

**EFFECTIVE PROGRAMMING FOR INTERNATIONAL STUDENTS BASED ON  
THEIR PERCEIVED SOCIAL AND CULTURAL NEEDS**

by

**Mayumi Terano**

Bachelor of Arts in Economics, Ritsumeikan University, 1992

Master of Arts in Sociology, Jawaharlal Nehru University, 1996

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This dissertation was presented

by

Mayumi Terano

It was defended on

October, 2007

and approved by

Dr. Maureen McClure, Professor, Department of Administrative and Policy Studies

Dr. Michael Gunzenhauser, Associate Professor, Administrative and Policy Studies

Dr. Shawn Brooks, Director, Office of Residence Life

Dr. William Bickel, Committee Chair, Professor, Administrative and Policy Studies

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# **EFFECTIVE PROGRAMMING FOR INTERNATIONAL STUDENTS BASED ON THEIR PERCEIVED SOCIAL AND CULTURAL NEEDS**

Mayumi Terano, PhD

University of Pittsburgh, 2007

Responding to the diverse students' needs of an increasingly internationalizing American college population has become an important concern for student affairs professionals. For this purpose, increasing the effectiveness of co-curricular activities requires exploring the students' diverse needs and the relation between social and cultural participation and academic success.

This dissertation presents a case study focused on international graduate students of selected nationalities at the University of Pittsburgh. By applying social capital, cultural capital, and involvement theories, this study explored the areas and the degrees of social and cultural needs and participation of the selected population and how needs and participation relate to their diverse background, adjustment, and academic performances. The data were collected from 250 survey participants and in 40 face-to-face interviews.

The dissertation findings focus on the following issues: (i) the variation of civic engagement with respect to marital status and nationality; (ii) the impact of language barriers and differences in socialization culture on students' socialization patterns; (iii) the high or moderate correlations among the levels of social capital, cultural capital, civic engagement, participation, and previous cross-cultural experience; and (iv) the low correlation between academic success and the previously mentioned elements.

The conclusion lists the implications of this dissertation study in terms of theories in this case study context, related literature, research methodology, programs and services, and university policy. The highlights include the identification of various ways in which student affairs professionals can help increase the social and cultural participation of international graduate students at the University of Pittsburgh; and a discussion of the importance of promoting cross-cultural experience among the entire student population.

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## **1.0 INTRODUCTION**

### **1.1 BACKGROUND CONTEXT**

The inflow of international students has been significant in the United States during the last half century and it is causing considerable impact on domestic educational, social, economical, and political situation (Dalton, 1999; Peterson, et al., 1999; Ping, 1999; So, 1994). The Institute of International Education (IIE, 2004) claims that “International students in U.S. classrooms widen the perspectives of their U.S. classmates, contribute to vital research activities, strengthen the local economies in which they live, and build lasting ties between their home countries and the United States” (p.1). In this situation, the task of the student affairs professional also expanded to integrate international students into educational programs and academic life and also to “use the international students on campus to educate American students to the new global reality” (Ping, 1999, p.14).

After the terrorist attack in the year 2001, however, many universities became concerned about the fact that the number of international students’ enrollment decreased (IIE, 2004) and about tensions between domestic students and international students particularly those who are from Muslim countries. Therefore, there was increasing attention for cross-cultural understanding among students in American colleges and universities. The role of student affairs professionals in this concern is considered important since it aims to provide the comfortable and

safe learning environment in the college life. It also potentially provides the opportunities for learning cross-cultural awareness outside the classrooms. The awareness of the social and cultural needs of increasingly diverse student populations, especially international students, helps improve the effectiveness of and participation in related programs. Social and cultural participation is an important component of cross-cultural learning and social networks among the students, which lead to creating social ties and a supportive environment. This positive environment will help increase the international student enrollment, which could provide positive impact on learning environment on American college campuses and in the society as a whole.

## **1.2 STATEMENT OF THE PROBLEM**

I worked as a fellow in the Programming Section of the Office of International Services (OIS) at University of Pittsburgh (Pitt) from spring 2004 to summer 2006. The OIS has been making efforts to provide social and life support through social and cultural programs and orientation. I assisted in developing, conducting and evaluating these programs. One of the office's struggles in achieving its goals has been to understand the needs of international graduate level students which are the majority of the international student population at Pitt. We also struggle to have various ethnic students groups involved in and collaborate in our programs. We noticed that there are some differences in the attitude among individuals and groups of students and we wondered how we might increase the overall participation in social and cultural programs.

In the summer of 2006, the Division of Student Affairs at Pitt established the Office of Cross-Cultural and Leadership Development (CCLD) to strengthen some of the social and

cultural programs for all Pitt students including the internationals. I currently work at this office as the international program coordinator and advisor. The International Programs section of this new office took over the operation of some social and cultural programs from the OIS and aims to strengthen the related activities and to better serve the needs of international students for the entire Pitt community.

In the year 2005, the Pitt Division of Student Affairs appointed a new Dean who placed emphasis on evaluating and monitoring the quality service of the Division as well as serving the diversified student population. A part of the initiative was establishment of the evaluation and assessment team, whose main function was to develop the methods of the Division's performance evaluation of its programs and services. Despite of emphases, their base-line data collection study did not have adequate coverage of the increasing international population, based on my observation. Among existing student affairs evaluation and assessment literature, studies on the social and cultural needs of international students are not sufficient not to mention its possible differences among them concerning ethnic groups, countries of origin, social and cultural backgrounds, family and academic experience. Assessing needs of targeted population is becoming increasingly important for effective programmatic efforts for student affairs professionals (Cooper & Saunders, 2000). Thus, identifying the social and cultural needs as well as the pattern of participation of internationals is an important process in this endeavor as it informs future designing of effective social and cultural programs.

I observe that participating in social and cultural activities has not been the priority of many international graduate students who are under pressure to finish their degree programs within the limited time due to their immigration status. However, social and cultural programs help students increase their networks, enrich their lives, and improve their English language

ability, which is essential for their academic success as well as reducing various cultural barriers. For example, studies show that many international students express their interest in making more domestic friends so that they can improve their languages skills, understand American culture, gain knowledge of other local resources, and enrich their stay in the U.S., which is one of the key factors to adjust to the new culture, avoid home sickness, and perform better in their study (Chapdelaine & Alexitch 2004; Eid & Jordan-Domschot, 1989; Heikinheimo & Shute, 1986; Lamkin, 2000; Liddell, 1990; Schram & Lauver, 1988). Social and cultural programs can help achieving these goals so finding international students' needs will be valuable for student affairs professionals. Other benefits of social and cultural participation from social and developmental perspectives as well as the concept of social and cultural participation are explained in the following section.

### **1.3 THEORETICAL ORIENTATIONS**

In this section, the conceptual framework and theoretical background of this dissertation research are articulated. It begins with a description of the concept of social and cultural needs used in this dissertation research. It is followed by the theoretical discussion of how the social and cultural participation is considered as a significant topic and how social and cultural participation may help students in both individual and community levels. It also explains how social capital and cultural capital theories are considered inter-related in the context of this study. It will, then, move on to the explanation of different forms that social and cultural participation are considered as the focus of this study by providing examples. In order to introduce how the concept of social and cultural capital is used in the related research and how these issues are significant, the next

section will discuss the decline of social and cultural participation observed in various studies. Finally, it will explain the conceptual model which explains how social and cultural needs and participation are formed and explore how the individual differences are manifested in them.

### **1.3.1 Concept of social and cultural needs**

In this study, social needs are concerned with the needs to be connected to the others in the society. They can also be described as needs for socializing and networking (Taub & Komives 1998) and friendships and mutually supportive relationship (Bontrager et al., 1990). In needs assessment literature, they are assessed as: ‘needs regarding local community life in the U.S.’ and ‘interpersonal relationship needs’ (Lee et al., 1981, p.22); and a need for ‘making friends’, ‘time for socializing’, ‘social interaction (especially with domestic students)’, and ‘anticipatory socialization’ (Taub & Komives, 1998). According to Taub and Komives (1998), anticipatory socialization is a form of socialization that helps students to have realistic expectations in graduate studies.

The term ‘community’ is used often in this study such as ‘ethnic community’ and ‘university community’ to explain part of the context of social participation of international students. Community in this study has a fairly broad definition and refers to “the people who live in a particular place or region and usually are linked by some common interests” (Merriam-Webster's Dictionary of Law, 1996). The “common interests” can be in terms of culture, ethnicity, and/or value.

Lee et al. (1981) describe basic human needs based on Abraham Maslow’s (1954) theory on basic psychological needs and apply the concept in reclassifying international students’ needs. Maslow (1954) classifies basic human needs as: (in order of their significance) ‘physiological

needs' (needs basic to the maintenance of the body processes, e.g. hunger, thirst); 'safety needs' (e.g. avoid dangers); 'belongingness and love needs' (e.g. affection, nurturance); 'esteem needs' (e.g. to be valued, accepted, appreciated and to achieve and success); and need for 'self-actualization' (i.e. the desire for self-fulfillment) (Lindgren 1973, p.103). Using these concepts, Lee et al. (1981) distinguish social-psychological needs from their physiological needs. The Social-psychological needs are the needs to relate to others in a social environment and therefore reflect their experience in social learning (Lindgren, 1973). Physiological needs are basic needs and, for international students, those are relative to their academic success and daily living such as language improvement, grade, housing, food, safety, and health.

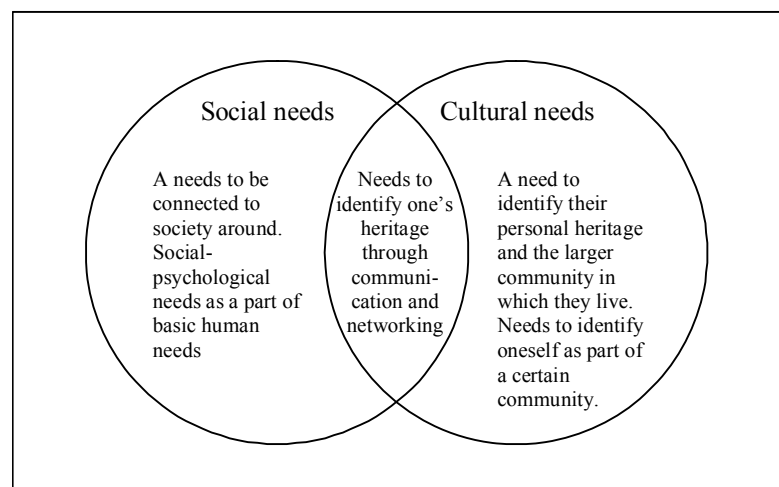
More specifically, Lee et al. (1981) categorize the needs for international students as 1) "academic needs, 2) linguistic needs, 3) other culture-related needs, 4) interpersonal needs, 5) daily-living materialistic needs, and 6) post-return needs" (p.23). Considering the previously mentioned concept of social-psychological needs, this study will focus on the manifestation of culture-related needs and interpersonal needs. Social-psychological needs are influenced by one's cultural background which help individuals in their orientation to daily life and social system in which they function as members (Parsons et al., 1965). International students have diverse social-psychological needs depending on their culture, ethnicity, family, and education, and these factors influence their orientation to personal and social life.

Cultural needs are closely related to social needs as the definition and related explanations often involves socializing and sharing. Ping (1999) explains cultural needs of international students as something that fulfill their interests of sharing their cultures, languages, and national concerns with domestic students. Walker (2002) explains the meaning of cultural participation as something that helps people identify with their personal heritage and the larger

community in which they live, thus encouraging attitudes, values, and social ties that underpin a well-functioning society (p.9).

In addition, cultural needs can be a need for being ‘cultural’ which can come from one’s desire to be a part of certain community. From the cultural capital perspective, Bourdieu (1983) explains that dominant elite society establishes a ‘high-culture’ and inherits it through educating children in the context. A study on cultural and arts participation shows that some people are motivated to participate in cultural and arts, especially in high-culture art such as classical concerts, because it makes them feel like part of elite society (Bourdieu, 1983). The idea of cultural capital will be further discussed later in section 1.3.4. The Chart below summarizes the differences and the relationship between social and cultural needs. In the chart, social and cultural needs are identified as two rings joined and the middle part shows the possible definition of social and cultural needs, i.e., a need to identify one’s heritage through communication and networking.

**Diagram 1.** Relationship between social and cultural needs





### **1.3.2 Benefit of social and cultural participation – Creation of social capital**

As described in 1.3.1, this study considers the social and cultural programs as significant as they provide a forum for creating social networks and communications from the perspective of meeting some of the individual needs. The social and cultural participations are valuable at the societal or collective level, especially from the perspective of civic engagement.

The concept of social capital explains the value of civic engagement and social network in individual and community levels (Putnam, 2000a). Social capital refers to ‘social networks and the norms of reciprocity and trustworthiness that arise from them.’ (Putnam, 2000b, p.19). Bourdieu (1983) puts it as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition -- or in other words, to membership in a group” (p.248). Social capital creates value for the people who are connected (Putnam, 2006, p.1) and it provides “a wide variety of quite specific benefits that flow from the trust, reciprocity, information, and cooperation associated with social networks” (p.1). Putnam (2000a) explains the wide range of practical values of social capital in the area of economy, psychology, politics, and society. In relation to its value in an academic setting, for example, social capital “makes individuals less prone to depression and more inclined to help others”; “increases student test scores and graduation rates”; and “makes navigating life a whole lot easier” (Putnam, 2000a, p.4). Social capital provides “positive externalities”, in economic terms, which means “networks of trust and reciprocity not only benefit those within them, but also those outside them” (p.4), hence the community as a whole benefits from it.

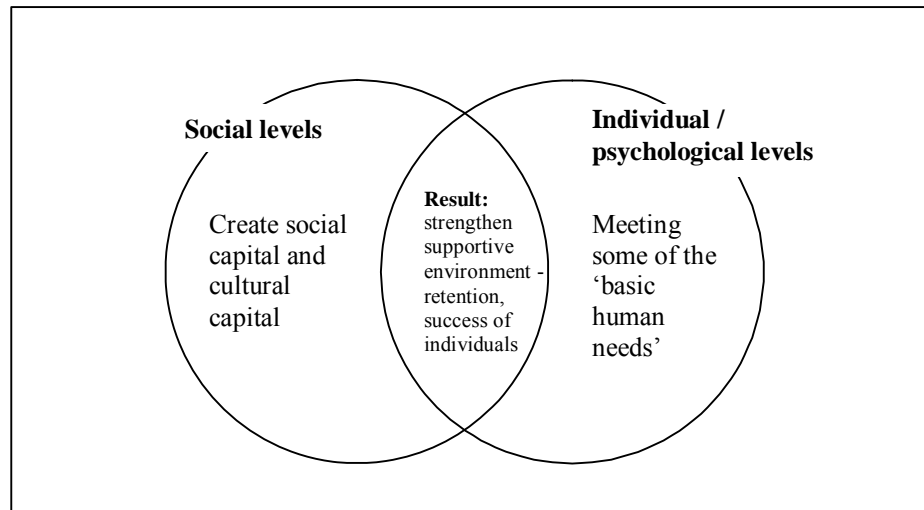
The value of cultural participation is also explained in the context of social capital. Artists and cultural organizations are explained to potentially “unite people in creative endeavors

that build and celebrate community” (Putnam, 2000a, p.4). The arts connect people to a ‘common humanity’ through creation and presentation which “often inspires a raft of civically valuable dispositions – trust, openness, honesty, cooperativeness, tolerance, and respect...from museums to open-air amphitheaters to dance studios, arts spaces are, at root, civic spaces” (Putnam, 2000a, p.29). Arts and culture provide people with shared experience and are often participatory in nature, hence they help connect people and build a community which allows people to “understand and celebrate their heritage, and providing a safe way to discuss and solve difficult social problems” (Putnam, 2000a, p.29).

In the literature on civic engagement and cultural participation, Walker (2002) articulates the positive correlations between social and cultural participation. He points out that the frequent participants in arts and culture have a tendency to actively engage in civic, political and religious activities, which is called “a model of civic voluntarism” (p.14). These civic-minded people participate in arts and cultural activities because they want to support the related community organizations and also want to learn high quality art. They can “represent a bridge between the world of arts and culture and community-building efforts, and they are a potential resource for community building” (Walker, 2002, p.26).

The diagram below maps the benefit of social and cultural participation in both social and individual levels as explained in this section. The diagram shows the two areas of benefit in social and psychological levels in two rings and shows how they positively influence students’ success in college setting.

**Diagram 2.** Social and Psychological benefit of social and cultural participation



The following section further discusses the positive relationship between civic voluntarism and academic success, which provides another theoretical component of this study.

### **1.3.3 Benefit of civic engagement**

Civic engagement is another important component within the vision of this study since it has been discussed as an element in college life that positively impact students' retention (Astin, 1984; Boyer & Sedlacek; 1988, Tinto, 1993, 1987). It is also closely connected to other theoretical views in this study: social and cultural capital; and culture and arts participation as discussed in the previous section. Astin (1984), in his theory of involvement, discuss the way students' involvement in community service increases their satisfaction in the academic work hence their overall experience at a higher education institution. Boyer and Sedlacek (1988) also identified community service as one of non-cognitive predictors that help international students to maintain grades and retention. The following items are identified as attributes relevant to qualities associated with civic engagement. These are drawn from what Aston (1993) lists as

items in his assessment of how faculty perceive their institution's emphasis on social activism and community orientation for students. The items include involvement relevant to: changing society; developing leadership; solving social and environmental problems; developing sense of community; understanding values of self; and community service (Aston, 1993, p.47).

According to Tinto (1987, 1993), student's early departure is distinguished between academic dismissal and voluntary withdrawal and there are various possible causes for both and they stem from experience before and after their entry into college. Voluntary departure is more as a result of what happens after enrollment. Theory on departure and one of the suggested causes is isolation from academic and social system within the institution. These theories focus mostly on undergraduate students and the way in which they are applied to international graduate students is in question because of their different interest and focus in academic life. The unique characteristics of international graduate students are therefore explored through applying various theoretical context in this study.

#### **1.3.4 Forms of social and cultural participation**

Social participation is considered as socializing activities or civic engagement such as work, involvement in political party, organizational activities, school and committee meetings of any kind, pure socializing get-togethers, and involvement in faith related institutions (Putnam, 2000a). Cultural participation, in its wide definition, is referred to:

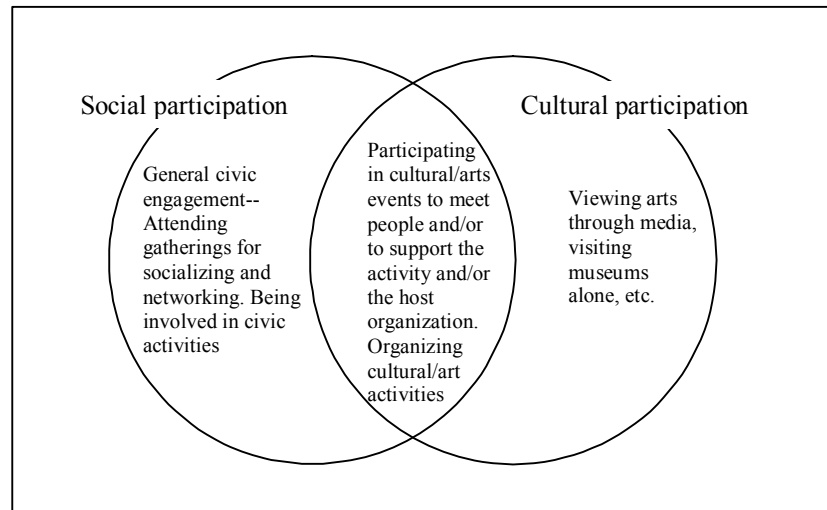
the activities of individuals and groups in their interaction(s) with cultural products and processes such as the reading of written texts, media offerings such as radio, television, the listening to music, the use of the world wide web, etc., that is, interaction in some way with the sources, processes, and results of culture (Totony de Zepetnek, 2004, p.1).

In this study, the cultural participation is used in the limited sense, which is in the context of some recognized needs of international students as introduced in Lee et al. (1981). For example, the kinds of cultural activities included in this study are: activities that reflect cultural needs of international students; some activities that were reflected in previous needs assessments on international students in U.S. colleges; and the list of activities examined in cultural and art participation studies. The cultural and arts participation studies referred in this study include the evaluation of Community Partnerships for Cultural Participation (CPCP), the Survey of Public Participation in the Arts (SPPA), and the General Social Survey (GSS) (Walker, 2002, p.22). For example, in the CPCP, Walker (2002) applied a broad definition of art and culture definition of arts and culture: ‘attendance at any live music, theater, or dance event, or seeing visual art either in a museum or gallery or in another place not necessarily devoted to presenting art’ (p.23). The CPCP, SPPA, and GSS are public surveys on individual arts and cultural participation that were conducted just once or multiple times since 1972 by various organizations. The purposes, approaches, and the use of these studies are further elaborated in the chapter on research methodology (3.0). The public arts and cultural participation studies are used in this study because there are no past studies with special focus on social and cultural needs and participation for international students that help construct an adequate theoretical background and list the variables for this study.

The diagram below shows the dynamics of the relationship between social and cultural participation from civic engagement view point. In the diagram, two rings show the some forms of social and cultural participation and the description in the overlapped area includes the forms of activities that can be considered both social and cultural participation. The description

includes Walker's (2002) articulation of civic-minded cultural participants, as presented in section 1.3.2.

**Diagram 3.** Forms of Social and Cultural Participation – Civic Engagement View Point



### **1.3.5 Interest for social and cultural participation – cultural capital point of view**

The amount of civic engagement and arts and cultural participation has declined over the years in the U.S. since 1980s (DiMaggio, 2004; Putnam, 2000; Walker, 2002) so as the social and cultural capital. Cultural capital, in this study, refers to the individuals or network of people who: appreciate high quality culture and ‘appropriate’ the cultural goods and services, in economic term; and may ‘reproduce’ their cultural competency through influencing others (Bourdieu, 1984; DiMaggio, 2004). To ‘appropriate’ cultural goods and services means to consume the cultural/art, objects or performance, by recognizing and maximizing its value, e.g., through possessing an art object or attending a concert. The cultural competency means one’s ability to appreciate some forms of culture, e.g., being able to read a literature and to understand

the value of high quality art. Cultural capital can be recognized through: participation to art, ‘art collections or great cultural foundations, or in social welfare, with the economy of generosity and the gift’ (Bourdieu, 1984, p.245). According to Bourdieu, ‘reproduction’ of cultural competency, as described in ‘cultural reproduction theory’ (De Graaf et al., 2000, p.92) was observed in the process of elite class reproduction. The parents in dominant elite class used to emphasize their children’s education into a cultural capital so that they would be considered as worthy of attention, acquire their prestige, hence they would succeed to inherit the parents’ elite status (DiMaggio, 2004). In modern society, Bourdieu argues that the formal education has taken place of ‘traditional mechanism of direct inheritance’ and reproduced elite cultural capital (Bourdieu, 1989; DiMaggio, 2004, p.170).

Bourdieu (1977) observes that the dominant elite in France has created a taste in high culture art as their cultural centrality and, in the in the modern world, people’s taste on high culture arts has been used in a research as an indicator of social capital. One’s familiarity in high culture art has been considered as the ‘best cultural predictor of school success’ (DiMaggio, 2004, p.171). However, examining the knowledge of high-culture art as an indicator of cultural capital has become questionable because the distinction between popular culture and high culture has become unclear. This is caused by the increasing emphasis on multiculturalism and rejection of cultural hierarchy and the spread of postmodern art which, effaced boundaries between “serious” and “popular” culture; and types of art once dismissed as merely commercial are now the subject of university courses and museum exhibitions’ (DiMaggio, 2004, p.171).

In the context of social and cultural programming on campus, those who have high interest in being involved in cultural programs are considered as potentially having a strong cultural capital. The relationship of one’s potential cultural capital and its cause, such as parents’

background, family culture, and education, will be examined through this research project. However, as in the argument above, use of high-culture art as a criteria of measuring one's cultural capital has to be reconsidered because, first, defining 'high-culture art' in Western context is a complex task especially when the study is conducted among international participants. Also, the knowledge or involvement in classic forms of art, as opposed to popular art, may not accurately inform the level of one's cultural capital.

### **1.3.6 Explain individual differences – from social and cultural capital views.**

The approach to individual differences of social and cultural needs and participation, in this study, will be viewed from the dynamics among social and cultural capital, social learning experience, and the environmental influences. Among the discussion relative to social and cultural capital as introduced in previous sections, some of the assumptions include: civic-minded people are often interested in learning high quality art, which can be perceived as the indication of cultural capital (De Graaf et al., 2000; DiMaggio, 2004; Walker, 2002). Frequent participants in arts and culture also tend to be very active in civic, religious, and political activities, and this is true at every income level (Walker, 2002, p.7). Highly educated people have more of a tendency to participate in arts (DiMaggio, 2004, p.169). Also, because there is the culture that dominant elite appreciate high-quality art, people who desires to be a part of elite group may be enticed to learn to appreciate high-art.

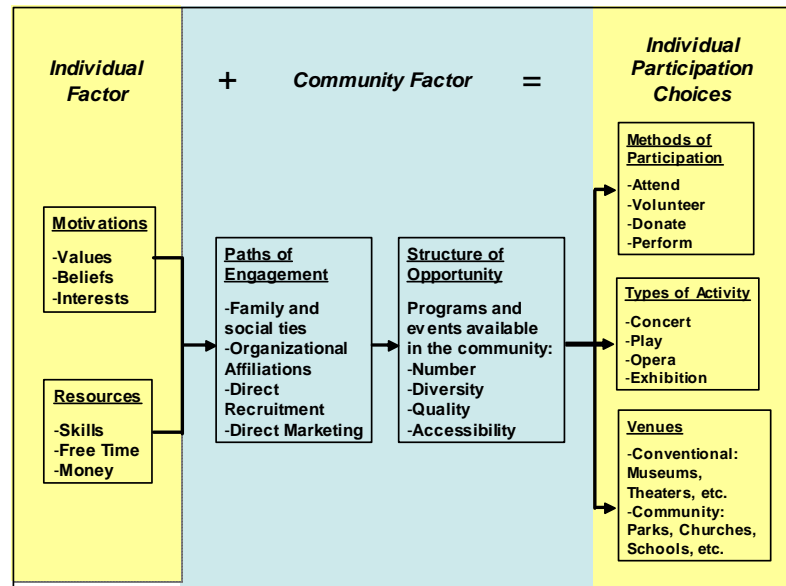


### **1.3.7 Explain individual differences – Conceptual model of arts participation**

In explaining and understanding the cause of diverse social and cultural needs and participation, it is useful to observe various areas of individual backgrounds. In this study, I observe the subject population, international students, as social beings and observe how their cultural, ethnic, educational, family and other background influence their needs and choices. This ‘social learning experience influences one’s social-psychological needs in the intensity’ (Lee et al., 1981, p21) because the individuals’ cultural background and the social system they function as members influence their orientation in daily life (Parsons, 1962).

According to past case studies, numerous criteria of individual background influence one’s choice of social and cultural participation. A part of this dynamics is explained using Walker’s (2002) conceptual model of arts participation. The diagram below shows how individual and community factors can influence one’s choice of arts participation. The individual factors include motivation and resources; the community factors include environment and opportunity, and the final choices result in different methods of participation in the arts.

**Diagram 4.** Conceptual Model of Arts Participation



Source: Walker (2002) p.15

Here are some examples of how a finding can be explained in this model. International students in general have fewer needs for social activities with U.S. nationals than their needs for a good relationship with their academic advisor (Lee et al., 1981) because it is not their focus of staying in the U.S. This statement explains ‘Motivation’ under ‘Individual Factors’. Asian students in the U.S. tend to engage in leisure activity less than Westerners because the people in Asian society put a negative attitude toward personal leisure activity, but emphasize hard work (Li and Stodolska, 2006). This behavior also falls into the category of ‘motivation’. Single, divorced, and separated people are more favorable towards arts possibly because they have more leisure and discretionary income to consume on arts (Pettit & DiMaggio, 1997), which falls under ‘resources’ category. The same assumption can be made about time availability of single people as a part of ‘resources’ category under ‘individual factor’. It can also be considered to be under ‘path of engagement’ under ‘community factors’ because they may be less constrained by family affairs and priorities set forth by having a family and children. Early socialization

experiences make a difference in the cultural participation patterns of adults, regardless of income and education (Upright, 2004; Walker, 2002), which fall into ‘Individual Factors’ as it may have an association with ‘interest’ or ‘values’. Higher educational attainment positively influences one’s arts participation (Pettit & DiMaggio, 1997; Upright, 2004), which may fall into both individual and community factors because the educational experience can influence both personal values and people they are associated or surrounded with. Having a spouse who participate in cultural activities and having a strong tie with the spouse increase the individual’s cultural participation (Upright, 2004), which can be explained as having a ‘family and social ties’ under ‘Paths of Engagement’ in ‘Community Factors’ in the diagram.

There are some exceptions that may not be entirely explained in this conceptual model such as gender and age. They are clearly ‘Individual Factors’ but whether or not the reason can be explained under ‘motivations’ or ‘resources’ is unclear. For example, women are often found to participate in arts more than men and young people are more favorable in public financial support in the arts than older people (Pettit & DiMaggio, 1997). A set of hypotheses will be made at the section (3.0) based on this conceptual model and will be tested in this research.

#### **1.4 SIGNIFICANCE OF THIS STUDY**

First, this study observes the needs of specific group, international graduate students, which has not been given a close attention in the past studies in the student affairs literature. There have been studies with the perspective of knowing the needs of and improving the services for international undergraduate students during the last few decades. However, the number of international graduate students has been on the increase whereas the number of undergraduate

has decreased (IIE, 2004) and there is the need for further studies that reflect current issues. The studies focused on graduate level students are scarce even for the domestic population. Taub and Komives (1998) say:

Student affairs professionals have become experts on the socialization process of new students to the college environment. Sadly, however, this knowledge, so readily applied to undergraduates, is rarely applied to the graduate student experience. Indeed, the graduate student experience has been called ‘the great unaddressed academic issue in higher education.’ (p.394)

Second, even among the studies of international graduate students, there has never been a comparative study focusing on social and cultural participation, which is the area that many international offices at U.S. universities have been trying to develop. Although program development for cross-cultural understanding have been emphasized as an important element of international education especially after the terrorist attack in 2001, there are scarce studies concerned with international students’ participation to social and cultural programs on campus. This study is expected to provide insights in developing quality social and cultural programs with their increased participation and strengthen cross-cultural communication and understanding among students at U.S. university campuses.

Third, it contributes to the field of social and comparative studies in education by increasing our understanding about how individual’s backgrounds affect their social and cultural needs and participation. This study would potentially enrich the field of study through involving a set of subject with diverse background in terms of ethnicity, countries, regions, and experiences. Application of social and cultural capital in the discussion of social and cultural

participation brings in multi-disciplinary approach in the discussion of how individual uniqueness, as social being, is manifested in their choice and orientation of everyday life.

With the above views in mind, this study attempts to make a linkage between the student affairs study, exploring the needs of international students, and social and cultural participation study. This will help further develop the research in this area with more understanding about how various related institutions and organizations can reach out diverse population to increase culture and arts participation and civic engagement.

## **1.5 RESEARCH PURPOSE AND QUESTIONS**

The purpose of this research is to find out the types and methods of social and cultural programming that University of Pittsburgh's international students need. To understand this diverse population, this research explores the possible influencing factors of individual social and cultural participation especially demographical and social factors. It also observes how social and cultural participation may correlate with social and cultural adjustment and academic success.

The findings will provide useful information for offices such as OIS and CCLD at University of Pittsburgh to improve the effectiveness of programming efforts to support and enrich the academic and social life of international students. Increasing the effectiveness of the programs will also increase their civic engagement in general which increase cross-cultural understanding and international education in the University. To this end, the study will be designed to inform the preferred content of the program, effective target groups among international population, methods and format of the program, ways of advertising, and the

effective ways of working with international student groups. The finding will also be useful for other universities with the similar international population.

With the above purpose in mind, the guiding research questions ask: 1) what are current social and cultural participation patterns in and outside the University of Pittsburgh?; 2) How does individual demographical background relate to their social and cultural needs and participation?; 3) How do the family, community and institution relate to the social and cultural needs and participation of international graduate students?; and 4) What are their perceptions of institutional responses to their social and cultural needs? The reason for finding out current participation is to find out how much of their expressed needs are met by existing programs and to observe potential differences between the needs and the actual participation and their reasons. Demographic and other background information will include countries of origin, gender, age, academic field and programs, family, and past social and cultural experiences that would help decide program contents and target audiences.

## **1.6 LIMITATION OF THIS STUDY**

This study attempts to observe some elements of social and cultural capital in individual background to potentially find a relation to their present social and cultural participation and their academic achievement. However, developing an inventory to measure social and cultural capital among international students requires further research with regard to how to set a standard of measurement. For example, it will be difficult to come up with questions which effectively measure one's cultural capital. One can refer to the study (DiMaggio, 1982) in which the author developed an inventory to measure individual cultural capital among high school

students through questions on attitude, activities, and information on high culture. The ‘attitude’ questions included one’s interest in specific artistic activities and occupations. The ‘information’ questions include one’s “familiarity, appreciation, and historical knowledge” of some of the high culture arts such as “famous composers” (p.191). The questions of these three measures are based on “common cultural currency among American elite...[which] involves at least a modest familiarity with the arts and literature” and “familiarity with...those subjects that schools do not teach but that elites value” (p.191). However, identifying shared cultural knowledge is not a simple task when studying an international population with a diverse background. For example, if the study asks the participants’ interest in self-perceived high culture arts, the data may not draw an accurate picture: respondents with different background might have a different interpretation of what high culture arts are. Since cultural capital formation has strong relation to the family status, culture, and emphasis on education, this study nevertheless attempts to measure one’s level of cultural capital based on individual backgrounds of these areas. The methods that this study applied to measure the related factors are presented in the methodology section (3.3.1).

Besides the issue of setting standards of measurement, this study has limited capacity in the range of population to be observed in terms of social and cultural capital. It is because the samples in this study are international graduate students whose social status and/or aspiration for success can be considered above average compare to general population with more diverse ethnic backgrounds. It is because education and income factors, aside from gender factors, are ‘strong predictors of arts attendance’ (Tepper, 1998, p.6). This potentially prevents us from observing significant differences among samples in this study. In a study of sampling bias, Tepper (1998) found that two studies on arts participation yielded wide gap in their results because of question context, question wording and differences in the sampled population.

Therefore, we need to be cautious about drawing conclusion on how individual diverse background may or may not be reflected in individual social and cultural needs and participation.

Due to above reasons, though there will be some attempt through questions on individual background on social status and parental cultural involvement, this study is expected to find out limited information on individual status culture hence cultural capital. This study on diverse population is still expected to yield some meaningful data with regard to the relationship between their social learning background and their social and cultural needs and participation.



## **2.0 LITERATURE REVIEW**

### **2.1 PURPOSE OF LITERATURE REVIEW**

The purpose of this section is to review a set of literature that will lay a foundation of this dissertation research. The goals of the literature review are: to capture the overview on the general needs of international students with diverse backgrounds; to find out the position of social and cultural needs among other needs; the existing initiatives of programming in the area and the response of international students; and possible research methodology to be used in the study. For these purposes, the literature is reviewed guided by the following three questions.

### **2.2 GUIDING QUESTIONS**

The guiding questions below are developed to meet the above purpose (2.1) of this literature review:

- 1<sup>st</sup> question: *What kinds of literature are available on the needs of internationals in U.S. higher education and what are the identified needs?*
- 2<sup>nd</sup> question: *What does the existing literature tell us about existing programming efforts for international students?*

3<sup>rd</sup> question: *What are the research methods used to find out the perceptions and needs of international students?*

1<sup>st</sup> question: *What kinds of literature are available on the needs of internationals in U.S. higher education and what are the identified needs?*

Through this guiding question, the author will: identify the kinds/types/focuses of available literature that discuss the needs of international students; and find out the general needs and concerns of the international graduate students which correspond to the constituent of Pitt internationals.

The focus of the reviewed literature includes international students in general consisting of undergraduate, English as a Second Language (ESL) students, and graduate students including domestic students, along with some non-traditional students (adult student) information. These groups reflect on Pitt international population and available literature. There was no sufficient literature on international graduate students studying in U.S. colleges and universities. Hence the above information will be combined and used as a foundation of the study on the Pitt international population. This categorization is further explained in the second chapter.

2<sup>nd</sup> question: *What does the existing literature tell us about existing programming efforts for international students?*

The purpose of posing this question as a part of the literature review is to find out which areas of social and cultural needs are identified and reflected in the programs in U.S. universities. Also, it seeks any needs assessment or program evaluation that supports specific needs and the effectiveness of the program.

In reality, however, assessment is not commonly practiced as a part of program planning in U.S. higher education (Cooper & Saunders, 2000) and it is a difficult task to find literature that show how specific needs are identified, reflected, and met through programs. There is not enough literature on social and cultural programs for internationals either. Hence the Internet resource is used to collect information on programming efforts for international students.

The description in this section includes general reflection of the literature research of this topic and the summary in which the contents are subdivided into: the purpose and focused needs of the program, description/methods, and effectiveness of the program. It also reviews programming suggestions found in some literature on international or graduate students' needs.

3<sup>rd</sup> question: *What are the research methods used to find out the perceptions and needs of international students?*

The purpose of this guiding question is to review the research methods used in studies whose focuses are similar to the dissertation research so that research methods, data collection and data analysis, will be built upon these ideas. The main focus of the dissertation, which is titled *Effective Programming for International Students Based on Their Perceived Social and Cultural Needs*, is to find out students' perceptions. Therefore, the selected literatures are on empirical studies concerning students' perceptions, concerns and needs of academic, social and cultural life. The collected information was summarized according to several aspects of data collection and data analysis processes including choice of data sources, instrument, and methods.

## **2.3 QUESTION 1: *WHAT KINDS OF LITERATURE ARE AVAILABLE ON THE KEY TRENDS AND NEEDS OF INTERNATIONALS IN U.S. HIGHER EDUCATION?***

To report the outcome of literature review under this guiding question, this chapter consists of the following subsections: kinds of reviewed literature (2.3.1); summary of identified needs (2.3.2); additional consideration – adult students (2.3.3); and further analysis of the needs (2.3.4). The set of literature used to answer this guiding question consists of mostly empirical studies conducted in the U.S. or Canada, with the exception of one conducted in the UK, between 1980 and 2005. The selected literature fall in one or more of the following categories: studies on international students, American students in colleges/universities, and program evaluation.

After collecting a set of related literature, the information are observed in chronological order, according to the years that were reported, to identify the needs or concerns potentially influenced by time and historical events. The information from each literature was organized by the study purpose, focused group, and the outcome that describe the needs and concerns of the samples. Among the focused group, the age groups and levels of academic program, i.e., undergraduate or graduate, were highlighted. The set of literature included studies on the correlations of cultural/academic adjustment and some variables such as gender, ethnicity, countries of origin, family background, social relationships, etc. The correlation of studied variables showed some theoretical basis of personal, social, cultural and academic adjustment issues.

The views and details acquired from the review are elaborated in the following subsections.

### 2.3.1 Kinds of reviewed literature

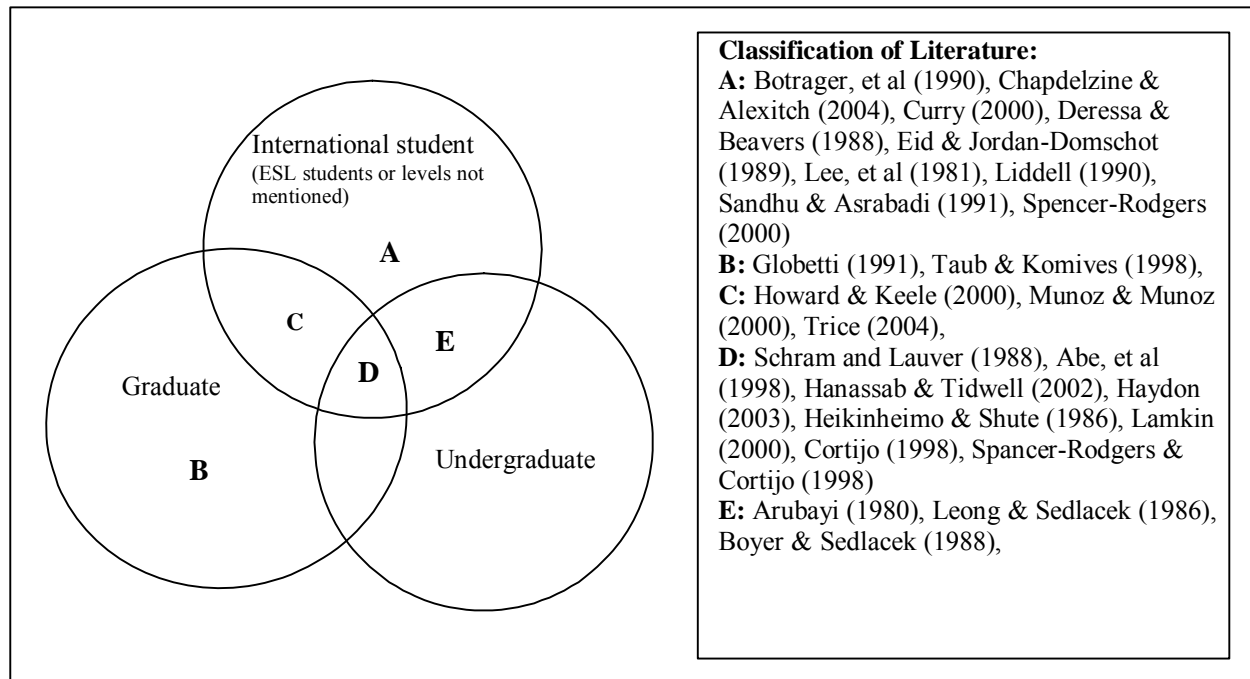
The kinds of literature reporting the needs of internationals can be categorized depending on the purposes of the research and populations of needs that are observed. The purposes found among the literature include improving student services through investigating psychological problems, causes of retention rate, career concerns, usage and the accessibility to some university services, and the program effectiveness. There are also literatures which portray the correlation of some variables related to students' adjustment in U.S. higher education environment. The populations of which the needs are observed are: international students in general (mostly undergraduate), graduate students, and non-traditional/adult students. The selected studies on graduate and non-traditional students do not specifically focus on internationals but they are included because the studies on the needs of the international graduate or international adult population are scarce.

The following diagram shows the focuses of literature found. The alphabets in the diagram show the groups of literature that include the characteristics of their samples. For example, literature in the *A* group mentions its samples are “international students” but no further specification is mentioned. The *D* group includes literature whose focus is international undergraduate and graduate students. The *B* group is only focused on the domestic graduate students.

More specifically, Botrager, et al. (1990) studies if newly arrived international students have concerns that are different from those of continuing international students, but there is no description about the samples' programs of study. Therefore, the literature is categorized as *A* which does not specify further backgrounds of international students studied in the literature. Schram and Lauver (1988) studied the predictors of alienation of international students and their

samples included undergraduate, graduate and ESL students. Therefore the literature is categorized in D.

**Diagram 5.** Classification of study focuses among reviewed literature



This diagram helps identify the group of studies to find needs/concerns of a specific population. To identify the needs of the international population in the large-scale research institution whose population is mostly at a graduate level, such as the University of Pittsburgh, one needs to refer to the study result of the groups in C. But the diagram and number of literature listed show that many studies on international students fall in groups A, D, and E.

### 2.3.2 Summary of identified needs

This section describes the characteristics of concerns and needs of international students in U.S. colleges and universities according to age groups and levels of academic programs. The

amount of literature on graduate international students is scarce; hence, the literature on international students in general, international undergraduate, international graduate and domestic graduate students are reviewed to collect information on the second guiding question.

### **2.3.2.1 International students in general (mostly undergraduate level)**

This section describes some key characteristics of the needs of internationals portrayed in the literature groups *A* and *E* in the Diagram 5.

Some of the needs or issues that international undergraduate students frequently reported in the reviewed literature are: financial support for study and health care (Arubayi, 1980; Lee, et al., 1981), academic difficulties (Arubayi, 1980; Heikinheimo & Shute, 1986; Lee, et al., 1981), gaining a practical experiences in one's field (Lee, et al., 1981), social interaction with domestic students (Eid & Jordan-Domschot, 1989; Heikinheimo & Shute, 1986; Lamkin, 2000; Liddell, 1990; Schram & Lauver, 1988), improving English communication skills (Abe, Talbot, & Geelhoed, 1998; Deressa & Beavers, 1988; Eid & Jordan-Domschot, 1989; Lamkin, 2000), problem with racial discrimination (Heikinheimo & Shute, 1986), on-campus work opportunities (Bontrager, et al., 1990), and time for social life (Bontrager, et al., 1990). Other mentioned difficulties include dealing with American bureaucracy in immigration matters and housing matters (Lamkin, 2000). The career related needs include: learning about immigration rules and employment; resume writing; and gaining a practical training (Spencer-Rogers, 2000).

The needs for improving English language skills depend on the study samples. For example, the study which sampled Nigerian students (Arubayi, 1980) reported English language is classified as the one that students needs the least help with. On the other hand, studies whose samples include many Asian students (Abe, Talbot, & Geelhoed, 1998) reported high level need in the field.

Some of the low-needs/satisfied factors are: admission and selection process, health services, or religious services (Arubayi, 1980) recreational activities available off campus, sharing housing with US nationals (Lee, et al., 1981), long-term employment, and learning job-hunting techniques in their countries of origin (Spencer-Rogers, 2000).

### **2.3.2.2 Graduate students (Including domestic students)**

This section describes some key characteristics of the needs of internationals portrayed in the literature groups *C* and *D* in Diagram 5.

Many needs and problems graduate international students encounter are similar to that of undergraduates such as social interaction (Schram & Lauver, 1998; Trice, 2004), financial needs (Howard & Keele, 2000; Munoz & Munoz, 2000; Taub & Komives, 1998), improving English language skills (Abe, Talbot, & Geelhoed, 1998; Howard & Keele, 2000). Some needs expressed by graduate students are more specific to the graduate study environment and career concerns such as: participating in a class discussion (Haydon, 2003), academic advising (Munoz & Munoz, 2000), meeting faculty members and advisors during the orientation (Taub & Komives, 1998), finding job opportunities in one's area of interest and career planning assistance (Globetti, 1991).

One significant element that differs from the needs/problems of the undergraduate population is that newly matriculating graduate students sometimes have unrealistic high expectation from their academic program or institution (Taub and Komives, 1998) and there is a need for “anticipatory socialization” (p.394) before their enrollment which helps them to have more realistic anticipation about their academic programs. This high expectation is caused by hope and the pressure for success from their families and work places in the advanced study programs.



Some elements that expressed as least-needed by graduate students are: handicapped services, child care, transportation, help with their personal development or social skills (Globetti, 1991), personal counseling, international students association, cultural adaptation, housing assistance, and campus information (Munoz & Munoz, 2000).

### **2.3.3 Additional consideration – Adult students**

This section describes some key characteristics of the needs of domestic adult students in general. The reason why the adult students' needs are included in examining the needs of international graduate students is that, in the University of Pittsburgh, there are many international graduate students who are much older than traditional graduate level students that are studied among reviewed literature. Therefore, reviewing some characteristics of the needs of 'adult' students may contribute to further understand the needs and characteristics of the entire international graduate student population at University of Pittsburgh.

#### **2.3.3.1 Concept of adult student**

The *adult students*, or sometime called *non-traditional students*, are often referred to as 'people aged twenty-six or over...pursuing undergraduate education' (Schlossberg, et al., 1989, p.xi). Bean and Metzner (1985) define *non-traditional students* as being: "over 25 years old, part-time, commuter, ethnic minority, and whose primary concern is academic benefit" (courses on certification, degrees and other utilitarian experiences) (p.488-489). Spanard (1990) adds the criteria: "working part-time or more, and generally having some responsibility for contributing to family finances" (p.317).

Many studies on adult students focus on middle-age or older students who intend to shift their career or enrich their lifelong learning experiences through post-secondary education. Similarly, in the UK, *non-traditional students* are viewed as “under-represented” (Laing & Robinson, 2003, p176) in terms of their social class or ethnicity and their family members have little experience in higher education (Laing & Robinson, 2003).

However, the form and purposes of non-traditional education changed overtime with social, economic, and cultural condition; hence the characteristics of adult learners or non-traditional students cannot be defined simply based on age, experience, purposes, etc (Bean & Metzner, 1985). One of the challenges for universities is that adult students’ needs are more heterogeneous than traditional students due to their ‘age, role, and learning capacity’ (Schlossberg, et al., p.2). The diversity may be more apparent especially when we study international students who represent diverse cultures and ethnicities.

The majority of adult international graduate students in a large university and research institution such as the University of Pittsburgh come to the U.S. with specific professional development purposes. Their spouses, which constitute about one-third of the international population at the University, often take advantage of the environment, i.e., geographical location, having the time to study, visa status that allow them to study, etc. The spouses often take some courses at the University such as English language classes and become part of the ‘returning students’ or ‘life-long education’ students.

### **2.3.3.2 Needs of adult student**

Schlossberg et al. (1989) describe “Adults want to feel central, not marginal; competent, not childish; independent, not dependent” (p.8) and these needs are hard to be met by U.S. colleges because “colleges and universities rely on rigid rules, regulations, and policies. As a

consequence, adults and educational institutions are out of sync” (p.8). They also describe that a adult prefer that the institution follows rigid rules, regulations, and policies unlike traditional college students in general. Also, in order to decrease some transitional difficulties, instructions to have realistic expectations and learning environment are identified as important (Laing, et al., 2005). Other reported needs include flexibility of the time and location of the courses, courses on skills development or for career advancement (Bean & Metzner, 1985), childcare facilities, meeting places for adult learners and financial aid (Schlossberg et al., 1989, p89).

Scholossberg et al. (1989) conceptualized the issues of adults and their capability in coping with returning education. They explain that “4 S’s” serve as potential resources or deficits that explain the consequences. The “4 S’s” are: “situation, self, supports, and strategies” (p.103). ‘Situation’ includes any life circumstances that may change and influence one’s capability to continue the academic program such as money and family matters. ‘Self’ refers to the “learner’s strengths for coping” (p.104) including skills for dealing with unexpected struggles or pressures. They include dealing with higher education bureaucracy (p.51), shifting of life cycles, age stereotypes by others (p.93-94), etc. ‘Support’ is emphasized as “critical to adult learners” (p.104) and it includes the support and understanding of their family members, advisors, and peers. Finally, ‘strategies’ which are often challenging to adult learners as they have many responsibilities and involvement and good strategies among various life priorities and elements affects one’s ‘support’ and ‘situation’ as well. Since many adult students are commuters and do not spend much time with peers on campus, adults need to find their own psychological and emotional support (Spanard, 1990). Sandler (2000) suggests that adult financial security, academic achievement, and career decision-making and planning as some criteria that help adult students’ retention.

Some of the low-level needs of adult students identified in the literature are social integration, i.e., socialization on-campus (Bean & Metzner, 1985; Spanard, 1990). They are less concerned about external expectations than traditional students (Spanard, 1990). Adult prefers flexibility of (academic) program focus rather than having rigid programs because they tend to think through their interest before matriculation. In reality, these needs are difficult to be met in many institutions since the institution will need to put the student first and adjust the curriculum and rules rather than traditional rigid institution-centered system. On the other hand, in the class format, adults may prefer some level of structure rather than complete independent study since the students may not be used to that type of learning method in higher education (Spanard, 1990).

#### **2.3.4 Further analysis of Some Factors for Internationals' Adjustment**

There are several characteristics of international individuals that affect one's needs and adjustment level in U.S. higher education. These characteristics include: one's country/regional origins, gender, levels of awareness of racial discrimination, communication with host country peers, and English communication skills. The following will provide further explanation of causes of adjustment difficulties presented by literature and describe the correlation among the identified factors.

##### **2.3.4.1 Identified factors for International's Adjustment**

Identified variables, in all program/age levels, that decrease the chance of one's personal, social, and academic adjustment include: high expectation from the school (Schram & Lauver, 1988), being a non-European (Heikinheimo & Shute, 1986; Schram & Lauver, 1988), low social

contact (especially with hosts) (Eid & Jordan-Domschot, 1989; Heikinheimo & Shute, 1986; Lamkin, 2000; Liddell, 1990; Schram & Lauver, 1988), language problems (Abe, Talbot, & Geelhoed, 1998; Eid & Jordan-Domschot, 1989; Deressa & Beavers, 1988; Lamkin, 2000), lack of understanding in racism (Boyer and Sedlacek, 1988; Eid & Jordan-Domschot, 1989; Heikinheimo & Shute, 1986; Schram & Lauver, 1988), not having a spouse support, and non-graduate status (Hanassab & Tidwell, 2002; Heikinheimo & Shute, 1986; Schram & Lauver, 1988). In summary, Schram & Lauver (1988) characterize the student most vulnerable to adjustment in U.S. higher education as: “Non-European undergraduates who spend little time with others and who have high expectation from the university” (p.149). Hanassab & Tidwell (2002) report that female internationals tends to have more needs for on-campus services than their male counterparts, and students with science major and low grade point average have more support needs.

Boyer and Sedlacek (1988) identify some non-cognitive predictors that help internationals to maintain grades and retention. The non-cognitive variables that “positively predict” grades are “self-confidence” and availability of “strong support person” (p.219). The main predictive for persistence are “community service and understanding racism” (p.220). In other words, according to Boyer and Sedlacek (1988), those who are involved in community service and those who have the knowledge about how people in the host country may perceive of them based on their racial and ethnic background have the higher retention level. Butcher (2002) also discusses the importance of social networking and supporting environment to help in one’s cultural adjustment process.

As mentioned above, many studies mentioned the interaction with host country students helps one’s adjustment in a new environment but it is often difficult since many internationals

tend to approach co-nationals on adjustment problems, and American students are often not interested in interacting with internationals (Sandhu & Asrabadi, 1991). Having poor English communication skills also contributes to internationals' less socialization with hosts (Eid & Jordan-Domschot, 1989, p.11).

#### **2.3.4.2 Correlations among the identified factors**

There are studies that especially observe the correlation of some variables. As mentioned above, Schram and Lauver (1988) identify that social contact, graduate status and European origin are the negatively correlated factors for alienation. Also, they list the countries of origin in order of positive correlation: Asia > Africa > Middle East / Near East / Latin America > Europe. In other words, Asian origin implies more possibility for alienation and European origin implies the least possible social alienation of an international student.

There are some studies that explore the way students from particular countries or regions encounter cultural adjustment or readjustment including East Asian/Asian/South Asian (Butcher 2000; Samuel, 2004; Thorstensson, 2001), Korean (Seo & Koro-Ljungberg, 2005), Turkish (Tartar, 2005). Butcher (2002) studied 50 East Asian university graduates to find out the difficulty they face in readjusting to their own culture after studying in New Zealand and how some of the challenges could be alleviated. She explains that the difficulty occurs in the process of “renegotiating relationships with family and friends to consolidating a changed worldview and challenging expectations” (p.354). In her discussion, she highlights some factors that contribute to the difficulty one faces such as differences in world view of people in their home country, life styles, the view of people toward different values and behaviors that some returnees have, and the expectation of family members for the returnee's success. Seo and Koro-Ljunbgerg (2005) point out that “considerable differences between the Eastern world and the Western

world...and...the fundamentally different cultural values (Dignity vs. pragmatism)” (p.165) contribute to the struggle of adjustment faced by Asian students. Thorstensson (2001) discusses “culture shock, language barriers, and educational shock” (intensity and expectation in U.S. graduate studies) (p.317) as main causes of adjustment difficulty of Asian students. Tartar (2005) explains the students come from “teacher-centered educational cultures” (p.338) encounter greater challenges in adjustment in the U.S. academic environment than European and Canadian students. He claims that studies show the correlation between social and academic culture (p.339) which explains why the students with non-Western cultures encounter greater adjustment difficulty in both social and academic life in the U.S.

The other example is the survey (Chapdelaine & Alexitch, 2004) that aims to test their hypotheses of some variables of culture shock among international students (mostly undergraduate level). The table below summarizes the six hypotheses that they have tested and the variables of each hypothesis and whether or not the hypothesis was validated through the survey. For example, the first hypothesis says that one’s culture shock is less if one interacts with peers in the host country, and the research result verified this hypothesis. The fourth hypothesis says that one interact with hosts more if his co-national group is small, and vice versa. The fifth hypothesis says that when the international is accompanied by their family members, his level of interaction with host country peers is lower than ones without company. Finally, the sixth hypothesis says one experiences less culture shock if he has previous cross-cultural experience.

**Table 1. Hypothesis and Research result on culture shock**

<i>Propositions of the hypothesis</i>	<i>Elements and Levels</i>						<b>Research Result</b> (validated or not validated)
	<i>Social Interaction with hosts</i>	<i>Cross-cultural Differences</i>	<i>Size of co-national group</i>	<i>Family Status**</i>	<i>Previous Culture Experience</i>	<i>Culture Shock</i>	
1	↑					↓	
2		↑				↑	Not validated
3	↓	↑					
4*	↑ / ↓		↓ / ↑				
5*	↑ / ↓			↑ / ↓			
6					↑	↑	Not validated

NOTE: \*Negatively correlated

\*\* Family status means whether or not one is accompanied by one's family members.

Source: Table developed based on Chapdelaine & Alexitch (2004)

## **2.4 QUESTION 2: WHAT DOES THE EXISTING LITERATURE TELL US ABOUT EXISTING PROGRAMMING EFFORTS FOR INTERNATIONAL STUDENTS?**

The set of literature that has specific focus on the social and cultural needs of international students is scarce. There is a set of literature on general campus programming for international understanding but the majority focuses on international education for domestic students. Therefore, the information collected in this section is from both scholarly literature and Internet research on existing programs in U.S. universities.

The focuses of reviewed scholarly literature reports on programs designed to assist social adjustment or to promote social networking and cultural exposure for adult, graduate, and international students. The website research is conducted among the international student offices



of U.S. universities where the characteristics of the international population are similar to that of the University of Pittsburgh. The characteristics including: large size university with more than 30,000 students population, awarding graduate degrees, strong research institutions, having more than 2,000 internationals including students and scholars, and putting efforts on social and cultural programming services for international populations. The following is the list of criteria on programs that are included in program review.

- a. Programs organized by universities whose characteristics are similar to the University of Pittsburgh in terms of their size, degrees, and international population.
- b. Programs whose focuses are only English language training are not included since they are not considered social and cultural programs.
- c. International orientation programs are not included because it is often mandatory and their major purpose is often delivering immigration and life information for the initial adjustment and they are not solely for social and cultural needs.
- d. Websites observed are international offices of universities since they are the main service bodies for overall services for international students. Even if there are programs offered by other university offices, the information is assumed to be mentioned on their website as well.

#### **2.4.1 Key findings**

In the process of literature review for the second guiding question, the information was observed according to: programming efforts in scholarly literature; and programs for international students in some U.S. universities from the Internet source and the details of these programs.

Among the scholarly literature, the author examined some program purposes or focused needs of international students, organizer and program description, and program effectiveness. Among the websites on social and cultural programs in U.S. universities, the author examined their program focuses including cultural exposure, socializing and/or networking, language and other skills learning, and community services. Below are the reflections on the characteristics and available information in the review:

- a. There is few profound research or evaluation on social and cultural programs for international graduate students.
- b. The literature on social and cultural programs for internationals found in academic journals/books focus on introducing existing programs and but not to critically examine the outcomes of the programs through program evaluation.
- c. Among existing websites of U.S. university international offices, there is no information available on social and cultural programs that are based on needs assessment studies of international students.
- d. There is no information found on the program evaluation outcomes (including satisfaction and degree of participation) on both academic resources and university websites.

#### **2.4.2 Summary**

The summary of the findings is organized based on the purpose/focused needs, description, and effectiveness of the programs found among the scholarly literature and the websites of international student offices in U.S. universities. Focus of the program is the summary of which area of needs the program is designed to respond. Description and method of

the program includes design and content of programs. The effectiveness section summarizes any program evaluation result or the organizer's observation mentioned in the literature or websites.

#### **2.4.2.1 Purpose of the Program / Focused Needs of the International Students**

Among reviewed literature, one of the most popular focuses of programs is social interaction between international and domestic students. Specific needs are not particularly mentioned in most programs since identifying the needs are not part of the description of the literature found and the programs on the websites. Here is the list of purposes found in the sources:

- a. Increased interaction with domestic students (Indiana Univ., 2006; Liddell, 1990; Univ. of Texas, 2006; Univ. of Wisconsin, 2006a; Univ. of Wisconsin, 2006b)
- b. General socializing and networking (Univ. of Texas, 2006; Univ. of Wisconsin, 2006a; Univ. of Wisconsin, 2006b)
- c. Assist in cultural adjustment (Abe, Talbot, & Geelhoed, 1998; Pritchard & Skinner, 2002; Univ. of North Carolina, 2006; Univ. of Wisconsin, 2006a)
- d. Language improvement (Univ. of Texas, 2006)
- e. Expressing and learning cultures (Indiana Univ., 2006; Univ. of Wisconsin, 2006b; Univ. of Wisconsin, 2006c)

#### **2.4.2.2 Description and models of the program**

The social and personal interaction is also used as an effective method of programs to meet other needs such as language improvement, personalized attention and guidance to cultural adjustment, learning American cultures and values, and consultation for other issues. The issues or concerns of international students vary due to purposes and levels of study, age, English

language levels, cultural background, field of profession, adjustment experience, etc. Some of the popular methods of programs in reviewed literature and websites can be categorized as: personal interaction; community interaction; community services; and celebration of cultures.

The personal interaction is used in many international programs to respond to diverse needs of international and diverse learning opportunity for domestic students as well. The examples are International Peer Program (IPP) (Abe, Talbot, & Geelhoed, 1998), Cross-cultural partnerships (Pritchard & Skinner, 2002), PALS program (Univ. of Texas, 2006), and BRIDGE (Univ. of Wisconsin, 2006a). Other program methods use family and community interaction to promote personalized interaction and cultural learning such as International Friendship (Univ. of North Carolina, 2006a). Community services invite internationals to help either people in the community to learn their cultures (Purdue Univ., 2006; Univ. of Wisconsin, 2006c) or help other internationals with various needs (Georgetown Univ., 2006; Univ. of North Carolina, 2006b). Celebration of cultures is a popular method. They include World Fair (Liddell, 1990), Cultural Coffee Hours (Indiana Univ., 2006), Taste of Cultures (Univ. of Wisconsin, 2006c), etc.

#### **2.4.2.3 Effectiveness of the program**

It is difficult to draw a conclusion on the effectiveness of reviewed programs since most of them do not provide any data from a program evaluation; however, programs that are designed to help develop personal contact and relationships such as International Peer Program (IPP) (Abe, Talbot, & Geelhoed, 1998) and Cross-cultural partnerships (Pritchard & Skinner, 2002) are found to be producing positive outcomes according to some program descriptions.

The only information found on the outcome of cultural celebration program is the World's Fair program (Liddell, 1990) which was designed to reduce the barriers between American and international students as well as to respond to international students needs for

cultural exchange activities. In the event, domestic and international students worked together in an organizing committee, in which both international and American students gained the positive experiences. It even allowed some family members of international students to participate in the event.

### **2.4.3 Supplemental information on social and cultural programming for international students**

It is common that many on-campus programs are not designed based on specific needs assessments and many programs use some program planning models (Cooper & Saunders, 2000). Some of these program planning models recommend institutional assessment but most of them do not require profound needs assessment to be a necessary part of program planning or ‘prescribe the actual process that practitioners should use’ (Cooper & Saunders, 2000, p.6). Some simple anecdotal information is sometime used as a basis of designing a program and it is partly because these program planning models use not only students’ needs but also other factors such as institutional goals, resources, environment, student characteristics, and other theories used in student affairs (Cooper & Saunders, 2000). Reflection of past programs to determine ‘what has been tried before’ or ‘why past programs succeeded or failed’ (p.7) is sometimes used in place of needs assessment. Therefore, this subsection summarizes suggested programming focuses based on theories, such as Schollossberg et al (1998), and observations introduced by Bontrager et al (1990), Taub and Komives (1998), and others.

Among the literature on the needs of internationals, some of them provide program suggestions for international students based on their study on international students’ adjustment issues. The program’s suggested content can be largely categorized into: focuses and approaches

for social programs; focuses for cultural programs; specific suggestions in transition focused programs (such as orientation programs); and the approaches to international student groups.

#### **2.4.3.1 Suggested focuses and approaches for social programs**

There are some studies that explore the contents and approaches of social programming that focus on internationals' needs. The most frequently suggested content is the interaction with U.S. nationals (Chapdelaine & Alexitch, 2004; Heikinheimo & Shute, 1986; Lee et al., 1981; Liddell, D. L., 1990) such as the 'buddy program' (Bontrager et al., 1990; Schram & Lauver, 1988) and a course project that require interaction with internationals on campus (Bontrager et al., 1990). Also, supporting 'social, educational, and group activities ... such as mixers, international fairs, and intramural competitions [that] provide occasions for friendships and mutually supportive relationship to be formed' (Bontrager et al., 1990, p.25). As a part of 'essential service' to international students, Ping (1999) lists; 'internationals orientation, both initial and continuing, to campus and community as well as to cultural values and practices; and programs that address barriers to successful academic and personal adjustment in a foreign environment, barriers as basic as food and living arrangements, ... religious practices, [and] social interaction' (p.19).

The positive influences of socialization are described as 'cultural exchange learning' (Liddell, D. L., 1990, p.281) and understanding. Promoting understanding of international students among the campus community can create a supporting environment for them and it can be achieved through increased representation of internationals at campus organizations, and campus media by facilitating awareness of internationals' mental health issues (Bontrager et al., 1990).

#### **2.4.3.2 Suggested focuses for cultural programs**

Ping (1999) explains that international students often come with a strong interest in sharing their culture, language, and national concerns. To meet their needs, he suggests programs that provide opportunities of cultural celebration, presentation, debate on some of the national and ethnic, religious concerns. The cultural program also meets their needs for improving their competency to prepare for future work. Possible programs are:

Activities that complement and supplement the classroom study of international business, comparative arts, languages, peoples, and cultures by bringing students from different traditions together in the experiential learning that comes from living, working, and sharing together. (Ping, 1999, p.20)

When planning programs for the adult population, the characteristics of the adult learning process may be useful. Scholossberg et al. (1998) suggest using the “reflective practitioner perspective” instead of the traditional “authority-based service-provider perspective” and create an educational environment where adult students feel central, competent, and independent. In the “reflective practitioner perspective”, the learner and students “function interactively to the educational and personal benefit of both” (p.286) teachers and learners.

#### **2.4.3.3 Program suggestions for transition process**

Taub and Komives (1998) explain that students struggle when transitioning to professional fields and suggest that programs focusing on transition, socialization, and communication are useful. Before matriculation, students “form expectations and attitudes and make decisions about the program and institution before they physically enter the new environment and start classes” (p.394). He suggests that appropriate intervention, which is anticipatory socialization, through personal communication, cultural program, and visits can

create a “sense of community to enhance the degree of realistic readiness” (p.394). Anticipatory socialization will assist students, especially at the graduate level, make realistic expectations about their forthcoming academic experience. This approach meets their needs for cultural adjustment and is applied not only to the orientation program but also on-going social and cultural programming such as the buddy system and follow-up orientation programs (p.397).

Encouraging other international students “to take part in the orientation camps for incoming students” (Bontrager et al., 1990, p.12) also increases socialization, both anticipatory socialization and on-going socialization, between new and experienced students. With their presence “internationals will be perceived as a part of the student body even before the academic year begins” (p.12). Hiring “students, especially international students ... in positions frequently accessed by internationals” (p.26) is also suggested as effective in providing assistance for students in transition.

#### **2.4.3.4 Suggestions on the use of international student groups**

Considering the socialization needs of international students, a study suggests that promoting “student organizations based upon nationality, ethnicity, and/or language” (Bontrager et al., 1990, p.25) helps them form ‘trusting relationships’ among one another and develop a supporting environment.

The challenge can be, as pointed out by Ping (1999), that the organizations for special interests can discourage individual interaction with students in groups or on campus as a whole. Therefore, one approach about social and cultural program or services is integrating international student groups into the rest of the campus population.



## **2.5 QUESTION 3: *WHAT ARE THE RESEARCH METHODS USED TO FIND OUT THE PERCEPTIONS AND NEEDS OF INTERNATIONAL STUDENTS?***

In this chapter, demonstrated are the result of literature views on empirical studies and methods of data collections and data analysis used to study perceptions of college or university-based population. The relationship among and selection on research purposes, conditions, data collection methods and analysis methods in various studies are also reported.

The key findings are described in section 2.5.1 and the methodologies observed in the literature are summarized in section 2.5.2. The details of the methodology section (2.5.3) are subdivided into data collection methods and data analysis methods. The information about data collection includes the process of designing and implementing a study. The data analysis section discusses the qualitative and quantitative data analysis methods and instruments.

### **2.5.1 Key findings**

The set of reviewed literature is composed of empirical studies conducted in the United States and Canada between 1980 and 2005. The types of literature selected are either on needs assessment, program evaluation, or audience development. More precisely, their focuses are one or more of the following: academic, social, and other life needs of international students; perceptions of international, American and/or non-traditional (adult) students about on-campus programs and services; and studies that elaborate and investigate arts and cultural needs for various populations. The studies of cultural participations are used to determine existing methods of measuring social and cultural needs and participation.

In addition, there are a few literature that examine the effectiveness of a data collection method such as the use of incentives and instruments. For example, Porter (2003) and Porter and Whitcomb (2003) discussed the relationship between lottery incentives and response rate. Owen (1999) examined the validity of an instrument called Self-Directed Learning Readiness Scale (SDLRS). The details of some of these studies are described later in this chapter.

## **2.5.2 Summary on data collection methods**

The variation and characteristics of research methodology are summarized in two sections; data collection and data analysis. The subsections about data collection include elements related to designing and implementing research project such as: deciding on the data sources and data collection process (2.5.2.1.); population types and sizes (2.5.2.2.); instruments (2.5.2.3.); and other expected issues in data collection process (2.5.2.4.). The subsections about data analysis are on the instrument and tools used for qualitative and quantitative data.

### **2.5.2.1 Data sources and data collection methods**

Witkin and Altshchuld (1995) categorizes data collection sources in needs assessments in three categories: archival, communication, and observation. The table below categorizes observed literature into these three data sources and it includes some literature that is not necessarily a needs assessment.

**Table 2. Data collection procedure**

<i>method</i>		<i>#</i>	<i>literature</i>
<b>Archival</b>		2	Upright (2004), DiMaggio & Ostrower (2001)
<b>Communication</b>			
	Survey	13	Arubayi (1980), Leong & Sedlacek (1986), Schram & Lauver (1988), Eid & Jordan-Domschot (1989), Bontrager, et al. (1990), Sandhu & Asrabadi (1991), Abe, Talbot, & Geelhoed (1998), Taub & Komives (1998), Curry (2000), Munoz, M.D. & Munoz, M.A. (2000), Hanassab & Tidwell (2002), Porter & Whitcomb (2003), Trice (2004)
	Focus group	1	Spencer-Rodgers & Cortijo (1998)
	Interview		
	Structured	0	
	Semi-structured	2	Heikinheimo & Shute (1986), Curry (2000)
	Informal	1	Heikinheimo & Shute (1986)
	(not mentioned)	1	Sandhu & Asrabadi (1991)
	Longitudinal	2	DiMaggio & Mohr (1985), Boyer & Sedlacek (1988)
<b>Observation</b>		2	Heikinheimo & Shute (1986), Curry (2000)

Chapdelaine & Alexitch (2004)—data collection procedure not mentioned

### (a) Archival sources

The two literature that used archival sources (DiMaggio & Ostrower, 2001; Upright, 2004) are studies that targeted general population outside universities and colleges. The use of archival sources is possible when the necessary data is available from past studies. Some of the benefits of using nation-wide survey results are: 1) sample size is large; 2) the data sources vary hence the comparison of various groups is possible; and 3) the survey method is already developed. The data DiMaggio and Ostrower (2001) used was the result of 1982 SPPA [Survey of Public Participation in the Arts] and it was “the first reliable U.S. data on a wide range of artistic activities” (p.756).

### (b) Communication sources

Among the communication data sources, survey is the most widely used. Arubayi (1980) summarized the usefulness of questionnaire methods in his study: 1) students will be guaranteed

a greater degree of anonymity; 2) it is appropriate in making objective and factual investigations; and 3) the development of numerical measures appears easier (p.2). Interviews and focus groups are used often in combination with other data sources and when the sample size is relatively small (below 50 among the reviewed literature). For example, Sandhu and Asrabadi (1991) interviewed 13 students as a pilot study to develop a research instrument and Heikinheimo and Shute (1986) interviewed 30 students to identify some key factors needed for later observation.

Casual/unstructured interview is often used in ethnographic studies where the investigator does not conduct the study based on presumed responses. Semi-structured interview, on the other hand, is used when the contents of the interview is more directive or focused. Heikinheimo and Shute (1986) used casual and semi-structured interviews in the different phases of their study. Casual and conversational interview was used at the beginning of the study when they assumed that they did not know the principal concerns of foreign students and needed to identify them. They employed semi-structured interview in the second phase when the required data was more focused.

### **(c) Observation sources**

Observation is also used along with other data sources (Curry, 2000; Heikinheimo & Shute, 1986). The two studies observed the classroom interaction to collect some data on the behavior and interaction of the subjects in the social environment. Curry (2000) described her “focus on participants’ discourse in the classroom” as their dialogue, action, and “the artifacts they use” (p.65). Curry (2000) pointed out some problems in her participatory study. She reflected that her presence in the classroom “affected the class in some ways” (Curry, 2000, p.72) and her “simply observing the pedagogy ... have made [her] presence appear as a form of surveillance or critique” (p.72).

The next section focuses on the processes of data collection using communication sources.

#### **2.5.2.2 Population (relationship between goal, population and numbers, and approach to the audience)**

The number of sample populations varies among studies depending on the purpose of the study, data collection method, research stage, budget, time, etc. For example, when it is a program evaluation, the sampling size depends on the targeted program beneficiaries and the means of data collection vary depending on the sampling sizes. The interviews generally use smaller number of samples.

##### **(a) Sampling size and data collocation procedures**

Some investigators, such as Heikinheimo and Shute (1986), conducted the pre-assessment with smaller number of participants. The instrument is developed based on the study and used for the main study for the larger population. Survey is widely used especially for larger number of samples and a focus group study is sometimes conducted with smaller number of participants after the survey to find out in-depth information on certain topics or individuals.

**Table 3. Sample size and procedure used**

<i>Size</i>	<i>#</i>	<i>literature</i>
1-10	0*	
11-50	4	Heikinheimo & Shute (1986): interview Munoz, M.D. & Munoz, M.A. (2000), Taub & Komives (1998), Haydon, Lisa (2003): survey Gruber (1994), Taub & Komives (1998): program evaluation Spencer-Rodgers & Cortijo (1998): focus group
51-100	3	Deressa & Beavers (1988): specially developed inventory Eid & Jordan-Domschot (1989): survey Abe, Talbot, & Geelhoed (1998): program evaluation
100-200	2	Bontrager, et. al (1990), Sandhu & Asrabadi (1991), Owen (1999): Survey Chapdelaine & Alexitch (2004): Small group (4-5 participants) question sessions
201-500	7	Arubayi (1980), Leong & Sedlacek (1986), Schram & Lauver (1988), Spencer-Rogers (2000), Trice (2004): questionnaire Porter & Whitcomb (2003): web survey Boyer & Sedlacek (1988): longitudinal study and questionnaire
501-1000	3	Globetti (1991), Hanassab & Tidwell (2002), Lucas & Berkel (2005): survey/questionnaire
1001-2000	1	(Lee, et al., 1981): survey, multi-stage cluster sample
2001-3000	1	DiMaggio & Mohr (1985): longitudinal study
3000+	3	DiMaggio & Ostrower (2001), Upright (2004): survey, archival source Porter & Whitcomb (2003): web survey

\*Note: some investigators conducted their studies with the small samples as a part of the study.

### (b) Sampling techniques

The sampling techniques vary among the literature depending on the purpose, sample size, instrument used, and process of study. The table below shows the classification of literature in terms of their sampling procedure.

**Table 4. Sampling Procedure**

<i>Sampling procedure</i>	<i>Literature</i>
Clustering	Lee, et al. (1981) (determined in the pilot study), Heikinheimo & Shute (1986)
Random	Heikinheimo & Shute (1986) - in the pre-assessment phase, Schram & Lauver (1988), Bontrager, et al. (1990), Globetti (1991), Sandhu & Asrabadi (1991), Owen (1999), Spencer-Rogers (2000)
All targeted population	Arubayi (1980), Leong & Sedlacek (1986) Eid & Jordan-Domschot (1989) Abe, Talbot, & Geelhoed (1998), Taub & Komives (1998), Curry (2000), Porter & Whitcomb (2003), Hanassab & Tidwell (2002), Trice (2004), Upright (2004)
n/a	DiMaggio & Mohr (1985), Munoz, M.D. & Munoz, M.A. (2000)

*Clustering sampling* is used when the targeted population has some subdivided groups with different characteristics. The purpose is to ensure balanced representation of different population. For example, Lee et al. (1986) studied population that are in an international aid program and are scattered among different universities across the United States. Therefore, the clustering sampling procedure is used to observe the existing needs among separated clustered, i.e. many universities. *Random sampling* is often used for needs assessment especially when the targeted population is large in order to limit the sample size but in ensuring an unbiased outcome (Globetti, 1991). It is also sometimes used during the pilot study phase to develop an instrument or when detailed information is collected through qualitative study such as interviews (Heikinheimo & Shute, 1986). Among the surveyed literature, *all targeted population* is studied in cases such as: 1) when the target population is of manageable size (Arubayi, 1980; Eid & Jordan-Domschot, 1989); 2) when the data collection method can easily manage a large population such as questionnaire, survey, and web survey (Arubayi 1980; Leong & Sedlacek, 1986; Porter & Whitcomb, 2003); 3) when the used archival resource covers a large population (Upright, 2004); and 4) when the study can use an already existing contact so that the investigator does not have to choose the population to study. For example, Porter and Whitcomb (2003) used an email list to conduct a survey among institutional researchers who subscribe to an email list because it covered their targeted population and it was of manageable size.

### **2.5.2.3 Instrument**

The instruments used in the reviewed literature are summarized in the following table. The table categorizes kinds of instruments used and how they are applied to the studies. The columns separate sets of literature based on whether they used the instrument as they were or used some of the contents introduced in previous studies.

**Table 5. Characteristics of data collection methods used in the reviewed literature**

	<i>instrument</i>	<i>Contents</i>
Already existing	<i>Noncognitive Questionnaire (NCQ)</i> (Boyer & Sedlacek, 1988); <i>Student Needs Assessment Survey (SNAS)</i> (Globetti, 1991); <i>Survey of Public Participation in the Arts (SPPA)</i> (DiMaggio & Ostrower, 2001) (Upright, 2004); <i>Outcome Questionnaire 45 (OQ45)</i> (developed by Lambert et al. (1994)), <i>My Vocational Situation (MVS)</i> and <i>Vocational Identity (VI) scale of MVS</i> (developed by Holland et al. (1980)) (Lucas & Berkel, 2005); <i>Cultural Distance Index (CDI)</i> (Abe, Talbot, & Geelhoed, 1998)	A questionnaire listing 12 sources of help (Leong & Sedlacek, 1986)
Modified version of already existing	<i>Michigan International Student Problem Inventory</i> (Arubayi, 1980); <i>Cultural Distance Index (CDI)</i> and <i>Revised Social Situations Questionnaire (RSSQ)</i> (Chapdelaine & Alexitch, 2004)	<i>College and Adult Forms in Mooney Problem Checklist</i> (Bontrager, et. al., 1990);
Specially developed	<i>Cultural Capital Scale-The Talent Survey</i> (DiMaggio & Mohr, 1985); <i>Social Contact Scale (SCS)</i> , and <i>University Alienation Scale (UAS)</i> (Schram & Lauver, 1988); <i>Checklist of International Student Concerns</i> (Bontrager, et al., 1990); <i>Acculturative Stress Scale for International Students (ASSIS)</i> (Sandhu & Asrabadi, 1991); <i>Student Adaptation to College Questionnaire (SACQ)</i> and the <i>Demographics and Campus Resources Questionnaire</i> (Abe, Talbot, & Geelhoed, 1998);	Questions on help sources (Leong & Sedlacek, 1986); 9 independent variables of alienation (Schram & Lauver, 1988); 15 open ended questions on career needs (Spencer-Rodgers & Cortijo, 1998); <i>Social Interaction Scale</i> (Chapdelaine & Alexitch, 2004); Program evaluation scales (Taub & Komives, 1998); (Porter & Whitcomb, 2003a and b); needs assessment content (Trice, 2004)

For example, Bontrager, et al., (1990) conducted a pilot test to test the usefulness of the instrument or have it reviewed by a panel of experts and they made some modification to the standard instrument. If one uses a modified version of existing instruments, the permission from the original developer may be required (Arubayi 1980). Some authors, including Eid and Jordan-Domschot (1989), suggest modification of a standard instrument as a part of their reflection of their study. They explain the survey should be simple to ease completion. The survey used in this study was supposed to require 10 minutes but students took 15 minutes on average to complete it (p.31).



To further understand the kinds of instrument found in the reviewed literature, the distinction between theory-based and empirically based instruments, used in surveys or interviews, is summarized in the following table. This distinction is also useful in developing both data collection and analysis methods.

**Table 6. Use of theory-based and empirically-based instruments in reviewed literature**

	<i>Instrument</i>	<i>Content</i>
Theory-based	<i>Survey of Public Participation in the Arts (SPPA)</i> - DiMaggio & Ostrower (2001), Upright (2004); <i>Cultural Capital Scale-The Talent Survey</i> - DiMaggio & Mohr (1985); <i>Michigan International Student Problem Inventory</i> - Arubayi (1980)	
Empirically Based	questionnaire used for the interview - Heikinheimo & Shute (1986)	Spencer-Rodgers & Cortijo (1998), program evaluation questions, Taub & Komives (1998), Curry (2000), Munoz, M.D. & Munoz, M.A. (2000), Hanassab & Tidwell (2002), Chapdelaine & Alexitch (2004), Schram & Lauver (1988), Porter & Whitcomb (2003a and b), Trice (2004)
Mixed	<i>Acculturative Stress Scale for International Students (ASSIS)</i> - Sandhu & Asrabadi (1991)	

For example, Evans (1985) found that questionnaire based on student development theory can make them more relevant to the population. Theory helps analyzing the responses acquired by different age groups because it explains some possible connections to their needs (Cooper & Saunders, 2000; Green & McAllister, 1998).

#### **2.5.2.4 Issue on data collection – Return rate**

Receiving on adequate number of returned surveys is often a challenge and it increases the administrative burden and the cost for the researcher. It is common for the return rate of education surveys to fall below 50% (Porter & Whitcomb, 2003) as can be observed among the

reviewed literature. Exploring methods to increase the response rate is a critical part of assessment especially when generalizability is an important aspect of the assessment (Evans, 1985). On the other hand, generalizability is not an important part of the study when, for example, the purpose of the study is to test the usefulness of some research instruments or methodologies (Evans, 1985). The table below shows the various methods found in the reviewed literature.

**Table 7. Incentives used in the reviewed literature**

	<i>Before response</i>	<i>After response</i>
Lottery		Porter & Whitcomb (2003)
Gift certificate		Abe, Talbot, & Geelhoed (1998)
Cash		Chapdelaine & Alexitch (2004),
Contact to ask for the willingness	Chapdelaine & Alexitch (2004) Curry (2000) Lucas & Berkel (2005)	
Follow-up calls/e-mails/post cards, etc.	Schram & Lauver (1988), Bontrager, et al (1990), Sandhu & Asrabadi (1991), Owen (1999), Hanassab & Tidwell (2002),	
None or not mentioned	Arubayi (1980), Lee, et al (1981), DiMaggio & Mohr (1985), Heikinheimo & Shute (1986), Leong & Sedlacek (1986), Eid & Jordan-Domschot (1989), Gruber (1994), Taub & Komives (1998), Curry (2000), Munoz, M.D. & Munoz, M.A. (2000), Spencer-Rogers (2000), Haydon, Lisa (2003), Porter & Whitcomb (2003), Trice (2004)	

The table includes some incentives provided to the respondents as well as some follow-up encouragement or methods used to raise the return rate. Most of the reviewed literature did not use only rewards as a form of incentive or did not mention if incentives were used. Several researchers made efforts such as including cover letters, pre-stamped and pre-addressed return envelopes, follow-up e-mails, postcards, and phone calls (Schram & Lauver, 1988). The method of contacting previously and finding out the willingness to participate was also used by some researchers (Chapdelaine & Alexitch, 2004; Curry, 2000; Lucas & Berkel, 2005). However, there is a case where the return rate was below 50% from the pre-consented population (Lucas &

Berkel, 2005). Conducting the survey at programs where target population gathers was also done to ensure response by the participants (Abe, Talbot, & Geelhoed, 1998; Curry, 2000). One research asked randomly chosen offices to distribute the survey to the people came in and avoid sending them anonymously by mail (Spencer-Rogers, 2000). Although the use of lottery incentives is common in institutional research (Porter & Whitcomb, 2003), only one such case was method among the reviewed literature. According to Porter and Whitcomb (2003), despite the popularity of the postpaid and lottery incentives on survey research, these incentives are found to have little or no impact on survey responses. Prepaid incentive is usually more effective. When given a lottery incentive, the value of the incentive does not affect the response rate but increasing the probability of winning the lottery may have some effect (Porter & Whitcomb, 2003).

### **2.5.3 Summary of data analysis**

Most of the studies applied simple observations on the survey results and sometime included correlations between some of the data. Sophisticated statistical analysis was used often for quantitative data. The two tables below summarize the data analysis methods used in the reviewed literature.

**Table 8. Data analysis methods used in the literature**

<i>methods</i>	<i>#</i>	<i>literature</i>
Quantitative	10	Arubayi (1980), Lee, et al (1981), Leong & Sedlacek (1986), Schram & Lauver (1988) (statistical analysis) Gruber (1994), Abe, Talbot, & Geelhoed (1998), Taub & Komives (1998), Owen (1999), Munoz, M.D. & Munoz, M.A. (2000), Spencer-Rogers (2000)
Qualitative	5	Boyer & Sedlacek (1988), Trice (2004), Bontrager, et. al (1990), DiMaggio & Ostrower (2001), Curry (2000),
Mixed	7	DiMaggio & Mohr (1985) Bontrager, et al (1990) Sandhu & Asrabadi (1991) Hanassab & Tidwell (2002) Chapdelaine & Alexitch (2004) Trice (2004) Lucas & Berkel (2005)
Simple data observation	6	Heikinheimo & Shute (1986) Globetti (1991) Spencer-Rodgers & Cortijo (1998) Haydon, Lisa (2003) Porter & Whitcomb (2003) Eid & Jordan-Domschot (1989)

**Table 9. Characteristics of data analysis methods used in the reviewed literature**

	<i>qualitative</i>	<i>Quantitative</i>	
		<i>Method</i>	<i>Tools</i>
Already existing	<i>Conceptual analysis and Discourse analysis</i> (Curry, 2000); <i>Correlational Analysis</i> (DiMaggio & Ostrower, 2001), (Hanassab & Tidwell, 2002); <i>Path Analysis</i> (Chapdelaine & Alexitch, 2004), <i>Descriptive Analysis</i> (Trice, 2004)	<i>Univariate analysis</i> (Bontrager, et. al., 1990); <i>Barlett's test of sphericity</i> (to test hypothesis) (Sandhu & Asrabadi, 1991); <i>Stepwise multiple discriminant analysis</i> (Boyer & Sedlacek, 1988); <i>Stepwise multiple regression analysis</i> (Boyer & Sedlacek, 1988; Schram & Lauver, 1988); <i>Univariate and bivariate analysis</i> (Chapdelaine & Alexitch, 2004; Lee, et al., 1981); <i>Factor analysis</i> (DiMaggio & Mohr, 1985; Sandhu & Asrabadi, 1991; Spencer-Rogers, 2000); <i>Multivariate analysis</i> (DiMaggio & Ostrower, 2001); <i>Correlation Analysis</i> (Abe, Talbot, & Geelhoed, 1998; Hanassab & Tidwell, 2002; Sandhu & Asrabadi, 1991); <i>Descriptive Statistics</i> (Arubayi 1980; Gruber, 1994; Munoz, M.D. & Munoz, M.A., 2000); <i>Pearson product moment correlation coefficient</i> (Owen, 1999); <i>Hierarchical multiple regression analysis</i> (Trice, 2004); <i>Multinomial logistic regressions</i> (Upright, 2004); <i>OLS regression analysis</i> (DiMaggio & Mohr, 1985);	<i>MANOVA</i> (Leong & Sedlacek, 1986; Spencer-Rogers, 2000); <i>ANOVA</i> (Abe, Talbot, & Geelhoed, 1998; Hanassab & Tidwell, 2002; Lucas & Berkel, 2005; Porter, 2003); <i>T-test</i> (Hanassab & Tidwell, 2002; Taub & Komives, 1998); <i>Chi-square</i> (Owen, 1999; Porter, 2003); squared multiple correlations (SMCs) (used in the process of <i>Factor Analysis</i> ) (Spencer-Rogers, 2000); correlation coefficients (Lee et al., 1981); z-scores (DiMaggio & Mohr, 1985); SPSSX software (Sandhu & Asrabadi, 1991); SPSS software (Munoz, M.D. & Munoz, M.A., 2000)
Specially developed		Cultural capital scale (DiMaggio & Mohr, 1985)	

Qualitative data is often analyzed using theories applied to the individual study's conceptual framework, as shown in the above table, such as descriptive analysis, discourse analysis, conceptual analysis, factor analysis, theory based analysis, etc. In many student affairs research, student development theory is used in the data collection and analysis process.

Quantitative data is often managed and analyzed using statistical tools. Simple analysis includes descriptive statistics to identify problem and non-problem areas in the data (Arubayi, 1985). Sophisticated analysis observes the correlation between parts of the data using T-tests, chi-square, ANOVA, etc. Some examples include correlation coefficient (Lee et al., 1981). Where independent variables were not categorical or nominal, the authors used correlation coefficients to identify relationship between dependent variables and independent variables. Z-scores (DiMaggio & Mohr, 1985) were used to ensure comparability of results for different populations. Regression analysis (Cooper & Saunders, 2000; DiMaggio, 1985) was used to observe the relationship among variables and to make predictions.

## **2.6 INFORMATION TO BE USED IN THE DISSERTATION RESEARCH**

This section highlights the list of ideas found in the literature review that are considered to be useful in the dissertation study. The first subsection (2.6.1) summarizes the ideas according to the areas of concern that reflect the research questions. The second subsection (2.6.2) lists questions that have arisen from the literature review.

### **2.6.1 Ideas according to the research questions**

The presented information is categorized in Table 10 with domains that reflect the research questions presented in section 1.5 as well as other elements useful in the dissertation study such as research methodologies used in similar studies and the needs of the studies concerning social and cultural needs of international students. The information can be either derived from a specific literature, listed as references, or from the literature as a whole. The domains are: social and cultural needs of international students; social and cultural participation of international students; preferred program content, format, and means of announcement; background influence on social and cultural needs and participation; research methodology; and research need. Each of the ideas under each domain shows its area of concern, concepts / ideas with sources, and in which process of the dissertation study the extracted idea will be applied. For example, under the domain, “social and cultural needs of international students”, and the first row is concerned with the ‘significance’ and ‘definition’ of social and cultural needs. The idea is that “there are social and cultural needs among international students even though practical needs are stronger. Practical needs include financial [and] academic [needs], linguistic skills, career development, and immigration support” (Boyer & Sedlacek, 1988). This idea will be used in building the ‘rationale’ of this dissertation study and the research questions.

The following table 10 summarize list of useful findings from the literature and how they are applied in this study.

**Table 10. Ideas to be used from reviewed literature**

<i>Subcategory – area of concern</i>	<i>Concepts, ideas and Sources</i>	<i>Applications</i>
<b>Domain 1: Social and cultural needs of international students</b>		
Significance , definition	There are social and cultural needs among international students even though practical needs are stronger. Practical needs include financial and academic needs, linguistic skills, career development, and immigration support. (Boyer & Sedlacek, 1988)	Rationale Research questions
Definition – social need	A ‘social’ need implies a need for socialization and networking and is expressed as a need for ‘making friends’, ‘time for socializing’, ‘social interaction’ (especially with domestic students), and ‘anticipatory socialization’ (socialization which helps having realistic expectation in graduate studies). (Taub and Komives, 1998)	Conceptual framework
Definition – social need	Socialization is both a need itself and a way to meet other needs. As the former, the needs are expressed as above. As the latter, socialization is suggested as a way to ease one’s adjustment or transition process. For example, having a social support including spouse’s support helps retention.	Conceptual framework
Definition – cultural need	A ‘cultural’ need is observed as a cultural adjustment need, a need to express one’s cultural heritage, or a need to be involved in cultural life.	Conceptual framework; Developing instrument
Definition – international and adult students	Some of the characteristics of ‘adult’ students are not reflected in international graduate students such as being ‘part-time’; hence some needs are not the same. (Bean and Metzner, 1985; Spanard, 1990)	Conceptual framework, Research questions
Definition – cultural need	Cultural needs can be explained as fulfilling one’s interests in sharing their culture, language, and national concerns with domestic students (Ping, 1999)	Conceptual framework
Definition – cultural need	Cultural needs can be reflected in programs through celebration, entertainment, presentation, and debate. (Ping, 1999)	Conceptual framework
Value of student groups	Ethnic student organizations can be used effectively in meeting social and cultural needs of international students (Bontrager et al., 1990; Ping, 1999)	Research questions
Definition – social need	Social needs can be explained as needs for friendships and mutually supportive relationships (Bontrager et al., 1990).	Conceptual framework
<b>Domain 2: Social and cultural participation of international students</b>		
Student group and social participation	Availability of ethnic student groups may influence both positively and negatively one’s adjustment levels because it increase the availability of a strong support person but decrease the frequency/chances of communication with host peers to receive their social support.	Research questions; developing questionnaire
<b>Domain 3: Preferred program content and format and means of announcement</b>		
Benefit	Interaction between international students and domestic students is often practiced through international programs	Program suggestions
Program format	Programs that promote personal interaction such as language exchange and buddy program draw much participation.	Research questions; questionnaire
Program approach	When organizing a program, the use of the reflective practitioner approach is useful for the adult student participants (Schollossberg et al., 1989)	Program suggestion
Program benefit;	Social and cultural programs should provide an opportunity for ethnic student organization members to interact with other students and integrate	Program suggestion,

format	into the larger campus community (Ping, 1999)	questionnaire
Benefit	Social programs promote ‘cultural exchange learning’ (Liddell, D. L., 1990, p.281) for both international and domestic students and they help developing a supportive environment for international students (Bontrager et al., 1990).	Program suggestion
<b>Domain 4: Background influence on social and cultural needs and participation</b>		
Environ-mental factor	Non-cognitive variables, which are not among practical needs such as self-confidence, availability of a strong support person, community service and understanding racism, positively predict grades and persistence. (Boyer & Sedlacek, 1988)	Developing instrument
Values	When the cultural and value difference is large, it is reflected in the difference in the academic practice and value (Tatar 2005)	Research questions, questionnaire
Age influence on social needs	Graduate and adult students express fewer needs for socialization, which include social integration, on-campus socialization, social skills, international students association, and cultural adaptation. (Globetti, 1991; Munoz & Munoz, 2000)	Research questions; developing instrument
Background influence on social needs	International graduate students, who share the characteristics of adult student in terms of age, social and family roles, and learning capacity, may encounter greater social and cultural adjustment needs. They may have anticipatory socialization needs as well as greater cultural adjustment needs to overcome the ‘4 S’s’. (Schlossberg et al., 1989)	Research questions; program suggestion
Background influence on social needs	Having a background where the hope and pressure for success from one’s families and work places in advanced study programs contributes to having high or unrealistic expectations in one’s graduate study. This strengthens the needs for ‘anticipatory socialization’. (Taub & Komives, 1998)	Research questions
Background influence on cultural need	Being an Asian is identified as one of the most vulnerable factors for cultural adjustment in U.S. universities. One reason mentioned in a few literatures is one’s English language skills. There is no explanation or studies on possible cultural factors.	Research questions
Needs diversity	Needs of international graduate students, as adult students, can be heterogeneous based on their ‘age, role, and learning capacity’ not to mention their cultural and ethnic backgrounds. (Schlossberg, et al., p.2)	Research questions
Gender difference	Female international students tends to have more needs for on-campus services than their male counterparts, and students with science major and low grade point average have more support needs (Hanassab & Tidwell, 2002).	Research questions
Cultural background and adjustment	Students from countries where there is significant difference in culture (including values, customs, world views, etc.) from the Western culture are expected to face greater social and cultural adjustment in U.S. social and academic life. (Tatar, 2005)	Research questions
<b>Domain 5: Research methodology</b>		
Correlation study	Correlation studies (Chapdelaine & Alexitch, 2004; Schram & Lauver, 1988) help construct a survey that aims at investigating various areas of how one’s background influences one’s social and cultural needs. The discussed elements are used to examine the relationship with social adjustment hence they may be used to explore the relation to their cultural needs	Data collection method
Data collection	Communication source will be used in the future study because the background information of individuals will be the main component of the	Data collection method



	study	
Data collection	The samples will be the whole targeted population when; 1) the target population is within a manageable size (Arubayi, 1980; Eid & Jordan-Domschot, 1989); 2) the data collection methods, such as questionnaire, survey and web survey, can easily manage a large population (Arubayi 1980; Leong & Sedlacek, 1986; Porter & Whitcomb, 2003); 3) using archival resource that covers large population (Upright, 2004); and 4) the study can use already existing contacts with the sample so that the investigator does not have to choose the population to study.	Sampling procedure
Data collection	Consider using a combination of some of the existing survey instruments that were used to study international students and arts/cultural participation.	Selection of instrument
Data collection	Survey and interview will be used to capture both the trends from the whole targeted population and more detailed information through communication.	Data collection method
Return rate	Lottery incentive will not be used since the approach appears to be ineffective.	Decide on incentives
Sampling	Pre-consented contact is reliable to use when developing a list of participants	Sampling procedure
Descriptive analysis	Descriptive analysis will be used for both qualitative and quantitative data since the sampling size is limited.	Data analysis procedure
Descriptive statistics	Quantitative data will be analyzed with linear regression, descriptive statistics, and correlation coefficients to observe the expressed degree of social and cultural needs and participation (dependent variables) and individual background (independent variables).	Data analysis procedure
<b>Domain 6: Research needs</b>		
Social and cultural program evaluation	There are many programs aiming at social networking and cultural exposure organized by international offices but there is no data to compare the popularity among different programs found in literature or websites.	Significance of study
Responding to social and cultural needs	Student affairs professionals, especially international program coordinators, need a more adequate set of literature on how to organize programs that effectively respond to the social and cultural program needs of internationals.	Significance of study
Needs assessment	Social and cultural needs and satisfaction through programs have not been measured	Significance of study
Difference with background	Participation differences among international students based on one's diverse background have not been studied.	Purpose of study

### 2.6.2 Additional issues found from the literature review

The following is the issues or questions arisen in the process of literature review as they potentially contribute to building issues to be explored through this dissertation study. The

issues are listed according to the research questions listed in the section 1.7. I addressed some of these issues, namely issues 3 and 6, in this dissertation. The remaining are open issues, which should be considered for future work.

The issues related to research questions one, expressed needs for social and cultural participation, are:

Issue 1: Can community service be considered as a social need? Does a person with greater social needs equally express community service need?

Issue 2: Is improving cross-cultural competency a cultural need?

Issue 3: Is there a perceived need for community service? Are student volunteering activities for introducing one's culture (Indiana Univ., 2006; Purdue Univ., 2006b; Univ. of Wisconsin, 2006b; Univ. of Wisconsin, 2006c) considered a form of cultural expression needs?

Issue 4: Parts of the literature mention improvement of cross-cultural competency as one of the purposes of international programs (Ping, 1999). Is improving a cross-cultural competency a cultural need?

The only issue related to research questions two, current social and cultural participation in and outside the university, is:

Issue 5: Among students with greater adjustment needs, what are the differences between students who seek socialization as a means of improving the situation and those who seek a solution by themselves?

The issues related to research questions four, influence of one's background on social and cultural needs/participation, are:

Issue 6: Is there a relationship between geographical or ethnic origin and needs for social and cultural participation? For example, Asians are considered to be most vulnerable for cultural adjustment. Do they express the needs for social and cultural participation more than students with other geographical origin?

Issue 7: Does greater cultural gap lead to greater participation in activities where one can express his or her own culture?

The above issues will be used as sub-questions of the research questions along with the hypotheses to be tested, as demonstrated in the following chapter (Chapter 3), in order to construct a research instrument that will be further described in the chapter about the research methodology (Chapter 4).

### **3.0 METHODOLOGY**

This section presents the approach to research methodology and the process of data collection and data analysis used in this study. This research is a descriptive case study in which the samples will be acquired among the population in a particular case setting, i.e. international students at the University of Pittsburgh. The data collection and analysis methodology are designed to acquire data from this particular population to find answers to the research questions. Further detail on this descriptive case study method will be given later.

This chapter begins with the explanation of the research strategy chosen in this study (3.1). It is followed by the section on data collection and data analysis, in which details of each process are discussed. The data collection methods section (3.2) includes: data sources; sampling procedure; use of incentives; questionnaire; and instrument. The data analysis method section (3.3) include: survey (quantitative) data analysis; and interview (qualitative) data analysis.

### **3.1 RESEARCH STRATEGY**

#### **3.1.1 Possible strategies**

In order to determine the strategy for research, it is necessary to examine what the relevant questions are. According to Yin (1994), strategy needs to be chosen depending on three

conditions: ‘(a) the type of research question, (b) the control an investigator has over actual behavioral events, and (c) the focus on contemporary as opposed to historical phenomena’ (Yin, 1994, p.4). These conditions and research purposes help determine suitable strategies for the study. The research purposes can be classified in three broad categories: exploratory, descriptive, and explanatory. According to Yin (1994), when the purpose of the research is exploratory, the study tries to answer ‘what’ questions without specific assumptions or suggestions. Hence it is open to various possible findings. In a descriptive study, it attempts to collect more detailed and focused information possibly on specific event by measuring particular criteria and testing assumptions. In other words, it attempts to address issues such as ‘how many’, ‘how much’, ‘who’, and ‘where’. Finally, an explanatory study deals with the operational link by observing time factors that inform cause and effect, which is designed to answer ‘how’ and ‘why’ questions.

The research strategies that may be used to meet these three purposes can be chosen among the following five: case study; survey; experiment; archival; and historic (Yin, 1994). Again, according to Yin (1994), case study is useful when: it is not a well-studied problem; the detailed information is needed in a specific context through testing assumptions and/or theories; and to collect data that leads to future investigation on some focused issues. Survey deals with general and broad population, sometimes samples require uniform characteristics such as gender, education, etc, that can make the outcome statistically significant. Archival information is used in studies such as economics that requires a variety of large-scale numeric data. These five strategies can also be characterized using three conditions introduced above. The table below shows how the three conditions are used to identify suitable research strategies. For example, the case study is used to answer ‘how’ and ‘why’ types of research questions for contemporary

phenomena or events when the investigator do not have the control over actual behavioral events. Experiments are used to investigate the process or cause and effect ('*how*') and the reasons of the phenomena ('*why*') through possibly controlling the actual behavioral events. It also deals with contemporary phenomena.

**Table 11. Types of research strategies according to conditions**

<i>Research strategies \ Three conditions</i>	<i>The type of research question</i>	<i>The control an investigator has over actual behavioral events</i>	<i>The focus on contemporary as opposed to historical phenomena</i>
Case study (look at smaller universe)	How, why	No	Yes
Experiments	How, why	Yes	Yes
Surveys (general population, has to be statistically significant, need uniform sample of everyone)	Who, what, where, how many, how much	No	Yes
Histories	How, why	No	No
Analysis of archival information (e.g. economic studies)	Who, what, where, how many, how much	No	Yes/no

Note: This table is developed based on Yin (1994), p.6

Not all strategies are suited for every type of investigation. Yin (1994) identifies most commonly used strategies for each of the purposes in the three broad categories described above. The table below shows the details of the three research purposes and how research strategies are suited to meet these purposes. For example, an exploratory study can be conducted using all five strategies: experiments; case study; survey; archival; and historical research. Descriptive studies, however, are commonly conducted through survey, archival analysis, and historical research but are considered less suited for experiments and case studies.

**Table 12. Commonly used research strategies for different purposes**

Options of Strategies \ Purposes of the Study	<i><b>Exploratory</b></i> (no prescribed suggestions, <u>more open</u> – ‘what’ questions)	<i><b>Descriptive</b></i> (try to <u>measure</u> particular criteria, <u>more focused</u> , with hypothesis, find details, aims to predict or describe phenomena – ‘how many, how much, who, where’ questions)	<i><b>Explanatory</b></i> (finds out operational links, look at time, find cause and effect, -- ‘how, why’ questions)
	For the event already happened		
<b>Experiments</b>	Yes	Less suitable	Yes
<b>Case studies</b>	Yes	Less suitable	Yes (e.g. find out why one participated in riot.)
<b>Survey</b>	Yes	Yes (e.g. measuring economic data)	Less suitable
<b>Archival</b>	Yes	Yes	Less suitable
<b>Historical research</b>	Yes	Yes	Yes

Note: This table is developed based on Yin (1994).

An descriptive study explores the details of existing phenomena that are commonly not manipulated hence the experiments, which is done through controlling the behavioral events, are not considered suited as a strategy. Survey, archival, and historical research strategies are considered also advantageous “when the research goal is to describe the incidence or prevalence of a phenomenon or when it is to be predictive about certain outcomes” (Yin, 1994, p.6). Examples of such research include the “investigation of prevalent political attitudes” (using a poll) and “the spread of a disease” (using health statistics) (Yin, 1994, p.6). In the explanatory study, it often deals with operational links which need to “be traced over time rather than mere frequencies or incidence” (Yin, 1994, p.6) therefore case studies, histories, and experiments are considered suitable. Examples include an investigation on “how a community successfully thwarted a proposed highway” (p.6). To summarize, the purpose of the study and the research questions are the main determinants of suitable strategies for a research.

### **3.1.2 The chosen strategy and justification**

Considering the research questions, I believe that descriptive case study best fits as the research method of this study though case study strategy is commonly used for exploratory or explanatory purpose. The following subsections explain the reasons for this choice.

#### **3.1.2.1 Descriptive case study**

As stated earlier, the descriptive method is suited to measure particular criteria in focused issues through testing hypotheses and identify the details of the related issues. In this study, one of the research questions asks the correlations between the dependent and independent variables; such as individual social and cultural background and their social and cultural participation among international students in the limited context. According to Yin (1994), descriptive questions are more likely to lead to a survey or archival method instead of case study. There are a few reasons why survey and archival methods are not used in this study. In his definition, the case study indicates data collection from the uniform samples in broad setting, such as the samples that share common background in terms of gender, locations, and level of studies in a country. However, since this study observes samples in the limited context, the broad survey, based on Yin's definition, would not be suitable. At the same time, the archival method cannot be used because the data need to be collected from the population currently enrolled in the University.

Yin (1994) presents an example of descriptive case study, 'Street Corner Society' by William Whyte (1955) in which the lower income youths in a neighborhood, "Cornerville" was studied for a period of time to observe their career advancement and their ability (or inability) to break neighborhood ties (Yin, 1994, p.4). This descriptive case study was possible as it "traces



the sequence of interpersonal events over time” (p.4) in a context of specific subculture and the topic has not been introduced in past studies.

The study on the social and cultural needs of international students is considered similar to the above example and the descriptive case study is considered as suitable strategy. This strategy enables collecting data from the target population and describing their characteristics on social and cultural participation. The outcome is expected to inform the university to better serve international students on campus.

### **3.1.2.2 Single case study**

There are various forms of case study and they impact generalizability of the study outcome in a various ways. The case study approach can take the form of either a single case study or a multiple case study method. The multiple case study method is often considered more desirable in terms of generalizability. However, the example used by Yin (1994), the literature of Whyte (1955) as mentioned in 3.1.2.1, demonstrated “its generalizability to issues on individual performance, group structure, and the social structure of neighborhoods” (p.4).

The single case study method may be employed due to several reasons that are described by Yin (1994). Among the rationales for the use of single case study in this study are: this is not a well-studied problem; there is a potential for collecting useful data that leads to future investigations; and the study intends to test assumptions from the literature in the particular context. The limitation of single case study is its generalizability. For example, validating or invalidating hypotheses in a single case cannot form a foundation of a new theory. To turn an idea into a theory, multiple cases are more desirable or a survey, which enables statistical generalization. Also, focusing too much on sub-units of a single case causes investigator to lose sight with the holistic view of theories that it refers to (Yin, 1994, p.44). On the other hand,

testing of a theory is used to verify a real case, which is called “analytic generalization” as opposed to “statistical generalization” (Yin, 1994, p.31). Through analytic generalization, a study can investigate only one or several cases (Yin, 1994).

The following sections will further describe the design of this descriptive case study including the process of data collection (3.2) and data analysis (3.3).

## **3.2 CASE STUDY BACKGROUND**

This case study focuses on international graduate students at the University of Pittsburgh in Pittsburgh, Pennsylvania. In this section, I will provide the necessary information to understand the context of the study.

### **3.2.1 The City of Pittsburgh**

The city of Pittsburgh is located in Southwestern Pennsylvania. It has a population of 334,563 people (Census, 2000) over an area of 55 square miles. The Pittsburgh metropolitan area, covering a 5,278 square miles area, has about 2.36 million inhabitants. The population of the Pittsburgh metropolitan area is fairly homogeneous with 89.5 percent of the population identifying themselves as white at the most recent census. The number of African Americans is slightly below the national average, 8.1 percent compared to 12.3 percent nationwide. Latinos do not have a significant presence, accounting only for 0.7 percent of the population.

While Pittsburgh was a mostly blue collar city in the past, the city has changed a lot over the years. At the time of the last census, 76.5 percent of the population is employed in service sector. While steel used to drive the economy of the area, nowadays education, with seven major colleges and universities within the city of Pittsburgh alone, and health care, with the University of Pittsburgh Medical Center being the largest employer in Western Pennsylvania, are now the main industries in the area.

Pittsburgh has a number of cultural philanthropic organizations, especially thanks to successful businessmen such as Andrew Carnegie, Henry J. Heinz, and Henry Clay Frick. For instance, Andrew Carnegie founded the Carnegie Museum of Art, and the Heinz Endowments have sponsored cultural activities in Pittsburgh over the years. The city has many cultural organizations, including well known dance and theater companies, a major symphony orchestra, and two opera companies. It is also the location of an arts festival and an international film festival. In 2007, Pittsburgh was rated as the most livable city in the United States by “Places Rated Almanac.”

### **3.2.2 The University of Pittsburgh**

The University of Pittsburgh, founded in 1787, is a public university and one of the oldest universities in the United States. It is composed of 15 schools focusing on variety of subjects including Arts and Sciences, Law, Health and Rehabilitation Sciences, and Business. Besides the main campus located in the city of Pittsburgh, it has 4 regional campuses located in Western Pennsylvania. The University of Pittsburgh has been highly acclaimed for its research and education activities, being ranked 19<sup>th</sup> among public universities in the United States in 2007, according to U.S. News and World Report. It has 15,422 full-time and 1,824 part-time

undergraduate students (University of Pittsburgh Fact Book, 2007). As for graduate students, it enrolls 6,701 full-time and 2,913 part-time. The majority of international students, 90 percent, are graduate students.

The student body is fairly active, with 266 undergraduate and 88 graduate and professional student organizations officially recognized by the University. The university supports student organizations by providing services and funding for student activities through the Division of Student Affairs. Moreover, the university has number of programs to encourage cultural activities among students such as PittArts, which promotes culture and arts activity in and outside the university by providing discounted tickets to cultural performances, and the Kuntu Repertory Theater, the second oldest African American theater company affiliated with a major university.

### **3.2.3 The Targeted Nationalities**

In this study, I have chosen to focus on students of the following seven nationalities: India, China, Taiwan, Turkey, Korea, Germany and Saudi Arabia. These represent some of the major countries of origin of international students at the University of Pittsburgh.

Table 13 show the characteristics of the ethnic communities to which the targeted population belongs. The ‘level of activity’ is based on the author’s observation of how active and visible the selected ethnic graduate student organizations are on campus. The criteria are: whether or not an ethnic graduate student organization exists; if it is an official organization of the University of Pittsburgh; and how often they hold or participate in events on campus. The events include programs they organize as well as programs held by other university offices or organizations, in which student groups are invited to participate to recruit members, such as the

annual student activities fair. Taiwanese student activities were combined with the ones of Chinese students since many of the Taiwanese students participate in the Chinese student organizations. The ‘number of students’ is based on the student population in the academic year 2006-2007 (University of Pittsburgh Fact Book, 2007) and it includes only full-time students since the large majority of international students are enrolled full-time. The ‘ethnic group size’ is based on the ethnic population size reported in the United States Census (2002) for the Pittsburgh metropolitan area. These three factors are important in determining the social environment of the targeted population. For example, as can be seen from Table 13, Indian students have an active graduate student group as well as access to a large ethnic community, on-campus and off-campus. On the other hand, there is no official Korean graduate student organization though the ethnic community is fairly large. Moreover, while the largest international community on campus is the Chinese one, Indians are the largest ethnic group in the Pittsburgh metropolitan area among the studied nationalities.

**Table 13. Size and the characteristic of ethnic community at Pitt and the Pittsburgh Metropolitan Area**

<i>Targeted nationalities</i>	<i>Level of activity of ethnic graduate student organizations</i>	<i>Number of students (actual population and percentage) at the University of Pittsburgh (n=22,123)<sup>4</sup></i>	<i>Ethnic group size (actual population and percentage) in the Pittsburgh metropolitan area (n=2,358,695)<sup>1</sup></i>
Chinese <sup>3</sup>	Very active	535 (2.42%)	6,914 (0.3%) 2 <sup>nd</sup> largest
Indian	Active	233 (1.05%)	8,725 (0.4%) 1 <sup>st</sup> largest
Korean	Not active	182 (0.82%)	2,632 (0.1%) 5 <sup>th</sup> largest
German	Not active	86 (0.39%)	Not available <sup>2</sup>
Turkish	Less active	76 (0.34%)	Not significant <sup>2</sup>
Saudi Arabian	Very active	51 (0.23%)	Not significant <sup>2</sup>

<sup>1</sup> source United States Census (2000)

<sup>2</sup> figure not available in the Census data

<sup>3</sup> including Taiwanese

<sup>4</sup> full-time students only, source (University of Pittsburgh Fact Book, 2007)

The countries of origin included in the samples show some unique combination of community availability, on-campus co-ethnic peers, and student activity levels.

### **3.3 DATA COLLECTION**

The main data collection methods in this study are survey and interview. A set of questionnaire are developed for each method to reflect the research questions. A pilot study was conducted to help construct the on-line survey and interview questionnaires. The interview will be conducted in order to acquire more detailed information on one's background and individual perception on social and cultural needs and participation. Conducting interviews for in-depth understanding of complex information also helps shortening the length of the survey. The following subsections elaborate on data sources, sampling procedures, questions, and instruments. The data sources will describe which group of the population was selected as the sample of the Pitt international students and why. The sampling procedures include the subject recruitment process, including pilot test, on-line survey and interview. Then it elaborates the way the series of questionnaire items were developed, how they were pilot tested, and how they relate to the research questions. The final subsection describes how the on-line survey and the interviews were designed including the content and the approach of addressing the list of questions.

#### **3.3.1 Data sources**

In order to measure the degree of community influence, the sample was chosen based on the size, availability of on-campus ethnic student group, and the availability and characteristics of on-campus and off-campus ethnic community groups. I chose the samples from some of the major countries of origin in terms of the number of international students at the University of Pittsburgh, namely China, India, Korea, Taiwan, Turkey, Germany, and Saudi Arabia. Some of the active ethnic graduate student groups on campus include Chinese, Indian, and Saudis but not

Turkish or Korean. In terms of available local community, the United States Census (2000) shows Indian, Chinese, Mexican, Puerto Rican, and Korean to be the top five countries of origin in the Pittsburgh metropolitan area. While this study mainly focuses on graduate students, undergraduate students were included to determine if age influences one's social and cultural participation.

### **3.3.2 The sampling procedure**

The sampling procedure in this study consists of three phases: pilot test, survey, and interview. The following subsections explain the purpose of the procedure, method of sample recruitment, and the characteristics of the samples.

#### **3.3.2.1 First phase – Pilot test**

As the draft questions were developed, the pilot test was conducted to receive their feedback on the data collection tool and observe its effectiveness in data collection. Pilot test was conducted among five volunteer international students from different countries at Carnegie Mellon University since the pilot test takers cannot be the targeted samples of this study. The effectiveness tested was on the logical order of questions, expressions, length, and other possible elements to ease the respondents to follow through the survey. Some details of the test takers' feedback and the modifications are presented in the subsection on the questionnaire (3.2.4).

#### **3.3.2.2 Second phase – Survey**

I created an invitation to the survey which includes a brief description of the research project and a link to the web-based survey. The invitation was distributed through emails and

fliers. The list of email addresses of the students from the selected countries was obtained from the university administrator. The email invitation was sent twice during the month of March and April to all targeted population and one additional invitation to the students with nationalities that needed more responses. In addition, the representatives of some ethnic student organizations were contacted and requested to circulate the email among their members and place the invitation on their organizational website on my behalf. The quarter sized (A6 size) fliers with the invitation were also printed and given to the organizations to be distributed during any organizational events. The contacted student organizations were Chinese Students and Scholars Association (CSSA), ANKUR: Indian Graduate Student Association, Turkish American Student Organization, Korean Student Association of Pittsburgh, and Saudi Student House. Contacting these organizations was easier especially when they are organizations that I professionally work with on a regular basis. An advertisement poster was also placed in bulletin boards of various school buildings, such as engineering and business, where many of the targeted international students study.

The email invitation briefly described purpose of the study, method, confidentiality information, incentives and the link to the website, in which the investigator further describes the study and place the link to on-line survey.

### **3.3.2.3 Third phase – Interview**

Interview samples were acquired from the list of volunteers who completed the survey and expressed their interest in participating in a face-to-face interview. At the end of the survey questionnaire, the on-line survey takes the respondents to a website where they express whether or not he/she is interested in taking a face-to-face interview. If one agrees, he/she is asked to provide his/her email address. After the list of the volunteers was completed, the investigator



sent out an email to ask their university status, countries of origin, and availability during the period of time allocated for the interviews. The purposes of this email were: to limit the participants to students; to balance the background of the interview samples; and to limit the time taken to complete the data collection. Those who meet these criteria were contacted to schedule the interview. Some additional samples were acquired through volunteer participants when more samples of some nationalities were needed.

### **3.3.3 Use of incentives**

The incentives for the survey were gift certificates and coupons from local restaurants and vendors that were either donated or purchased with a grant from the Office of Cross-Cultural and Leadership Development. A letter was prepared with the description of the intentions of research and how the investigator could help to promote their business. Twenty-three vendors agreed to provide the support, which is between one-third and one-quarter of the overall approached vendors, including restaurant, beauty salon, café, and ice cream shops. The incentives were listed on the website, where participants could find the available coupons, and were assigned on first-come, first-served basis.

The incentive for the interview was fifteen dollar in cash and they were given upon the completion of each interview. The participants provided signature of receipt so that the investigator could give the list to the research grant provider, which was the Asian Studies Center, University Center for International Studies at University of Pittsburgh.

### 3.3.4 Questionnaires

The focus of the study is the influence of the family, community, and institutional factors, as described in conceptual framework (section 1.3), which constitute their experience in their life in Pittsburgh. A questionnaire was designed to measure the relationship among dependent and independent variables in these three areas concerning the students' social and cultural needs and participation. The list of questions was constituted with the following five areas: social and cultural needs and participation; family background; community environment; perception of institutional support; and individual values. The content of the questions is further described in the following subsections.

The order, wording, and length were an important consideration in designing the questionnaire. In a study about how sampling procedure and instrument can distort study results, Tepper (1998) discussed the effect of question context, wording, and length in two studies, Survey of Public Participation in the Arts (SPPA) and the General Social Survey (GSS). For example, the way GSS placed questions on one's support for arts before the questions on one's participation, according to Tepper (1998), raised the probability that people would say they participated in the arts in the past year. Also, asking about two art forms that might have significant differences to some people might not be desirable, i.e., 'have you gone to plays or musicals?'. Finally, GSS interviews took 90 minutes to complete, and the other study found "respondents who were friendly and interested in the survey were 2.25 times [more] likely to visit a museum" (Tepper, 1998, p.10) than those were not. A long survey also causes fatigue to respondents which makes the answers less complete and meaningful (Tepper, 1998).

As stated earlier, the usefulness of the survey questionnaire was tested through a pilot test on international students at Carnegie Mellon University. At the pilot test, the completion time

was found to be on average 10 minutes, which was considered reasonable. The investigator received some feedback on the response choices, expressions, and other aspects of the instrument and made some adjustments. For example, for the question on the parents' occupation, one of the response choices was 'public servant', but a couple of pilot test taker pointed it out that people from some countries may interpret it in a different way; hence the option was changed to 'government official'. Also, in the question 'how many foreign countries besides the U.S. have you visited and/or lived in?', the word 'visit' was pointed out to be unclear; hence it was made into two separate questions: 'How many foreign countries besides the U.S. have you visited (stayed less than 1 month)?'; and 'How many foreign countries besides the U.S. have you lived in (stayed more than 1 month)?'.

The following subsections further describe the process through which the questions were designed to measure various criteria.

#### **3.3.4.1 Questions on social and cultural needs**

The questions in this area ask their preferred social and cultural activities or programs hence their preferred content and format can be observed. For example, some questions asked their preference for the opportunity to interact with others so the kind of questions indicate socializing element in the program. The focused areas of their potential interest/needs are: arts and cultural activities; socializing either with co-nationals or American students; either introducing their cultural heritage to American people or learning about American culture; civic engagement through volunteering; enhancing their language and cultural adjustment ability; and observing one's religious practice. The responses to these questions will be closely observed together with their demographical and experiential background to find possible correlations.

### **3.3.4.2 Questions on current social and cultural participation**

This section observes what the respondents actually participate in besides their expressed needs. It asks their kinds and levels of involvement in artistic, cultural, and civic activities, in both their home countries and in Pittsburgh. It aims to reveal the way individuals value their ethnic culture and non-traditional culture and the level of their comfort in being in a different culture. It may also reveal how much individuals may be open to exploring different cultures. Many of the questions were adapted from Cultural Participation Survey (Walker, 1998) but modified to fit the university context and the available resources for international students at University of Pittsburgh. For example, a question in the Cultural Participation Survey asked the samples' participation in arts related activities during the last one year. In the dissertation study, the question asked their participation 'before' and 'after' arriving to Pittsburgh because there are students who have just arrived a few months ago. This question also allowed me to observe the possible influence of changes in the environment on the samples' arts participation.

The suggested variables and questions in this field are suggested by Walker's (2002) cultural participation study. He pointed out three components in the questions on culture and arts participation: method of participation; type of activities; and venues. Methods of participation refer to 'whether, and how often, people participate in arts and cultural activities, as well as the ways in which they participate, for example, attending, volunteering, or performing' (Walker, 2002, p.17). Type of activities 'encompasses the events people choose to participate in' and venues includes 'the locations where participants go to experience arts and culture, such as theaters, schools and universities, parks, community centers, and a multitude of other sites' (Walker, 2002, p.17). The questions were made to include these factors and to reflect on the research focus and the background of participants. As an example, the questions on their

participation in student groups were also included as a form of social participation. Some of the local festivals and local organizations are included in the question. Also, the questions made the distinction between volunteering activities and cultural and arts activity to measure individual civic engagement level.

#### **3.3.4.3 Questions on one's background – individual factors**

The variables in this category reflect the conceptual model of arts participation (section 1.3.6) hence they include motivations (i.e., values, beliefs and interest) and resources (i.e., skills, free time, and money).

Motivation for social participation is measured through their way of spending time with friends. Motivations for cultural participation are measured through questions used in the Cultural Participation Survey inventory (Walker & Scott-Melnyk, 1998). The questions include their experience in taking any arts classes; their perception of the importance of access to arts or cultural events; and reasons for being involved in cultural activities.

One's values are measured from self-perceived cultural differences and perception of self. Some questions ask their perception of American people, their interaction with them, and academic culture. Respondents were asked to rate their own perceptions on academic performance; social and cultural adjustment; physical appearance; family prestige (status); country's prestige in the world; and probability of future success in their own country. They rated their perception of status from their own view and how they assume U.S. students would rate on a scale from 1 through 5. This rating method was employed from the inventory developed by Lee et al. (1981).

Questions on skills ask their English speaking ability and communication skills that possibly affect their socialization.

Questions on free time and financial source ask: their current work appointment in their home country and the university; their own perception of financial stability; availability of health insurance; hours working; and available time for social life.

#### **3.3.4.4 Questions on one's background – community factors**

The variables in this category reflect the conceptual model of arts participation (section 1.3.6) hence they include path of engagement and structure of opportunity. The path of engagement includes family and social ties as well as organizational affiliations that reflect an aspect of their status culture and early socializing experience, i.e., social capital. Family involvement in social and cultural activities will create one's early exposure to socialization which supposedly increases their socialization as an adult. Family related questions ask: family participation/engagement in arts, cultural, social and civic activities. They include: visit to museums and theatres; interest in literature; volunteering and political activities; and family get-together. Other social ties are measured by current availability of friends, spouse, and roommates and their social and cultural participation. The current organizational affiliation, measured in the different section, is considered as a contributing community factor.

#### **3.3.4.5 Questions on demographical background**

Most of the demographical questions and response choices are adopted from the inventory developed by Lee et al. (1981) and Eid and Jordan-Domschot (1989). Some questions are modified to better reflect the international student status at Pitt. For example, Eid and Jordan-Domschot (1989) asked the college year that respondents belong but, giving the fact that the majority of Pitt international students are graduate students, the choice for college level students are indicated simply as 'undergraduate'. The demographic questions also included the countries

they have visited and lived in the past besides the U.S. to portray individual level of cross-cultural experience. It also asked if and why they intend to stay in the U.S. after completing their study to relate this to their sense of belonging to their own countries or ethnic groups and to determine if this has any relation to their social and cultural participation patterns.

### **3.3.5 Instruments**

The instruments used in this study are questionnaires in on-line survey and individual face-to-face interviews. Questionnaires in both tools reflect the research questions, but the survey consist mainly of close-ended, multiple choice questions to reduce the taking time of the survey as well as to ease data analysis.

Questions in the survey are modeled based on the research questions listed in the previous chapter (2.0). The composition and wording of the questionnaire were developed referring to international student needs assessment inventory developed in the past (Lee et al. 1981; Eid & Jordan-Domschot, 1989) and art and cultural participation study inventories (Walker & Scott-Melnyk, 1998). The following subsections list the questions included in the questionnaire. The order of questions in the survey was reorganized to create a logical flow for the respondents. Improvement on the phrasing, order and response choices were made with the consultation of the Office of Measurement and Evaluation (OMET) at University of Pittsburgh. Both the survey and interview question items as well as the measurement for maintaining confidentiality were submitted to the Institutional Review Board (IRB) of the University and, after some requested modification in the data collection method, permission was granted to conduct this study (see Appendix A for the permission letter).

### **3.3.5.1 On-line survey**

The on-line survey tool eased the survey distribution and data collection process. Survey Monkey was used as it is one of the most popular and inexpensive options. The on-line survey (see Appendix B) was made available from the research study link for three months. The tool collects individual responses without disclosing individual emails or any other sources of identification. During the data collection, I was able to download updated data and observe the statistics of completed responses. Further features of the tool are explained in the data analysis section.

### **3.3.5.2 Individual interviews**

According to Patton (2001), there are three possible approaches to interviews: the informal conversational interview, the general interview guide approach, and the standardized open-ended interview. The informal conversational interview is an unstructured and conversational style in which the direction and the content are determined by the flow of the conversation. The strength of the approach is “flexibility, spontaneity, and responsiveness to individual differences and situational changes” (Patton, 2001, p.343). On the other hand, it can take more time to gather systematic information and analyze data. The general interview guide approach is semi-structured interviewing where the interviewer follows a certain sequence of questions to maintain systematic data collection but it leaves room to explore further on related topic. This approach is useful in keeping the conversation focused in a focus group. In the standardized open-ended interview, the content and the phrasing of the questionnaire are decided in advance. This approach ensures consistency of the way and the content in the interviews, which allows the involved research committees and state holders to know exactly the questions asked to the participants. It makes the process of organizing and analyzing data structured; hence



easier for investigator. On the other hand, the weaknesses of the standardized approach are lack of flexibility in collecting related information or inability to adjust to the circumstances and the characteristics of the respondents.

The approach used in this study was initially a standardized open-ended interview where the exact wording on the questions was prepared before hand. However, during the course of interview, the investigator found the necessity of adjusting the order, focus, and the phrasing of some questions depending on the interviewees due to their diverse background. In other words, the individual culture, language ability, and areas of interest influenced the individual ways of understanding questions and sharing thoughts and experiences. The investigator sometimes needed to rephrase the questions many times to have the interviewee correctly understand the intention of the questions. For instance, the word such as ‘cultural and arts activities’ seemed confusing to many respondents. To the questions about their involvement with co-ethnic peers, for example, many respondents asked if I meant before leaving the country, right after coming to America, and now. There were some respondents who studied in different institution before the University of Pittsburgh for a few years and their response became more complex. Some of them took time to recall their experiences and thoughts so some targeted information was shared at different times. For this reason, a way of taking notes was developed that allowed as well as reminders of which elements were missing from the collected data during the interview (see Appendix C).

The interview was held in the investigator’s office on campus throughout the week by appointment. The overall process of the interview was to first share a letter that explains: the purpose of the study; general question content; recording process; confidentiality information; time to take; and the reward (see Appendix D). Although signing for the agreement was not

required from IRB due to the nature of the study (subject and questions), I found it helpful to have all the information written on the paper to maintain the comprehensiveness of information and to allow international participants who may prefer written English statement to understand important information. The interview content was recorded with the permission of each participant to enable transcribing and checking for clarification later on. At the end of the interview, the compensation was given.

### **3.4 DATA ANALYSIS**

As the study is a descriptive case study, this section describes unit of analysis, logical linking the data to the propositions, and criteria for interpreting the findings. Data analysis was done through simple observation of data, descriptive statistics and finding the relationship between survey and interview data to find correlations among variables and support the outcome. Based on the research question, dependent and independent variables were determined to compute the correlations. Computing the correlations, testing reliability, and interpreting the data were done with the assistance of the Office of Measurement and Evaluation of Teaching (OMET) at University of Pittsburgh.

The following subsections further explain the process of analyzing the survey data (3.3.1) and the interview data (3.3.2).

### **3.4.1 Survey data**

The on-line survey tool used, Survey Monkey, provided an Excel spreadsheet listing and comprising the survey data, which was available for download either in numerical form or in text form both an actual data and summaries. This feature helps the researcher to take a quick look at the survey results. The survey data was used to observe the overall tendency of the responses and analyze correlations among variables. Some of the main processes of data analysis presented in this section are the coding process, the process of evaluation of and comparing values, comprising variables, and calculating the magnitude and reliability of correlations.

#### **3.4.1.1 Coding process**

The coding for each response had to be adjusted in order to provide scores to responses hence they could be compared. Survey Monkey codes each response in order of how they are listed in the questions. For example, question four asks to what degree individuals are interested in different forms of social interaction, such as “interacting with friends with common ethnic and cultural background” with the five likert-scale response choices. The five choices reads ‘very interested – somewhat interested – not so interested – not at all interested – undecided’ and Survey Monkey code them as ‘1-2-3-4-5’. However, the coding was changed to ‘5-4-2-1-3’ so that the higher score symbolizes one’s strong interest in the specific form of socialization and ‘undecided’ responses are scored as ‘middle’ instead of ‘highest’. These changes enabled me to compare the strength of each tested category. For the questions that are not meant to rate the strength of tested category, such as individual affiliations (schools), countries of origin, and age, the original coding of Survey Monkey was used.

### 3.4.1.2 Process of evaluating and comparing values

After the coding was adjusted, responses for each question were displayed with their standard deviations, means, frequencies, and response counts (including skipped responses). The mean, the arithmetic average of the data, was computed as:

$$\bar{x} = \frac{\sum x}{n}$$

The standard deviations represent the range of distribution of the data collected from the samples. The formula for calculating the standard deviation from the sample population is:

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

The standard deviations help us observe the diversity of the responses among the group. The score is useful especially in correlation analyses such as, for example, students' interest in interacting with co-ethnic group depending on the nationality.

The numerical data calculated through the above process are then used to analyze correlations. The first method of correlation analysis used was to simply identify some variables as either independent variables or dependent variables to compare the correlations. For example, country of origin is used as independent variables and the average self-reported English conversation skills as dependent, which allows comparing the self-reported English conversation skills among students depending on their countries of origin. The second method of correlation analysis was using scales that are developed through comprising multiple variables that are identified as part of individual characteristics in certain areas of focus in this study, which is explained in the next subsection.

#### **3.4.1.3 Use of scales - comprising variables**

Use of scales enables us to measure individuals' attribution in focused areas through comprising variables that are identified as part of the expression of the attribution. Based on the purpose and the research questions of this study, the following scales were developed to analyze data: social capital scale; cultural capital scale; cultural participation scale; civic engagement scale; and academic success scale. These scales were used as both dependent and independent variables to analyze the correlation among the scales or with other variables that comprise a response to a single question.

The social capital scale aims at measuring the range of and the level at which the international students are involved in various kinds of social network and support system. As discussed in the theoretical orientation (1.3.2), the concept of social capital in this study focuses on the social network students are part of and benefit from, through the 'trust, reciprocity, information, and cooperation' (Putnam, 2006, p.1) associated with it. Bourdieu (1983) emphasizes the importance of durability of the network and the association with a group. The social capital scale, therefore, is made up of variables from the survey that asks individual association with university or community group membership, level of involvement in them and other social and cultural activities, and family size and ties.

As described in section 1.3.5, cultural capital, refers to the individuals or networks of people who appreciate and participate in high quality culture and arts (including literature) (Bourdieu, 1984; DiMaggio, 2004). In the cultural reproduction theory, the cultural capital is transcended through generations through emphasis in education attainment and cultural competency, hence often observed through family's social status as well (De Graaf et al., 2000). A challenge of measuring cultural capital in this concept is that it is difficult to accurately

observe one's interest in 'high quality art' because of the argument over the definition of 'high quality art' in modern context and also the possible lack of consensus about 'high quality art' due to the diverse social and cultural context that the subjects may be referring to. Also, in terms of family's social status, the parent's occupations may provide the indication of one's social status in the country but it is found that it is hard to rank various occupations in society based on how they are indicated in the survey, e.g. banker, engineer, military official. So the family's social status is based on self-reported level of 'family's prestige' in the survey. The cultural capital scale, therefore, focuses on the family's cultural and arts participation, family's emphasis in educational attainment, expressed influence they have received from parents in this regard, individual culture and arts participation, as well as civic engagement.

Cultural and arts participation scale is made up of scores from the questions regarding the frequency and level of involvement as well as the knowledge of cultural and arts opportunities inside and outside the University.

As the civic engagement theory applied in this study focuses on involvement in community service and networking (refer section 1.3.6), the civic engagement scale is designed to measure involvement and attribution in this area. As discussed in section 1.3.6, the attribution considered to be relevant for civic engagement in this study include one's involvement in the area of: changing society; developing leadership; solving social and environmental problems; developing sense of community; understanding values of self; and community service. The question items from the survey that are therefore included to develop the scale are the ones related to one's involvement in community activity inside and outside the university (committees, groups, and volunteering), their feelings for the importance in their involvement, and the sense of responsibility to their country.

The academic success scale is designed to measure both self-perceived and actual academic performance. The reasons that both performance were included are: many international students possibly do not have the common scale or understanding of GPA; and the academic success level scale measures not only one's level of achievement of skills in relevant area but also one's confidence in being able to contribute to the society. The self-perceived performance observes one's adjustment, academic performance and language skills. The actual performance is the self-reported Grade Point Average (GPA).

The social interaction scale measures one area of social needs: general socialization. Therefore it includes one's involvement and feelings for networking, community activities, socialization in general, and the perception on his English conversation skill as it also affect one's level of socialization with people other than one's co-ethnic peers.

The following table (table 14) summarizes the list of question included as variables to construct each scale and also note the research questions that applied the scales to analyze correlations.

**Table 14. Scales and survey questions items to calculate the score and research questions that used the scale**

<i>Scales</i>	<i>Survey question items included to calculate the score</i>
Social capital scale  (Used in Research Question 3)	8. <i>Have you been an active member of your ethnic student organization on/off campus?</i> 10. <i>How much financial contribution are you willing to make annually to your ethnic student group?</i> 11. <i>Please rate the frequency of your participation in the following social and cultural opportunities (5 likert-scale)</i> (11-2 'student committee', 11-4 'volunteered in any community or on-campus activities') 12. <i>Background – Please rate the importance of the following</i> (12-1 <i>Social networks (to the society you come from)</i> , 12-4 <i>Spending time together (to your family)</i> '), 12-6 <i>The social activities (to you)</i> ') 20. <i>What is the size of the family you grew up in?</i> 21. <i>Please rate the frequency of your family activities (all sub-categories)</i> 24. <i>Do you interact with many people from your country residing in Pittsburgh?</i>
Cultural capital scale  (Used in Research Question 3)	12. <i>Background – Please rate the importance of the following</i> (12-3 <i>'Arts and culture activities (to your family)'</i> , 12-4 <i>'Spending time together (to your family)'</i> ) 13. <i>Please rate how you perceive your own experience and these items as they relate to you.</i> (13-5 <i>'Your family prestige'</i> ) 21. <i>Please rate the frequency of your family activities (all sub-categories)</i>

Cultural and arts participation scale (Used in Research Question 2 and 3)	<p>6. <i>Social and Cultural Needs – Cultural and Arts Participation</i> (6-1 ‘Learning about American culture’, 6-2 ‘Learning about local arts and cultural resources’, 6-3 ‘Learning about food culture or cooking practices of other countries’, 6-4 ‘Exchanging language training’)</p> <p>7. <i>How often have you attended each of the following arts-related activities or events in the US during the past 12 months?</i> (all sub-categories)</p> <p>11. <i>Please rate the frequency of your participation in the following social and cultural opportunities</i> (5 likert-scale) (11-1 ‘Used PittArts cheap ticket service’, 11-3 ‘Participated in programs offered by community social organizations’)</p> <p>12. <i>Background – Please rate the importance of the following</i> (12-5 ‘The arts and culture (to you)’, 12-6 ‘The social activities (to you)’)</p>
Civic engagement scale (Used in Research Question 2 and 3)	<p>5. <i>Social and Cultural Needs – Civic Engagement</i> (all sub-categories)</p> <p>8. <i>Have you been an active member of your ethnic student organization on/off campus?</i></p> <p>10. <i>How much financial contribution are you willing to make annually to your ethnic student group?</i></p> <p>11. <i>Please rate the frequency of your participation in the following social and cultural opportunities</i> (5 likert-scale) (all sub-categories) (11-2 ‘student committee’, 11-3 ‘participated in programs offered by community organizations’, 11-4 ‘volunteered in any community or on-campus activities’)</p> <p>12. <i>Background – Please rate the importance of the following</i> (12-6 ‘The social activity to you’)</p> <p>13. <i>Please rate how you perceive your own experience and these items as they relate to you.</i> (13.4 ‘Your responsibility in the future of your country’)</p>
Academic success scale (Used in Research Question 3)	<p>13. <i>Please rate how you perceive your own experience and these items as they relate to you.</i> (13-1 ‘Your academic performance’, 13-2 ‘Your social and cultural adjustment’, 13-3 ‘Your future status in your country’, 13-4 ‘Your responsibility in the future of your country’)</p> <p>15. <i>Please rate your opinion on your skills and resources.</i> (15-1 ‘I am comfortable in daily conversation in English’, 15-2 ‘I am comfortable with my English ability to meet my academic requirements’) (5 likert-scale)</p> <p>37. <i>What is your current grade point average?</i></p>
Social interaction scale (Used in Research Question 2)	<p>4. <i>Social and Cultural Needs – Social Interaction</i> (all sub-categories)</p> <p>8. <i>Have you been an active member of your ethnic student organization on/off campus?</i></p> <p>12. <i>Background – Please rate the importance of the following</i> (12-6 ‘The social activity to you’)</p> <p>15. <i>Please rate your opinion on your skills and resources.</i> (15-1 ‘I am comfortable in daily conversation in English’) (5 likert-scale)</p> <p>24. <i>Do you interact with many people from your country residing in Pittsburgh?</i></p>

In using the previous defined scales, respondents who did not provide an answer to all questions in a given scale have been excluded. For example, seven individuals did not respond to all questions needed for the social capital scale, therefore there were excluded from this scale, which was computed using only the 241 remaining respondents. Table 15 shows the number and the percentage of the people that were excluded from each scale. Notice that all the scales were



computed using at least 87 percent of the respondents, making them valid representations of the sample.

**Table 15. Overview of the processed data to develop scales**

<i>scales</i>	<i>criteria</i>	<i>N</i>	<i>%</i>
Social capital scale	Valid	241	97.2
	Excluded	7	2.8
	Total	248	100.0
Cultural capital scale	Valid	247	99.6
	Excluded	1	.4
	Total	248	100.0
Cultural and arts participation scale	Valid	246	99.2
	Excluded	2	.8
	Total	248	100.0
Civic engagement scale	Valid	246	99.2
	Excluded	2	.8
	Total	248	100.0
Academic success scale	Valid	218	87.9
	Excluded	30	12.1
	Total	248	100.0
Social interaction scale	Valid	246	99.2
	Excluded	2	.8
	Total	248	100.0

The reliability is also measured by computing Cronbach's Alpha. According to the following table which shows the reliability of each scale, the Cronbach's Alpha for each scale is around .700, which means the reliability of the each scale is considered relatively high.

**Table 16. Reliability statistics – Cronbach's Alpha**

<i>scales</i>	<i>N of items</i>	<i>Cronbach's Alpha</i>
Social capital scale	14	.674
Cultural capital scale	8	.725
Cultural and arts participation scale	11	.762
Civic engagement scale	10	.707
Academic success scale	7	.677
Social interaction scale	12	.745

#### **3.4.1.4 Calculating magnitude and reliability of correlations**

The simple observation of correlation between single variables is done through computing the average scores of the chosen response and compared among set independent variables. For example, when observing the correlation between the years of stay in America and one's need for interacting with people with common ethnic background, the length of stay is defined as independent variable and the respondents are grouped. Then the expressed levels of interest of interaction with people with common ethnic backgrounds are averaged and compared among the groups. The standard deviations are calculated to present the consistency of the response. When analyzing the correlations among the developed scales as explained in 3.3.1.3, Pearson correlation, significance, and reliability are computed to compare the correlations.

#### **3.4.2 Interview data**

The interview data helped obtaining in-depth information about the involved variables that are related to individual needs and participation of social and cultural activities. In this study, interview data is used: to determine the range of variables related to participants' social and cultural participation; to explain some of the unclear findings of quantitative analysis; and to support the result from quantitative analysis. For example, the forms of, purposes of, and their feelings for participating in various areas of social and cultural activities are obtained and presented in a chart to show the overall picture of social and cultural participation of international students. Also, the detailed elements of family, community, and institution influence are found through the interview data. Various correlations of variables that influence their social and cultural participation were suggested by the interview data and helped determine which correlations need to be tested on the quantitative data. For example, to an interview

question ‘what do you like about being with friends from your own country?’, many Asian students respond ‘because I can speak my own language’ or ‘I can share my feeling about cultural adjustment’. This suggests the possible analysis with the survey data to observe the correlation between the individual level of interest in interacting with co-ethnic peers and the English language conversation skills or the level of cultural adjustment. The following subsections explain the process of selecting data sets to observe, coding and sampling tests, and dealing with possible bias and unreliability of data.

#### **3.4.2.1 Chosen responses and research questions**

After finishing the series of interviews, the responses were transcribed and organized into Excel spread sheets to allow the investigator to closely observe and decide which responses to take a close look at when looking for information on each research question. This was a time consuming process because respondents often provided information not when the question that was meant to collect the targeted information was asked and the investigator had to identify multiple locations when the related information could be found. Eventually, the list of questions that are observed to answer each research question was made (see Appendix E).

#### **3.4.2.2 Coding responses and sampling test**

In this study, a coding method is used to find some specific limited areas of information such as motivation for participating in the study, forms and motivation of social and cultural participation, and level of language difficulty. For example, there are several factors expressed by samples as the motivation for participating in the study such as, interest in the study topic, rewards, learning about the research process, and helping the investigator as a researcher or as a friend. The responses of each sample were observed and the frequency were noted to learn the

characteristics of the interview sample (see table 20 in Section 4.1.3). This helped explaining some patterns of phenomena found in the survey response. Coding was used to classify some information and tendencies in the responses but is not used in a profound level as far as developing matrix to show the tendency of responses since the use of interview data was limited in this study.

Observing few samples and comparing the responses were a part of the process of making the quoted statements a valid example. For example, some statements were extracted to explain correlations, such as one's experience in being supported by ethnic student organization groups and their level of involvement in student groups. Having the experience of getting assistance from student groups was set as independent variable and their current involvement in the groups was observed as dependent variable. As example statements that support the analysis were found, samples with other nationalities or gender were observed to see if common characteristics could be found. Reporting on the related statement was made with the consideration of providing balanced representation in terms of the nationalities and genders. When statements that possibly contradict the correlation were found, the original statement was presented as a unique example and with the possible explanation of the difference to provide additional views on the topic.

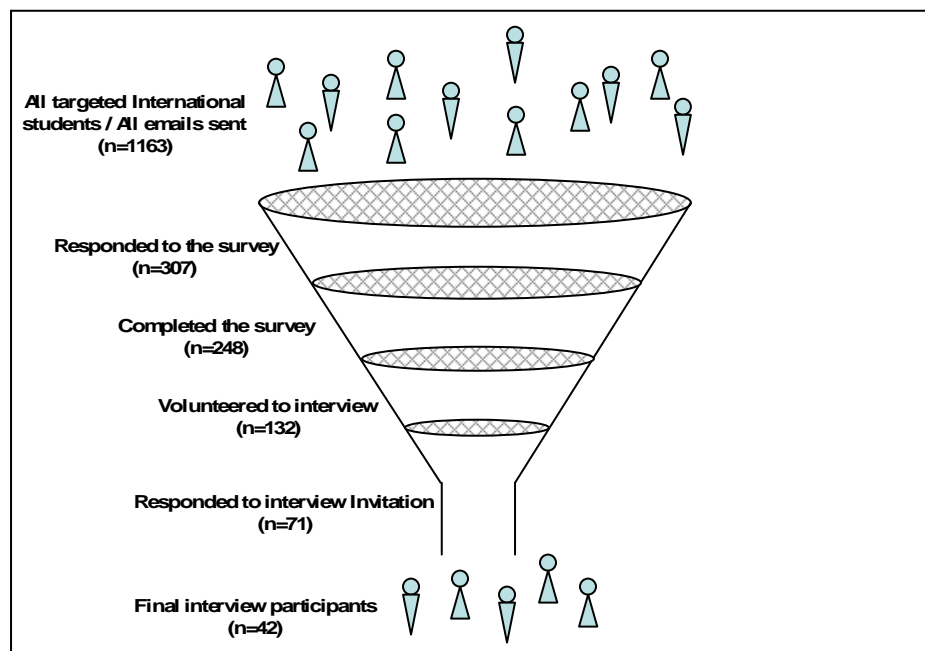
To check the reliability of data interpretation, the author consulted with some colleagues in the doctoral program in education to receive their opinions and suggestions.

### **3.4.2.3 Possible bias and reliability of data**

As explained earlier, the use of interview data in this study was limited to acquiring additional variables and supporting survey data instead of coding the responses and acquiring a statistics of the responses from them. The main reason for using this approach was that the

interview data could not be generalized because of a bias in the selection of the interview participants. More precisely, because of the purpose of this study, the samples ideally would represent both those who are active participants of social and cultural activities and those who are not. However, in the data collection process, the interview participants generally seem to be highly motivated to help others because of the fact they volunteered to participate. The interview participants were not entirely random samples and became the sample by going through several filters. The filters that funneled through the samples start from responding to the survey invitation to accepting the interview invitation. Even though more than 50 percent of survey participants expressed their willingness to be interviewed, not all of them responded to investigator contacting them about setting up the interview. The way the samples have been filtered is represented in the diagram below.

**Diagram 6. Process that interview samples are filtered and funneled**



In fact, many interview participants expressed that they decided to participate because they knew me personally and wanted to help me in the dissertation project. It is partly from the fact that the author is the advisor to some ethnic student groups and knows some of them through student organization activities. There was some cash reward for the participants but I had the impression that it was not the major interest of the participants. This bias from interview data is not unusual as Patton (2001) says: “our studies tell us that one of the most frequently cited reasons why people participate is for the ‘community good’...If you are doing something that is perceived to be of value and you do it in a professional and respectful way, people will respond” (p.414). Further reporting about the interview participants is included in the Finding section (4.0). Therefore, this limitation was taken into consideration and the observation of tendency was focused on the survey respondents and the use of interview data was limited.

### **3.4.3 Data analysis summary**

As the summary of data analysis, question items from survey and interview as well as the scales used are presented in the table below.

**Table 17. Question items to be analyzed – all research questions**

<i>R.Q.*</i>	<i>Analysis focus</i>	<i>By individual questions</i>		<i>By scales</i>
		<i>Survey Question items</i>	<i>Interview Question Items</i>	<i>Scale types</i>
1	Social participation	4.5.11.38	3. <i>Community</i> <i>Are you familiar with community ethnic organizations? Are you involved with them?</i> 4. <i>perception of socialization</i> (socialization in the past and present, motivation)	(not used)
	Cultural participation	6. 7. 11.	5. <i>Perception of cultural and arts participation</i> (areas of interest, experience, degree of importance, perceived influence)	
2	Nationalities and regions of origin	2	1-1-1. <i>Which country are you from?</i>	- Cultural and arts participation scale - Civic engagement scale - Social interaction scale
	Language Barrier	15-1, 15-2	1-2. <i>Skills and Resources</i> <i>Which languages do you speak? Have you had much language difficulties since you arrived?</i>	
	Cultural Gaps	15-3	1-2-4. <i>Feeling for adjustment in the US. Do you want to be integrated in the society?</i>	
	Socialization Needs	4-1, 4-2, 4-3, 6-5		
3	Family - marital status	4-1, 33, 34	1-2-4. <i>Feeling for adjustment in the US. Do you want to be integrated in the society?</i> 3. <i>Community</i> <i>Are you familiar with community ethnic organizations? Are you involved with them?</i> 4. <i>perception of socialization</i> (socialization in the past and present, motivation)	- Social capital scale - Cultural capital scale - Cultural and arts participation scale - Civic engagement scale - Academic success scale
	Family - parents	12-3, 12-4, 12-5, 12-6, 21	2. <i>Family</i> (background of and interaction with parents and siblings, cultural activities)	
	Community	8, 9	1-2-4. <i>Feeling for adjustment in the US. Do you want to be integrated in the society?</i> 3. <i>Community</i> <i>Are you familiar with community ethnic organizations? Are you involved with them?</i> 4-3-2. <i>Motivation for civic engagement</i>	
	Experience		1-2. <i>Skills and resources (experience abroad, feelings for adjustment)</i> 4-3-2. <i>Motivation for civic engagement</i>	
4	Involvement	11-1, 11-2, 15-5	1-1-4. <i>Major</i> 5-5. <i>Social and cultural opportunities at Pitt</i> 5-2. <i>Experience of cultural and arts activities</i>	(not used)

## 4.0 FINDINGS

This section presents the result of data collection and how the findings contribute to the four research questions: 1) What are current social and cultural participation patterns in and outside the University?; 2) How does individual demographic background relate to their social and cultural needs and participation?; 3) How do the family, community and institution variables relate to the social and cultural needs and participation of international graduate students?; and 4) What are their perceptions of institutional responses to their social and cultural needs?

The findings are organized in order of: the description of survey population (4.1), which includes the response rate, demography, and the overview of the responses; and the responses to each research question (4.2 to 4.5). Each subsection includes the key findings concerning the research question including the outlook of the whole population, criteria for interpreting the findings (description of how the related data are chosen and used to respond to the research question), more detailed description of the findings, and the summary.

There are specific focus areas for each research question due to the high volume and variety of information acquired from data collection. Criteria for limiting the focus areas include: some of the findings of literature review; theory focus; and areas of data that seemed interesting among the results. Among the variables, one's student organization involvement will be the focus of data presentation for research question #1; the country of origin will be for #2; the family influence and the size and the characteristics of the ethnic community for #3; and school



affiliation for #4. Further descriptions of data choice are presented in the subsections in the chapter.

## **4.1 DESCRIPTION OF THE SAMPLES**

In this section, a brief overview of the whole data set is presented. Subsections present the response rate for both survey and interview and brief description of responses based on the numerical data presented in the Appendix F.

### **4.1.1 Response rate**

*Response rate of those who have started is about 26%. About 81% of them have completed the survey, hence they are used for analysis. The response rate was about the same for each nationality.*

As presented in the table below, the invitation email was sent to 1163 students, and the number of completed responses was about 248. About one-sixth of the respondents (307) dropped out around the question 12 to 15 where there are some matrixes to fill in (see appendix F).

**Table 18. Number of responses**

	<i>Processes</i>	<i>Number</i>	<i>Percentage</i>
Survey	Emails sent	1163	54.9% (of all international students, n=2116, as of March 2007)
	Survey started	307	26.3% (of total emails sent)
	Survey completed	248	81.1% (of total started)
Interview	Expressed willingness to participation	132	55% (of total survey completed)
	Final interview participation	42	--

The following table presents the country breakdown of the respondents. As observed in the 2<sup>nd</sup> ('percentage from sent total') and the 3<sup>rd</sup> column ('percentages from survey responses total'), the proportion of each nationality among the respondents more or less corresponds to the original population ratio. The author intended to have balanced interview respondents in terms of the nationality, but some nationalities (especially Turkey and Korea) have lower representation among interview participants due to unavailability of some volunteers among those who have indicated their willingness to participate in the survey. Some students from 'other' nationalities are represented in the survey respondents mainly due to the email invitation sent through some ethnic student organizations for which they are on the organization email list.

**Table 19. Balance of Country Distribution among University population, survey and interview participants**

<i>Country</i>	Invitation Sent		Survey participants		Interview participants		
	<i>Number sent / total international students by country</i>	<i>Percentage from sent total (n=1163)</i>	<i>Number responded and completed</i>	<i>Percentage from survey response total (n=248)</i>	<i>Number volunteered</i>	<i>Number Participated</i>	<i>Percentage from interview participants total (%) (n=42)</i>
China	418	36%	81	33%	40	6	14%
India	233	20%	58	23%	36	11	26%
Korea	182	16%	27	11%	14	4	10%
Taiwan	117	10%	29	12%	11	5	12%
Germany	86	7%	10	4%	7	6	14%
Turkey	76	7%	22	9%	5	3	7%
Saudi Arabia	51	4%	15	6%	10	5	12%
other	--	--	6	2%	9	2	5%
TOTAL	1163	100%	248	100%	132	42	100%
Percentage of all Pitt international student (n=2116, as of March 2007)	54.96	--	11.72	--	6.24	1.98	--

#### 4.1.2 Survey outcome

The survey outcome is presented in graphs, charts, and tables to present response counts, response rate, frequency, and range (see Appendix F). For those questions on the levels of individual needs and interest in some areas of concern, such as social and cultural activities (Q4-7 and Q11-15), the mean and standard deviations are calculated and presented in tables.

#### 4.1.3 Demographics

While the study was advertised mainly towards graduate and undergraduate students at the University of Pittsburgh, a few responses were received from other individuals. These include

people who are from other institutions (5.6 percent) and people who are not students (10.9 percent).

The samples are quite equally divided between men and women (44.8 percent and 55.2 percent, respectively). The large majority of the respondents are between the ages of 22 and 30 (85.7 percent), which is almost equally divided between the 22-25 and 26-30 ranges. A large number of the sample is single (63.3 percent). Among the married respondents, five out of six are in the United States with their spouse. About 11 percent has children, mostly living with them in the United States.

The majority of the sample is currently enrolled in a graduate level program, 29.0 percent pursuing in master's a degree, 60.5 percent in a doctoral program. Only 4.8 percent are undergraduate students. The respondents come from almost every department in the university, with arts and sciences (24 percent) and engineering (20 percent) being the predominant affiliation. The reported grade point average (GPA) is fairly high, with 68.4 percent of the respondents reporting a GPA between 3.5 and 4.

The length of the stay in the United States varies greatly across the samples: 31.2 percent has been in the United States for less than a year, 23.8 percent between one and two years, 14.5 percent between two and four years, and 31.5 percent for more than four years.

#### **4.1.4 Characters of the participants**

An interesting aspect of the finding is the overall impression of how many respondents reacted to this study. The responses to the final open ended question (optional) in the survey (see Appendix F) showed some of them. Despite the fact that the incentives for the survey was given on a first-come, first given basis, about 40 out of 248 completed respondents chose to write some

comments. Many of them expressed their support in the study, appreciation for the opportunity to express themselves, comments and suggestion on the methodology or the tool. It is not possible to see how many of those who responded to the open-ended questions is part of the final interview due to the IRB requirement for protecting the survey respondents' identification. However, I observed the same characteristics among many interview participants and they expressed their interest and support for the study.

The impression of the attitude for responding to the interview questions was generally sincere, responsive, proactive, and thoughtful. To the final interview question, 'What interested you to participate in the survey? Did survey prize or cash reward for the interview motivate them to participate?', many of them expressed their interest in supporting the study. A Taiwanese female student responded:

I want to voice myself in a way because I really want to emphasize ... like I don't know what else you can do...but I want to emphasize the problem or difficulties that we are facing right now...So by voicing the survey, you can express some concerns of Taiwanese people.

I observed that this study interested some participants because many international students are graduate-level students who conduct research themselves, and that fact motivated them to gain exposure to or help others. A Saudi male student responded, "I wanted to participate because I wanted to learn how these studies are conducted since I'm in the same field". An Indian male student responded, "I don't think so [participated because of the survey prize]. I was more like...maybe because I'm in PhD program, I felt that I have to be part of other people's PhD program and I hope I will get the help when I need as well." The following table shows the range and the frequency of the responses among the interview participants:

**Table 20. Expressed motivation for participating in the interview (multiple answer,  $n=41$ )**

<i>Motivations</i>	<i>Number expressed</i>
Interesting study, wanted to contribute to improve the University's service to international students	20
Prize (for the survey)	10
Because I knew you and wanted to help	7
Want to help other people's scientific research	6
Wanted to talk about my culture, myself	6
Because my friend encouraged me to participate	4
Learn about the study method	2
To practice English	2
Like to help others in general	1
Religious belief of helping others	1
Felt the responsibility to respond	1

For those who said they did not participate for the prize, I asked them if they have responded to surveys in the past to see if they answer surveys in general or this particular study interested them. They often tried to participate or most of the time they delete the email notice for surveys, but some of them explicitly said that the study description in the email invitation motivated them. As for the cash prize, many of them seemed to have even forgot the fact that there was compensation. A couple of students refused to receive the compensation saying “it is not necessary” or “I didn’t come to help you to receive the compensation.” Some of them asked me a few times if it is really okay for me to give the money, and I insisted that the compensation was from the research grant so they did not have to worry so I wanted them to have it. Some of them offered to talk to or send emails to invite their friends to participate in the survey as well.

Many of them asked for clarification when the questions were vague by saying such as “I don’t know if I understand your question clearly, but do you mean...?” before answering the question. Many of them were eager to share their experience and went overtime. A few of them spent 1 ½ hour to 2 hours as opposed to 1 hour. Event after the interview was over, some of them stayed and started giving me suggestions for improving the study.

Their attitude was especially helpful in acquiring additional interview participants. For example, I did not have adequate numbers of German, Turkish, and Korean participants for both the survey and interview. However, because the volunteers were generally proactive, social and helpful, some interview participants offered to ask some of their friends and classmates to participate. Some additional respondents were acquired through this process, but it also contributed to bias in the population. For example, the majority of the German respondents are those who study in the same program at the Business School.

Many of them were quite open about providing their identity as they were contacted for the follow-up interview, perhaps because of the topic of the study. For example, in the invitation email, I asked their nationality to have balanced participation, and many of them responded to me by stating their name and alternative email address or phone numbers to be contacted.

#### **4.1.5 Summary**

Based on the feedback from OMET, the response rate (26%) for this study seems to be positive. It was also helpful that the ratio of country distribution among the samples is similar to the overall Pitt international student population. The characteristics of the interview participants are biased relative to the overall international students in terms of their motivation for civic engagement. Because of their generally sincere and helpful attitude in the interview, it nonetheless helped in gathering useful and in-depth information on the topic as well as getting additional survey participants through them when necessary.

## **4.2 RESEARCH QUESTION 1: *WHAT ARE CURRENT SOCIAL AND CULTURAL PARTICIPATION PATTERNS IN AND OUTSIDE THE UNIVERSITY?***

This section presents the interview and survey outcomes that exhibit the patterns of social and cultural participation among international students. The overall picture of social and cultural participation is presented in a chart (4.2.2). The level of interest in the various areas of social and cultural participation is also presented in this section through a histogram based on survey data with additional explanation based on data from the in-depth interviews. The focused areas of concerns are: the way sample's socialization patterns shift with the dynamics of their interest and environment; and the distinction between 'have to' socialization and 'want to' socialization identified mainly from the interview.

### **4.2.1 Criteria of interpretation**

The pattern of social and cultural participation was described, first, by presenting the numerical responses of some related questions from the survey. The interview responses presented more detailed responses in this area. Question items from the survey and interview that are observed to answer research question 1 are as presented in the following table. The responses to those questions revealed the unique set of criteria that are involved in the social and cultural participation of international students.



**Table 21. Question items to be analyzed for Research Question 1**

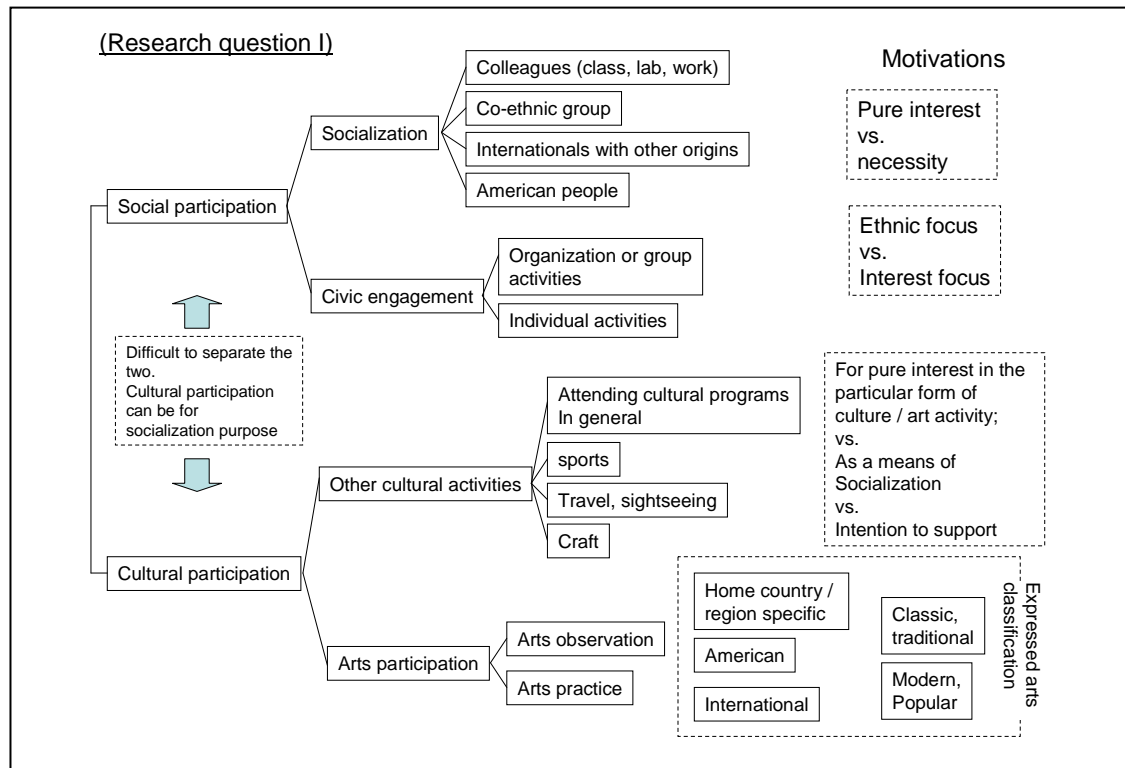
	<i>Survey Question items</i>	<i>Interview Question Items</i>
Social participation	<i>4. Social and Cultural Needs – Social Interaction</i> <i>5. Social and Cultural Needs – Civic Engagement</i> <i>11. Please rate the frequency of your participation in the following social and cultural opportunities (5 likert-scale)</i> <i>38. How long have you been in the U.S.?</i>	<i>3. Community</i> <i>Are you familiar with community ethnic organizations? Are you involved with them?</i> <i>4. perception of socialization</i> (socialization in the past and present, motivation)
Cultural participation	<i>6. Social and Cultural Needs – Cultural and Arts Participation</i> <i>7. How often have you attended each of the following arts-related activities or events in the US during the past 12 months?</i> <i>11. Please rate the frequency of your participation in the following social and cultural opportunities (5 likert-scale)</i>	<i>5. Perception of cultural and arts participation</i> (areas of interest, experience, degree of importance, perceived influence)

#### **4.2.2 Overview of the whole population**

The overview of the social and cultural participation pattern will include: the forms (*‘what’*) of participation; and extent (*‘how much’* or *‘how often’*) of participation. The interview responses (from Question 3,4, and 5) allowed me to develop a diagram that maps various forms of social and cultural participation. Although it is often difficult to clearly separate between ‘social participation’ and ‘cultural participation’, they can be categorized depending on whether or not the participation involves intended cultural activities. Therefore, in Diagram 6, social participation is defined to encompass the personal connection focused activities (named as *‘socialization’*) and contribution in social service related activities (named as *‘civic engagement’*). Among the people to ‘socialize’, respondents identified four groups of people; co-ethnic group, internationals (including students, scholars, and other status) with other

nationalities, American people, and academic colleagues (including any nationality). Civic engagement activities may take the form of either group or individual.

**Diagram 7. Classification of social and cultural participation of international students**

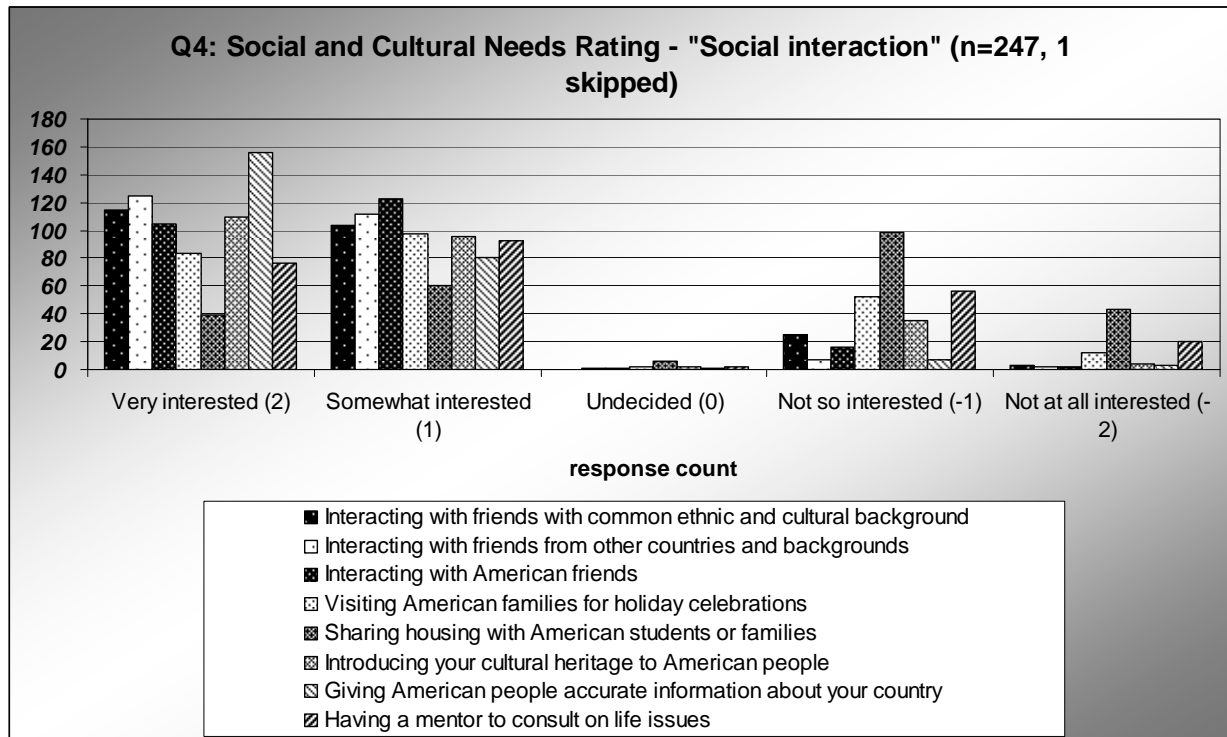


Cultural participation consists of two kinds: activities with expressed focus on artistic appreciation (indicated as '*arts participation*') and other activities (indicated as '*other cultural activities*'). Arts participation takes the form of either passive activity (indicated as '*arts observation*') or participatory activity (indicated as '*arts practice*'). Arts practices range from simple hobby and arts training (taking or having taken classes to play some musical instrument, etc) to professional involvement. Expressed arts classification varies due to the international nature of the study. For example, kinds of preferred music were described as American, Western classical, other international, ethnic (home country's) traditional, and ethnic popular music as opposed to typical arts participation surveys, which distinguish between popular and classical

forms of art (Walker, 2002, p.32). There are roughly two kinds of socialization observed from the interview; one is necessity-based socialization and the other is for pure socialization interest. In general, they interact with co-national friends for the second purpose and with others for the first purpose. Description of motivation in social and cultural participation will be described further in the following subsections (4.2.3 and 4.2.4).

We can see the diversity of interest among various areas of social and cultural activities from the following diagrams that present the responses from questions four to six. According to Diagram 7, kinds of social interaction that attract relatively high interest are ‘interacting with friends from other countries and backgrounds’ and ‘giving American people accurate information about your country’. ‘Sharing housing with American students and families’ are one of the lowest in the expressed interest. However, the two categories with highest interest have low standard deviations ( $\sigma=0.72$  and  $\sigma=0.76$ ) and the lowest category has high standard deviations ( $\sigma=1.39$ ). It means that international students in this case study in general tend to have a high interest in these two kinds of socialization.

Diagram 8. Response for social and cultural needs – Question 4



The next diagram shows the level of interest in the three areas of civic engagement. Although there is moderately high interest in all three areas, the most popular form is ‘helping other students who need assistance’ with the lowest standard deviation ( $\sigma=0.79$ ) (see Appendix F). It was observed from the interviews as well that those international students who received assistance in their adjustment tend to be interested in helping others in their adjustment. The correlation of past adjustment experience and level of civic engagement will be further discussed in the later sections.

Diagram 9. Response for social needs – Question 5

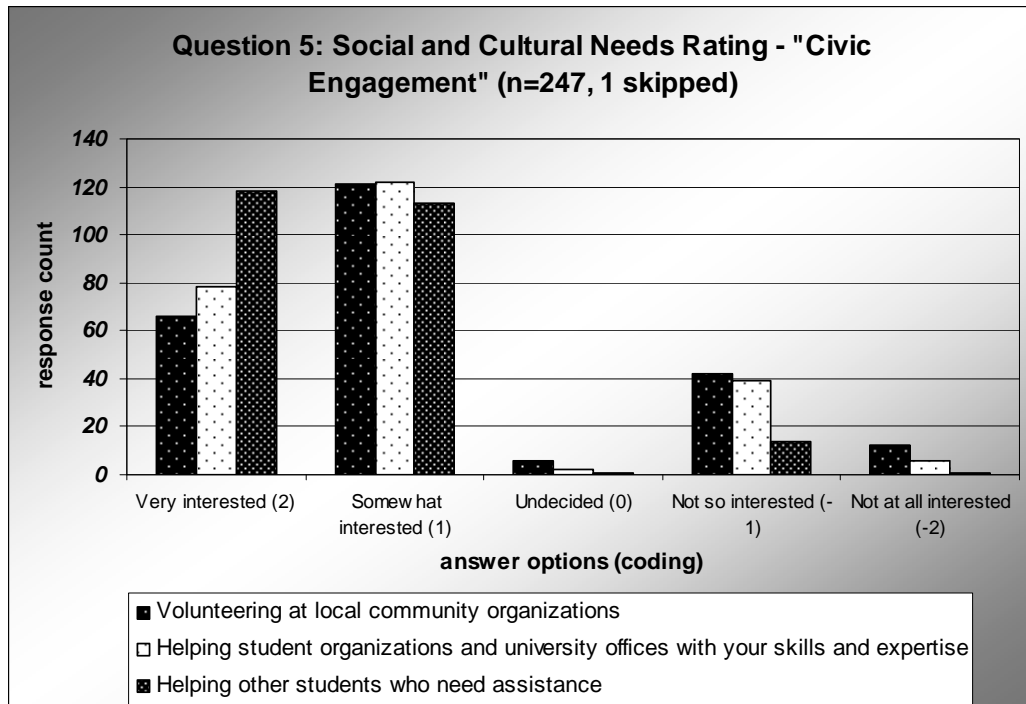
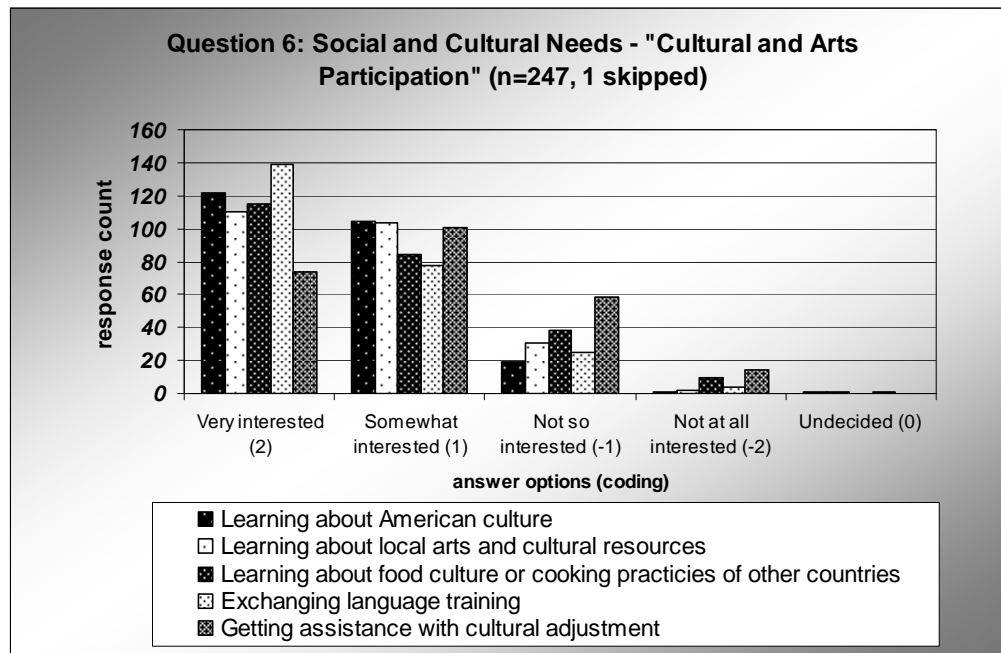


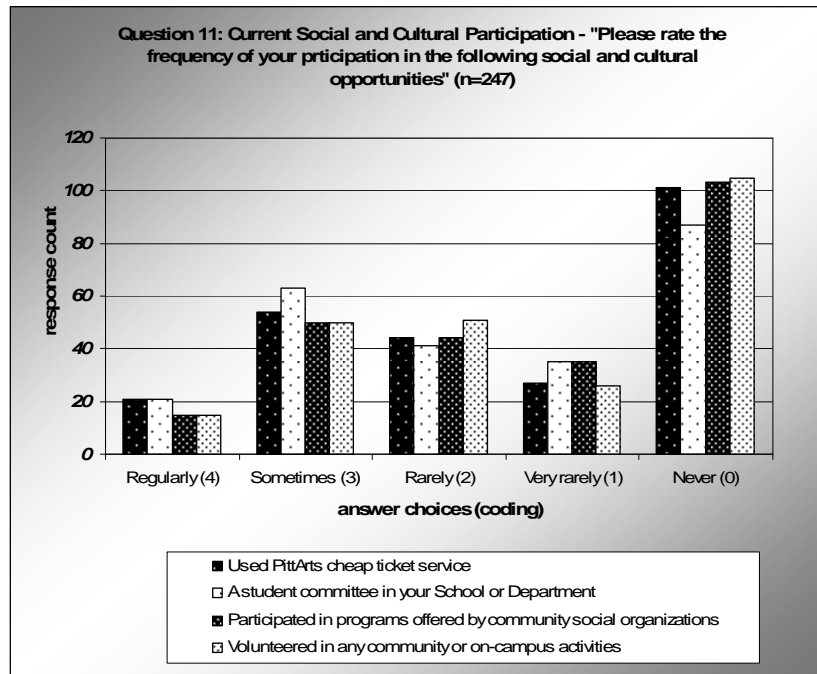
Diagram nine compares the participants' levels of interest in various areas of culture and arts activities. The participants have expressed relatively high interest in 'learning about American culture' ( $\sigma=0.86$ ). The interest in 'getting assistance with cultural adjustment' is the lowest but the response is less consistent ( $\sigma=1.28$ ).

**Diagram 10. Response for social needs – Question 6**



The subjects' interest in other areas of social and cultural participation can be observed from the following diagram. More than half of the respondents have never participated in the given areas of social and cultural activities. However, the high standard deviations ( $\sigma=1.36\sim1.42$ ) indicate there is diversity among them as well.

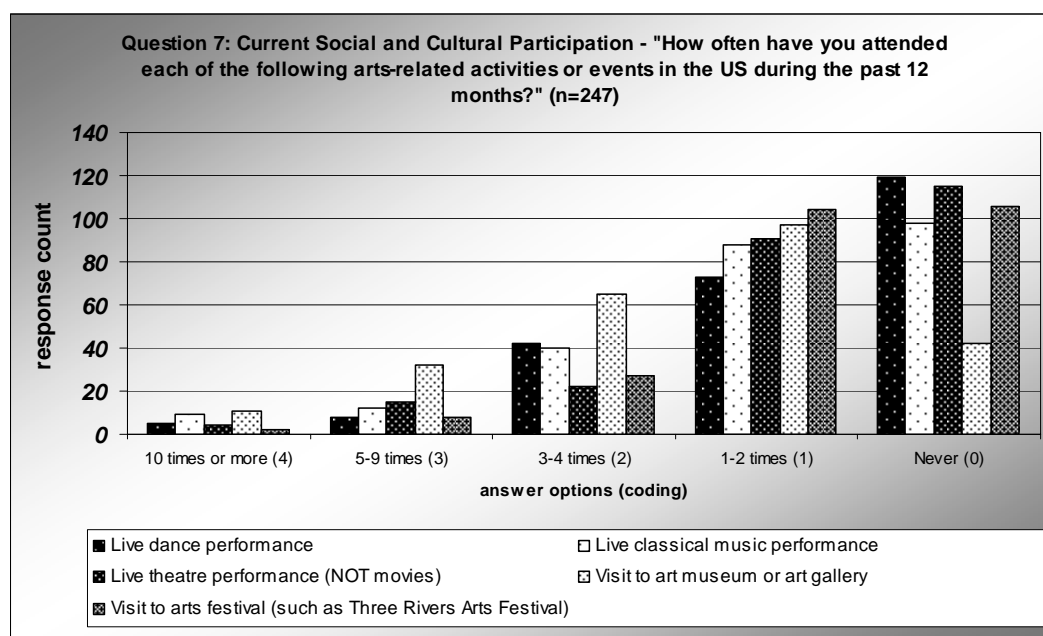
**Diagram 11. Response for social participation – Question 11**



In terms of students' interest in establishing a relationship with American people, what we may assume from diagrams seven to nine is that many of them are interested in learning about American culture but the interest does not go as far as establishing a closer connection with them. This statement is based on the fact that there is high interest in learning about the culture and improving the language skills but relatively low interest in sharing housing. From the interview, students expressed a need to learn about American people so that they can effectively communicate with them in order to ease their adjustment and be able to work with other students, faculty members et al. Further description of this aspect of socialization needs is included in section 4.2.4. The next diagram shows the level of interest in cultural and arts activities. Participation is not generally high, especially for live performances. The popularity of museums and art galleries, compared to other culture and arts resources, seems to be due to easier access in terms of locations and cost based on interview results. Lack of participation in

live performances is also due to unfamiliarity with resources. Participation in theater is not popular among students, especially if they are not comfortable with their English language skills.

**Diagram 12. Response for social participation – Question 7**



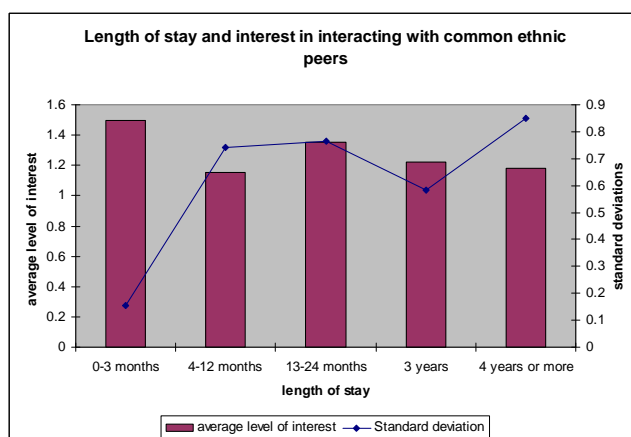
#### 4.2.3 Focused criteria – participation pattern changes with time

One important factor that is found to influence students' social and cultural participation pattern is 'time'. The author assumed the difference in their participation may be observed only between 'before coming to the US' and 'after coming to the US'. However, depending on the process of starting their study and length of their stay at the University of Pittsburgh, three stages in students' social and cultural participation pattern are defined, i.e., before arriving, just after arriving, and now. The changes can be seen in terms of whom to socialize with. Also there are a number of students whose experience of studying in the US has started before coming to Pittsburgh. In their cases, the stages will be: before arriving, just arrived at previous institute,



after arriving at Pitt, and now. The observed shift of whom to interact with is: co-national/co-ethnic to American (or vice versa) and nationality focus to professional relationships focus (or vice versa). In other words, some internationals interact mainly with co-national or co-ethnic friends and later shift to have more American friends, or the reverse. The following diagram shows the shift of average interest in interacting with co-ethnic peers in relation to the length of stay extracted from the survey outcome. The average does not seem to change significantly but the shift of standard deviation shows that there is more diversity as the length of stay increases.

**Diagram 13. Shift of average interest of interacting with co-ethnic peers with the length of stay**



The response diversity among students who stayed longer period of times varies. A Korean female student expresses:

Wanted to be fully immersed in this culture but I had the fear that American people will not be happy about it especially with my language difficulty. After sometime, I compromised that I didn't have enough time and I gave up... I had enough stress from school so I didn't want to take more stress. I still go to places to know American people but I feel a little awkward. I can accompany American friends but it gets uncomfortable after sometime and I feel the distance.

Other internationals start their lives interacting mainly with co-national groups but, as they start working or class work intensified, their main relationship changed to being among their lab mates or classmates regardless of nationality. A female Taiwanese student who has been at Pitt for the last six years says:

In the beginning, we [Taiwanese students] got together almost every week to play badminton or basketball together. Now I don't do much any more because most of the students who came in the same year are gone. Most of the new students in the PhD program are busy and, when I started working and had office mates, I established different kind of relationship with co-workers and friends in school so I have more American friends than Taiwanese friends now.

The decrease in group activities among Taiwanese students especially is due to the fact that Taiwanese student organization no longer exists. Therefore the changes in the environment in terms of the available ethnic community contribute to the changing patterns of socialization.

#### **4.2.4 Focused criteria – ‘have to’ (or survival) socialization**

The next element that stands out as a characteristic of students’ socialization pattern is their intention, which has been found through the in-depth interview. Many of those interviewed expressed that they interact with Americans, classmates, or others because ‘they have to’ but they interact with co-nationals because ‘they are like my family’, to replace their biological family. This behavior tends to be related to the degree of cultural difference they feel between Americans and their own culture. In response to the question about what kind of people they want to socialize with, many of them expressed the need for being able to express one’s true feelings and concerns about life in the U.S. which they feel they cannot express with friends

other than their co-ethnic friends. One example is a Chinese female student who feels uncomfortable:

I have some American or international friends but I feel that I can't get along with them as [well as with] Chinese friends ... If I'm sad, I can't tell my international friends. With Chinese friends, I can tell them. It may be the influence of American culture but I feel like they always want to be positive ..., when I'm not in very good condition, I don't feel comfortable [talking] with international friends and American friends.

There are also some differences between what kind of people they like to interact with and the kind they prefer to form a close relationship with. In the interview, many of them expressed interest in being integrated in American society “as long as I can maintain my own cultural identity.” In order to develop a friendship with someone, it seems important to them that the person is culturally open and respectful. A German female student expressed:

I have contact with a lot of American people but they are not stereotypical Americans, because they lived in or studied about Europe. They have high interest or knowledge about Europe. I like to hang out with them.

On the other hand, lack of cultural openness sometimes becomes a source of discomfort among co-national peers as well. Those who have extensive cross-cultural experience often express frustration in communicating with co-national peers because they feel other co-ethnic peers have expectations that they do not meet. For example, a female student from Saudi Arabia who grew up mostly outside the country expresses:

I don't find many Saudi friends with whom I can share the same interest. My best friends are those with multi-cultural experience like me... I feel [other Saudi girls] never liked me. They never offered to do anything with me. It may be because I don't wear a scarf

that other girls feel uncomfortable with me. When I was in Kuwait or Syria, I didn't wear a scarf... I have tried to establish relationships with others but I felt they don't feel comfortable with me so I stopped trying. Now, I spend time with them but I try to just smile and stay nice.

Therefore, frustration from unavailability of friendship is sometimes not only in terms of countries of origin, but finding peers with common concerns and values. The influence of cross-cultural experience on social and cultural needs and participation will be further discussed in a later section.

#### **4.2.5 Summary**

In general, it can be summarized that, in outlook, international students are mainly interested in forming close relationships among co-ethnic peers who speak the same language, share similar concerns and interests. Many of them are interested in learning about American people for the purpose of gaining cross-cultural experience and communicating effectively with colleagues and faculty members for their success, but they do not expect to form as close a relationship as with their co-ethnic peers. The American people they feel most comfortable interacting with are those who have a certain level of cross-cultural understanding and respect, with whom internationals feel comfortable being themselves and expressing who they are. At the same time, their socialization patterns are influenced by the changing interest and environment. Also, internationals sometimes identify difficulty in being part of their ethnic peer group and seek close relationships based on their unique value sets. Their cultural and arts participation is mainly with things easily accessible in terms of cost, location, and language.

### **4.3 RESEARCH QUESTION 2: *HOW DOES INDIVIDUAL DEMOGRAPHICAL BACKGROUND RELATE TO THEIR SOCIAL AND CULTURAL NEEDS AND PARTICIPATION?***

The social needs and participation of international students are largely influenced by the degree of social and cultural adjustment. The degrees in which students feel the cultural gap in daily interaction often determine with whom they prefer interacting. For students with a certain cultural background, their impressions about what others may be thinking of them encourage or discourage their willingness to interact with certain groups of people. The reviewed literature raised factors such as nationality, cultural differences, language barriers, and differences of educational practices as influencing one's cultural adjustment (Chapdelaine & Alexitch, 2004; Schram & Lauver, 1988; Seo & Koro-ljunbgerg, 2005; Tartar, 2005; Thorstensson, 2001).

In this section, the focus of the analysis will be the differences in socialization tendencies among nationalities and areas of origin. In the overview (4.3.2), social and cultural needs and participation, more specifically, the average civic engagement level, cultural participation level, and socialization level, are compared among nationalities. The focused criteria are language skills and culture of socialization among nationalities. The question therefore is: *how do students with different nationalities experience their language and cultural barriers in socialization and how they influence their social and cultural needs and participation?*.

The information analyzed to answer this question includes survey and interview responses on one's language skills, feelings and level of adjustment and the perception gaps in different areas. The specific question items considered are listed in the next subsection (4.3.1).

#### **4.3.1 Criteria of interpretation**

To compare the level of civic engagement, cultural and arts participation, and general socialization among nationalities, the scores are calculated and averaged out among the nationalities. The civic engagement score, cultural participation score, and socialization score are calculated by summing up the scores from related survey questions.

**Table 22. Scales used in this section and Question items included to calculate scores**

<i>Scales</i>	<i>Survey question items included to calculate the score</i>
Cultural and arts participation scale	<p>6. <i>Social and Cultural Needs – Cultural and Arts Participation</i>  (6-1 ‘Learning about American culture’, 6-2 ‘Learning about local arts and cultural resources’, 6-3 ‘Learning about food culture or cooking practices of other countries’, 6-4 ‘Exchanging language training’)</p> <p>7. <i>How often have you attended each of the following arts-related activities or events in the US during the past 12 months?</i> (all sub-categories)</p> <p>11. <i>Please rate the frequency of your participation in the following social and cultural opportunities</i> (5 likert-scale)  (11-1 ‘Used PittArts cheap ticket service’, 11-3 ‘Participated in programs offered by community social organizations’)</p> <p>12. <i>Background – Please rate the importance of the following</i>  (12-5 ‘The arts and culture (to you)’, 12-6 ‘The social activities (to you)’)</p>
Civic engagement scale (Used in Research Question 2 and 3)	<p>5. <i>Social and Cultural Needs – Civic Engagement</i> (all sub-categories)</p> <p>8. <i>Have you been an active member of your ethnic student organization on/off campus?</i></p> <p>10. <i>How much financial contribution are you willing to make annually to your ethnic student group?</i></p> <p>11. <i>Please rate the frequency of your participation in the following social and cultural opportunities</i> (5 likert-scale) (all sub-categories)  (11-2 ‘student committee’, 11-3 ‘participated in programs offered by community organizations’, 11-4 ‘volunteered in any community or on-campus activities’)</p> <p>12. <i>Background – Please rate the importance of the following</i>  (12-6 ‘The social activity to you’)</p> <p>13. <i>Please rate how you perceive your own experience and these items as they relate to you.</i>  (13.4 ‘Your responsibility in the future of your country’)</p>
Social interaction scale	<p>4. <i>Social and Cultural Needs – Social Interaction</i> (all sub-categories)</p> <p>8. <i>Have you been an active member of your ethnic student organization on/off campus?</i></p> <p>12. <i>Background – Please rate the importance of the following</i>  (12-6 ‘The social activity to you’)</p> <p>15. <i>Please rate your opinion on your skills and resources.</i>  (15-1 ‘I am comfortable in daily conversation in English’) (5 likert-scale)</p> <p>24. <i>Do you interact with many people from your country residing in Pittsburgh?</i></p>
Family’s cultural involvement scale	<p>12. <i>Background – Please rate the importance of the following</i>  (12-3 ‘Arts and culture activities (to your family)’, 12-4 ‘Spending time together (to your family)’)</p>
Self cultural preference scale	<p>12. <i>Background – Please rate the importance of the following</i>  (12-5 ‘The arts and culture (to you)’, 12-6 ‘The social activities (to you)’)</p>

The reliability of using the above scale is explained in the data analysis methodology section (3.3.1.3). The scales on family’s cultural involvement and self cultural preference are added as they are used to analyze the correlations between the set of responses.

To observe the dynamics of the relationship among nationalities, language skills, cultural differences of socialization, the chosen question items to observe are as presented in the following table.

**Table 23. Question items to be analyzed for Research Question 2**

	<i>Survey Question items</i>	<i>Interview Question Items</i>
Nationalities and regions of origin	2. What is your home country?	1-1-1. Which country are you from?
Language Barrier	15. Please rate your opinion on your skills and resources (4 scale) - I am comfortable in daily conversation in English, - I am comfortable with my English ability to meet my academic requirements, and	1-2. Skills and Resources Which languages do you speak? Have you had much language difficulties since you arrived?
Cultural Gaps	- I am comfortable interacting with people I just met	1-2-4. Feeling for adjustment in the US. Do you want to be integrated in the society?
Socialization Needs	4. Social Interaction - Interacting with friends with common ethnic and cultural background - Interacting with friends from other countries and backgrounds - Interacting with American friends 6. Cultural and Arts Participation - Getting assistance with cultural adjustment	

To compare the overall social and cultural needs and participation by country of origin, as described in methodology section, average level of civic engagement, social interaction, and culture and arts participation, the scores are calculated including the survey question items above.

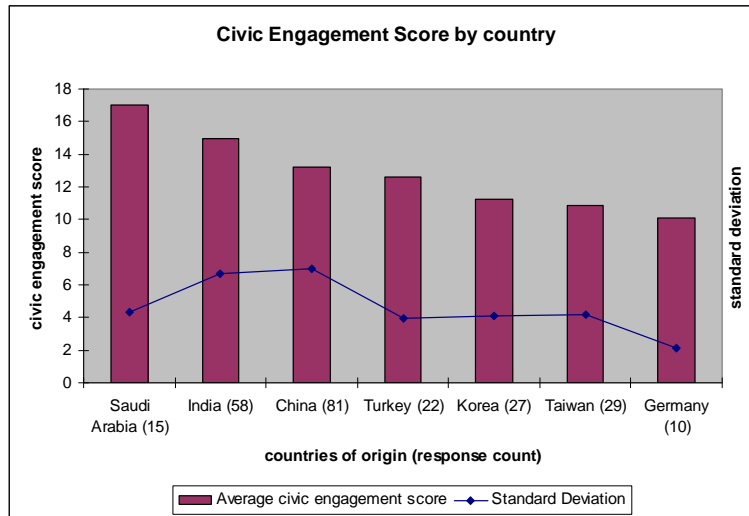
#### **4.3.2 Overview of the whole population**

*The strongest civic mindedness has been demonstrated among Saudi students. The tendency of cultural participation and social interaction is similar across nationalities.*

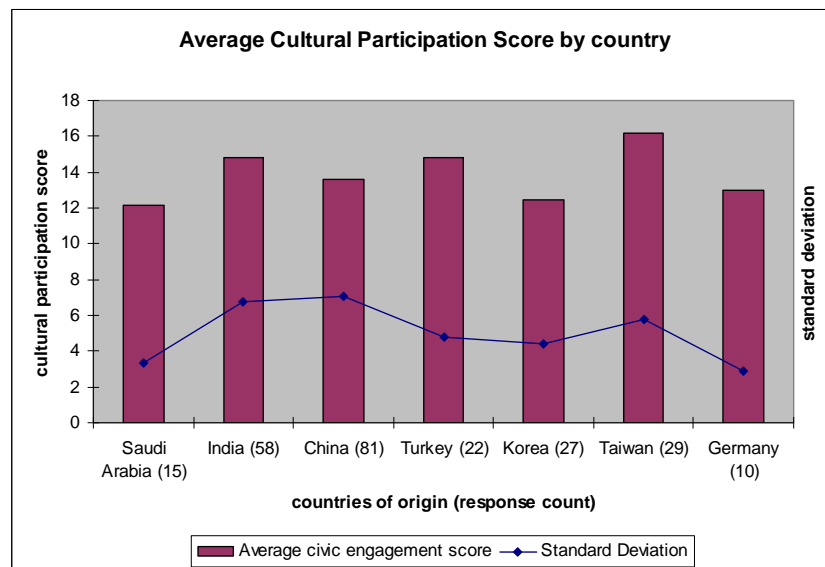


This section presents the overview of social and cultural participation by nationality. The following tables compare the average socialization needs score, civic engagement score, and cultural and arts participation score by nationality.

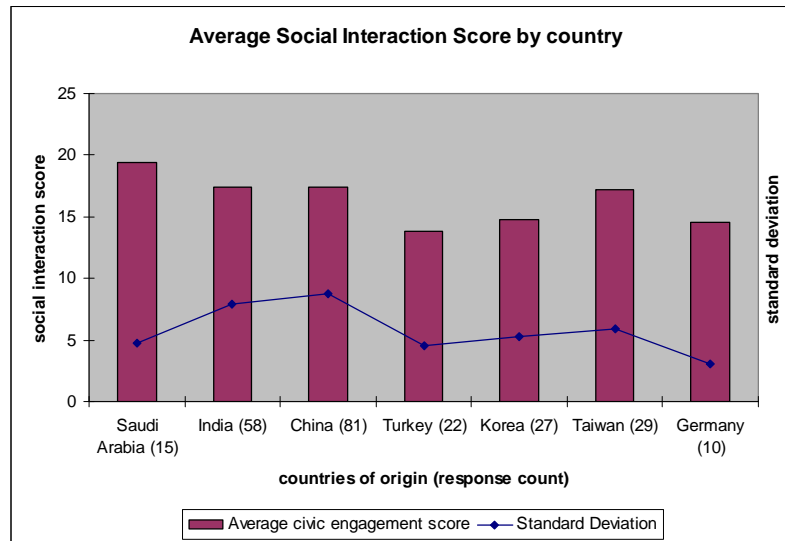
**Diagram 14. Average civic engagement score by country**



**Diagram 15. Average cultural participation score by country**



**Diagram 16. Average social interaction score by country**



The above graphs show that the levels of social interaction and cultural participation are somewhat similar but the civic engagement level is not. It may be related to the fact that cultural and arts activities often involve socialization and vice versa, therefore it is possible that those who socialize have a higher tendency to participate in cultural and arts activities. The differences of standard deviations almost correspond to the number of respondents in all three tables; meaning the higher the number of respondents, the lower the consistency of the responses among each nationality. Possible causes for this pattern are further explored in the following subsections from the language skills and culture of socialization.

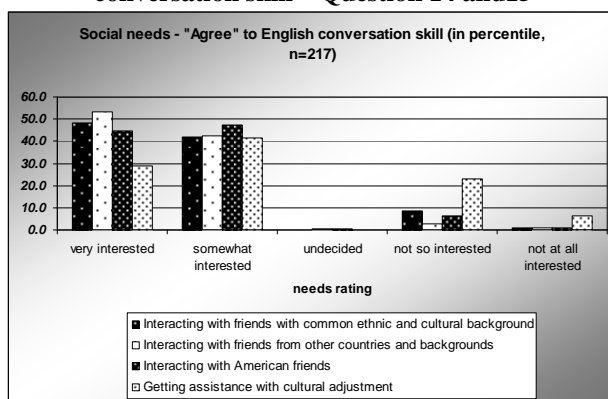
### **4.3.3 Focused criteria – language skills and social interaction**

*Students from East Asia perceive their English conversation skills to be lower and feel less comfortable interacting with people they just met. Those who are comfortable with daily English conversation expressed more interest in overall socialization.*

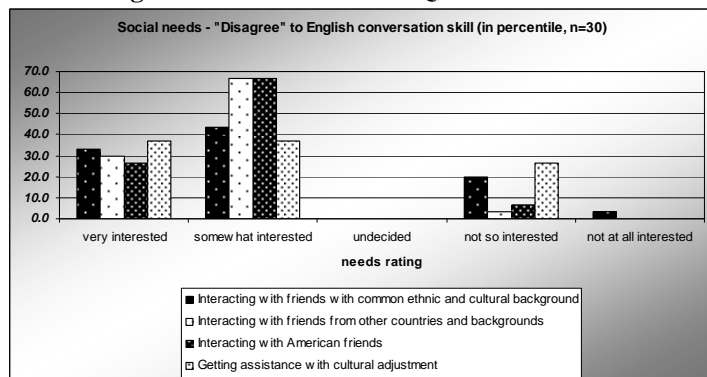
In this section, the focuses are placed on the language skills and perceived difference of socialization culture between their home country and in the U.S.

The two graphs below compare students' needs in four areas of socialization between the two groups depending on the level of English conversation skill. Diagram 17 is based on those who responded positively to their English conversation skills (responded either 'strongly agree' or 'agree' to survey question 14 'I am comfortable in daily conversation in English.' Diagram 18 is based on those who responded negatively to their English conversation skills (responded either 'disagree' or 'strongly disagree' to the same question).

**Diagram 17. Interests in various areas of socialization among those who are comfortable with their English conversation skill – Question 14 and 15**



**Diagram 18. Interests in various areas of socialization among those who are NOT comfortable with their English conversation skill – Question 14 and 15**



According to these two diagram, those who are not comfortable with their English conversation skills shows slightly less interest in 'interacting with friends from other countries

and backgrounds' although those who are comfortable with their English show slightly higher interest in interacting with people with other ethnic backgrounds. A more significant difference between the two groups is that, for the second group (in Diagram 18), the gap between 'very interested' and 'somewhat interested' in the interaction with people with other nationalities is bigger, though it is smaller for the first group. There seems to be a correlation between their English conversation skills and their interaction with people of a different ethnic background. This can be compared with their overall interest in all four kinds of interaction: they seem to express weaker interest in all four areas. It remains to be investigated whether the lower confidence in English conversation skills inhibits their socialization interest or whether their English skills are lower due to their generally less proactive socialization or communication.

Language difficulty was one of the factors that influenced their social interaction. There is a tendency that students who have less exposure to using English as a means of communication or education, generally East Asian and Arab students (though the nationalities of samples are limited in this study), have more difficulty communicating with non-co-ethnic peers. Some students have training in languages besides their mother tongue, and it has increased the range of people with whom they communicate.

I have some cousins who are from Pakistan. Since I grew up in an Arabic-speaking environment, I had to communicate with them somehow, and English was the forum so I was forced to practice more...since I was multilingual, it was helpful for me to communicate with people with Arabic background and Indians. It helped me in getting help and support.

Another contributing factor in terms of language skills and proactive socialization is one's own perception of language proficiency rather than their actual proficiency. For example, a

Saudi male student expressed that he did not encounter many language difficulties, and a Korean female student said “I wanted to be fully immersed in [American] culture but I had the fear that American people will not be happy about it especially with my language difficulty.” Interestingly, from the investigator’s observation during the interview, the English conversation skills of the Korean female were much better than those of the Saudi male student. The differences between these students are that the Saudi male student is currently taking classes in the English Language Institute, where he is surrounded by students who share the language difficulty. On the other hand, the Korean female student is in the graduate program of Social Work, in which there are hardly any international students. One Chinese female who is in a graduate engineering program also expressed that she does not face much language difficulty, although her English conversation skills were observed to be relatively weak. But she said she studied all the formulas in English in China so she did not have difficulty following the class, though later she described some difficulties in social settings.

Therefore, when observing language skills as a factor in one’s socialization or adjustment, it is important that we also observe other areas of one’s concerns or characteristics - such as one’s own perceptions and willingness - into consideration, as well as the academic environment. The following subsections present the observation of a focused area, nationality, as part of demographical backgrounds, and its relationship with students’ social and cultural needs and participation.

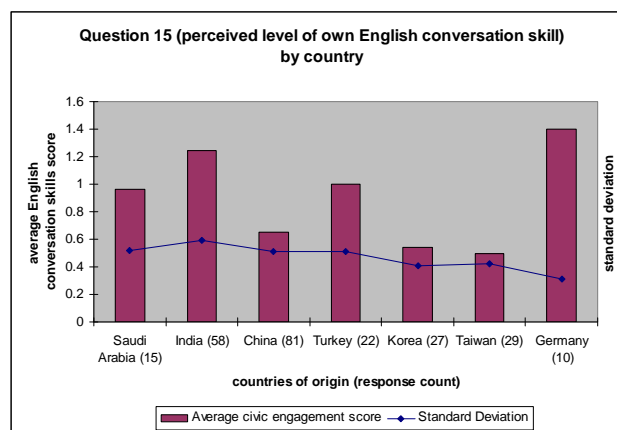
#### **4.3.4 Focused criteria – nationality, language skills, and expectation of socialization**

*German students expressed the least difficulties with English language communication and interacting with people just met among the 7 countries. East Asian students expressed*

*weaknesses in both areas and hence experience greater difficulties in social networking with Americans. Expectations of behavior play an important part in socialization among Asians.*

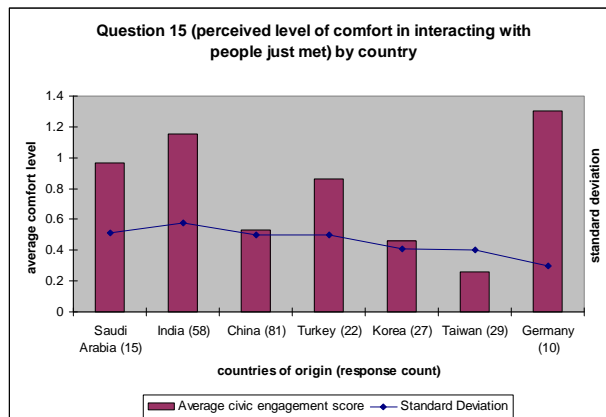
The next diagram presents the perceived level of one's own English conversation skills across nationalities. According to the diagram, students from East Asian countries are generally less confident in their English conversation skills than those from other areas. Students from Germany express the highest confidence in their English conversation skills, and the standard deviation shows that there is not much diversity among all German respondents in this regard compared to other nationalities.

**Diagram 19. Perceived level of English conversation skill by country – Question 15**



Interestingly, their feelings regarding socializing with strangers are reflective of their perceived English conversation skills. The table below shows that students from East Asia especially feel uncomfortable interacting with people whose backgrounds (culture of interaction) are unfamiliar to them.

**Diagram 20. Level of comfort in interacting with people just met by country – Question 15**



This implies that East Asian students have a higher tendency to encounter difficulties in developing social networks in the new environment, both in and outside the classroom. More detailed insight on students' feelings in this area is observed from the interview. The interview result provided further insight about the reason why Asian students in general feel less comfortable with general socialization, especially with people they just met. The difference is in relation to the Asian culture where the 'expectation' of interaction plays an important role in their communication. In other words, many Asian students, including Chinese, Korean, Taiwanese, and some Indian students, feel uncomfortable in interacting with others where the expectation of how to behave, whether in the classroom or social setting, is unclear. This makes them hesitate to participate in the conversation. A Chinese female student expressed:

My Dept organizes Happy Hour every week but I don't go much. I don't know what to talk about in the kind of party setting where I have to 'socialize'. With Chinese friends, I don't think about anything and just talk because I know what is appropriate, inappropriate, how to express things accurately.

A Taiwanese female student says:

It's hard for me to speak out what I think... for me, it is difficult to ask questions because I feel like those questions are something that are not allowed in Taiwan. The teacher may allow but the classmates may say that's a stupid question... my colleagues or advisor communicate very directly they tell me the things right or wrong right away. Sometime it hurts... They will tell me exactly what they think. But in Taiwan, if they tell me the same thing, I have to guess what my advisor or colleague thinks.

An Indian male student also expressed:

Sometimes what they want to communicate is not very clear. It is something unspoken. For example, when an Indian friend asks me to meet, I know what it is for but when I meet American people, I don't know their purpose or intention. When you communicate with people from different culture, things have to be more explicit. With Indian friends, there are things I understand without explicitly explaining.

These statements indicate that, in their country, people adjust their behavior based on their understanding of how they are expected to behave and feel uncomfortable where they have less knowledge of the expectations or things are unclear.

In addition to the key points of international students' unique expectation of socialization, there are some experiences of socialization that are commonly expressed among students of the same nationalities. The statements include some different ideas that some of them had about American society or socialization with Americans or people of other nationalities. For example, all German respondents at the interview expressed that they find it difficult to form relationships with Americans though many of them are friendly and open. This summary comes from statements such as:



In the US, it's easy to get to know people but in Germany, it's easy to form a relationship. But probably it depends on the way you know the culture. For me, in Germany, it is easy for me because I know how it works.

**Table 24. Common experience and thoughts on socialization among nationalities**

<i>Nationalities</i>	<i>Expressed common concerns or experience of socialization</i>
China	<ul style="list-style-type: none"> <li>• Feel uncomfortable in casual social interaction in a group setting such as parties.</li> <li>• Feel more comfortable in on-on-one interaction.</li> </ul>
Germany	<ul style="list-style-type: none"> <li>• Feel that it is easy to get to know people in America but more difficult to form a close and long-lasting relationship with Americans</li> </ul>
India	<ul style="list-style-type: none"> <li>• Less language difficulty compared to other Asian students</li> <li>• Have a habit of speaking too fast</li> <li>• Think American people are polite and respect personal space</li> <li>• Depending on the area they are from, they are exposed to cross cultural experiences within their country due to the diversity of the society</li> </ul>
Korea	<ul style="list-style-type: none"> <li>• Feel the cultural barrier with American people but generally interested in and make an effort to become part of American society</li> <li>• Feel closer to Asian students in general</li> <li>• Have difficulty in participating in class discussion</li> </ul>
Saudi Arabia	<ul style="list-style-type: none"> <li>• Were concerned about the safety, being harassed or threatened as a Muslim, in American society before coming to the US because of the influence of 9-11.</li> <li>• Later found that people in the US are understanding and open to learning about their culture and religion</li> </ul>
Taiwan	<ul style="list-style-type: none"> <li>• Feel uncomfortable with other students from mainland China due to the influence of the political situation with Taiwan.</li> </ul>
Turkey	<ul style="list-style-type: none"> <li>• Do not experience much difficulty in adjusting to American academic culture since the culture of interaction and academic practice in Turkey are relatively similar to that of US.</li> <li>• Feel that people form closer relationships to one another in Turkey</li> </ul>

Some of the above comments have an implication for how one's culture influences their interaction and hence may effect their adjustment and academic performance. A Chinese male student, for instance, expresses his difficulty in American style classroom by saying: "I'm pretty good at one-on-one interaction but in classroom it's kind of tough to open up on the classroom because it was not something I was used to."

#### **4.3.5 Summary**

The set of analyses under the second research question provided the opportunity to observe the differences in social and cultural participation tendencies across nationalities. The key findings include the fact that the analysis validated the idea from the literature review that East Asian students encounter greater difficulty than some European students in adjusting with English language communication. They also have a tendency to encounter challenges in socialization in an unfamiliar environment, especially Western-style socialization and networking, where they have to interact with people they just met and in groups. The next section explores further the focused social institutions, family, community, and institution and how they influence international students' social and cultural needs participation.

#### **4.4 RESEARCH QUESTION 3: *HOW DO FAMILY, COMMUNITY AND INSTITUTION VARIABLES RELATE TO THE SOCIAL AND CULTURAL NEEDS AND PARTICIPATION OF INTERNATIONAL GRADUATE STUDENTS?***

This research question explores the three areas of influence - family, community and institution - in their social and cultural needs and participation. More precisely, it observes the correlations among variables that manifest the individual backgrounds in these areas, which may be universal across nationalities. During the interviews, however, the investigator had the impression that these three categories might not adequately cover the types of influences and felt the necessity of adding the category called 'personal' to place information that is hard to place in any of the three

categories. Some individual social and cultural participation patterns as well as personal beliefs and values are established by personal choices of books, individual characteristics, combinations of various personal experiences etc. For example, one Indian female student expressed that she did not socialize in groups much, but her mother and brother are very social. Her mother says she is somewhat like her father although she has closer connection with her mother than father.

This type of information has been framed as ‘experience’, which was added to the analysis category in place of ‘institution’. Some findings on the institutional factors are included in the analysis for research question 4.

#### **4.4.1 Criteria of interpretation**

To respond to research question 3, the following focused criteria were determined. In the area of family influence, the sub-focuses are their marital status and whether they have children as well as the influence of the family in which one grew up. For the latter, the family practice of social and cultural participation is explored by using a cultural capital scale and a social participation scale. For community influence, the main focus is how one’s involvement with and the availability of ethnic student groups may influence an individual’s social and cultural participation. The scales used include social capital, civic participation, and academic success. The specific question items are listed in the table below.

**Table 25. Question items to be analyzed for Research Question 3**

	<i>Survey Question items</i>	<i>Interview Question Items</i>
Family	(MARITAL STATUS) 4. <i>Social Interaction</i> - <i>Interacting with friends with common ethnic and cultural background</i> 33. <i>What is your marital status?</i> 34. <i>Have you any children?</i>	1-2-4. <i>Feeling for adjustment in the US. Do you want to be integrated in the society?</i> 3. <i>Community</i> <i>Are you familiar with community ethnic organizations? Are you involved with them?</i> 4. <i>perception of socialization</i> (socialization in the past and present, motivation)
	(FAMILY GREW UP) 12. <i>Please rate the importance of the following</i> - <i>Arts and culture activities (to your family)</i> - <i>Spending time together (to your family)</i> - <i>The arts and culture (to you)</i> - <i>The social activities (to you)</i> 21. <i>Please rate the frequency of your family activities.</i>	2. <i>Family</i> (background of and interaction with parents and siblings, cultural activities) 5. <i>Perception of cultural and arts participation</i> (areas of interest, experience, degree of importance, perceived influence)
Community	(STUDENT GROUPS) 8. <i>Have you been an active member of your ethnic student organization on/off campus?</i> 9. <i>If 'yes' to the previous question, why are you a member of it?</i>	1-2-4. <i>Feeling for adjustment in the US. Do you want to be integrated in the society?</i> 3. <i>Community</i> <i>Are you familiar with community ethnic organizations? Are you involved with them?</i> 4-3-2. <i>Motivation for civic engagement</i>
Experience	(civic engagement scale)	1-2. <i>Skills and resources (experience abroad, feelings for adjustment)</i> 4-3-2. <i>Motivation for civic engagement</i>

There are five scales, developed from survey data, that will be used to analyze the correlations among related variables. As described in the methodology section, below is the list of question items that are included in the list of variables to construct the each scale. The reliability of each scale is presented with Cronbach's Alpha in section 3.3.1.3.

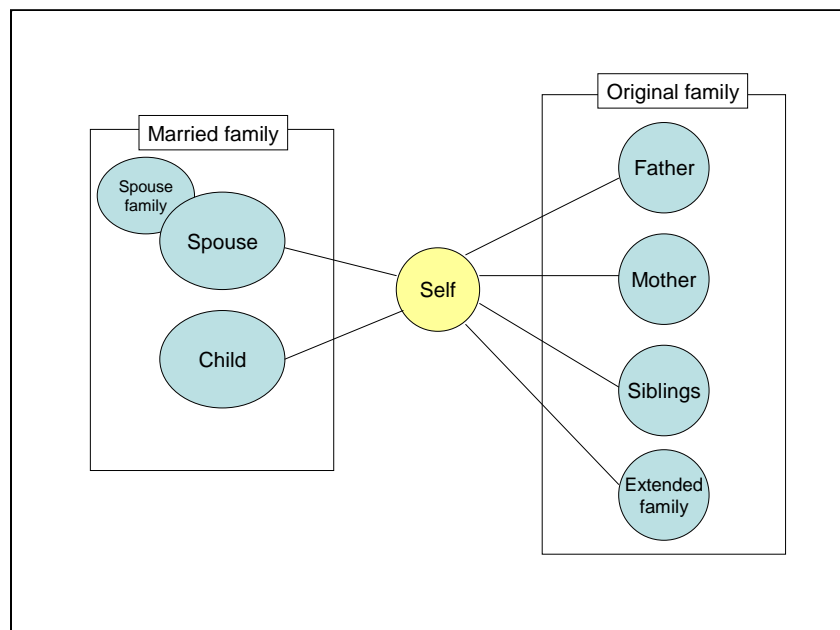
**Table 26. Scales used in this section and Question items included to calculate scores**

<i>Scales</i>	<i>Survey question items included to calculate the score</i>
Social capital scale	<p>8. Have you been an active member of your ethnic student organization on/off campus?</p> <p>10. How much financial contribution are you willing to make annually to your ethnic student group?</p> <p>11. Please rate the frequency of your participation in the following social and cultural opportunities (5 likert-scale) (11-2 'student committee', 11-4 'volunteered in any community or on-campus activities')</p> <p>12. Background – Please rate the importance of the following (12-1 Social networks (to the society you come from), 12-4 'Spending time together (to your family)', 12-6 'The social activities (to you)')</p> <p>20. What is the size of the family you grew up in?</p> <p>21. Please rate the frequency of your family activities (all sub-categories)</p> <p>24. Do you interact with many people from your country residing in Pittsburgh?</p>
Cultural capital scale	<p>12. Background – Please rate the importance of the following (12-3 'Arts and culture activities (to your family)', 12-4 'Spending time together (to your family)')</p> <p>13. Please rate how you perceive your own experience and these items as they relate to you. (13-5 'Your family prestige')</p> <p>21. Please rate the frequency of your family activities (all sub-categories)</p>
Cultural and arts participation scale	<p>6. Social and Cultural Needs – Cultural and Arts Participation (6-1 'Learning about American culture', 6-2 'Learning about local arts and cultural resources', 6-3 'Learning about food culture or cooking practices of other countries', 6-4 'Exchanging language training')</p> <p>7. How often have you attended each of the following arts-related activities or events in the US during the past 12 months? (all sub-categories)</p> <p>11. Please rate the frequency of your participation in the following social and cultural opportunities (5 likert-scale) (11-1 'Used PittArts cheap ticket service', 11-3 'Participated in programs offered by community social organizations')</p> <p>12. Background – Please rate the importance of the following (12-5 'The arts and culture (to you)', 12-6 'The social activities (to you)')</p>
Civic engagement scale	<p>5. Social and Cultural Needs – Civic Engagement (all sub-categories)</p> <p>8. Have you been an active member of your ethnic student organization on/off campus?</p> <p>10. How much financial contribution are you willing to make annually to your ethnic student group?</p> <p>11. Please rate the frequency of your participation in the following social and cultural opportunities (5 likert-scale) (all sub-categories) (11-2 'student committee', 11-3 'participated in programs offered by community organizations', 11-4 'volunteered in any community or on-campus activities')</p> <p>12. Background – Please rate the importance of the following (12-6 'The social activity to you')</p> <p>13. Please rate how you perceive your own experience and these items as they relate to you. (13.4 'Your responsibility in the future of your country')</p>
Academic success scale	<p>13. Please rate how you perceive your own experience and these items as they relate to you. (13-1 'Your academic performance', 13-2 'Your social and cultural adjustment', 13-3 'Your future status in your country', 13-4 'Your responsibility in the future of your country')</p> <p>15. Please rate your opinion on your skills and resources. (15-1 'I am comfortable in daily conversation in English', 15-2 'I am comfortable with my English ability to meet my academic requirements') (5 likert-scale)</p> <p>37. What is your current grade point average?</p>

#### 4.4.2 Overview of the whole population

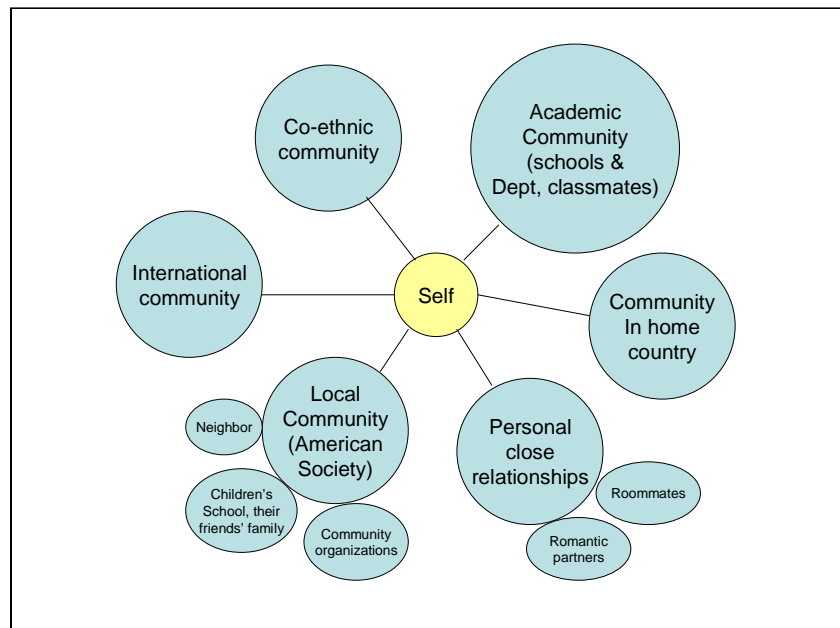
First, the author closely scrutinized the interview data and coded and extracted the related variables to present the broad range of variables involved in family, community, and institutional influences. Diagram 21 shows the variables that are determined to be influencing the individual student's social and cultural needs and participation. The married individuals express the influence of both the married family and the family in which they grew up. Geographically speaking, it is often the case that their family as a unit, either married family or original family, or some members within the family live in multiple locations across countries and cities.

**Diagram 21. Family factors / influence / dynamics**



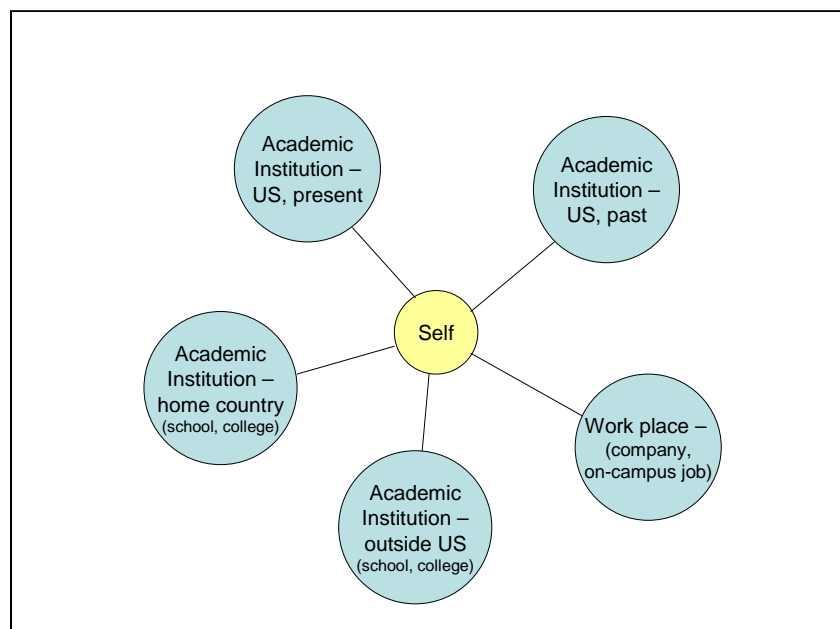
The community factors further present the broad range of communities that international students are involved with. The significance of each community factor varies depending on the individual.

**Diagram 22. Community factors / influence / dynamics**



Although the analysis for institutional influence has been omitted from the section, the related variables are found and presented as below. The term ‘institution’ in this study refers to places with which they are affiliated for academic or professional purposes.

**Diagram 23. Institutional factors / influence / dynamics**



#### **4.4.3 Focused criteria – family**

Among the family influences on social and cultural participation, the focuses are placed on the influence of marital status (4.4.3.1) and the cultural and arts participation of the family in which students grew up (4.4.3.2). To examine the correlations of those criteria, the average of expressed interest in focused areas is computed and compared among students of different marital status.

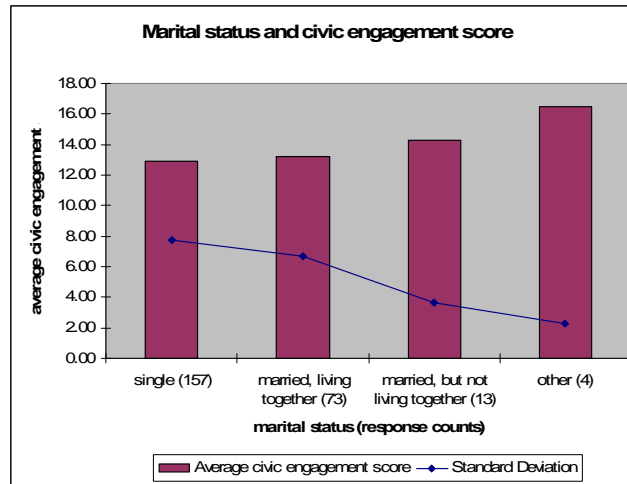
##### **4.4.3.1 Marital status - influence of a spouse and a significant other**

*Being married or having a significant other (living or not living together) slightly increases their social and cultural participation tendency. Being married and living with the spouse slightly increases their interest in being with co-ethnic peers. Having children and living together also increases their interest in being with co-ethnic peers but to a higher degree.*

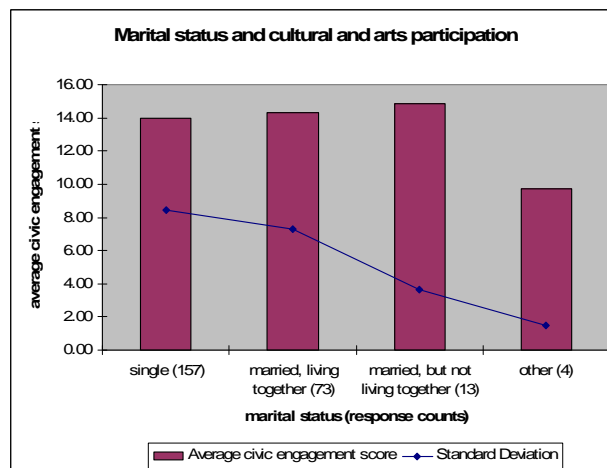
In terms of overall social and cultural participation, as we can observe in diagrams 24 and 25 below, the survey data shows being married slightly increases the tendency compared to those who are single. Among those who chose ‘other’, three respondents’ claim being ‘engaged’ and one being ‘partnered’; hence they can be considered as part of the ‘married’ group.



**Diagram 24. Marital status and the level of civic engagement**



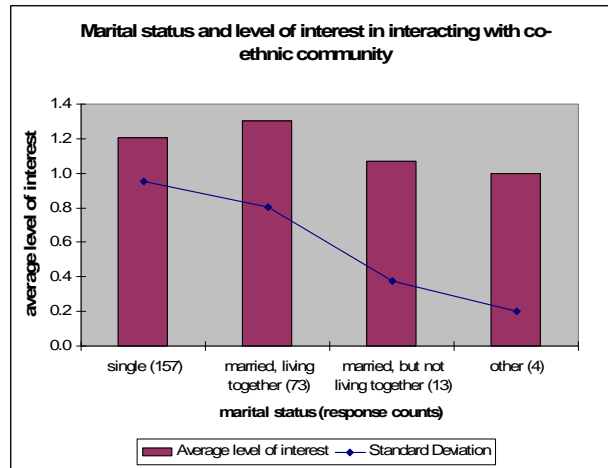
**Diagram 25. Marital status and the level of cultural and arts participation**



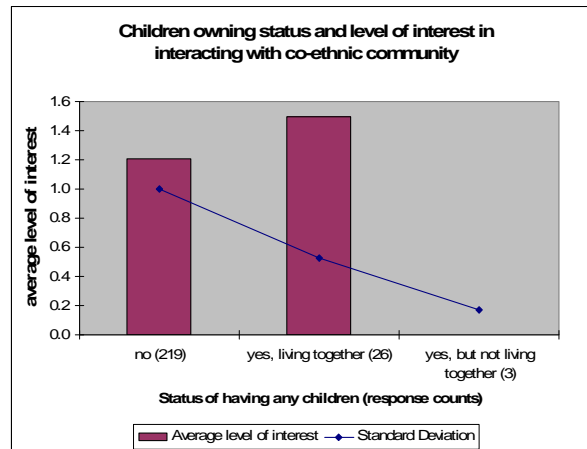
The standard deviation of both graphs indicates that there is less diversity of preference from ‘single’ group to ‘other’ group. The tendency seems to track the number of respondents in each group but the real reason is unexplored. The reason why the ‘other’ group shows a smaller level of participation in arts and culture than in civic engagement is also unexplored.

What is examined next is the pattern of interaction with co-national group in relation to marital status. The survey data show that living with a spouse increases the tendency to have a higher interest in interacting with co-ethnic peers. Having children living with them increases the tendency on a higher level.

**Diagram 26. Marital status and their interest in interacting with co-ethnic peers**



**Diagram 27. Children owning status and their interest in interacting with co-ethnic peers**



The interview data support this tendency but also provide more insight on the diversity.

First, to support the tendency, there are the following quotes. A female Korean student says:

In the beginning, I hang out with American friends from my Dept a lot to make friends, drinking. But after sometime, I had a boyfriend (Korean) and didn't hang out with American friends much any more because it takes me energy to hang out with them.

A Saudi male student explains that he often attends social gatherings among families in the Saudi community. He says:

...bachelors tend to have more free time [and] tend to have bachelor oriented events, that don't reflect the needs of wives and children. So if I keep interacting only with [the bachelors], it means it will be on the expense of the children and my wife. So usually we try to find families who ... have similar thoughts; so even my wife and children can find people to interact with. So it does put some sort of criteria on who to socialize with. I socialize only with the extent of my wife and children.

On the other hand, the interview data also explain the diversity among the respondents. For example, to the question about their interest in interacting with co-national peers, a German male student who came with his girlfriend from his home country and currently lives with her says, "I live with my girlfriend. I already got my German counterpart." The individual preference may be related to the differences among the nationalities regarding their interest in interacting with their co-national groups. In other words, as explained in section 4.3.2, Asian students in general express a higher interest in interacting with co-national peers. However, having a spouse with a different nationality influences their socialization pattern. A Taiwanese female who has married an American explains that she currently has many American friends, who are the friends of her husband, and hardly join the activities with Taiwanese or Chinese community. She expresses that

I have to bring my husband with me at socialization opportunities and it makes other Taiwanese students or Chinese students uncomfortable...other Taiwanese/Chinese look at him differently.

Further insight into the possible reasons may be found with additional observation of correlation of other aspects related to individual backgrounds in terms of culture, language skills and so on.

The interview data also explain a related factor that brings diversity to the correlations between having children and interest in interacting with co-ethnic peers. It is the influence of the family's cross-cultural experience and cultural differences. A German male scholar says:

I've been to many countries and I've always managed get integrated very quickly and now it's even quicker or more needed because we have the children which can be a very good point of making contact ...I meet the parents of those schoolmates regularly ... we have their kids over and have things play days my kids go to their houses...

This quote indicates that he has many cross-cultural experiences and has a strong interest in being integrated into American society. A similar response was expressed by the other Saudi student who has lived an extended time in Europe, hence both the student and his wife have cross-cultural experience and are fluent in English language. This was distinctly different from the other Saudi student in earlier example whose family has not had the experience in living other countries before coming to the U.S.; hence his wife is less fluent in foreign languages.

#### **4.4.3.2 Cultural capital and cultural and arts participation**

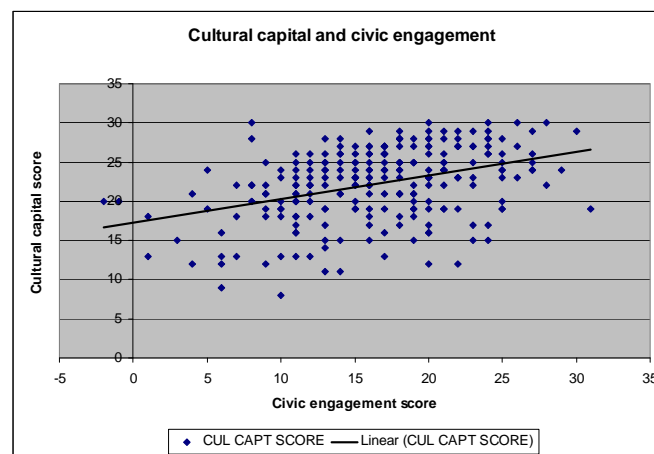
*There are moderate correlations among the level of subjects' cultural capital, cultural and arts participation, civic engagement, and academic success. Correlations between family's cultural and arts participations and individual participation are stronger. Correlations between cultural participation and academic success appear weak.*

This section examines the correlations among cultural capital, individual culture and arts participation, civic engagement, and academic success by using the developed scales. As explained in the methodology section, the cultural capital scale measures the level of family social and cultural participation, self-reported family's social prestige, and the level of

connection with the family and further insight of perceived influence from the family regarding their interest in arts and culture as explored from interview data. Also, as presented in the theoretical framework (section 1.3), there are possible correlations among: one's familiarity with high-culture art; social capital; and academic success (DiMaggio, 2004); and between the cultural participation and civic-mindedness (Walker, 2002). This section tests if these correlations can be observed among the international students.

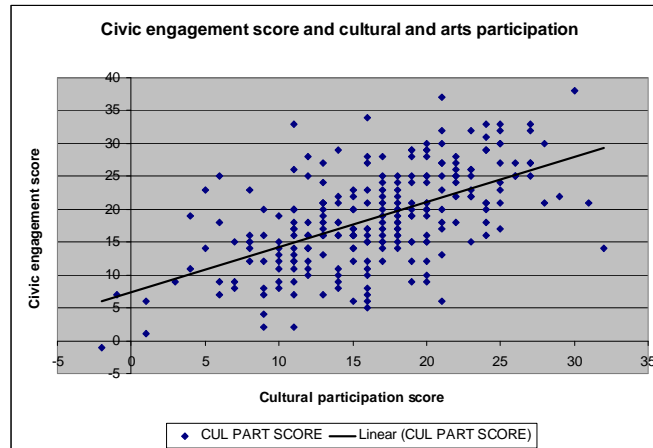
The correlations are first observed by developing a graph based on individual cultural capital scores and the average scores of each area. For example, the diagrams 28 and 29 show the correlation between the cultural capital and the civic engagement as well as civic engagement and cultural and arts participation.

**Diagram 28. Cultural capital and civic engagement**



The variables in both graphs show moderate correlations between them but, as we can see from the angle of the tendency line, the correlation between civic engagement and the level of cultural and arts participation appears to be stronger than the one between cultural capital and civic engagement.

**Diagram 29. Civic engagement score and the level of cultural and arts participation**



The following table presents the Pearson Correlation and the significance among the observed variables. The bottom half of the table is shaded because it is a duplication of the upper half data. The Pearson correlation (symbolized as ‘r’) describes strength of relationship in samples, in which a score between .3 and .6 is considered to represent a moderate correlation. The asterisk next to correlation describes the probability (symbolized as ‘p’) that value of r in sample could occur by chance alone. If p is small, we have reason to believe that a real relationship exists. The probability of all correlations in the table is  $p < .001$ , as noted in asterisk, which means there is less than 1/1000 probability that this result could occur by chance alone.

**Table 27. Correlations: Cultural capital, cultural participation, civic engagement and academic success score**

		cultural capital	cultural participation	civic engagement	academic success
cultural capital	Pearson Correlation	1	.451(**)	.400(**)	.349(**)
	Sig. (2-tailed)		.000	.000	.000
	N	247	246	246	247
cultural participation	Pearson Correlation	.451(**)	1	.452(**)	.198(**)
	Sig. (2-tailed)	.000		.000	.002
	N	246	247	246	246
civic engagement	Pearson Correlation	.400(**)	.452(**)	1	.362(**)
	Sig. (2-tailed)	.000	.000		.000
	N	246	246	246	246
academic success	Pearson Correlation	.349(**)	.198(**)	.362(**)	1
	Sig. (2-tailed)	.000	.002	.000	
	N	247	246	246	247

\*\* Correlation is significant at the 0.01 level (2-tailed).

Based on the numbers presented in the above table, therefore, there are moderate correlations in all areas other than between cultural participation and academic success. If we compare the correlations between the responses to the question items on family's cultural and arts participation and socialization among the members (survey question 12, item 3 and 4) and individual importance to social, cultural and arts activities (survey question 13, item 5 and 6), the correlation appears even stronger. ( $r=.466$ ,  $p<.001$ ). The compared question items are as below:

**Table 28. Survey question items to observe: social and cultural participation between the family and self**

Family's cultural involvement scale	12. <i>Background – Please rate the importance of the following</i> (12-3 'Arts and culture activities (to your family)', 12-4 'Spending time together (to your family)')
Self cultural preference scale	12. <i>Background – Please rate the importance of the following</i> (12-5 'The arts and culture (to you)', 12-6 'The social activities (to you)')

#### **4.4.4 Focused criteria – Community**

This section observes the community influence on international students' social and cultural participation. As described in the theoretical orientation of this study, from both social capital and developmental perspectives, the availability of a social network is considered to positively influence individual quality of life and academic success. This study measures one's social capital from the ranges and the level in which the international students are involved in various kinds of social network and support system, with the particular focus on the social capital scale and the role of ethnic student organizations.

The questions that came up in this area include the following. Does having a large co-national community discourage one's interaction with the host community or one's involvement in social activities outside the co-ethnic group because they feel comfortable with the social support from co-ethnic peers? Does the size of the ethnic group influence the tendency of the co-ethnic peers to be involved in co-ethnic groups? What makes international students become actively involved in their ethnic group? This section explores the answers to some of these questions.

##### **4.4.4.1 Social capital and academic success**

*There are moderate correlations of social capital level with cultural participation and academic success level. There are strong correlations of social capital level with cultural capital and civic engagement.*

The base assumption from the literature on social and cultural capital is that one's social capital level positively influences one's academic success. As presented in the table 29, the Pearson correlation computed from analysis shows moderate correlation ( $.3 < r < .6$ ) between the



social capital score and academic success score. However, its correlations with cultural capital and civic engagement are considered strong as the Pearson correlation is above .6 and the correlation is significant at the 1/1000 probability. In other words, one's social capital level has a strong relationship with the family's social and cultural participation, family ties, and self-reported family's prestige. It is also strongly related to one's involvement and interest in community activities, volunteering, social activities in general and one's sense of responsibility to the future of his country of origin.

**Table 29. Correlations: Social capital, cultural capital cultural participation, civic engagement and academic success score**

		cultural capital	cultural participation	civic engagement	academic success
social capital	Pearson Correlation	.799(**)	.421(**)	.718(**)	.392(**)
	Sig. (2-tailed)	.000	.000	.000	.000
	N	247	247	246	247

\*\* Correlation is significant at the 0.01 level (2-tailed).

There are several possibilities that explain the correlations between social capital and civic engagement. For example, one's involvement in community activities such as student groups can strengthen one's social network, which appears as higher level of social capital. The following subsection explores the role of student groups which explains part of the strong correlations between social capital and civic engagement.

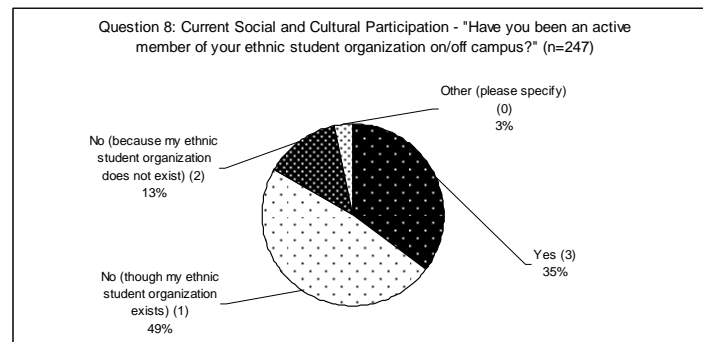
#### **4.4.4.2 Role of an ethnic student group**

*Presence of ethnic student group positively impacts the students' overall civic engagement level*

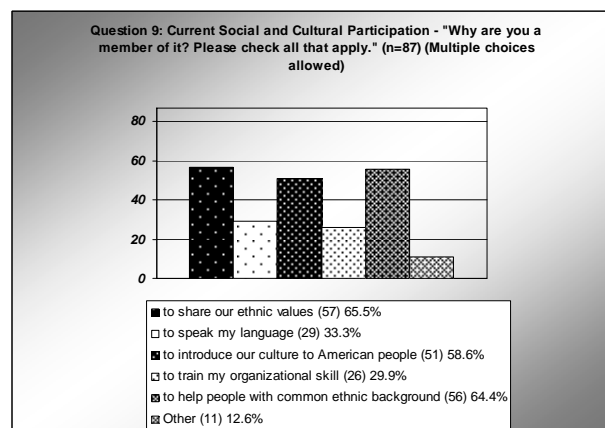
What does interest students to be in ethnic student organizations? How does being part of an ethnic student organization impact international students? According to the survey (Diagram 30), about 35% of students are part of an ethnic student organization, and 13% do not have one. According to diagram 31, the top three motivations to be in ethnic student groups are to share

their ethnic values, to help other co-ethnic peers, and to introduce their culture to American people.

**Diagram 30. Status of ethnic student group involvement – Question 8**



**Diagram 31. Motivation for being in an ethnic student group**



These motivations are their need for being in a familiar environment in terms of their culture and values as well as their interest in helping others (both co-ethnic peers and others), which could be a contribution to their community or the society at large. So what about those who are not part of an ethnic student organization? When it comes to this question, the assumption was that not being part of an ethnic student organization implies a lower interest in civic engagement. That means that those who are not part of their ethnic organization although it does exist (49%, as in diagram 30) are less civic-minded than those who are not because it does not exist (13%).

To test this assumption, the overall civic engagement score of individuals was referred to their status of ethnic student organization involvement. The method of calculating civic engagement score was presented in the methodology section. However, to allow us to observe the relationship between the individual civic mindedness and affiliation to student organization, the score of ethnic student organization affiliation has been deducted from the original score. The table 30 shows the average of civic engagement score among the students in each category of ethnic student organization involvement. The first two rows show the comparison of average civic engagement score among those who are part of them and those who are not. The third and fourth rows compare the score between the groups that are not part of ethnic student organizations.

**Table 30. Civic engagement score average and their involvement in ethnic student organizations**

<i>Status of ethnic student organization affiliation</i>	<i>Average civic score</i>
Average Civic Engagement score of those who are members of an ethnic student organization	<b>13.25</b>
Average Civic Engagement score of those who are NOT a member of an ethnic student organization	<b>10.44</b>
<i>Comparison between the groups: "Not a member"</i>	
Average Civic Engagement score of those who are NOT a member: his ethnic student organization exist	<b>10.54</b>
Average Civic Engagement score of those who are NOT a member: his ethnic student organization does NOT exist	<b>10.06</b>

The scores show that the civic engagement of those who are part of ethnic student group is higher than those who are not. Does this mean students join ethnic student organizations because they are more civic minded, or their civic-mindedness is higher because they are part of the group? It may be true that high civic minded students join their ethnic student groups. However, the difference between the scores in the third and the fourth rows suggest that presence of ethnic student group may help increase the civic engagement interest among the same ethnic students regardless of their involvement. In the individual interview, students who are involved

in ethnic student groups often express that they are interested in helping new students or other co-ethnic peers because the assistance from the organization was helpful. A male student from India who used to be president of the Indian student organization as well as active in a student organization in his own department says:

It was my orientation into this society that ended up being lot easier because of [the help from the Indian student organization] that encouraged me to be [a board member in the organization]. It's like you get some time and you want to continue that [effort of passing down from one generation to the next].

Getting similar support in their adjustment from people other than the student organization to which they belong could be a source of motivation to help others through the organization. A male student from Saudi Arabia who is active both as a member of the organization and in the community expresses:

I went to a community in Ann Arbor where there were a lot of Saudi students and Arabs and Muslims there. Nobody knew us or met us before but, since we were new there, everybody was helping us. They were doing their best to help us, where to go get things, dos and don'ts and they helped me reduce the cultural shock significantly... I feel very strongly about the importance of providing support to new international students. It will help them in their studies and to become more acquainted and proactive in the society because it is very tough for anyone to feel that they have no one to turn to when they have problem.

Students show their willingness to support others in different forms even though ethnic student organizations do not exist. This brings us to another perspective gained in this research, which is the influence of *Experience*, besides family, community, and institution, in their social and

cultural participation. The next subsection describes further some aspects of how one's experiences are found to be the components of behaviors in the area.

#### **4.4.5 Focused criteria – Experience**

*There is a positive correlation between the amounts of cross-cultural experience and civic engagement. Those with extensive cross-cultural experience also tend to seek further cross-cultural experience in diverse areas of social and cultural participation.*

During the interview, an attempt was made to find the family, community, and institutional influence on participants' social and cultural needs and participation. However, there is some information shared that did not quite fit with any of the three factors, as they were defined in this study, as the source of 'social' influence but better to be framed as 'experience'. Some of them developed a certain interest based on books they read, unidentified sources, or experience that they decided to gain.

Therefore, this subsection explores correlations among variables that manifest the way one's experience shapes international students' social and cultural needs and participation. The specific focus is the impact of past cross-cultural experience on one's civic engagement.

##### **4.4.5.1 Cross-cultural experience and civic engagement**

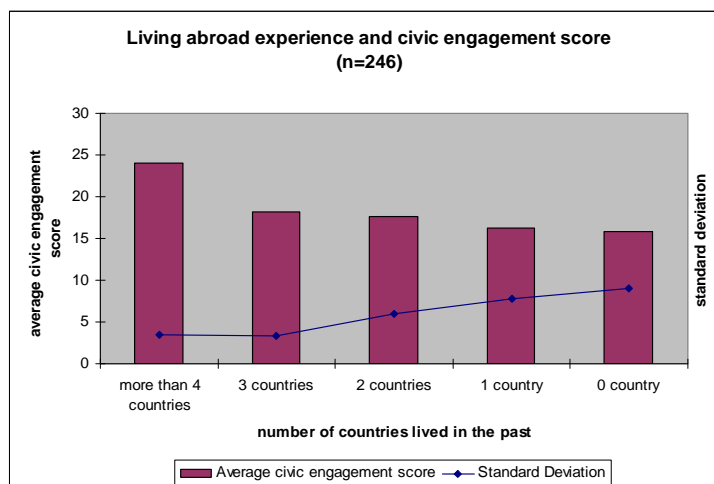
It is much easier if there is help. Whenever I lived in the different places, people helped me and I know how important it is. So I want to help other people.

This is a quote from a German male scholar who traveled and lived extensively outside his home country. There is no German ethnic student organization on campus, but there is a

German male scholar who independently helps in-coming international students often through volunteering at the international office on campus. Those who have experienced being helped by others tend to be active in helping others even though the ethnic organization does not exist.

Cross-cultural experience, especially the experience of living in abroad positively influences one's civic involvement. This correlation has been observed from the relationship between the 'civic engagement score' and the experience of living abroad. The following graph (diagram 32) shows the average of civic engagement score depending on the number of countries in which individuals have lived in the past. The standard deviation shows the dispersion in a frequency distribution.

**Diagram 32. Civic engagement score average and the experience of extensive living abroad**



According to the diagram, there are clear positive correlations between the amount of cross-cultural experience and the level of civic involvement. The negative correlation between the average civic engagement and standard deviation shows the higher frequency of high civic engagement scores among those with higher cross-cultural experience.

In addition, from the interview, the individuals with extensive cross-cultural experience had a greater tendency to express their interest in further cross-cultural experiences in diverse

areas of social and cultural participation. The related interests are interacting with non-co-ethnic peers, foreign language acquisition, culture and arts from different regions or ethnic groups, and traveling. They also have fewer tendencies to seek affiliation and more interest in exploring diverse values through experience and people, though they often maintain a network among co-ethnic peers. There is potential in exploring further the possible correlations between the cross-cultural experience and other areas of social and cultural needs and participation.

#### **4.4.6 Summary**

This section observed the correlations among various factors, especially how the social experiences through family, community and experience impact one's social and cultural needs and participation. The most significant factors appear to be the social capital and family influence on other areas of social and cultural participation, but these factors do not have as significant an influence on academic success. Therefore, this section concludes that stronger social network and support makes individuals active in other areas of social and cultural involvement and they are moderately correlated to one's sense of satisfaction and to academic and social performance.

#### **4.5 RESEARCH QUESTION 4: *WHAT ARE THEIR PERCEPTIONS OF INSTITUTIONAL RESPONSES TO THEIR SOCIAL AND CULTURAL NEEDS?***

This section discusses the subjects' observations about how the institution responds to their social and cultural needs and how they seem to make use of the opportunities that the institution provides. Not many questions, especially in the survey, explored this aspect due to the concern that, because the investigator also works in the student affairs division, asking for students' feedback on the University's programming may create the expectation among the respondents that the University will do something about it, which may not necessarily be the case, at least in the near term. There are actually some areas of programs that international students strongly demand over the years, such as housing, in which the University has not found a way to meet the needs. On the other hand, as explained in the problem statement (section 1.2), drawing the attention of international graduate students to social and cultural programs has been challenging in general, as their priorities are academic activities. The investigator expected that there may not be a strong response to overall social and cultural programming services expressed through the survey. Therefore, the questions are used to reflect on some areas of programs that have already been conducted in the past or to ask about the level of usage in existing services such as PittArts, the cheap ticket service at the University. Some of the analysis and suggestions regarding institutions' response to international students' social and cultural needs are included in the conclusion section (5.0).

Therefore, the section on overall population (4.5.2) will observe, first, their interest in social and cultural life and, second, the responses related to some of the past international social and cultural programs and services at the University. The focused criteria are: the differences in subjects' opinions on institutional support depending on the School affiliation and the status



within the University; and the differences among individuals in the way they respond to the existing social and cultural opportunities offered by the University.

#### 4.5.1 Criteria of interpretation

The data from the following survey and interview question items are observed to analyze how the international graduate students make use of the opportunities that the institution provides and how the institution responds to their social and cultural needs.

**Table 31. Question items to be analyzed for Research Question 4**

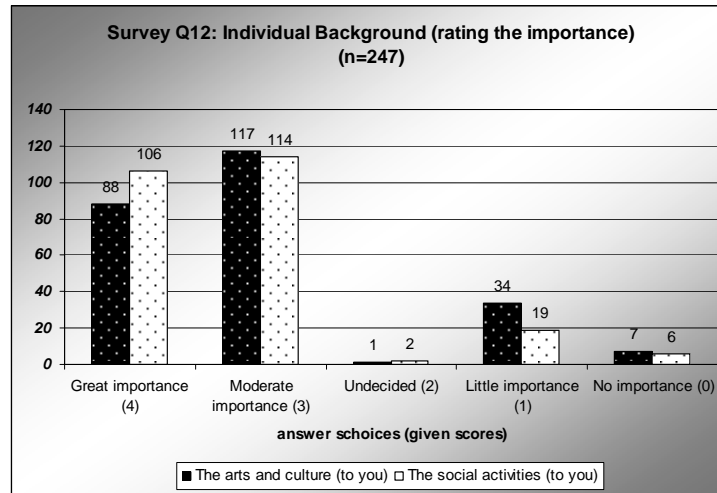
	<i>Survey Question items</i>	<i>Interview Question Items</i>
Involvement	<p><i>11. Please rate the frequency of your participation in the following social and cultural opportunities (5 likert-scale)</i></p> <ul style="list-style-type: none"> <li>- <i>Used PittArts cheap ticket service</i></li> <li>- <i>A student committee in your School of Department</i></li> </ul> <p><i>15. Please rate your opinion on your skills and resources (4 scale)</i></p> <ul style="list-style-type: none"> <li>- <i>I can spare enough time for social life.</i></li> </ul>	<p><i>5-2. Experience of cultural and arts activities</i></p> <p><i>5-5. Social and cultural opportunities at Pitt</i></p>

#### 4.5.2 Overview of the whole population

*There is moderate level of interest in and availability for social and cultural participation among international graduate students but the use of some of the existing opportunities is low. The awareness about these existing opportunities also varies among individuals.*

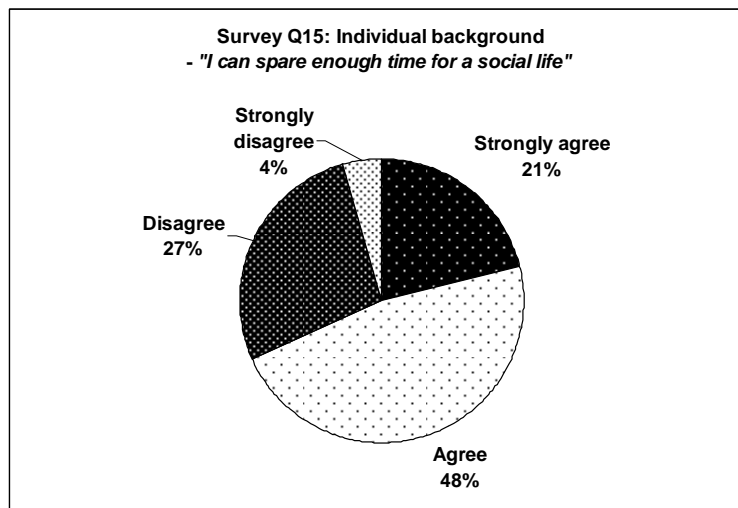
First of all, as presented in Diagram 33, the expressed interests in social and cultural activities among the sample international graduate students are moderate.

**Diagram 33. Students' expressed interest in social and cultural life**



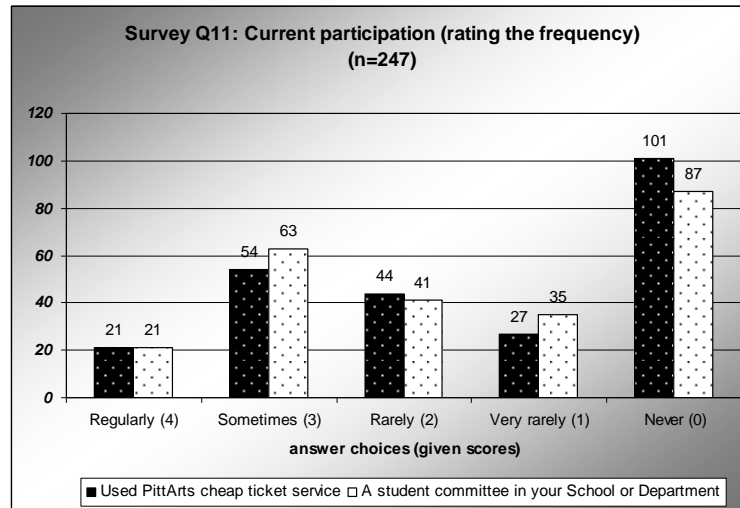
The expressed time availability for social and cultural life, however, is relatively lower than the expressed interest, though about 70 percent of respondents agreed about their availability.

**Diagram 34. Students' expressed time availability for a social life**



On the other hand, when we look at their use of some of the main social and cultural resources on campus, the ratings are significantly lower.

**Diagram 35. Students' use of existing institutional social and cultural resources**



At the interview, however, when we explore the general social and cultural participation pattern for research question 1, Diagram 12 indicated that the international students tend to prefer visiting museums or art galleries to stage performances. That may partly explain why the cheap ticket service is not highly popular. On the other hand, even among students who indicated that they sometimes go to stage performances, several of them expressed that they were not aware of the ticket service and said that the programs are not advertised enough among students. The opportunity for being involved in committee activities within their academic units is slightly higher but still is not to the significant level.

#### **4.5.3 Focused criteria – differences depending on affiliation and status**

*The students' perception about institutions' response to their social and cultural needs is influenced by their affiliation, character, and status.*

The response to the participants' level of satisfaction about the institutional support for their social and cultural needs varies. Some identified factors that make the differences in their

response are affiliation, character, and status. For example, students in some schools or academic departments, such as business school or School of Rehabilitation Sciences, expressed that the school actively offers opportunities, such as international orientation, cultural festival or happy hour, where students are invited to be involved. Students respond positively to such efforts by the academic units where the schools promote cross-cultural understanding or increased interaction between students, faculty, and staff members. For example, several students from the business school expressed that the school actively provides programs such as international orientation and cultural festivals and they feel that the institution provides enough social and cultural opportunities.

On the other hand, a few participants who are not in the degree program expressed frustration for the University's lack of social and cultural support for them. They are not eligible to acquire a university identification card, which limits their accessibility to facilities like library and sports facilities on campus. One German female student who is in the PhD program in Germany but works in a lab at Pitt says:

I'm not involved in the program here so I don't get email notifications for other international students. If people are not in the degree program or not paid by the university, they don't get Panther card, no library card, no health insurance, no access to gym facilities... There are many people who come here to study in a lab but get the scholarship from their [home] country. I know people in CMU, but they didn't seem to have the problem. They could get the ID right away. At Pitt, it is not the case and it is really sad. I'm not the only person who is facing this problem. There are so many others who have the same problem.

Therefore, students' affiliation and status can be variables that affect their perception about institutions' social and cultural programming support. The next section observes other possible variables that affect students' response to social and cultural opportunities provided by the institution.

#### **4.5.4 Focused criteria – involvement in on-campus social and cultural opportunities**

*Many students feel that the institution provides enough social and cultural opportunities. Whether or not they make use of them seems to depend on two factor: how the opportunities are advertised, for example, by using incentives; and if some of their peers invite them.*

One of the factors that are explored through the interview was the different attitudes among international students toward existing social and cultural programs on campus. According to the interview data, the responses to the question about whether or not the institution provides enough opportunities that meet their social and cultural needs (interview question 5-5) can be classified as follows: yes; maybe, but the opportunities are not publicized well enough; and no. The majority gave one of the first two responses. From the investigator's experience, most programs designed for international students are announced on an email list which includes all registered international students. So there may be some difference between those who actively seek opportunities through reading circulated emails or fliers around the campus and those who do not, and the difference in attitudes may be explained through correlation findings for previous research questions.

Those who do not feel the institution provides enough opportunities expressed very specific needs they were trying to fulfill to which the University was not responding sufficiently. In reality, the investigator had the impression that the majority do not actively seek social and

cultural opportunities because that is not their priority, so whatever they are aware that exist seems adequate. For example, a Saudi male expressed that there was very little social interaction opportunity at Pitt especially to get to know people other than your ethnic group, where he can help other people learn about his culture. When we talked about a past social program where he was one of the few regular participants but the program was cancelled due to lack of participants, he responded as following:

I guess many people were at least happy about the program. Maybe the time was not good and there should have be more incentives to the program. I feel if people do not provide the people with something, you will only attract [those] who have proactive personality. And [those with] proactive personality are limited. Most of the people are in the middle. Sometimes they need to be pushed. So sometimes you can add pizza or a drawing at the end of whatever...things of that nature...like coupon for here and there. If they think that they will gain something, people will come more.

The students' perception about the institutions' service, therefore, depends not only on the actual availability of the opportunity but is influenced by one's attitudes and whether or not they are pushed to explore the opportunity, either through designing of the program or other peers. This may imply that the availability of such an environment, possibly having a group of friends who introduce them to available opportunities, may be a factor that influences students' perception to institution's response for their social and cultural needs.

#### **4.5.5 Summary**

There is a moderate level of interest in and availability for social and cultural participation among international graduate students, but the use of some of the existing opportunities is low. Many students consider the institution to provide enough social and cultural opportunities. However, the awareness and the actual use of them seem to depend on their affiliation, status, and the opportunity to be introduced to the existing resources, possibly through their peers who are already exposed to the opportunity or being drawn by incentives from the programs themselves. As a consequence, students' perception of the institutions' response to their social and cultural needs may be observed, but the actual meaning of these responses can be understood through taking other external factors into consideration.

## **5.0 CONCLUSION**

This section presents some implications of the findings as well as some final reflections on the overall process of this research project. The implications include how the findings have or have not reflected what the theoretical orientation or the literature suggested. The reflections include the author's thoughts about the process of developing the project, collecting the data and performing the analysis. This section comprises: the implications for its theory and finding from the literature review (5.1); implications for the institution (5.2); policy implications (5.3); future research (5.4) and final reflections (5.5).

### **5.1 IMPLICATION – THEORY**

This study examined the correlations among variables informed by the theoretical framework: social capital; cultural capital; culture and arts participation; and involvement theory. The dependent and independent variables are scores calculated from responses of both single and combined question items in the survey. The combined question items were developed into six scales: social capital scale; cultural capital scale; civic engagement scale; cultural participation scale; academic success scale; and social interaction scale. The correlations suggested based on the theories include: social network and academic success; family's cultural participation and individual cultural participation; civic engagement and academic success; and cultural and arts



participation and civic engagement. A series of correlation tests was conducted in the more profound level to identify other related factors.

Use of scales was useful in measuring tendency of focused elements among samples. Despite the fact that there were no previously developed scales that aims to study international graduate students, the scales proved valid tools as their reliability was high. However, the result revealed some implications about the scales as a tool and the way I interpreted the data.

Most of the correlations suggested in the theories were reflected in the outcome especially the correlations between the social capital and civic engagement as well as the social capital and the cultural capital being high. On the other hand, the academic success element has exhibited relatively lower correlations with other elements suggested in the theories such as civic engagement, though they showed a moderate correlation. This result has reflected some possible issues of the methodology and context. As for the methodology issue, the individual's level of academic achievement and English language skills are self-reported and the author found in the interview that individuals have different ways of observing and expressing their own level of achievement and their confidence. As for the context, the result may be related to the fact that, as suggested in the literature (Bean & Metzner, 1985), adult students in general are more focused on academic benefits compare to traditional undergraduate students. If we observe their past involvement in civic engagement, we may obtain slightly different results. Also, the popularity of organized activities as part of students' life in the country or culture a student come from influence his or her social, cultural and civic engagement during their stay.

These conditions, difference in expression and context, suggest parts of the limitations and the challenges in this study in which the samples' attributes in various areas are manifested differently. To analyze one's level of social capital, as described above, it was found that the

people's ideas and their interest in collective activities are different among different cultures. For example, club activities at schools and colleges seem to be less common in Europe than Asia. Interaction among family members tends to be more prioritized than collective social activity in European society. Emphasis in collective activities can be a part of common practices of certain religions such as the Islamic religion. Being comfortable around people with common religion becomes important when there are many defined religious practices and rules in everyday lives. Civic engagement, especially in the form of ethnic student group involvement, has strong relationship with individual needs for interacting with co-ethnic peers due to having low language and cultural adjustment skills. Being uncomfortable interacting with people who do not share common social expectations encourages students to stick together and help each other. On the other hand, those who are from a different social setting, especially European students, do not tend to be engaged in collective activities to help others during their stay abroad. For them, helping others on an individual level may not be considered as a form of civic engagement. Therefore, measuring one's level of civic engagement based on the level of involvement in organized activities may not accurately reflect the correct correlations. This suggests that the examination of civic engagement has to take these aspects into consideration and reflect diverse areas of civic engagement.

The process of measuring cultural capital also involved some challenges. For example, family's involvement in arts and culture is not measured based on the actual frequency of cultural outings. The actual social status of the parents was difficult to measure because it is difficult to measure the social status of the parents based on various occupations in different social settings. Therefore, there was an opportunity to develop more reliable tools to measure

cultural capital with further research about how certain activities and occupations are observed in different societies and how people express them in various cultures.

## **5.2 IMPLICATION – ON LITERATURE REVIEW**

A set of literature was reviewed to inform the study general understanding of the targeted population, existing programming efforts and the methodology used to conduct this study. The major part of the suggestions from the literature are on various aspect of their cultural adjustment, retention, and the degree in which international students interact with the hosts (in this study, American students) in relation to their background. Nevertheless, attempts were made to extract the information related their social and cultural needs as well as the programming approach to this specific population. The implication of this study reflects the summary of literature review (Table 1 and 10) in which the correlations of related variables are suggested.

### **5.2.1 Content of social and cultural needs and participation of international graduate students**

The literature suggests that the level of interest in social and cultural participation is weaker than practical needs among international students. The results of this study are not sufficient to claim the validity of this suggestion because the study was not designed to compare the levels of interests in both fields. The findings related to this are: the level of social and cultural participation interest is moderate among the sample; and the majority of international graduate students spend a significant amount of time in their own schools and academic

departments, including labs, hence their association with schools is strong. These claims, however, are based on the sampled population, which is about 25-30 percent of the population, who agreed to participate in the study. Therefore, their willingness to contribute in affairs other than their own study might be higher than the average.

One of the common feelings expressed by the samples were loneliness being away from their family and friends in their home country, as suggested in the literature, hence one of the most important aspects of socialization needs is to have a group of friends, small or large, where they can share their feelings and ask for help when needed. The relationship with co-ethnic peers often serves as this purpose because they feel confident about the level of understanding of their situation and they can speak their own language. This tendency was especially strong among Asian students. The students with strong religious customs, mostly Saudi students in this case study, also feel more comfortable being with students who share the religious restriction and custom of socialization. Helping each other in the various adjustment processes is one of the major reasons for interaction among co-ethnic peers regardless of the countries of origin. Maintaining strong relationships with their family back home is also a common socialization need among the samples. Several of them expressed that their relationship with their family became even stronger after being away from the family.

The cultural and arts needs are divided into the need of expressing one's culture and the need of exploring other cultures. The first form of cultural needs is as suggested in the literature. This aspect was observed during the interview as several of them express that they feel proud and happy about introducing their country to others and they want to correct other people's misunderstanding about their country. The other form of cultural needs is the exploration of cultures in the host country or other countries through participating in arts and cultural programs,

institutions, and events. This interest was observed especially among those who have previous cross-cultural experiences. Their interest in interacting with the hosts (in this case, American people) exists but in general they are interested in being integrated in the society as long as they maintain their own cultural values. Their interest in developing close relationships with the hosts, such as through living together or visiting their houses on a regular basis, is found to be low.

The availability of ethnic student organizations is found to be useful in meeting some social and cultural needs, as suggested in the literature, through strengthening social and cultural capital and the opportunity for cultural expression. Not only does it serve to meet some of their needs but helps increasing one's civic engagement. However, the culture of group activities also influences one's association with any organized activities hence it should not be the sole measure of one's civic engagement level.

In terms of the differences between the undergraduate and graduate population, the study is not able to claim its position since the undergraduate sample was insignificant. However, it supports the fact that older students may encounter greater challenges in social and cultural adjustment since those who have cross-cultural experience earlier in their lives seem to experience less difficulty in interacting with a broad range of friends.

### **5.2.2 Programmatic needs**

The literature shows that graduate and adult students needs are more focused on academic benefit. This was observed in the tendency, as described earlier, that many international students seem to attend social events held by their academic program or departments in which they can link their socialization needs with academic benefit. Attending social events in their academic program helps develop friendship and network that are helpful to their academic goal. On the

other hand, for those who actively participate in ethnic student organizations, the result shows that common motivation was not gaining organizational experience or skills, which may also be useful for resume building, and is a common motivation among undergraduate students. Hence their expectation of being in organizational activities may be different. This link between socialization needs and academic success needs is reflected by an interest in programs such as language exchange learning, as also suggested in the literature. The usefulness of anticipatory socialization, which some literature suggested about adult and international students, was also observed. Therefore, the programs that provide students with the information that helps develop realistic expectations in their academic experience should be conducted.

### **5.2.3 Correlations in their social and cultural needs and participation**

The findings from the literature on the relationship between the countries of origin and the adjustment level were more or less reflected in the findings. More specifically, the Asian students seem to face greater cultural adjustment difficulties and language barriers. One aspect of the findings that contributed in this area was the degree in which individuals feel comfortable interacting with people they just met. This area of attribute was found to be correlated to the differences among nationalities. Another aspect that could contribute in this area was the differences between their own perception and American people's perception of their country's contribution and status in the rest of the world. Related questions were included in the survey; hence the results and the implication of this aspect may be expected through further analysis from the data. Therefore, the data from this study suggested the possibility of exploring more detailed correlation among the variables, such as culture of socialization, academic culture, perceived image of the country and the status, that are manifested in the country differences.

The literature (Tartar, 2005) suggested that the differences in culture is reflected to and difference in academic practices. What was found in the study is that large amount of homework, individual and group projects, and class discussion were generally uncommon in the countries of origin of the samples, regardless of the cultural differences in other areas, and everyone had difficulty in becoming used to this American academic practice to some degree. However, how quickly the individuals became adjusted to it seemed to depend on the cultural difference in other areas as well as the language ability. However, the specific similarities and differences between the academic practices and other areas of cultural differences need to be explored further to observe the correlations in this area.

The literature suggested being married is negatively correlated with the social interaction with hosts. This specific correction was not explored but the result shows that being married would not decrease social participation of civic engagement in general. More specifically, if the spouse is also willing to interact with the hosts or try to train his/her English language skills, it becomes a motivation for both partners to interact with the host. This tendency is strengthened when either or both of them have previous cross-cultural experience. Therefore, this study suggests that the characteristics or the attributes of both individuals in the couple is the important factor to assess their level of interaction with the host.

### **5.3 IMPLICATION – METHODOLOGY**

The methodologies suggested from the literature applied in this study include: the use of communication source; use of existing data collection instruments; correlation analysis; clustering sampling; web-survey; and not using lottery incentives.

Most of the suggested methods were effectively applied in this study. Because of the unique purpose of this study, the instrument needed to be created through the suggestion of existing instrument such as international students' surveys, and culture and arts participation surveys. But the phrasing, logical order, and the content of the questions helped constructing the tools. The use of web-survey was extremely useful since it allowed samples to respond at their convenience and with fewer burdens, especially since the sampled population uses emails and websites as a main means of communication. It also reduced the cost and the labor meant for the distribution and collection. On the other hand, the fact that about one-sixth of respondents dropped out about the middle of the survey should not be overlooked. The length of the survey more or less reflected a past survey conducted among a similar population, but the experience of this study suggests that fewer questions and matrix might have yield a higher response rate.

Since the lottery incentive was suggested to be an ineffective tool, the investigator used first-come, first-served based incentives, and it was effective in incentivizing the targeted population to respond quickly. Some studies suggested that the incentives do not make much difference in the return rate. However, I had the feeling that many respondents did appreciate the 'prizes' though it might not have been 'essential,' especially among those who were willing to help anyway. Especially among the interview respondents, the majority expressed that the motivation was the purpose of the study. However, a few interview participants expressed that they were inspired by the incentives to participate in the survey, where they found the study to be interesting. That motivated them to volunteer in the interview, and at this point, the incentive for the interview was not important since they were already interested in contributing to the study.

Therefore, this study suggests that the use of incentives does seem to help to raise return rate but, more importantly, the degree of effectiveness depends on how the respondents relate to



the subject or the purpose of the study. It also may relate to the characteristics of the studied population.

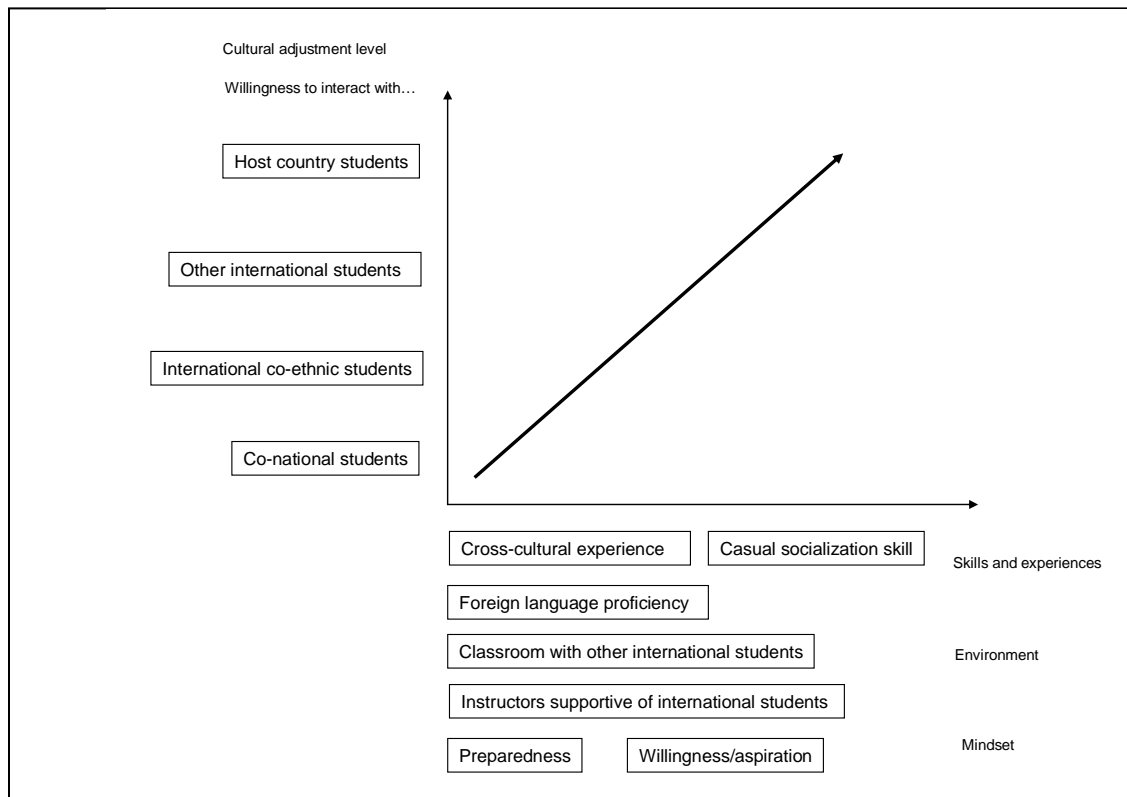
## **5.4 IMPLICATION – PROGRAMS AND SERVICES**

This section proposes some suggestions about how institutions can be effective in assisting international students by related units, including student affairs, academic department and other administrative areas. The section also presents suggestions that help student affairs offices, particularly the Office of Cross-Cultural and Leadership Development (CCLD) of Pitt, to be more effective in inculcating cross-cultural awareness and civic mindedness among American students based on the insight of the area gained from this study.

### **5.4.1 Helping internationals with adjustment**

As described in the previous section, there are some correlations and suggestions in relation to the reviewed literature. These involve many implications on the way student affairs can assist international students in their adjustment and successful in their endeavors. The relationship between the individual background, which helps adjust socially and culturally, and how it affects one's socialization is summarized in diagram 36. This diagram articulates three approaches that student affairs can effectively assist international students with social and cultural adjustment. The three approaches are: creating a mind-set; providing a supportive environment; and developing skills and experiences for adjustment.

**Diagram 36. Degree of adjustment and related skills and experience**



The first approach, creating a mind-set, can be achieved by providing orientation programs that focus on transition assistance and by providing realistic expectations about graduate study. The knowledge about American academic culture, culture of interaction, expectations, expected struggles in different settings can help develop this mind-set. The knowledge about cultural differences between the American society and their home countries in broader aspects of life, including academic culture, socialization, and communication, is also found to be important for international's adjustment. The delivery of the knowledge should be done by using the reflective practitioner approach (Schollossberg et al., 1989), in which the information is delivered in a way that allows the learners to reflect and relate to their own experience instead of the traditional one-way information delivery approach. The former approach is considered useful especially for

adult students, which is a common characteristic of graduate students. The knowledge can be supported by encouragement and expression that value their efforts.

The interview data provided some insights on the second approach, i.e., providing a supportive environment. Developing a supportive environment outside the classroom is found to be important. The supportive environment can be encouraged through providing options for communities and networks that meet their diverse needs. The communities can be organizations of various ethnicities, religions, common values, and other interests. Opportunities for individuals with common interest to be connected can also help those who feel less comfortable in large groups. The participants also expressed that their classroom adjustment is affected by the presence of other international students and the support of faculty members. Some of the participants expressed that having many international students in the classroom prevents them from feeling isolated and makes them less hesitant to ask for help. Such an environment may also help the instructors be more aware of and prepared to respond to common struggles among international students. However, not everyone is fortunate enough to be in such an environment. I believe there are a number of ways to create a supportive environment in the classroom: asking faculty members and staff to be supportive; providing them with knowledge of the common struggles encountered by international students; and having the instructors suggest the students in the classrooms to help one another. Student affairs can provide international students with the confidence and skills needed to ask for help from the instructors and classmates. Assessing the needs of international students and being responsive and supportive to them are also important part of making them feel supported and part of the community.

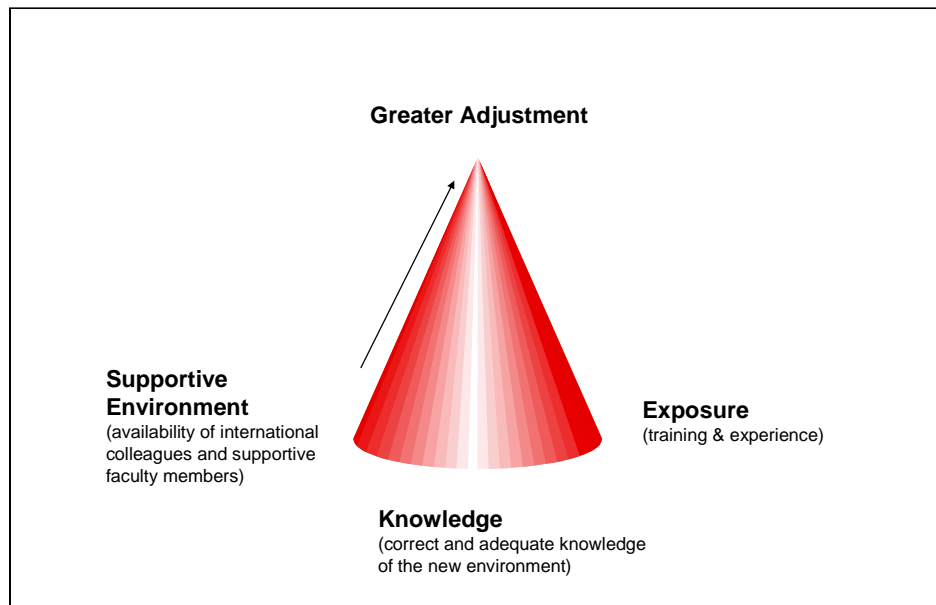
The third approach, developing skills and cross-cultural experiences, can be achieved by providing opportunities, to international students and their spouses, to gain cross-cultural

experience and developing casual socialization skills and English language skills. This can be done through programs that enhance communications with American students, such as language exchange programs, highly favored by many survey respondents. This type of program well reflects the needs of internationals including language improvement, cross-cultural experience, interaction with the host, and communication in small groups. This provides the opportunity for American students with cross-cultural experiences, which build tolerance and acceptance for people with different cultural backgrounds; which help creating a supportive environment within the University community.

Language exchange programs, moreover, have a particular characteristic that makes them appealing to many international students: they are one-on-one socialization opportunities. Many interview respondents seemed to prefer this type of interaction, especially Asian students. I suggest developing other one-on-one socialization programs. For example, a Buddy Program that pairs incoming international students with existing students, international or not, may make acclimation to the University environment easier.

In summary, well rounded foundations with adequate exposure, knowledge, and a supportive environment can lead one to an easier adjustment and survival in a new and challenging environment. Diagram 37 illustrates the dynamics of the elements contributing to international students' adjustment.

**Diagram 37. Necessary elements for adjustment**



This model shows how the three elements, supportive environment, knowledge, and exposure, can contribute to greater social and cultural adjustment. This also implies an educational approach for all students to inculcate global awareness and preparedness for future challenges, which is described in a later section. The following sections further describe some of the institutional approaches to help international students.

#### **5.4.2 Encouraging international students to participate in social and cultural programs and opportunities**

Some of the useful program contents and arrangements to attract international graduate students' participation are found to be: developing social networks; introducing available social and cultural opportunities; flexible timing; no sophisticated use of the English language; and language improvement. Helping some students, especially those who are hesitant in exploring new social and cultural opportunities, to be introduced to available programming is also an

important effective programming approach. Some of the suggested incentives are: making the program announcement accessible; conveying the program values and meaning to international students; encourage the participants to invite others; and refreshments and prizes. Having international students introduced to existing social and cultural opportunities encourages cultural awareness and builds a supportive community, which was also found to further inculcate civic mindedness.

The community and on-campus groups are found to be a form of social and cultural opportunity that strengthens this influence. One of the most effective incentives is to provide support upon their arrival to the university, which is the time the students need and appreciate the available help the most. Those who receive help, both through organizations or individuals, have a higher tendency of valuing the community and helping others. Therefore, helping students upon their arrival encourages them to be involved in assisting other students both individually or through organizations.

The on-going participation in student groups helps development of a culture of mutual assistance, which strengthens social capital among students. Therefore, student affairs professionals should help them to achieve the organizational goals and strengthen the community. For example, if the purpose of an ethnic student group is to help one another and share their values among the members, the university should support this endeavor. Many respondents who are part of ethnic student groups expressed that introducing their cultures to others is interesting but providing support among one another is more important. Being sensitive to the diverse needs and support their activities helps their experience meaningful.

Finally, the access to information and facilities for social and cultural opportunities on campus needs to be expanded to a broader range of the international population Pitt. As

presented in the findings, some internationals who are not in a degree program are neither on email list that other international students subscribe to nor have the access to some of the recreational facilities. Developing flexibility in the system to allow this population more access to social and cultural opportunities and resources strengthens the international community in the University.

#### **5.4.3 Develop a supportive environment through academic department**

As described earlier, the involvement of the academic units to develop a supportive environment is considered helpful, especially because the majority of international graduate students tend to spend significant time in their academic department and place importance in developing communications with their peers. Examples of programming efforts are: the orientation at the Department level, especially if the international population is significant; happy hour where staff and faculty members participate; cultural events that help internationals introduce their heritage and American students become aware of cultural differences. The effectiveness of these programs, especially happy hour, can be increased by faculty members and staff's participation. This provides the opportunity for the staff and faculty to be aware of international students and improve communication among the students, staff, and faculty in a casual setting. Especially the students appreciate faculty members' presence as it gives the supportive intention to international students. The study found that the interaction in the informal setting as well as the proactive attitude of showing their support for international students is helpful to students (especially Asian) to increase the ability to express concerns to the faculty.

#### **5.4.4 Education for cross-cultural awareness and civic responsibility**

The two types of educational approaches that this study suggests to be implemented in the University, for both domestic and international students, are: cross-cultural experience and awareness.

First, the study results suggest that one's cross-cultural experience may positively influence socialization pattern through increasing: one's willingness to help others; appreciation of people around and social ties; patience with other people's lack of understanding; proactive attitude in asking for help when needed; and appreciation to one's own culture. Those with extensive cross-cultural experience have a higher tendency to contribute to the society, either individually or through organization, and to positively influence the level of civic engagement among their peers. The positive change of attitude of their peers encourages further community involvement. This process indicates that cross-cultural experience has reciprocal effect with civic responsibility inculcation.

Therefore, the University of Pittsburgh should continue its efforts in providing cross-cultural experience to all students. The cross-cultural experience can be gained through visiting or studying abroad as well as being in the environment where students can be exposed to people with uncommon backgrounds, values, and mode of expressions. This aspect of cross-cultural experience was identified as useful from some interview respondents from countries such as India where people are diverse.

The second approach, providing knowledge and raising awareness about the societies outside the country, was found to be an important focus of education especially among American students. Almost all interview respondents expressed that they did not think American people have a correct understanding of their countries and people. In the survey, a lot of students felt



American people do not think, as highly as they do, of the values and the contributions of their countries and people. This shows their frustration toward American people's lack of understanding about their countries and societies. Although some of them expressed that the same situation might have applied to them, it is still important that the University continues its efforts of promoting global awareness among American students. This is useful for: increasing understanding about the international students; gaining some objective views about their own society; and presenting themselves as responsible citizens in an increasingly global society. Gaining objective views about their own society and being aware of their level of knowledge may inspire and interest students to learn further. International students express their appreciation when American peoples, including their colleagues, faculty and staff, show interest in learning about them. The main issue is the interest and attitude for learning, not having enough knowledge, and this attitude makes international students value the people around and feel valued.

Being in a university which is highly diverse, American students should also be aware that, to international students, their behavior represents the American society; hence it affects the image of American people in other countries through international students. Some interview respondents, who had experienced studying in other institutions in small cities, expressed that they believe students at the University of Pittsburgh seem to be more globally aware compared to people they had experienced in the past. So it is important to continue this effort to provide the opportunities for increasing global awareness among the University community.

## **5.5 IMPLICATION – POLICY**

### **5.5.1 Institutional policy**

This study has revealed a number of unique aspects about the social and cultural needs of international graduate students. The findings that provide implications on institutional policy are: international graduate students place importance in developing network in their academic department or school; there are specific expectations and meaning of ethnic student community among international graduate students; the language skills of spouse influence international students' social and cultural participation patterns; and non-degree students do not have access to some of the facilities and services in the University.

First, as stated in the section 5.4.3, the University should increase its efforts in providing a supportive environment by working with academic departments, especially those that have high international enrollment. The departments should be encouraged to assess the unique needs of their students, provide social programs and academic skills training, appoint international students advisors, and disseminate useful information for international students.

Second, in terms of the needs of student groups, the University can help strengthen the ethnic graduate student groups by making more efforts to understand their unique needs compared to undergraduate student groups. To do this, the Division of Student Affairs should enhance the communication with the graduate student bodies such as the Graduate and Professional Student Association, which most of the ethnic graduate student organizations are affiliated with. The enhanced communication between the two will lead to a better working relationship based on realistic expectations from each other, and the University will be able to better respond to the needs of international graduate student groups.

Third, in the area of improving language skills and socialization of spouses, the University should include the international spouse population in the scope of the activities helping international students. There are English language programs accessible to non-University affiliates but increased socialization opportunities should be made available to spouses in order to encourage social and cultural participation. For example, consider the gym facilities. According to University regulation, only University affiliates (students, staff, and faculty) can use the facilities and they are not allowed to bring guests. Making the regulation more flexible, especially in the case of spouses, may positively influence the participation of married international students.

Finally, as mentioned in the section 4.5.3, in the current institutional structure, those internationals who are not pursuing a degree or receiving a salary from the University are not eligible for certain benefits. For example, non degree students do not have access to libraries and recreational facilities, cannot purchase public transportation passes at a discounted rate, and do not receive email announcements meant for international students. Having access to these benefits would help international students to more effectively pursue academic and social activities, and would help scholars feel like they are part of the University community. Therefore, the University of Pittsburgh should consider making these benefits available to all international students.

### **5.5.2 Public policy**

This study does not provide enough data or results to make suggestions on public policy approaches on social and cultural participation in education or support for international students. This is because the dissertation used a case study of a university community and does not make

any reference to existing public policies in this area. However, the findings from the survey and the literature review may provide some implications in the public policies in cultural approaches to social and educational development as well as international understanding, at both the local and the global levels. For example, the findings that supports Walker's (2002) claim that "people's motivations for participation in arts and culture suggest strong links with other aspects of community life" (p.25) can contribute to developing policy suggestions. The potential of this study's contribution to policy implications should be explored through expanded literature reviews, data collection, and analysis.

## **5.6 FUTURE RESEARCH**

The volume, variety, and depth of the information acquired from samples in this study are rich and there are a number of aspects that have the potential of gaining further insight about the samples but were not closely observed. These include some elements in the survey and interview, which may enable further analysis of correlations and give a closer look at already studied elements. Some unexplored responses from the survey and interview include gender, religious involvement, academic department affiliation, length of stay, skills and resources (financial standing, work availability at the university and in home country). Further analyses in application of theories, including social capital theory cultural capital theory and student development theory, are also possible. The following sections further describe some of these possibilities.

### **5.6.1 Unanalyzed responses**

The data collection methods and tools have been determined to collect data that reflect the views gained through the literature reviews. The range and amount of data is broad but not all the data were used in the data analysis. Some of the unanalyzed data are listed above as well as their perception, both their own and American people's perception, about the political situation of their countries and the values and contributions of their countries and people to the rest of the world. This data potentially provides further insights into the social and cultural needs and the participation of the sample.

Another possible analysis is on the religious influence, where correlations of the variables, such as using the selected religious affiliations and their perceived degree of importance in their lives, can be observed. The investigator has observed from the interview that, for some people, especially among Muslim students, the sense of community created based on their religious practices and beliefs plays a significant part in the individual, social, and cultural needs and participation. Their values and behaviors are influenced either directly or indirectly, when the distinction between the religious practices and culture is unclear. The sense of community and belonging can be either strengthened or weakened among the people of the same religious affiliation depending on the individual relation and the ideas of the belief system. Hence the religious aspect of individual values may add more aspects to the correlations among the related variables and potentially further insight in the samples.

The attachment to their own country, ethnic, or traditional values can also provide some insight in their social and cultural needs and participation. From the interview, it was perceived that the environment and the culture where individuals grew up, the types of cultural and arts participation among the family members, inherited values, and the sense of belongings to one's

own country also influence the samples' social and cultural needs and participation. The investigator also observed a possible correlation between the living experience abroad and their changing perception about some of their own ethnic culture and arts. Further insight in the correlations among the related variables may also be gained.

The difference between their own perception about the value and the contribution of their country, people and culture and the American people's perception thereof may also provide some additional insight. It is based on the responses on their cultural needs that many international students expressed their interest in providing correct understanding about their country.

### **5.6.2 Use of related theories**

The existing student development theories do not offer ideas that can serve as a foundation for analyzing the social and cultural needs of the international students in American universities. This case study contributes to the process of filling this gap and suggests a use of some student development theories, through its focus on non-traditional students and graduate students and their unique needs, adjustment, and learning processes.

As presented in the findings, the international graduate students go through a unique path in their adjustment and personal development that are observed through their social and cultural participation. The influencing factors observed in this study are family, community and institutional influence with multiple layers within each category due to demographical, social, cultural, economic, and political diversities. It is a complex task to present all the factors of one's individual background. However, with further exploration of the data and the related literature, this study potentially develops a framework that constructs the overall experience of international students during their stay, which adds to the knowledge of existing theories in the

field of student affairs. The development of the related theory requires additional case studies that support the frame of the presented ideas.

Further exploration of this study's contribution to the related field can be made through exploring critique and applications of theories and conceptual frameworks: social and cultural capital theories; developmental theories; and cultural and arts participation models. The analysis can also be enriched by relating the findings to other theories such as cultural participation theories. These efforts will contribute to the enrichment and application of these theories to studies of social and cultural needs and participation of a diverse population.

## **5.7 FINAL REFLECTIONS**

This study has provided me with much understanding about the characteristics and the potential of qualitative study. This includes the degree in which the investigator's presence can influence the data collection process. The first influence is the way the investigator was able to approach student organizations to recruit participants. Many individuals were willing to assist me in this process as they knew me personally through working with me or as friends, since I am also an international student pursuing a graduate degree like most of the sample populations. The second influence is the helpful attitude of the participants as they decided to respond to the survey and participants in the interview. As shown by the final open-ended responses, although the number was not significant, participants took the time to share their thoughts. At the interview, I had the impression that the participants were trying to be helpful through paying close attention to my questions and being honest about their opinions. I especially felt that the majority of them were sharing their thoughts with me as another international student. In other words, some of the

opinions were shared because they consider that I was one of them and as such I would understand their feelings. I had this impression especially when I was interviewing Asian students. Sometimes, as I expressed my sympathy to some of their concerns, they looked happy and started talking about the related experiences even more. One interview participant, who is generally a shy student, said she decided to volunteer to be an interviewee because she knew me and wanted to talk and share her experiences, but she would have not volunteered if she did not know me personally.

Although the return rate was not as high as I had hoped, I reflect that the data collection was relatively successful and the intention of the study was well-received among the samples, at least among those who have responded. I hardly received any complaints about my repeated survey invitations and I was impressed by many participants who responded to all questions in the lengthy survey. Overall, I was pleased by the interest and encouragement expressed by many participants and felt that they were happy that someone was trying to learn about them. However, I feel the responsibility to make effective use of the collected data by contributing to the improvement of the University's assistance to the international population.

This study has a unique approach in the way it was designed, a combination of a participation study and a needs assessment study in the area of student affairs, and cultural and arts participation. The range of theories to apply and the disciplines to relate to was broad and ambitious. This created much challenge in the construction of the study and analysis of the collected data, and there were many areas that were overlooked because of this. This case study, however, provided much insight of this specific population and contributes to the social and comparative analysis in education.



## **APPENDIX A**

### **IRB APPROVAL LETTER**




## University of Pittsburgh *Institutional Review Board*

Exempt and Expedited Reviews

University of Pittsburgh FWA: 00006790  
University of Pittsburgh Medical Center: FWA 00006735  
Children's Hospital of Pittsburgh: FWA 00000600

3500 Fifth Avenue  
Suite 100  
Pittsburgh, PA 15213  
Phone: 412.383.1480  
Fax: 412.383.1508

TO: Mayumi Terano

FROM: Christopher M. Ryan, PhD, Vice Chair 

DATE: March 15, 2007

PROTOCOL: Effective Programming for International Students Based on their Perceived  
Social and Cultural Needs

IRB Number: 0702089

The above-referenced protocol has been reviewed by the University of Pittsburgh Institutional Review Board. Based on the information provided in the IRB protocol, this project meets all the necessary criteria for an exemption, and is hereby designated as "exempt" under section 45 CFR 46.101(b)(2).

- If any modifications are made to this project, please submit an 'exempt modification' form to the IRB.
- Please advise the IRB when your project has been completed so that it may be officially terminated in the IRB database.
- This research study may be audited by the University of Pittsburgh Research Conduct and Compliance Office.

**Approval Date:** March 7, 2007

CR:dj

## **APPENDIX B**

### **COPY OF THE ON-LINE SURVEY**

## 1. Welcome to the social and cultural participation survey among international...

Thank you for your interest in participating in this survey. This survey include 38 easy-to-answer questions which takes about 10 minutes to complete. You can choose not to answer some questions if they are not marked with a star (\*). The survey results will be kept confidential and used only for this disseration study. The data will not be accessible by anyone else but the principal investigator. After completion of the survey, you can claim for prizes that are offered by various sponsors of this study. Also, you can choose to participate in the follow-up interviews with some cash rewards.

## 2. Your Affiliation

Please identify your background as following.

### 1. What is your affiliation?

### 2. What is your home country?

### 3. What is your current status in the US?

## Social and Cultural Needs and Participation of International Students at University of

### 3. Social and Cultural Needs

In general, how interested would you be in the following social and cultural opportunities? The following list includes both possible on-campus and outside-campus opportunities. Please rate your interest in each item.

#### 4. Social Interaction

	Very interested	Somewhat interested	Not so interested	Not at all interested	Undecided
Interacting with friends with common ethnic and cultural background	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interacting with friends from other countries and backgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interacting with American friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visiting American families for holiday celebrations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sharing housing with American students or families	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introducing your cultural heritage to American people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Giving American people accurate information about your country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having a mentor to consult on life issues (other than immigration and academic advising issues)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### 5. Civic Engagement

	Very interested	Somewhat interested	Not so interested	Not at all interested	Undecided
Volunteering at local community organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping student organizations and university offices with your skills and expertise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping other students who need assistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### 6. Cultural and Arts Participation

	Very interested	Somewhat interested	Not so interested	Not at all interested	Undecided
Learning about American culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning about local arts and cultural resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning about food culture or cooking practices of other countries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exchanging language training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting assistance with cultural adjustment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#### 4. Questions on Current Social and Cultural Participation

**7. How often have you attended each of the following arts-related activities or events in the US during the past 12 months? (Include both on- and off-campus events)**

	10 times or more	5-9 times	3-4 times	1-2 times	Never
Live dance performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Live classical music performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Live theatre performance (NOT movies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visit to art museum or art gallery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visit to arts festival (such as Three Rivers Arts Festival)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**8. Have you been an active member of your ethnic student organization on/off campus?**

- ☐ Yes  
☐ No (though my ethnic student organization exists)  
☐ No (because my ethnic student organization does not exist)  
☐ Other (please specify)

**9. If 'yes' to the previous questions, why are you a member of it? Please check all that apply.**

- ☐ to share our ethnic values  
☐ to speak my language  
☐ to introduce our culture to American people  
☐ to train my organizational skill  
☐ to help people with common ethnic background  
☐ Other (please specify)

**10. How much financial contribution are you willing to make annually to your ethnic student group? If there isn't an ethnic group of your country, assume there is one that organize events and activities for the community.**

- ☐ \$0

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- ☐ \$1-5 per year  
☐ \$6-10 per year  
☐ \$11-20 per year  
☐ \$21 or more per year

### 11. Please rate the frequency of your participation in the following social and cultural opportunities.

	Regularly	Sometimes	Rarely	Very rarely	Never
Used PittArts cheap ticket service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A student committee in your School or Department	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participated in programs offered by community social organizations (e.g. Pittsburgh Council for International Visitors (PCIV), churches, and other organizations)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volunteered in any community or on-campus activities (For example: assisting University offices with events, teaching in Sunday school at a church, and hospital volunteering)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 5. Questions on Your Background - Individual Factors

### 12. Please rate the importance (to you, to your family, or to the society you come from) of the following:

	Great importance	Moderate importance	Little importance	No importance	Undecided
Social networks (to the society you come from)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The role of the arts and culture (to the society you come from)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Arts and culture activities (to your family)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spending time together (to your family)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The arts and culture (to you)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The social activities (to you)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 13. Please rate how you perceive your own experience and these items as they relate to you on a 5-1 scale (5 being the highest, 3 is average, and 1 is lowest).

	5	4	3	2	1	No Answer
Your academic performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your social and cultural adjustment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your future status in your country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your responsibility in the future of your country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Your family prestige	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The political situation of your country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribution of your country to the rest of the world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Value of your country's heritage, people, and culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**14. Please rate how American people perceive the items related to your country on a 5-1 scale (5 being the highest, 3 is average, and 1 is lowest).**

	5	4	3	2	1	No Answer
The political situation of your country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribution of your country to the rest of the world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Value of your country's heritage, people, and culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**15. Please rate your opinion on your skills and resources.**

	Strongly agree	Agree	Disagree	Strongly disagree
I am comfortable in daily conversation in English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable with my English ability to meet my academic requirements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable interacting with people I just met.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My budget adequately covers my tuition and other living expenses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can spare enough time for a social life (meeting friends, dating, etc.).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**16. Do you have a promised work appointment after finishing your current studies?**

- ☐ Yes  
☐ No  
☐ Other (please specify)

**17. How many hours a week do you currently work on-campus, if you have a work appointment (GSA, GSR, TA, TF, and other part-time positions on campus)?**

- ☐ 0 hours
 ☐ 1-5 hours
 ☐ 6-10 hours
 ☐ 11-15 hours
 ☐ 16-20 hours

**18. How many foreign countries besides the U.S. have you visited (stayed less**



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than 1 month)?**

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 or more

**19. How many foreign countries besides the U.S. have you lived in (stayed more than 1 month)?**

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 or more

**6. Questions on Your Background - Community Factors**

Please tell me about your family background as a community and their social and cultural participation. You can choose not to answer questions that are without '\*'.

**20. What is the size of the family you grew up in?**

☐ 2 or less ☐ 3 ☐ 4-5 ☐ 6-7 ☐ 8 or more

**21. Please rate the frequency of your family activities.**

	Regularly	Sometimes	Rarely	Very rarely	Never
Having meals together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visit relatives or friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participate in community or political activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Music, arts, and other cultural programs (i.e. go to art museums, theatre, concerts)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading literature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**22. What is your father's profession?**

- ☐ home maker  
☐ self-employed  
☐ education professional  
☐ medical professional  
☐ government official  
☐ clerical  
☐ Other (please specify)

**23. What is your mother's profession?**

## Social and Cultural Needs and Participation of International Students at University of

- ☐ home maker
- ☐ self-employed
- ☐ education professional
- ☐ medical professional
- ☐ government official
- ☐ clerical
- ☐ Other (please specify)

### 24. Do you interact with many people from your country residing in Pittsburgh?

- ☐ Regularly      ☐ Sometimes      ☐ Rarely      ☐ Very rarely      ☐ Never

### 25. If 'never', what is the main reason?

- ☐ We don't share the same interest
- ☐ Not beneficial to me
- ☐ Lack of opportunities
- ☐ Lack of time (but interested)
- ☐ Other (please specify)

### 26. Is there an active ethnic community organization from your country in Pittsburgh?

- ☐ Yes      ☐ No      ☐ Don't know

### 27. Who do you live with?

- ☐ Alone
- ☐ American family
- ☐ American student(s)
- ☐ foreign student(s) from your country
- ☐ foreign student(s) from other countries
- ☐ your spouse (and/or children)
- ☐ Other (please specify)

### 28. Do any of the people you live with like to attend social and cultural events or

**Social and Cultural Needs and Participation of International Students at University of**  
**programs?**

☐

Yes

☐

No

☐

Don't know

**7. Demographical Questions**

**29. Age on your last birthday**

☐

18 to 21

☐

22 to 25

☐

26 to 30

☐

31 to 35

☐

36 and older

**30. What is your sex?**

☐

Male

☐

Female

**31. What is your religious affiliation (optional)?**

**32. Do you think your religious beliefs play an important part of your value and how you interact with others (optional)?**

☐

Yes

☐

No

☐

Don't know

☐

Not applicable

**33. What is your marital status?**

☐

Single

☐

Married, spouse is with me

☐

Married, spouse is not with me

☐

Other (please specify)

**34. Have you any children?**

☐

No

☐

Yes, living together

☐

Yes, but not living together

## Social and Cultural Needs and Participation of International Students at University of

☐ Other (please specify)

### 35. What is your program of study?

☐ English Language Program

☐ undergraduate program

☐ master's program

☐ doctoral program

☐ Other (please specify)

### 36. What is your field of study?

### 37. What is your current grade point average?

☐ 2.00-2.49

☐ 2.50-2.99

☐ 3.00-3.49

☐ 3.50-4.00

☐ not aware or not applicable

### 38. How long have you been in the U.S.?

☐ 0-3 months

☐ 4-12 months

☐ 13-24 months

☐ 3 years

☐ 4 years or more

### 39. Please share comments or thoughts related to this survey if you have any.

## Follow-up Interview

### 8. Contact Information

I am planning to conduct a series of in-person interviews as part of this research study. The interview will take about 45 minutes and its purpose is to collect more detailed information about how students' background affect social and cultural participation. If you are willing to participate, please provide your email address. Those who will be selected to participate in the interview will be offered with some cash rewards. Participation in the interview is optional.

#### 40. Would you be willing to participate in the interview?

☐ No

☐ Yes (Please provide your email address. Your email address will NOT be connected to your survey responses)

### 9. Claim Your Prize!

Thank you for filling out the survey.

As a generous survey respondent, I would like to offer you some coupons from local vendors! Some coupons are offered by the O3CL.

The coupons are available to you on a first-come, first-served basis. For an updated list of prizes, please go to the study website (<http://mterano.survey.googlepages.com/rewards>).

To claim your prize, you will need to provide your unique code below. Please send the email to me ([mterano@pitt.edu](mailto:mterano@pitt.edu)) and give me your code and register your preferred prize. Prizes will be assigned in the order the claims are received via email. I will confirm to you the availability of the prize you choose. The prize can be picked up from my office, 140 William Pitt Union, by appointment.

**41. Please make up a 8-digit code (letters and/or numbers) to claim for the prize. This code is used only to ensure one prize per survey response. The code will NOT be connected to your survey responses.**

## **APPENDIX C**

### **COPY OF THE INTERVIEW QUESTIONS AND RESPONSE ORGANIZATION TABLE**

Situation	demography	Country			
		Age			
		Gender			
		Major			
		What brought you			
		Who funds?			
		spouse /child	(spouse)	(child)	
	skills and resources	Years in the US			
		language skill (English, other foreign language)			
		Experience abroad			
Feelings for adjustment in the US, want to be integrated in the society?					
family	Perception of the society	your country and society (US), different?			
		if they care			
	contact	Phone/meet			
		father	education		
			occupation		
			communication		
		mother	education		
			occupation		
			communication		
		siblings	Number		
			position		
			what they do?		
			communication		
		As a whole	Culture of communication		

Community	Characteristics	Size	
		Demography	
		Events and programs	
	Involvement, relationship	Feelings (connections, relationships etc.)	
Perception of socialization	involvement (casual socialization) what kind, with who, how much (making friends, spending time together...)	(now)	(now)
		(past)	(past)
	involvement (civic engagement) student activities, community activities, volunteers, churches...	(now)	(now)
		(past) Role, contribution, what you like to do?	(past)
	motivation	What interest you?	Socialization: (sense of belongings, create support system, cultural adjustment etc)
			Civic engagement: (helping others, contribution to the society, skills building, career planning, sense of responsibility to their own people or society in general)
	Who to socialize?	Ethnicity, value, religion??	
	Influence	Self	
		Family	
		Community	
		Institution	



Perception of cultural and arts participation	Interest	Favorite forms?	
		What about?	
	Experience	(observing, learning, performing etc.)	
	Importance	Now	
		Past	
	influence	Institution	
		Family	
		Community	
	Plan after finishing study (where, what, why)		
	Social and cultural opportunities at Pitt		
Survey participation	What interested you?		
	Survey prize encouraged you to participate?		

## **APPENDIX D**

### **DESCRIPTION OF INTERVIEW CONDITION – SHARED WITH THE INTERVIEW**

#### **PARTICIPANTS AT THE BEGINNING OF THE INTERVIEW**

##### **Individual Interview**

(To be shared at the individual interview)

The purpose of this research study is to understand social and cultural needs and participation of international students and how they are influenced by individual diverse backgrounds. It is my hope that this investigation will inform the offices in the Division of Student Affairs to provide meaningful social and cultural opportunities that benefit diverse needs of international students at University of Pittsburgh.

In this individual interview, you will be asked about your perception of social and cultural participation and your thoughts about which aspect of your life might have influenced your perception. This will take less than 1 hour to complete and you will be compensated with \$15 cash reward.

There are no foreseeable risks associated with this project since it does not ask any information that could possibly affect their reputation, employability, or financial standing. Your response will be recorded in the voice recording device for analysis. However, your response will not be recorded with your name and the recorded interview content will be kept in the investigator's computer which cannot be accessed by anyone else. Your participation is completely voluntary, and you may withdraw from this project at any time. This study is conducted by Mayumi Terano, who can be reached at [mterano@pitt.edu](mailto:mterano@pitt.edu) or 412-523-0285 at any time.

## **APPENDIX E**

### **RESEARCH QUESTIONS AND RESPONSES TO ANALYZE FROM**

## Research Questions

- i. What are current social and cultural participation patterns in and outside the University? **(“R-i”)**
- ii. How does individual demographical background relate to their social and cultural needs and participation? **(“R-ii”)**
- iii. How do the family, community and institution variables relate to the social and cultural needs and participation of international graduate students? **(“R-iii”)**
- iv. What are their perceptions of institutional responses to their social and cultural needs? **(“R-iv”)**

1. Situation	1. demography	1. Country <b>(R-iii) (R-ii)</b>		
		2. Age <b>(R-ii)</b>		
		3. Gender <b>(R-ii)</b>		
		4. Major <b>(R-iii) (R-ii)</b>		
		5. What brought you <b>(R-i: may express his motivation to contribute to their own society or particular field of profession) (R-ii) (R-iii)</b>		
		6. Who funds? <b>(R-ii: possible indication of financial resource)</b>		
		7. spouse /child <b>(R-iii)</b>	a. (spouse) <b>(R-iii)</b>	b. (child) <b>(R-iii)</b>
	2. skills and resources	1. Years in the US <b>(R-iv)</b>		
		2. language skill (English, other foreign language) <b>(R-ii) (R-iv)</b>		
		3. Experience abroad <b>(R-iv)</b>		
		4. Feelings for adjustment in the US, want to be integrated in the society? <b>(R-i) (R-ii) (R-iii) (R-iv) (R-iv)</b>		
	3. Perception of the society	1. your country and society (US), different? <b>(supporting question to 1.3.2) (R-iv)</b>		
		2. if you care./ feel the responsibility to change misconception <b>(R-i) (R-ii) (R-iii) (R-iv)</b>		
2. family <b>(R-i)</b>	1. contact	1. Phone/meet <b>(R-iii)</b>		
	2. father	1. education <b>(R-iii)</b>		
		2. occupation <b>(R-iii)</b>		
		3. communication (including the role of father, perceived influence from him) <b>(R-iii)</b>		
	3. mother	1. education <b>(R-iii)</b>		
		2. occupation <b>(R-iii)</b>		
		3. communication (including the role of mother, perceived influence from her) <b>(R-iii)</b>		

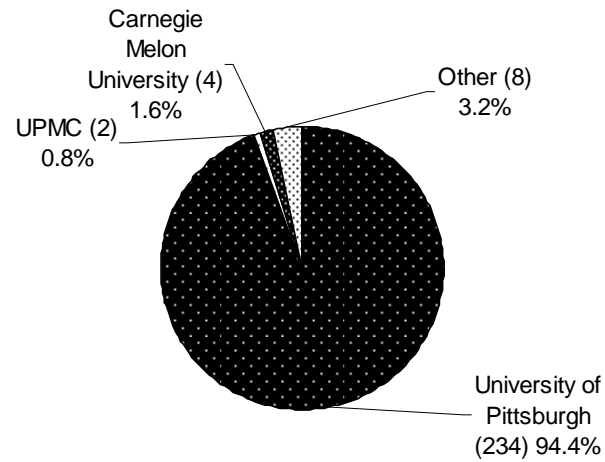
	4. siblings	1. Number <b>(R-iii)</b>
		2. position <b>(R-iii)</b>
		3. what they do? <b>(R-iii)</b>
		4. communication <b>(R-iii)</b>
	5. As a whole	1. Culture of communication (including how family interaction influenced the way he perceive their tradition, ethnic value, his role in the family, community, and country.) <b>(R-iii)</b>
3. Community	1. Characteristics	1. Size (knowledge about the existence of the co-ethnic community) <b>(R-iii) (R-iv)</b>
		2. Demography <b>(R-iii) (R-iv)</b>
		3. Events and programs <b>(R-iii) (R-iv)</b>
	2. Involvement, relationship	1. Feelings (connections, relationships etc.) <b>(R-iii) (R-iv)</b>
4. Perception of socialization	1. involvement (casual socialization) what kind, with who, how much (making friends, spending time together...)	1. (now) <b>(R-i) (R-ii) (R-iii) (R-iv)</b>
		2. (past) <b>(R-iii) (R-ii)</b>
	2. involvement (civic engagement) student activities, community activities, volunteers, churches...	1. (now) <b>(R-i) (R-ii) (R-iii) (R-iv)</b> Role, contribution, what you like to do?
		2. (past) <b>(R-iii) (R-ii)</b>
	3. motivation (What interest you?)	1. Socialization: (sense of belongings, create support system, cultural adjustment etc) <b>(R-iii) (R-ii) (R-iv: need support for overcoming cross-cultural adjustment)</b>
		2. Civic engagement: (helping others, contribution to the society, skills building, career planning, sense of responsibility to their own people or society in general) <b>(R-iii) (R-ii)</b>
	5. Who to socialize?	Ethnicity, value, religion?? <b>(R-iii)</b>
	6. Influence	Self (motivation comes from which the source is hard to identify. Eg. interest in reading books, individual experience, etc) <b>(R-iii)</b>
		Family <b>(R-iii)</b>
		Community <b>(R-iii) (R-ii)</b>
		Institution <b>(R-iii) (R-ii) (R-iv)</b>
5. Interest		Favorite forms? <b>(R-iii) (R-ii) (R-iv: How he make use of the institutional resources)</b>

		What about? <b>(R-iii) (R-ii)</b>
	Experience (observing, learning, performing etc.) <b>(R-i) (R-ii) (R-iii)</b>	
	Importance	Now <b>(R-i) (R-ii) (R-iii)</b>
		Past <b>(R-iii) (R-ii)</b>
	Influence <b>(R-iii)</b>	Institution <b>(R-iii) (R-ii) (R-iv)</b>
		Family <b>(R-iii)</b>
		Community <b>(R-iii) (R-ii)</b>
	1.4. Plan after finishing study (where, what, why) <b>(R-ii)</b>	
	5.5. Social and cultural opportunities at Pitt <b>(R-iii) (R-ii) (R-iv)</b>	
	4.4. Survey participation	What interested you? <b>(R-i) (R-ii) (R-iii)</b>
		Survey prize? <b>(R-i) (R-ii) (R-iii)</b>

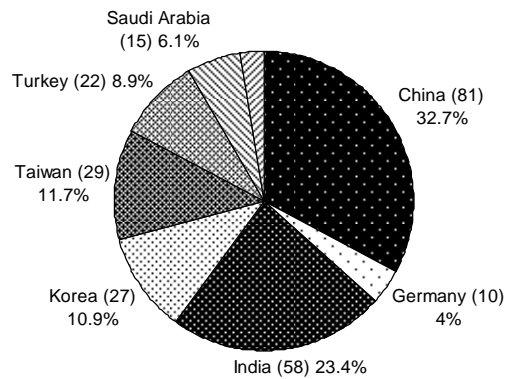
## **APPENDIX F**

### **OVERALL RESPONSES**

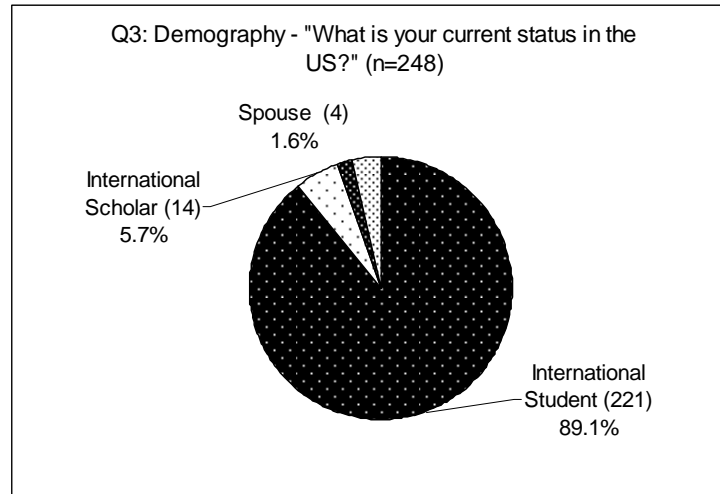
**Q1: Demography - "What is your affiliation?"**  
(n=248)



**Q2: Demography - "What is your home country?"**  
(n=248)







Q3. Other	
Nonimmigrant Worker	3
Returned to Home Country	1
Permanent Resident	5

Question 4: Social and Cultural Needs - "Social Interaction" (n=247, skipped=1)							
	answer options						
question categories	Very interested [2]	Somewhat interested [1]	Undecided [0]	Not so interested [-1]	Not at all interested [-2]	$\mu^{\dagger}$	$\sigma^{\ddagger}$
Interacting with friends with common ethnic and cultural background	115	104	0	25	3	1.23	0.97
Interacting with friends from other countries and backgrounds	125	112	1	7	2	1.42	0.72
Interacting with American friends	105	123	1	16	2	1.27	0.83
Visiting American families for holiday celebrations	83	98	2	52	12	0.76	1.25
Sharing housing with American students or families	39	60	6	99	43	-0.19	1.39
Introducing your cultural heritage to American people	110	96	2	35	4	1.11	1.08
Giving American people accurate information about your country	156	80	1	7	3	1.53	0.76
Having a mentor to consult on life issues	76	93	2	56	20	0.60	1.34

<sup>†</sup> Rating average/Mean; <sup>‡</sup> Standard deviations

Question 5: Social and Cultural Needs - " <i>Civic Engagement</i> " (n=247, skipped=1)							
	Answer Options						
question categories	Very interested	Somewhat interested	Not so interested	Not at all interested	Undecided	$\mu^{\dagger}$	$\sigma^{\ddagger}$
Volunteering at local community organizations	66	121	42	12	6	0.76	1.16
Helping student organizations and university offices with your skills and expertise	78	122	39	6	2	0.92	1.08
Helping other students who need assistance	118	113	14	1	1	1.35	0.79

$\dagger$  Rating average/Mean;  $\ddagger$  Standard deviations

Question 6: Social and Cultural Needs - " <i>Cultural and Arts Participation</i> " (n=247, skipped=1)							
	Answer Options						
answer options	Very interested [2]	Somewhat interested [1]	Undecided [0]	Not so interested [-1]	Not at all interested [-2]	$\mu^{\dagger}$	$\sigma^{\ddagger}$
Learning about American culture	122	104	1	19	1	1.32	0.86
Learning about local arts and cultural resources	110	103	1	31	2	1.17	1.00
Learning about food culture or cooking practices of other countries	115	84	0	38	10	1.04	1.20
Exchanging language training	139	78	1	25	4	1.31	1.01
Getting assistance with cultural adjustment	74	101	0	58	14	0.66	1.28

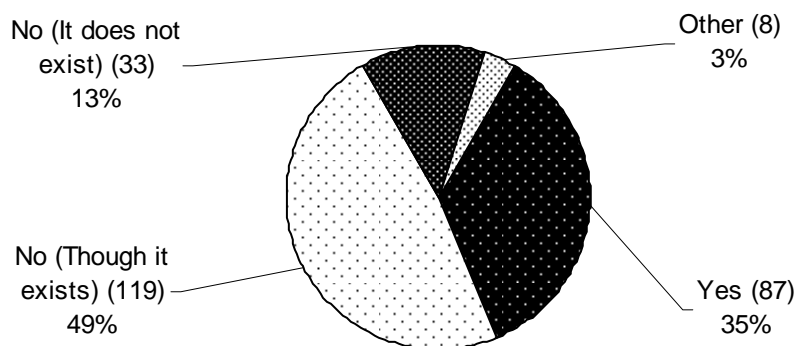
$\dagger$  Rating average/Mean;  $\ddagger$  Standard deviations

**Question 7: Current Social and Cultural Participation - "How often have you attended each of the following arts-related activities or events in the US during the past 12 months? (Include both on- and off-campus events)" (n=247, skipped=1)**

	Answer Options						
answer options	10 times or more [4]	5-9 times [3]	3-4 times [2]	1-2 times [1]	Never [0]	$\mu^{\dagger}$	$\sigma^{\ddagger}$
Live dance performance	5	8	42	73	119	0.81	0.97
Live classical music performance	9	12	40	88	98	0.97	1.04
Live theatre performance (NOT movies)	4	15	22	91	115	0.79	0.95
Visit to art museum or art gallery	11	32	65	97	42	1.49	1.06
Visit to arts festival (such as Three Rivers Arts Festival)	2	8	27	104	106	0.77	0.83

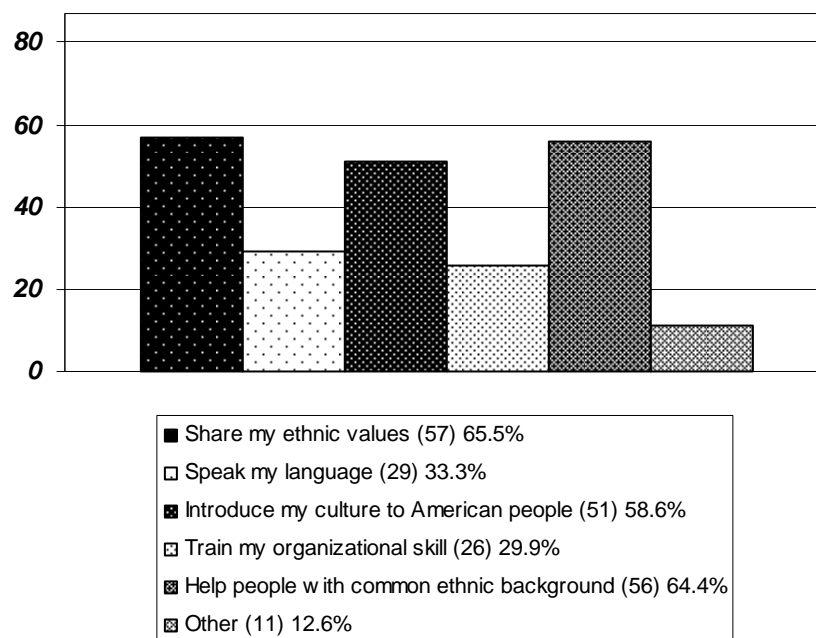
$\dagger$  Rating average/Mean;  $\ddagger$  Standard deviations

**Q8: Current Social and Cultural Participation - "Have you been an active member of your ethnic student organization on/off campus?" (n=247)**



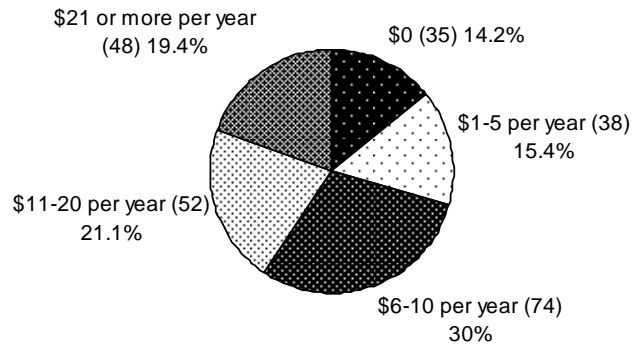
Q8. Other	
No, I don't know if it exists	1
No, I do not have time	2
I am not a student (spouse)	1
No, I would not participate even if it existed.	1
I was an active member when it existed, but it no longer exists.	1
No, but I am a member of a volunteer group that benefits my country.	1
No, but I was active in the past.	1

**Question 9: Current Social and Cultural Participation - "Why are you a member of it? Please check all that apply." (n=87)  
(Multiple choices allowed)**



Q9. Other	
Exchange information	1
Religion/Spirituality	2
Interacting/Socializing with other people	2
Be with people with the same background	3
For dinners and celebrations	1
To help an organization that has helped me	1
To have fun	3
To have international friends	1
To gather support for the establishment of the Turkish Nationality Room in the Cathedral of Learning	1

**Q10: Current Social and Cultural Participation - "How much financial contribution are you willing to make annually to your ethnic student group?" (n=247)**



**Question 11: Current Social and Cultural Participation - "Please rate the frequency of your participation in the following social and cultural opportunities." (n=247, skipped=1)**

answer options	Answer Options					$\mu^{\dagger}$	$\sigma^{\ddagger}$
	Regularly [4]	Sometimes [3]	Rarely [2]	Very rarely [1]	Never [0]		
Used PittArts cheap ticket service	21	54	44	27	101	1.46	1.42
A student committee in your School or Department	21	63	41	35	87	1.58	1.41
Participated in programs offered by community social organizations (e.g. Pittsburgh Council for International Visitors (PCIV), churches, and other organizations)	15	50	44	35	103	1.35	1.36
Volunteered in any community or on-campus activities (For example: assisting University offices with events, teaching in Sunday school at a church, and hospital volunteering)	15	50	51	26	105	1.37	1.36

<sup>†</sup> Rating average/Mean; <sup>‡</sup> Standard deviations

<b>Question 12: Individual Background - "Please rate the importance (to you, to your family, or to the society you come from) of the following:" (n=247, skipped=1)</b>							
	<b>Answer Options</b>						
<b>question categories</b>	<b>Great importance [4]</b>	<b>Moderate importance [3]</b>	<b>Undecided [2]</b>	<b>Little importance [1]</b>	<b>No importance [0]</b>	<b><math>\mu^{\dagger}</math></b>	<b><math>\sigma^{\ddagger}</math></b>
Social networks (to the society you come from)	147	86	1	10	3	3.47	0.81
The role of the arts and culture (to the society you come from)	65	119	1	57	5	2.74	1.14
Arts and culture activities (to your family)	65	108	1	61	12	2.62	1.25
Spending time together (to your family)	177	53	1	14	2	3.57	0.83
The arts and culture (to you)	88	117	1	34	7	2.99	1.08
The social activities (to you)	106	114	2	19	6	3.19	0.96

<sup>†</sup> Rating average/Mean; <sup>‡</sup> Standard deviations

<b>Question 13: Individual Background - "Please rate how you perceive your own experience and these items as they relate to you on a 5 scale (2 being the highest, 0 is average, and -2 is lowest)." (n=247, skipped=1)</b>								
	<b>Answer Options</b>							
<b>question categories</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>-2</b>	<b>No Answer [0]</b>	<b><math>\mu^{\dagger}</math></b>	<b><math>\sigma^{\ddagger}</math></b>
Your academic performance	115	104	22	2	2	2	1.34	0.75
Your social and cultural adjustment	62	116	54	11	4	0	0.89	0.89
Your future status in your country	82	113	33	7	5	7	1.08	0.89
Your responsibility in the future of your country	79	101	41	12	7	7	0.97	0.98
Your family prestige	106	83	40	10	5	3	1.13	0.97
The political situation of your country	41	73	83	26	20	4	0.37	1.12
Contribution of your country to the rest of the world	71	96	60	11	6	3	0.88	0.97
Value of your country's heritage, people, and culture	107	97	32	6	3	2	1.22	0.96

<sup>†</sup> Rating average/Mean; <sup>‡</sup> Standard deviations

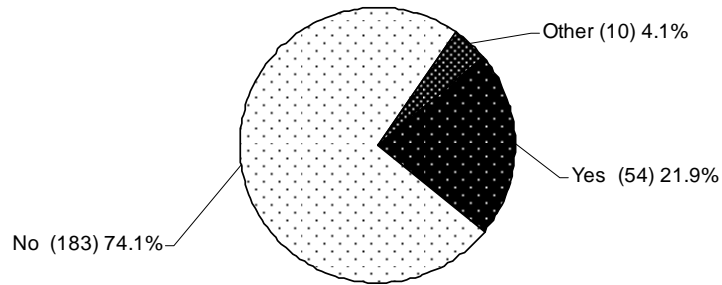
Question 14: Individual Background - "Please rate how American people perceive the items related to your country on a 5 scale (-2 being the highest, 0 is average, and -2 is lowest). " (n=247, skipped=1)								
	Answer Options							
question categories	2	1	0	-1	-2	No Answer [0]	$\mu^{\dagger}$	$\sigma^{\ddagger}$
The political situation of your country	31	48	76	45	30	17	0.02	1.17
Contribution of your country to the rest of the world	26	65	81	38	25	12	0.12	1.11
Value of your country's heritage, people, and culture	31	72	71	36	26	11	0.19	1.15

$\dagger$  Rating average/Mean;  $\ddagger$  Standard deviations

Question 15: Individual Background - "Please rate your opinion on your skills and resources." (n=247, skipped=1)						
	Answer options					
question categories	Strongly agree [1.5]	Agree [0.5]	Disagree [-0.5]	Strongly disagree [-1.5]	$\mu^{\dagger}$	$\sigma^{\ddagger}$
I am comfortable in daily conversation in English.	121	96	28	2	0.86	0.71
I am comfortable with my English ability to meet my academic requirements.	126	91	27	3	0.88	0.73
I am comfortable interacting with people I just met.	104	100	41	2	0.74	0.75
My budget adequately covers my tuition and other living expenses.	92	113	32	10	0.66	0.80
I can spare enough time for a social life (meeting friends, dating, etc.).	52	117	67	11	0.35	0.80

$\dagger$  Rating average/Mean;  $\ddagger$  Standard deviations

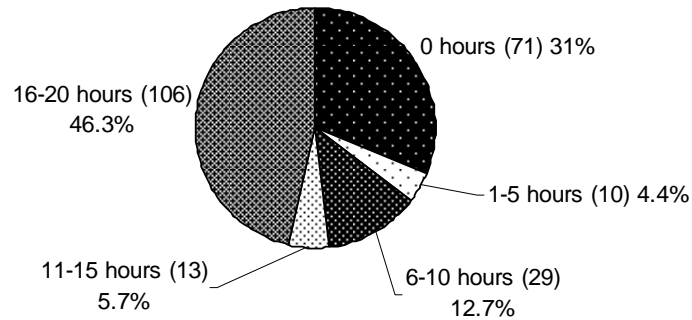
**Q16: Individual Background - "Do you have a promised work appointment after finishing your current studies?" (n=247)**



**Q16. Other**

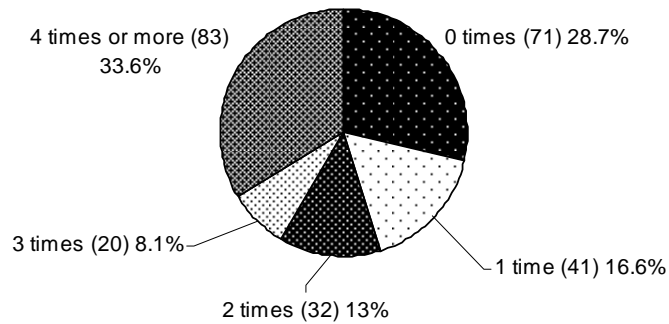
Graduate school	1
I will try my best	1
Don't know yet	5
I have a summer internship, but not guaranteed future employment	1
I am already working	2

**Q17: Individual Background - "How many hours a week do you currently work on-campus, if you have a work appointment?" (n=229, 19 skipped)**

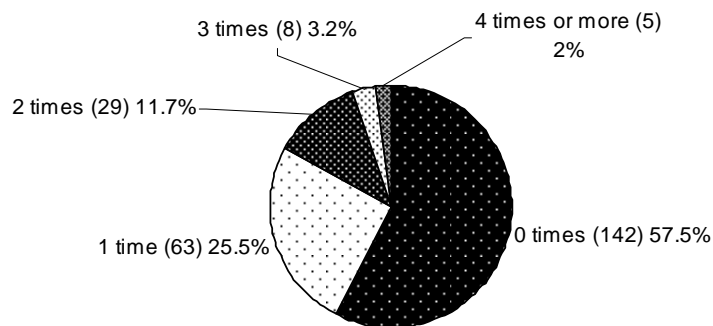




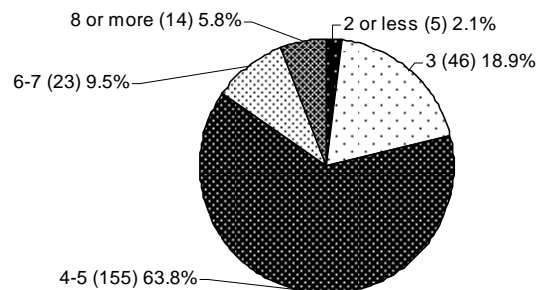
**Q18: Individual Background - "How many foreign countries besides the U.S. have you visited (stayed less than 1 month)?" (n=247)**



**Q19: Individual Background - "How many foreign countries besides the U.S. have you lived in (stayed more than 1 month)?" (n=247)**

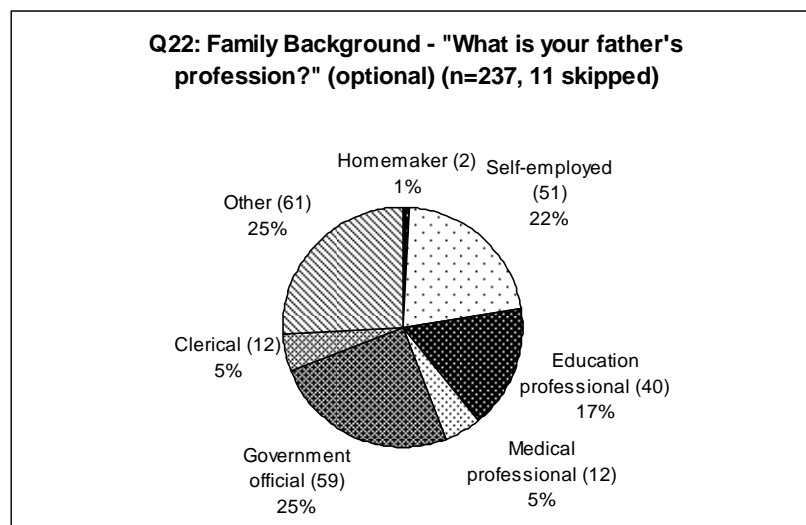


**Q20: Family Background - "What is the size of the family you grew up in?" (n=243, 5 skipped)**

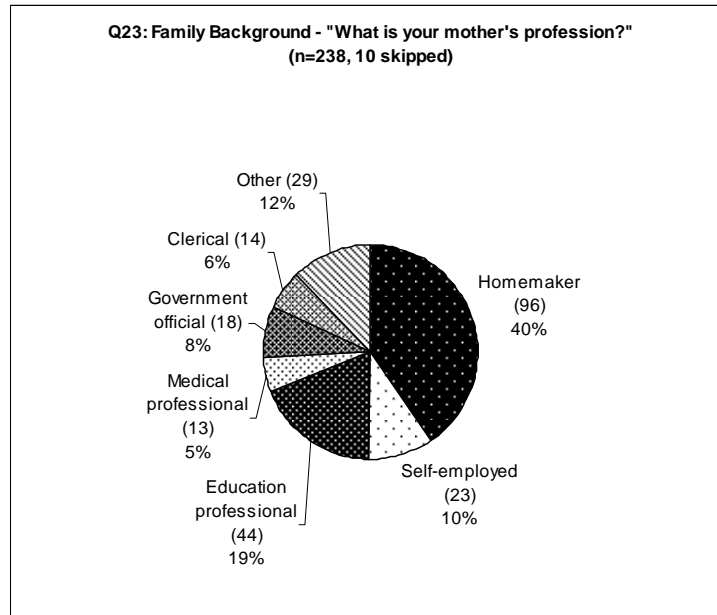


Question 21: Family Background - "Please rate the frequency of your family activities." (n=248)							
	Answer Options						
question categories	Regularly [4]	Some- times [3]	Rarely [2]	Very rarely [1]	Never [0]	$\mu^{\dagger}$	$\sigma^{\ddagger}$
Having meals together	216	24	7	0	1	3.83	0.50
Visit relatives or friends	139	94	9	5	1	3.47	0.70
Participate in community or political activities	44	76	78	33	17	2.39	1.13
Music, arts, and other cultural programs (i.e. go to art museums, theatre, concerts)	48	103	54	33	10	2.59	1.07
Reading literature	63	88	58	24	15	2.65	1.14

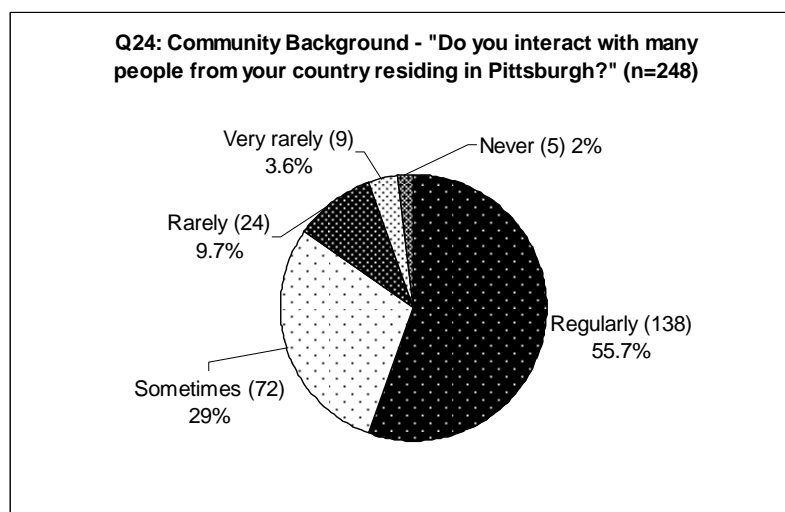
<sup>†</sup> Rating average/Mean; <sup>‡</sup> Standard deviations



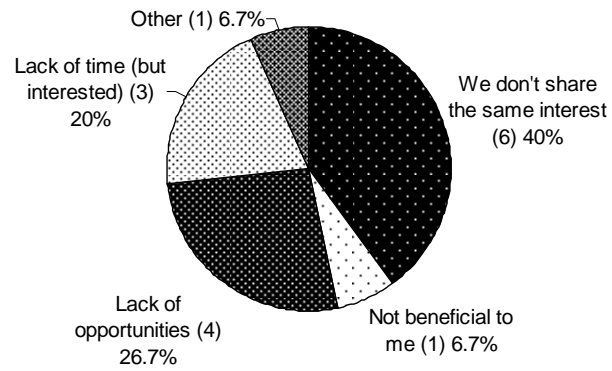
Q22. Other	
Engineer, Technician	20
Bank, Financial	4
Company, Office Worker, Businessman, Executive	22
Lawyer	2
Military, Police Officer	3
Research	2
Farmer	2
Musician	1
Retired, Unemployed, Deceased	6



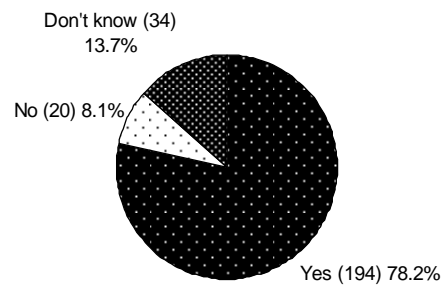
Q23. Other	
Bank, Financial	3
Sales Assistant	2
Farmer	2
Business, Worker, Manager	13
Research	1
Engineer, Technician	3
Lawyer	1
Retired, No Job	4



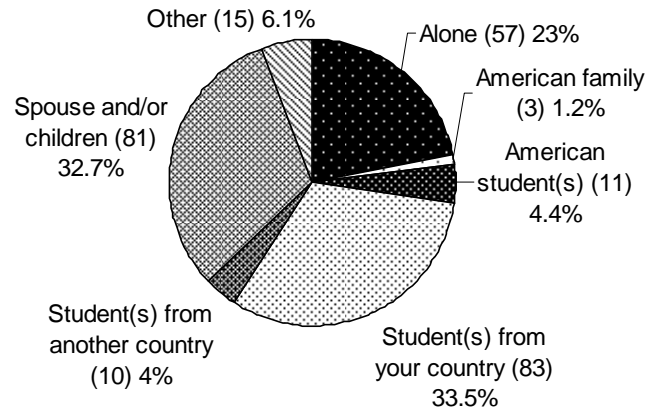
**Q25: Community Background - "If 'never', what is the main reason?" (n=15, 233 skipped)**



**Q26: Community Background - "Is there an active ethnic community organization from your country in Pittsburgh?" (n=248)**



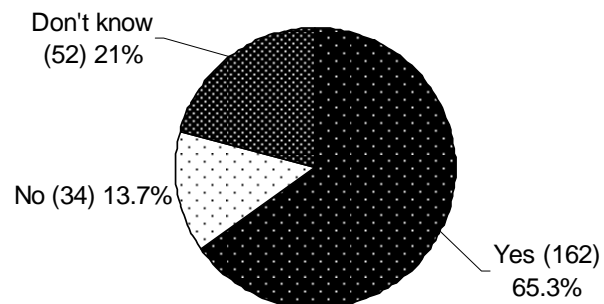
**Q27: Community Background - "Who do you live with?"**  
(n=248)



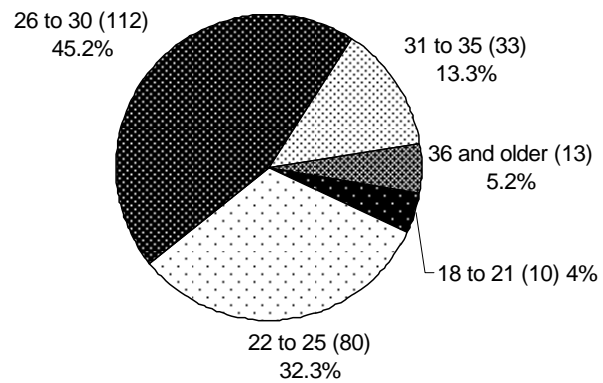
**Q27. Other**

Friend	2
Boyfriend/Girlfriend	6
Also an American person	1
Foreign professional	1
Sibling	3
American spouse	1

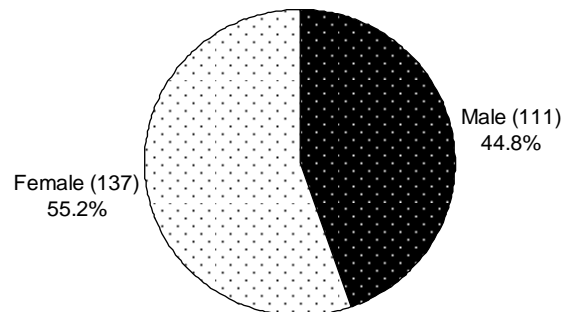
**Q28: Community Background - "Do any of the people you live with like to attend social and cultural events or programs?"** (n=248)



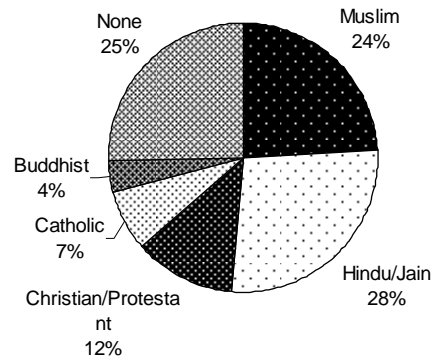
**Q29: Demography - "Age on your last birthday" (n=248)**



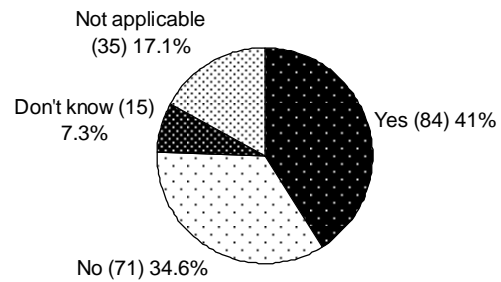
**Q30: Demography - "What is your sex?" (n=248)**



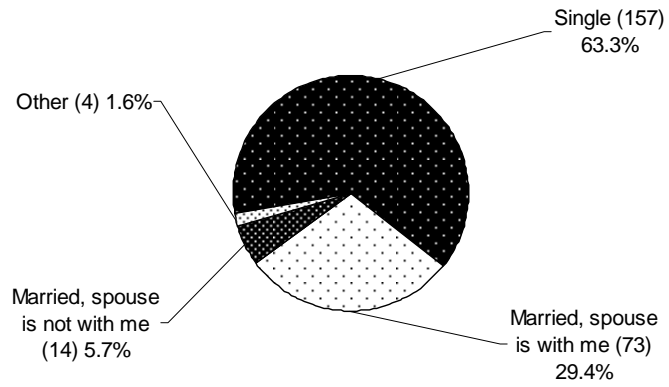
**Q31. Demography - "What is your religious affiliation (optional)?" (n=99, 149 skipped)**



**Q32: Demography - "Do you think your religious beliefs play an important part of your value and how you interact with others (optional)?" (n=205, 43 skipped)**



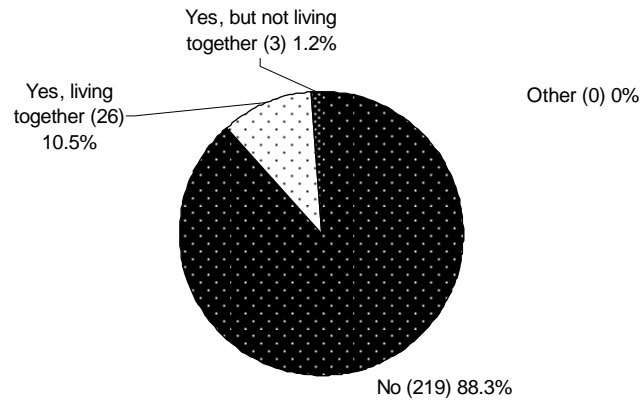
**Q33: Demography - "What is your marital status?" (n=248)**



**Q33. Other**

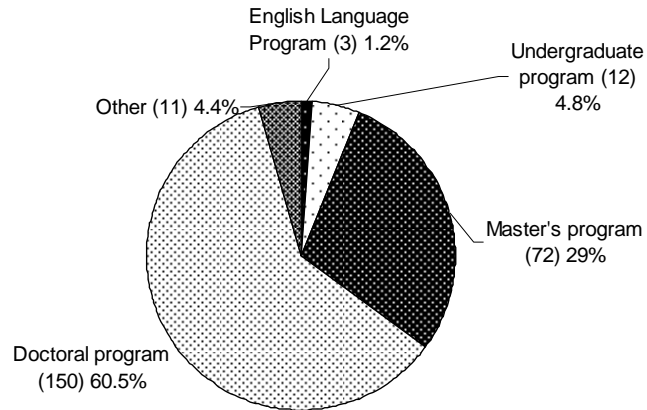
Engaged	3
Partnered	1

**Q34: Demography - "Have you any children?" (n=248)**

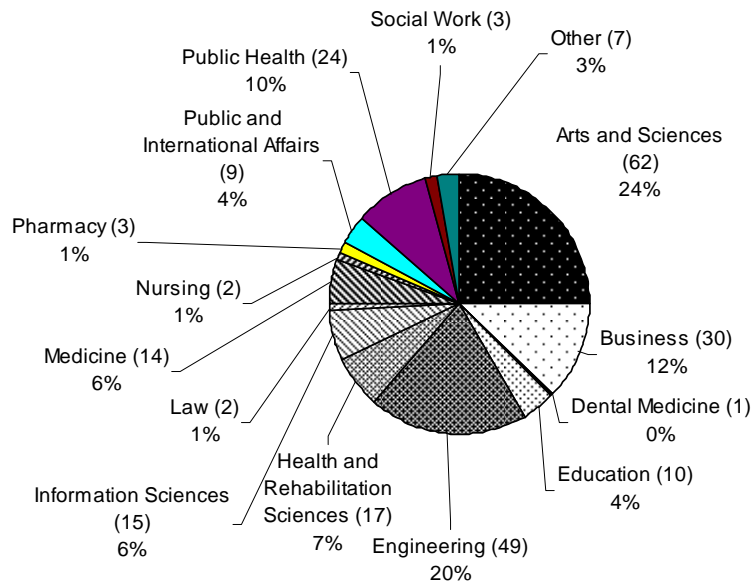




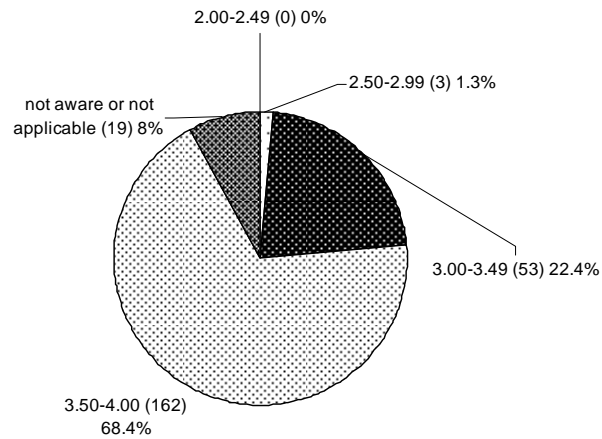
**Q35: Demography - "What is your program of study?"**



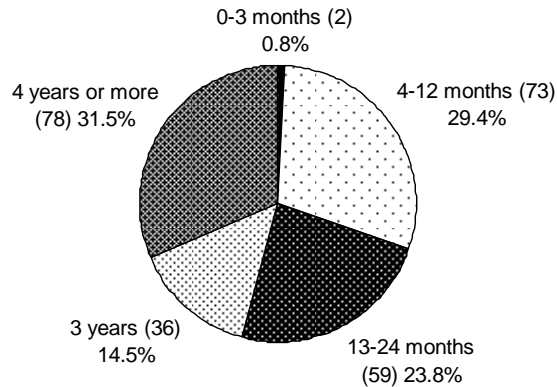
**Q36: Demography - "What is your field of study?" (n=248)**



**Q37: Demography - "What is your current grade point average?"**  
(n=237, 11 skipped)



**Q38: Demography - "How long have you been in the U.S.?"**  
(n=248)



**Question 39: Open-ended - "Please share comments or thoughts related to this survey if you have any." [n=39] Representative Answers**

Several questionnaires have two possible answers. Though one condition/answer can be applied to a respondent, the other can not. Good Luck!!!

i like the format and appearance of this survey.

A good survey.

Very nice design! Very clever idea of utilizing Google free webpage!! Congrats! You have increased your sample size 1 now :) . Good luck on everything!!

Actually, I am very interest in talking with foreign students, but sometimes I just don't know what to say... because of different cultural background... And I also like to enjoy art shows such as concert, drama, visit museum, etc. But I don't have enough time... That's a big problem!!!
do you need more scales for some questions? like use a 7 scales answer instead of the 4 scales one. Just a suggestion.
good luck
I always feel that I am so much a Korean. Trying to learn American lives and culture, make American friends, be immersed in the U.S. brings one additional dimension of stress in addition to stress from phd work. It is the best if I can learn as much as possible regarding American culture while I am here.. but it is just too much for me..
Very interesting survey. Perhaps the chance to give short answers or additional comments (qualifications) for each question might be good. Of course, that makes evaluation of the survey more difficult. Thanks for the opportunity!
Good survey
Please add some explanation of some of the questions such as the size of family because different country may have different definition of family.
I like green.
It was a nice experience taking the Survey! the questions were framed well
--questions reflect the researchers' curiosity to gain as much info as possible in 10 mins of survey. -- after survey people may give a social gathering thought
I would like to know the result (conclusion) from this survey, thanks
interesting~, could use more color to represent the pages, and beware to be more consistent~
^,;
Some of the questions which were on the 5-1 scale (5 being the highest) were not well designed. The response scale was not appropriate to the stems, and the items were not worded in a way that respondents can easily answer. You might want to revise these items.
An issue with most grad students, especially international is to find a match :) (a spouse).. it would get a lot of participation if a community is aimed at that in a descent way... but this is my own opinion, so, you may add such question to the survey :) Thanks a lot for your time preparing the survey.
Nice direct questions
good one
Some questions needs more options
Good study!
I found question 13 is pretty confusing.
Well Done
Thank you.
I have resided in Washington, DC since 2002 (I am an ABD).
what is the purpose of conducting this survey ?
Some questions assumed ethnicity and nationality are interchangeable, that they translate to each other. I think that is a very inaccurate and dangerous interpretation. Especially on a survey intended for people who are from underdeveloped countries that suffer from ethnic discrimination being undermined. Anyway, good survey after all, I hope I was of some help.

This is a very well designed survey. The length is perfect. Not too long at all. Some suggestions as I also work w/ surveys: The Likert scale can be extended to more questions to allow for mid category answers. A religiosity question could help to differentiate across different levels of practice. Also the questions 13 and 14 need better wording given that someone like me who has lived in the US for 4 yrs has difficulty to understand what exactly is meant. Great Work! Good Luck!

Well designed

Thanks

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