offices to facilitate and/or resolve problems. Therefore, integrating the International Student Office into campus life is essential. Orientation programs incorporating both international and domestic students should originate from here and expand into international student fellowships, clubs, and other cross-cultural experiences.

International student orientation is crucial to international students' transition and is a significant part of a multi-faceted approach to their retention. A comprehensive international student orientation program strives to integrate the university's mission and the personal growth of entering international students and in addition, help international students adjust to the academic and social environment. International orientation should not only orient students but also prepare students against the issues they may face later on their study life. Orientation should be reiterative—before, during, and after—and include both international and domestic students to facilitate adaptation and meeting non-academic needs.

Developing and implanting an overall orientation program that begins prior to the students' arrival and continues until earning the specified degree should focus on some key issues. First, the International Student Office needs to be co-located more centrally, both administratively and geographically, to the Registrar, Admission, and Student Life.

- Facilitate and insure each student has and retains an academic advisor throughout his/her academic program.

It is essential to assign and keep academic advisors / mentors throughout the students' programs to facilitate and insure the availability of required program courses to meet academic needs, including mandatory meetings and documented records for performance and other concerns. It is also crucial to develop and implement a strong and viable sponsor program where assigned sponsors can provide the personalized attention students need in dealing with the everyday problems they encounter in the college environment.

- Establish and maintain a process whereby international students are recognized in the student government and on campus.

International students are a growing contingent, just entering double digits, but are not represented in the student government. Their concerns differ from domestic students, so by including and allowing international students to participate in student government will make sure that international students have a voice on all student life and academic issues. Student government would then better represent the students at the university, not particular nationalities. Besides, allowing international students to become a part of student government, the international student office can take a more active role in terms of voicing international concerns and issues. This voice, even if it is small, will facilitate and engender integration while still allowing identity of culture.

By appointing at least one international student to the Student Government Association, a sense of belonging for international students could be promoted and possibly increase the degree of satisfaction, especially in terms of overall services, the second largest issue that trouble international students when it comes to the value received for the amount of money they pay. Developing and articulating appropriate and fair policies where international students are either required or allowed to live on or off campus may benefit and promote cross cultural understanding.

- Provide campus housing and food services that reflect the university's

commitment to students—international and domestic.

After moving to a new country, experiencing different languages and food, and beginning their academic studies, international students need a place they can call home, one where they can relax, and call their homes. After learning about their new environments and surroundings, international students did not develop a sense of home. The size and services provided at the dormitories were insufficient to promote this sense of home. Students did not have their own bathroom and felt restricted in their own space, compounded by the unfriendliness of staff and support services, resulting in international students wanting to be elsewhere, but not having a choice.

Moreover, basic services as cafeteria and dormitories should appropriately accommodate students' needs. In this regard, adapting living standards that are more amenable to different cultures while still maintaining cleanliness and customer service may aid in further acclimating international students. In addition, it is essential to improve and tailor menus and availability of food services to acclimate international students into the college environment as well as providing some similar national foods intermittently. Insuring standards met in both cleanliness and customer services may allow the international student to more readily claim the dormitory as a place he or she can call home and possibly reduce feeling homesick or alienated.

Therefore, university once again needs to act as a salesman and compete with surrounding restaurants, especially when a meal plan is mandatory. If the university improves the quality of food with more selection, students will be more satisfied with the university's food service.

- Provide and incorporate user-friendly counseling services—support and social adaptation.

It is essential to incorporate academic and non-academic needs to expand cultural and social activities facilitating student adjustment and sociocultural adaptation. Moreover, as a support system, counseling services should be readily obtainable and available from student life and counseling offices to resolve differences

in cultural values that students might have, maintaining contact throughout the academic programs to identify and divert potential problems, and recommend trained cross-cultural practitioners. Most students go through a process of adaptation when they move into a new culture. Many things make this adaptation process very difficult. These difficulties can lead to confusion as well as to other uncomfortable feelings. Along with stress caused by being in a new culture, adjustments to university life can be difficult for all students. Therefore, the university must have a counseling center which will be available to help students as they face such challenges and the university should emphasize on counseling which is very important for the newcomer students.

- Incorporate diversity training—faculty, staff, and students—that promotes the understanding of needs (academic and non-academic), effective curriculum development and implementation, and the long term accomplishment of strategic goals.

With increasing student diversity, the faculty may find themselves limited in serving and educating and promoting higher education in general. The collective identity of the faculty, defined by Aguirre (2000) as a sub-culture (values, professional goals, and collegiality) may be challenged on what actions should be taken. Diversity does not just happen and planned change must occur to meet diversity challenges and opportunities. Organizational and individual commitments are part of the mix. These commitments involve participation and leadership at all levels. The expressed readiness to change needs to translate into collaborative actions (Alger, 2000).

Communicating more effectively with international students may help faculty or staff to understand some of the underlying causes of miscommunication with international students and then to develop techniques and skills to improve communication. Universities must have cross cultural communication workshops which may make sure participants to experience the feelings and reactions they might encounter when traveling in another country or interacting with people from other cultures. An interactive

faculty workshop to look at issues of cross cultural communication and cultural differences in the multi cultural classroom can be effective and help instructors identify potential problem areas, develop strategies for preventing those problems, and create a more cohesive classroom environment.

Diversity training is one of the most effective tools for effecting attitudinal and behavioral change (Springer, 1995; Wentling & Palma-Rivas, 1997); however, diversity training is not isolated to large corporations and profit margins; it is about how people are affected. “A commitment to diversity is a commitment to all employees,” states R. Roosevelt Thomas in *Beyond Race and Gender* (1991, p. 170). Diversity and tolerance programs focus on helping faculty and staffs become allies to students who need extra support, such as international students. Integrating recurring diversity training and cross-cultural workshops for both faculty and staff is essential to understanding cultural differences and diverse learning preferences, and in developing, and implementing curriculums that benefit both international and domestic students. These programs may also develop a capacity to identify and respond to international student concerns and how to further integrate lessons learned into teaching and learning.

In a more general sense, the above recommendations need to be analyzed for incorporation to the overall strategic enrollment plan of the university (Rowley, Lujan, & Dolence, 1997) and the organizational culture of the university should be used to transition to a more international culture on the campus, one that can be experienced by both international and domestic students (Kezar & Eckel, 2000).

In conclusion, the study provided valuable information in terms of differences between international and domestic students’ drop out behaviors. Determining similarities and significant differences between enrolled international and domestic students was crucial in the first stage of the present study. Using this understanding and following up in both the second and third stages with students who discontinued their studies, determined more definitive relationships and differences between why the students left the university. As a

significant finding, domestic students' reasons were found to be centered on financial and personal educational goals, whereas international students' reasons centered on having the ability to become a more vital and recognized entity on the campus, including participating or being represented in the student government.

The United States of America is called a melting pot, which is established by melting many cultures together, and has evolved in a society accommodating many cultures; however, it can be improved upon. International students bring a mix of diverse culture to U.S. universities that increase the overall quality of life in the universities and promote international education.

Universities desiring to internationalize their institutions are actively seeking international students, directly through enrollment, sister university agreements, and the establishment of other campuses in addition to the main campus. Retaining international students is critical to this objective. As universities in the United States plan and execute strategies to recruit more international students, diversity, revenue, and other global education issues must be considered and planned for to retain them along with domestic students.

Also critical to this objective is recognizing the differences and learning how these differences can promote diversity and future benefits. Differences do not mean different treatment between domestic and international students in meeting and exceeding non-academic and academic needs. Equal treatment and the inclusion of international students on the campus and community environment will increase retention and make education a universal and international language.

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