FOREIGN ATHLETES' EXPERIENCES WITH CULTURE SHOCK AT THE UNIVERSITY OF HAWAIʻI AT MĀNOA

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Introduction

Research Problem

This thesis focuses on foreign athletes who attend the University of Hawai‘i at Mānoa, which is comprised of students of many different nationalities melting together to form a multicultural campus. Living in a place where there are so many different cultures in contact with each other may lead students to experience culture-related issues such as culture shock. Culture shock often diminishes some positive outcomes of diversity. Foreign athletes, like all foreign students, are prone to experiencing culture shock, which is defined as “anxiety that results from losing all familiar signs and symbols of social intercourse” (Oberg, 1960, p. 177). A more detailed review of the definition of culture shock is presented in the literature review. According to Campbell and Sonn (2009), the three most common factors among athletes that create culture shock are homesickness, racism, and lack of social support. They found that athletes who had a mentor from their same country adjusted more quickly than athletes who had a mentor from another country or no mentor at all.

At the University of Hawai‘i at Mānoa, there are teams with only one or two foreign athletes. The lack of other athletes from one’s same country on such teams could result in a higher level of culture-related stress because of the lack of social support networks. There are no structures set up to assist foreign athletes upon their arrival to the university. Foreign athletes and new students from the mainland are treated equally. Not to discount culture shock experienced by American students in Hawai‘i, but foreign athletes encounter additional hurdles such as language barriers or conflicting social norms.

Research shows that some sort of social support structure should be developed once a person enters a new country, and that having social support in a host country is often one of the main factor in decreasing culture shock (Punnett, 1997). Social, financial, emotional, moral, or physical support from the university may help athletes to report lower their levels of culture related stress, allowing them to play more effectively for their respective teams and perform better in school.

Past research lacks specific inquiry into how culture shock affects athletes, and is limited to only a few articles such as Campbell and Sonn (2009). The majority of culture shock related studies are broad and generic in scope, not focusing on athletes or college athletic departments (Ward, 2003; Barna, 1976; Tange, 2005; Haskins, 1999).

It is important to study foreign athletes at the University of Hawai‘i at Mānoa because of the relatively high number of foreign athletes in relation to universities on the mainland. The university has a disproportionate number of foreign athletes, a substantial amount more than other schools in the same athletic conferences. (University of Hawai‘i at Mānoa Athletics, 2011, p. 1).

The University of Hawai‘i at Mānoa prides itself of being a multicultural campus. The multitude of diversity is shown across the campus including the classroom, housing and athletics. A substantial percentage of athletes are not United States citizens nor learned English as their first language. University-wide enrollment statistics from 2010 classify 25% of the student population as Caucasian, 16 % Other 13% Japanese, 13% Hawai‘ian/Pacific Islander, 9% mixed, 8% Filipino, 7% Chinese, 4% Korean, 3% Pacific Islander, and 2% Hispanic (Mānoa Institutional Research, 2010).

Looking at the athletes who move to Hawai‘i reveals very different statistics. Many athletes are from Europe (47%), Australia (15%), New Zealand (13%) and Canada (11%) (University of Hawai‘i at Mānoa Athletics, 2011). There are currently no Chinese, Japanese, or other Asian student athletes and only five Pacific Islander athletes. The athlete statistics reveal disproportionately more foreign athletes than the campus wide student statistics. The Mānoa Institutional Study does not distinguish between Europeans, Americans, and Canadians like it does between Asians and Pacific Islanders.

There is a need to study the perceived effects of culture shock on foreign athletes at the University of Hawai‘i at Mānoa in order to understand the association between culture shock and foreign athletes that could potentially save the athletics department thousands of dollars. If athletes come from other countries, but cannot overcome culture shock, they potentially could leave Hawai‘i and return to their home country. Perhaps even more detrimental would be an athlete who could not perform adequately due to a

lowered immune system and increased amount of stress. The money spent on recruitment, scholarships, and paperwork would be wasted.

It is important to examine the extent to which athletes encounter culture shock once arriving in Hawai‘i. Culture shock could be extremely detrimental for an athlete because of the loss of playing ability due to physical reactions to heightened stress, which can cause illnesses. Not performing in collegiate athletics can cost an athlete a professional career. Academic performance would likely suffer as well. Students who are not prepared for American university systems can become ineligible for their sport based on their low GPA.

Research Objectives

The proposed study attempts

1. To examine culture shock among foreign athletes at University of Hawai‘i at Mānoa, and
2. To identify main factors associated with self-perceived levels of culture shock in foreign athletes at University of Hawai‘i at Mānoa.

Foreign Athletes at the University of Hawai‘i at Mānoa

Foreign athletes endure quite a different lifestyle than average foreign students. On top of being a student, they have added pressure to perform adequately on the playing field. Hours are spent on practices, meetings, and drills. All athletes are required to maintain certain eligibility requirements demanded by the National Collegiate Athletic Association (NCAA). Requirements by the NCAA include earning at least six credit hours per semester, completing 40% of their degree by the end of their second year, completing 60% of their degree by the end of their third year, and completing 80% of their degree by the end of their fourth year. Athletes are given scholarships for a maximum of five years, but are only eligible to play for four years (NCAA, 2011). If athletes do not comply with NCAA rules as well as university athletic regulations, scholarships can be revoked and the chance to play professionally may no longer be an option.

Athletes must be enrolled as full-time students to maintain eligibility and must maintain a certain GPA, based on the number of semesters they have been eligible

(Nagatani Academic Center, 2011). There are a number of other requirements enforced both by the NCAA and the university that bind the athlete from receiving money, gifts, or other special benefits even as simple as using a non-athlete's cell phone or car (NCAA, 2011 & Nagatani Academic Center).

University of Hawai‘i at Mānoa offers tutoring and mentoring to all enrolled students through "The Learning Assistance Center (LAC)." The center offers free tutoring in almost every subject area, as well as free workshops throughout the semester. Mentoring is called "learning strategies" at the LAC and provides help with reading comprehension, note-taking strategies, and time management technique. For foreign students, the "Adjusting to American Academia Workshop" is available to help ease the transition into the classroom (Learning Assistance Center, 2011).

The University of Hawai‘i at Mānoa Athletic Department mirrors the LAC by instating their own Nagatani Academic Center (NAC). The National Collegiate Athletic Association (NCAA) allows each university to mirror the tutoring and mentoring programs provided to each student. The NAC is solely for athletes but must follow the exact procedures and regulations of the LAC (Nagatani Academic Center, 2011).

In the 2011-2012 school year, 53 athletes are not from the United States. The majority of the foreign athletes are women (University of Hawai‘i at Mānoa Athletics, 2011, p. 1). During the 2009-2010 season, $2,787,320 was spent on scholarships, recruiting visits, and paperwork to bring foreign athletes to the University of Hawai‘i at Mānoa and historically roughly the same amount of money is allotted each year (University of Hawai‘i at Mānoa Athletics Annual Report, 2010, p. 5).

If foreign athletes do not properly adapt to overcome culture shock, the money spent is wasted when they prematurely leave the university to return to their home country. Understanding the extent to which foreign athletes have experienced culture shock has the potential to save the athletic department thousands of dollars if a specialized intervention process is put into place to efficiently minimize culture shock.

The University of Hawai‘i at Mānoa has seven men's sports (baseball, basketball, football, golf, swimming and diving, tennis, and volleyball), 10 women's sports

(basketball, cross country, golf, soccer, softball, swimming and diving, tennis, track and field, volleyball, and water polo), and two coed sports (cheerleading and sailing).

In the 2011-2012 season, foreign athletes participate in men's basketball, football, men's swimming and diving, men's tennis, men's volleyball, women's basketball, women's golf, women's soccer, women's softball, women's swimming & diving, women's tennis, women's track and field, women's water polo, and cheerleading. Thirteen of the total 20 sports have foreign athletes (University of Hawai‘i at Mānoa Athletics, 2011). All foreign athletes will be eligible for inclusion in the sample for this study.

Chapter 2

Review of Literature

This chapter reviews the main literature on the definition of culture shock, two main schools of thought on it, its potential effects, and factors associated with culture shock. The review of definitions of culture shock will provide a foundation on which the following parts will be based. The two main schools of thought on culture shock reviewed are: (1) the traditional mental illness perspective and (2) communication adaptation process perspective. The main factors associated with culture shock discussed in this review include: age, training received, organizational support, personality traits, technical competence, social support, modes of communication, and living arrangements.

What is Culture Shock?

The study of culture shock began with psychologists such as Peter Adler (1975) and Sverre Lysgaard (1955) studying intercultural interactions. These two early social scientists viewed culture shock as a mental illness that is brought about by experiencing new cultures. Recently, culture shock is more commonly seen as an experience or an adaptation process (Abarbanel, 2009, p. 133). It is not an illness or disease. Some scholars such as Deborah Haskins (1999) and Carson Nine (1967), go as far as to remove "shock" as an noun, in order to remove the negative stigma attached to the phenomenon (Zhou et al., 2008, p. 65).

Research on effects of culture-related stress began as early as 1950. The term culture shock was not yet coined but scholars such as Wolff (1950), Putman (1954), and Lysgaard (1955) who wrote about foreigners experiencing heightened levels of stress after entering a new culture. Wolff (1950) studied the amount of energy a foreigner expended before they began to settle into their new culture. Putman (1954) likened the heightened stress to other traumatic events such as car accidents. The stress occurred for an extended amount of time. Perhaps one of most famous early scholars on culture shock is Sverre Lysgaard (1955). He explained culture-related stress as a U-Shaped Curve.

In the 1960's three scholars added to the discipline. Kelervo Oberg (1960), an anthropologist, is known for coining the term culture shock. He defined culture shock as

the "anxiety that results from losing all familiar signs and symbols of social intercourse" (p. 177). George Foster (1962) studied if foreigners knew they were experiencing culture shock. Much of his research suggested that people did not understand they were experiencing culture shock. Carson Nine (1967) purported that culture shock was inescapable.

Three more scholars in the 1970s increased awareness of culture shock. Anthropologist Philip K. Bock (1971) viewed a new culture as an alien society. The more differences between a person's first culture and new culture the more shock they will face (Bock, 1971, pp. 267-270). Peter Adler (1975) is a well-known culture shock scholar who worked off of Kelvero Oberg's model and created the transitional experience model. LaRay Barna (1976) expanded culture shock to incorporate both emotional and physiological reactions to new cultures. Unlike other scholars in the field she did not liken high anxiety with culture shock but theorized that high arousal or sensitivity to the places around oneself over a long span of time is the cause of culture shock (Barna, 1967, p. 4).

Throughout the 1980s and 1990s, culture shock became mainstream and more research was published. Cegala (1981) discovered an inverse relationship between the frequency of interaction between a foreigner and people of their new country and the amount of culture shock experienced. Giddens (1991) places the highest amount of culture shock a person experiences at the beginning of their journey into a new culture. Chen Guo-Ming (1992) coined cross-culture adjustment, which is a process of assimilation into a new culture. According to Bennett (1998), culture shock is a category of transition experience; it is treated like a disease that occurs in an unfamiliar environment. Haskins (1999) describes culture shock as feeling that escalates once people find themselves in an unfamiliar environment where their skills for role-playing and daily life are no longer helpful (p. 122).

The new millennium continued with more diverse research on culture shock and culture-related stress. Fontaine (2000) looked at culture shock as it related to a person's environment and used the word "ecoshock" to described heightened sense of presence of their surrounding environment when entering a new culture. In 2003, Ward studied

immigrants in the United States and related their experience with culture shock as a mental illness in which a person would "catch" the disease. Varner and Beamer (2005) agreed with Ward that culture shock is a type of disease that needs to be cured both physically and psychologically. Also in 2005, Tange studied the information retrieval process. In her opinion foreigners undergo at least three stages of encountering new cultural norms and how they respond to the new information.

Unlike the other researchers of the 2000's, Zhou et al. (2008) viewed culture shock as a communication adaptation in which social psychology is incorporated, not just a strict mental illness. Brown and Holloway (2008) describe culture shock as anxiety in response to losing familiar signs and adding signs that are foreign and uncomfortable. Anxiety is often a common symptom of a mental illness (p. 35). Janice Abarbanel's (2009) view did not focus on culture shock, but at ways to curb heighted emotions due to increased stress. McLachlan and Justice (2009) include transitional shock as an addition to culture shock in which frequent changes in a persons' new culture continues their heightened stress levels. Finally, Campbell and Sonn (2009) see three common factors among culture shock victims; homesickness, racism, and lack of social support. Literature on culture shock describes at it as a mental illness began in the 1950s and was still perpetuated by scholars like Varner and Beamer in the mid 2000's.

Mental Perspective of Culture Shock as a Communication Disease

Many scholars traditionally viewed culture shock as a mental illness. Colleen Ward (2003) studied immigrants in the United States. She noticed that 70% of patients in mental institutions were immigrants, yet immigrants only accounted for 20% of American population at the time. The assumption at the time was that culture shock was an illness produced by intercultural contact (Ward, 2003). When immigrants would move to the United States, they would contract the mental illness of culture shock much like an airborne virus. Mental health experts looked for problems or symptoms of culture shock, not prevention methods to aide immigrants into a more stable lifestyle (Ward, 2003).

When a person is unable to interact effectively in a new culture, many symptoms of culture shock can form. Barna (1976) lists several symptoms that are mirrored by a myriad of other scholars such as Oberg, Lysgaard, Adler, and Fontaine. The most

common symptoms of culture shock are depression, withdrawal from the new culture, homesickness, jet lag, and frustration. Barna is quick to point out that there are no easy or safe assumptions about culture shock. It affects individuals differently, at different times, or not at all (Barna, 1967, p. 11). Culture shock, like any mental illness, is a personal battle that will be felt differently from person to person.

Ivan Putman (1954) believes that culture shock can affect people in the same way a car accident or another traumatic experience can. The shock is felt intensely for a long period of time. He categorizes types of culture shock into three areas: rejection and insecurity in the new culture, loss of respect for people and the culture, and finally denial of genuine new relationships (Putman, 1954, p. 112). A high number of people are affected by culture shock, but there was also a high number of people who recover from culture shock and succeed in the original purpose for moving into a new culture (be it work, education, etc.) and integrate themselves fully into the new world. The victim-and-recovery model likens culture shock to a disease.

George Foster (1962) subscribed to the mental illness school of thought and that people are victims of culture shock who often do not know they are suffering from an illness until they are no longer under the influence of the disease.

Varner and Beamer (2005) expand culture shock symptoms into two areas: physical and psychological. Physical symptoms of culture shock are illnesses or physical strain, while psychological symptoms are frustrations, being homesick, or being depressed. To get rid of culture shock, the victim must open them up to the new culture and gain information and understanding behind their traditions.

The information retrieval process occurs in three stages, according to Tange (2005). First, a person arrives in a new culture. In the arrival stage structural and cultural assimilation begin. Structurally, the person has to obtain a place to live, money, a job, and food. Culturally, one has to join groups and build relationships or networks (Tange, 2005, p. 2). After assimilation, the two-year crisis begins. Typically, once someone has lived in a new culture for two or so years, they revert back to the beginning symptoms of culture shock. They show signs of frustration towards the new culture, seek ex patriots from their own culture, or even return to their old culture. On the other hand, people can positively

react to the two-year crisis and accept the new culture and begin to adjust to live in it permanently (Tange, 2005, p. 2). Finally, no man's land is a life stage in which culture shock and the frustration that accompanies it is reduced. Although there is a large reduction in frustration, it is never fully eliminated. People who achieve this stage feel stuck between their old culture and their new culture (p. 2). They do not belong fully to either group, yet they can effectively function in the new culture. There are less distractions and it is often an enjoyable stage in life.

Traditionally, there are three models that attempt to explain culture shock. Lysgaard (1955) first created the U-Shape Curve in which a person in a new culture first experiences positive feelings about the culture. Once settled into the culture, a person dips into the "U" and experiences maladjustment and negativity towards the culture. If the person remains in the culture long enough, culture shock lessens and the person begins to climb back up the "U." The final stage is called adjustment, in which the emotions toward the culture are as nice and positive as they were when they first arrived (Lysgaard, 1955, pp. 45-51).

Five years later, Oberg (1960) produced a similar version of Lysgaard's (1955) model adding a stage. The first stage is the honeymoon stage, reality has yet to set in and all emotions are positive. Crisis and aggression soon follow as soon as real life begins. Then, recovery from the aggression begins. Relationships are formed with people from the new culture and more positive feelings towards the new culture come into fruition. Finally, full adjustment is made in which the person accepts the new culture for him or herself and assimilates.

Adler (1975) expanded Oberg's (1960) model and created the model of transitional experience. The first stage is excitement for the new culture yet awareness of the differences between cultures. Secondly, confusion and disorientation begins to set in. Language barriers, lack of familiar food, or rejection of previous social norms all provides reasons for confusion. Third, flat-out rejection of the new culture occurs. This occurs because of the built up confusion. Fourth, understanding of why the new culture practices the social norms they follow begins to arise. The new culture starts to make sense (Adler, 1975, pp. 13-23). Finally, independence and acceptance of the culture

forms as well as it becomes relevant and helpful. Fontaine (2000) followed Adler's model, adding that culture shock is only one of three hurdles when entering a new culture: culture shock, getting the job done, and maintaining motivation. Fontaine switches the name from culture shock to ecoshock. This term takes into consideration that the ecology, or new environment, of a culture affects a person more than just the traditions or customs.

Brown and Holloway (2008) go against all three models mentioned above. Through their research they believe that feelings of nervousness or higher stress levels occur from the beginning of the cultural interaction. Getting off the plane and stepping into a new country can be intimidating and scary. The honeymoon or euphoric phase does not exist in reality, maybe on vacation but not in everyday life. Giddens (1991) considers that the initial reaction of stress is actually a sense of helplessness, which is most intense at the beginning of an intercultural experience.

Some scholars likened culture shock to a disease or mental illness. A person enters a new culture and suddenly receives culture shock and through time and help, the patient is cured of their heightened stress level. Culture shock is shown through symptoms, and not seen as an illness until it has reached crisis level. Because of the lack of prevention techniques, people who "catch" culture shock are usually not aware what is happening and have no solutions, besides time, to cure their shock.

There are limitations of the mental disease perspective. The literature does not show examples of when people move to a new culture and do not face culture shock. Scholars should look to identify factors that differentiate people who "catch" the disease from people who never experience culture shock. Levels of culture shock are not agreed upon, nor do scholars all believe in one way how to treat patients. The limitations of the mental illness perspective prompted some scholars to shift their focus from a disease to a more open perspective that focuses on adaptation, not stigmatizing the patient.

Communication Adaption Process Perspective of Culture Shock

In recent studies, scholars have shifted focus about culture shock; from the notion that it is a mental illness or disease to identifying and formulating measures to prevent such a condition. Janice Abarbanel (2009) deems that people need "emotional passports"

in order to curb shock (p. 133). An emotional passport is a group of skills that are taught and practiced during intercultural events. Higher stress levels occur when moving into new cultures. An effective way to lower stress levels is to disengage and relax. In American culture, relaxation is seen as weak when in fact allowing time to calm down and self-regulate is healthy and needed. The practice of relaxation is a vital tool to managing an emotional passport.

Abarbanel (2009) also directly opposed Lysgaard's (1955) U-Curve model. Her research shows that many people do not have positive feelings the first few weeks in a new culture. She creates a distinction between symptoms of culture shock and indicators of shock. Symptoms are seen as harmful and negative, while indicators are less abrasive and can be curbed. When a person shows signs of culture shock, often they are written away and told that they are just experiencing shock. There are missed opportunities when signals are shown, instead of ignoring the shock, it is healthier to intervene and respond to the signals (Arbarbanel). Helping a person restore balance, when they are overloaded with stress, can significantly lessen shock.

Deborah Haskins (1999) agrees with Fontaine (2000), that culture shock is not restricted to people moving to new countries; it can very well happen in the same country. It is more surprising to people who move to a new region and encounter similar shock. Reducing impact of shock is the most important factor in managing new cultures. Mentoring is an effective strategy to overcome shock and begin to adapt. Seeking out others who have acculturated into the new culture is helpful (Haskins, 1999, p. 122). Although culture shock is an individual experience, meeting people who went through similar situations is comforting and educational.

McLachlan and Justice (2009) agree stating that culture shock and transition shock are similar. Often times, even in their own culture, people experience shock when change occurs (McLachlan & Justice, 2009, p. 30). The same heightened level of shock produces culture shock in other cultures simply because of change. Carson Nine (1967) sees culture shock as inevitable and unavoidable whenever the social cues that a person has learned from their original culture are not accepted or right in the new culture they face.

The effects of culture shock are both physiological and psychological. Physical environments and customs are new and intimidating. Intimidation causes a person to be on guard more frequently than in their old culture (Barna, 1976, p. 4). Being on guard for an extended amount of time will create an unmanageable level of stress, emotional and physical fatigue is likely to occur. Unchecked long-term stress and fatigue cause illnesses and behavior change. Through Wolff's (1950) research, a trend of treating long-term stress problems with short-term stress solutions emerges. A short-term solution to stress is to use the social norms from one's old culture and the long-term solution is to relearn how to manage stress. Relearning requires much more time and energy than learning something for the first time. Although it takes more energy, repetition and full emersion into a culture can help relearning occur smoothly (Wolff, 1950, pp. 1044-1059).

Chen Guo-Ming (1992) focuses on cross-cultural adjustment through the intersection of communication adaptability and interaction involvement of a person in a new culture. Cross-cultural adjustment is a process in which an individual assimilates into a culture, it occurs in phases such as culture shock, psychological adaptation and interaction effectiveness of new cues (Guo-Ming, 1992, pp. 33-41). Interaction involvement is the extent that people immerse themselves in a new culture (Cegala, 1981). Higher levels of interaction involvement along with targeted adjustment techniques make more successful and smooth acculturation into a new culture (Cegala, 1981, pp. 109-121).

Zhou et al. (2008) takes into consideration the medical background of culture shock but adds a social psychology perspective. Culture shock is seen as an "ABC," which stands for affects, behavior and cognition. ABC occurs when people are exposed to a new culture, same as culture shock. Culture shock is seen in terms of adaption and acculturation shock in a social psychological perspective (Zhou et al., 2008, pp. 63-75). Adjustment is a process of managing stress and decreasing its effects.

These scholars moved away from diagnosing culture shock as a negative or as a disease. They do not ignore the signals of shock, but embrace them and try to curb the effects (Guo-Ming, 1992, p. 35). Stress management techniques view people in new

cultures in a more humanistic approach, unlike the medical field. The same symptoms are explored in both areas of thought yet the reactions to the signals are varied.

There are limitations of acculturation and transition shock. People do not always fully acculturate (Fontaine, 2000). Individuals face radically different experiences—some become better yet others become worse. Practitioners are ahead of researchers and scholars in this area. In order for the discipline to develop, they need to work together to solidify how to prepare people for culture shock and perhaps prevent it all together.

Even though there are two ways of classifying culture shock, either as mental illness or as an adaptation process, the two perspectives can never be fully split. The two ways are not mutually exclusive, but coexist together. Symptoms listed as mental illnesses are still used to diagnose culture shock, even when the actual shock is being analyzed through the acculturation process. It is important to remember that, although this study does not focus much on culture shock as a mental illness, the symptoms laid the groundwork for examining culture shock as an adaption process. Both views are fundamental in the research process for this study.

Factors Associated with Culture Shock

Sims and Schraeder (2004) discussed five factors closely associated with expatriates experiencing culture shock: (1) the age of the expatriate, (2) the training the expatriates receive, (3) the level of organizational support provided to the expatriate, (4) the dispositional and personality characteristics of the expatriates, and (5) the technical competence of the expatriates (p. 1). Even if a person associates with factors that reduce culture shock, some degree of culture shock can still occur. Other factors such as social support, living arrangements, and media uses are associated with culture shock as well.

Age

The age of the expatriates is often a factor. Younger children often adjust more quickly than older children, teenagers, or adults (Schaffer & Harrison, 2001). As one gets older and more established it takes longer for them to settle into a new culture, which makes them more prone to culture shock. For this study however, this factor is not as applicable because of the relative closeness in age of the foreign athletes.

Training received

In order for the expatriate to receive training, Solomon (1994) says companies should send them overseas to the new country where they will be living prior to their relocation. This training should take place over at least a week, at least a month or two before the expatriate permanently relocates. In order for this training to be beneficial the expatriates need to receive realistic views of what the new country will be like. Housing, food, and living options need to be discussed very frankly; this is not a time for the new expatriate to be a tourist or on vacation. For foreign athletes, the practice of expatriates receiving training varies. It is not required for an athlete to visit Hawai‘i before signing a letter of intent.

Organizational support

The extent to which the expatriate perceives that the organization that he or she is working for provides for employees well being is an important factor associated with the level of culture shock. Punnett (1997), reports that once a person begins to experience culture shock, in-country support helps overcome culture shock. The support given to the expatriates is often social, financial, emotional, moral, or physical.

Personality traits

Personality traits are often overlooked when choosing a person to move to a new country, but in fact it is one of the most important factors. A person with a flexible personality is less likely to experience extreme amounts of culture shock versus a person who is ethnocentric. An ethnocentric person believes that their views are correct, and others views are wrong. They are too set in their ways to change their social norms. Mendenhall and Oddou (1985), add that individuals who try to incorporate their new language are less likely to experience culture shock. Cultural related stress is easier to overcome based on how flexible in adapting to new social norms. Personality traits fit into the two more broad personality factors mentioned, flexibility and ethnocentrism.

Scholars such as Buchanan, Johnson, and Goldberg (2005) use the five-factor model of personality. The model has been tested many times and is the main model used in psychology as factors of personality. The model states that there are five personality factors using the acronym OCEAN—*Openness, Conscientiousness, Extraversion,*

Agreeableness, and *Neuroticism*. The five-factor model can be applied to view personalities in relation to reactions to new environments.

People who score high in *openness* are more inventive and curious than consistent and cautious (Buchanan et al., 2005). People who score high in openness have a higher appreciation for art and abstract or unusual ideas, like to experience a variety in their life when it comes to new ideas, ways to do things, or beliefs, and are more unconventional and more aware of their feelings than other personalities. People who score low in openness are often more traditional and tend to hold on to one set of beliefs. They prefer social norms to be more obvious and straightforward. In relation to expatriates, people who score high on openness are less likely to experience culture shock because they seek out new social norms and adapt more quickly (Buchanan et al., 2005).

Conscientious personalities have higher levels of self-control than other personalities (Buchanan et al., 2005). They tend to be focused on time management and prefer planned and scheduled activities. People who display this personality are careful, hard working, and reliable. People who score low for conscientious personalities are more spontaneous and flexible. In relation to expatriates, personalities who score high for conscientiousness are hard working, but may experience very increased levels of culture shock. A person with this personality trait will always be mindful of the work that needs to be done, but needs a more focused schedule. Their lack of flexibility does not make them the ideal candidates to move to other countries (Buchanan et al., 2005).

Extraverted personalities display more positive emotions than other personalities (Buchanan et al., 2005). They tend to be more comfortable around large groups of people and they are stimulated and engaged when they are around others. When they are around a group of people, extraverts are more drawn to become the center of attention. Extraverted personalities are looking for excitement and are viewed as full of energy. People who score low in the level of extraversion are called introverts. Introverted personalities are lower key, and can be viewed as shy or wallflowers. They spend more time alone to recharge than extraverted personalities. Expatriates who score high for extraversion are the best types of people to send to become expatriates. Extraverted

personalities may still encounter culture shock, but they have the energy to keep engaging in the new culture (Buchanan et al., 2005).

Agreeable personalities show signs of compassion, cooperation, and social harmony (Buchanan et al., 2005). Social harmony is when a person values getting along with others' above their personal opinions. Three adjectives to describe agreeable people are generous, helpful and compassionate. Agreeable personalities have a more optimistic view of human nature. Lower scores in agreeableness incur that one is skeptical of others motives. Less concern with others' well being than their own personal well-being is characteristic of a person who scores low in agreeableness. Expatriates who exhibit higher levels of agreeableness are open to learning about other people and their social norms. Those personality traits will pay off in the long run allowing for an eventual decrease of culture shock (Buchanan et al., 2005).

Neurotic personalities have a tendency to experience more negative emotions (Buchanan et al., 2005). Neurotics are viewed as being emotionally unstable and are more likely to be stressed out. Minor things become major worries to emotionally unstable personalities. Low scores on neuroticism indicate a personality that is calmer and emotionally stable. People who score low are less easily upset or disturbed by outside events. Expatriates who score high on neuroticism are the most affected by culture shock. They are the ones who are too sensitive and emotionally unstable. They will most likely experience high levels of culture shock that will not diminish over time.

Technical competence

Personality is related closely to the technical competence of the expatriate (Downes & Thomas, 1999). This thesis relates to athletic and academic performance and ability. Job-related abilities highly affect culture shock. Technical competence is not the only factor that should go into selecting an expatriate (Shilling, 1993). Black (1990) states that companies need to find people with equal amounts of technical competence and flexible personalities. Expanding search criteria to include personality traits in addition to technical competence is important to finding an expatriate who is willing to adjust and ride out any culture shock he or she experiences.

Social support

Research suggests the importance of having social support structures in place once a foreigner enters into a new culture (Ward, 2003; Putman, 1954; Arbarbanel, 2009; Haskins, 1999; Guo-Ming, 1992; Cegala, 1981). Social support structures can include mentors that are other foreign students. Mentors are most effective if they are from the same country as the mentee, but just being around another person who had similar experiences with culture shock can be reassuring (Campbell & Sonn, 2009).

There are three functions of social support: emotional, informational, and instrumental (Cohen, Kamarck, and Mermelstein, 1983, p. 394). Emotional support is the most recognizable form of social support. Family members and friends normally give it the most. Emotional support is shown through empathy, love, concern, or trust (House, 1981). If a foreign student is in need of someone to listen to his or her stories, emotional support is needed. Informational support is advice given with the intent of satisfying a specific problem (House). An example of informational support would be advice as to where to buy groceries or what is a fair price to pay for an item. Instrumental support is the most tangible form of social support. Instrumental support is given in the form of physical support, financial support, or giving a good word in about the foreigner for a job (House). If a foreign student was in need of money and they received financial help then instrumental support was given.

Food is also a form of social support (Bochner, 1977). Cooking ones' ethnic food with friends is a way many foreign students introduce their own culture to new relationships. Bochner noted that "Food is a central feature of most cultures and cooking and consuming it has connotations reaching far beyond the merely nutritional aspect of eating" (p. 290). This is a practical way that many foreigners begin to develop friendship networks. In another vain, preparing food with other foreigners from the same country can "provide the social setting for the rehearsal and affirmation of cultural identity and national loyalties" (Bochner, 1977, p. 290).

Pantelidou and Craig (2006) studied foreign students and discovered that students who had high levels of social support shows lower signs of culture shock, even when a majority of stressors (such as school or work) were present regardless of their personality

traits (p. 778). Quality relationships were shown to be a more decisive factor of higher levels of social support meaning students who had deeper relationships reported a higher level of social support than students who had a higher number of shallow relationships. Deep relationships included romantic relationships, classmates who had regular contact inside and outside of the classroom, confidants, and foreigners of the same ethnic descent (Pantelidou & Craig, 2006, p. 780).

The difference between a support system and a friendship network is the function of the system (Farh, Bartol, Shapiro, & Shin, 2010). A support system seeks to clear up any misinformation and guide the expatriate into a more comfortable understanding of their new culture. A friendship network is there to provide stability and emotional support, not necessarily new information. Friendships networks are more likely to begin forming perhaps even with the same members of the support system. The foreigner can begin concluding about their new social norms by themselves with the information learned through the social network (Farh et al, 2010, p. 447).

Modes of Communication

Media play a large part in foreign athlete's livelihoods. In addition to learning about their local culture, social media sources allow them to gather information from family and friends back home but also to expand social networks in Hawai‘i. In a Pew Research Center study, Rosenstiel, Mitchell, Purcell and Rainie (2011) found that the four top media used to gather information are newspapers, television, Internet and radio (p. 1). Age is the most important factor when deciphering which media source information is gathered. For ages 18-39, there was a tie between the Internet and television for the top source of information (pp. 1-2). Word-of-mouth came in third, which can be difficult for foreign athletes depending on how strong their social structures are.

Although social media are used as a form of communication, the effects of the communication are sometimes not as gratifying as face-to-face. This means that relationships are more likely not to grow closer because of computer-mediated communication (Pollet, Roberts & Dunbar, 2011). Social support through various forms of online media needs to be supplemented with face-to-face relationships in Hawai‘i.

Foreign students who want to cope with culture shock use a variety of media sources such as print, online, or electronic sources (Shaikh & Deschamps, 2006, p. 48). Foreign students who are looking to take "care" of their culture shock use media outlets to cope. They are not as interested in "curing" their increased level of stress, only lessening it to resolve problems in their lives (Shaikh & Deschamps, 2006, p. 49).

Maundeni (2001) stated that ties with family and friends back in the home country are important to foreigners who are dealing with culture shock. Telephone, letters, and emails are three ways in which media is used to communicate with family and friends (Maundeni, 2001, p. 258). A balance of using media to keep connected to one's old country and physically interacting with support systems is the best way to begin weakening culture shock.

In 2001, Horrigan acknowledged that email and instant messaging services are the two easiest media uses put in practice by foreign students. Social media allow for an extension of email and instant messaging, Facebook has both forms integrated into its website. Baym et al. (2004) correlated the distance of the home country to the reliance on the Internet for communication channels. The further away a student is from their family and friends, the more dependent they are on asynchronous Internet communication using email or other forms of social media. Asynchronous forms of communication allow users to combat time differences more easily.

Jones (2002) stated that hearing a physical voice of loved one decreased stress levels, which is why 69% of students preferred telephone conversations, when possible, to computer-mediated communication. Nowadays, Skype allows for both video and voice chatting for free, without charging the conversations to a phone bill. Grosse (2002) also deemed speaking more effective than text-based computer mediated communication for students who could not use computer keyboards effectively. Video messaging services are vital to foreigners to connect to their home countries and do not use English keyboards very well.

Living Arrangements

Foreign athletes, like all students, are affected by their living arrangements. Shaikh and Deschamps (2006) state that foreigners have a harder time adjusting to college living. On top of a new culture, new social norms, new language and financial difficulties living arrangements can easily be forgotten until arrival in the new country (Shaikh & Deschamps, 2006, p. 44). The impact of students who choose to live on campus is vast, many times depending on the noise level, food options, and roommates. If a roommate becomes a part of the foreign athlete's social support structure then the living arrangement is drastically better (Shaikh & Deschamps, 2006, p. 48). Being in close contact with a person who can fill the shoes of a counselor as a "peer counselor," i.e., roommates, can help foreign athletes feel more comfortable in their new living environment. If an athlete is not paired with a helpful roommate the foreigner may feel extreme levels of isolation, boredom, stress, and anxiety.

Shaikh and Deschamps (2006) also researched foreign students who did not live on campus. Students living off-campus experienced more pronounced problems. Financial problems often mean less food or cheap food (Shaikh & Deschamps, 2006, pp. 46-47), which can alter an athlete's body making them perform poorly in their sport. The noise levels coming from the street or neighbors can increase the stress level of foreigners who are not used to such conditions.

Both on-campus and off-campus housing can increase the levels of culture related stress on a foreign athlete. Access to adequate food, helpful roommates or neighbors, and a relaxing environment allows for a lower stress level (Shaikh & Deschamps, 2006, p. 48). In the end, either living arrangement can be harmful or helpful to a foreign athlete's level of culture related stress. The variables listed above along with other factors associated culture shock mentioned can work in favor or against the foreign athlete in leveling their culture related stress.

Summary

Focusing on stressors that foreign athletes at the University of Hawai‘i at Mānoa (UHM) faced in the past and how they managed the stressors allows for better understanding of what kind of structure can be put in place to help future foreign athletes

(Fontaine, 2000). The informal structures put in place through relationship networks are just as important to study as the formal structures. Social networks, both in Hawai‘i and in the athlete’s previous culture, can provide the support to withstand culture shock (Tange, 2005). Guiding athletes through stresses encountered their first few semesters at the university can turn a seemingly hopeless athlete into a productive student, both on and off the field (Giddens, 1991). The quicker a student acculturates into the host culture, the better the athlete can perform on the field (Guo-Ming, 1992). This study seeks to examine the major symptoms of culture shock the foreign athletes at the University of Hawai’I at Mānoa experience and the main factors associated with culture shock.

Chapter 3

Research Questions and Key Concepts

Research Questions

A majority of research both on culture shock as a mental illness and as an adaptation process focuses on the management of stressors found in intercultural activities (Putman, 1954, p. 12; Fontaine, 2000). The difference between the two schools of thought is in how to treat and minimize the stressors. Researchers who subscribe to the mental illness approach consider treating culture shock as a disease (Foster, 1962). Researchers who subscribe to the adaptation process or experience model focus on finding ways to prevent or minimize shock before one enters a new culture (Abarbanel, 2009, p. 133). Although the present study does not focus much on the mental illness aspects of culture shock, it is important first to examine how much foreign athletes experience culture shock.

RQ1: What is the extent of culture shock symptoms foreign athletes experience after moving to Hawai'i?

There are many sources of stress that foreign athletes experience. After interviewing many foreign athletes who have already graduated and are no longer playing for the University of Hawai'i at Mānoa, five broad categories of stressors have been created: athletic, academic, financial, social, and cultural. Many different sources of stress for all athletes are rooted in the previously mentioned categories, not just foreigners. It is important to find out specifically the main sources of stress that foreign athletes experience. This leads to the second research question

RQ2: What are the main sources of stress for foreign athletes?

One obvious difference between an athlete and a non athlete student is that the former has coaches and teammates. Teammates may serve as important sources of support and friendship as well as guidance for the local culture (Tange, 2005, p. 2). Athletic coaches can set study hours for each athlete that must be fulfilled per week inside the NAC. Outside of teammates and coaches, there are other sources of social

support on which an athlete may rely to decrease stress such as Facebook, online video chatting, partying, or hanging out with friends. This leads to the fourth research question.

RQ3: What are the main sources of social support for foreign athletes?

Quicker acculturation allows for people to get their jobs done faster and easier (Ming, 1992). In order to speed up the process, it is possible to begin the acculturation process before an individual leaves their home culture (Abarbanel, 2009, p. 133). Learning the language of the new culture before moving can decrease culture shock, but there is not always enough time. Simply having knowledge of the new culture, perhaps by a cultural expert or a person from the new culture, can lower the effects of culture shock (Haskins, 1999, p. 122). According to Haskins, exposure to the new culture while an individual is still in the confines of their old culture may lend to quicker acculturation. This leads to the second research question

RQ4: What is the relationship between sources of information on culture in Hawai'i prior to moving and the extent of culture shock symptoms foreign athletes experienced?

Computer mediated communication allows for asynchronous communication, and foreigners no longer have to worry about time zones when staying in touch with family and friends in their home country (Baym et al., 2004). Availability of newer modes of communication such as email, social media, video chat software, blogs, instant messaging and text messaging may help foreign athletes keep in touch with their family and friends, especially with those in their home country. How often foreign athletes communicate with their family and friends may be associated with the level of culture shock they experience. This leads to the next research question.

RQ5: What is the relationship between the frequency of communication with family members and friends and the extent of culture shock symptoms foreign athletes experienced?

RQ5ai: What is the relationship between the frequency of communication with family members in their home country and the extent of culture shock symptoms foreign athletes experienced?

RQ5aii: What is the relationship between the frequency of communication with family members in Hawai‘i and the extent of culture shock symptoms foreign athletes experienced?

RQ5bi: What is the relationship between the frequency of communication with friends in their home country and the extent of culture shock symptoms foreign athletes experienced?

RQ5bii: What is the relationship between the frequency of communication with friends in Hawai‘i and the extent of culture shock symptoms foreign athletes experienced?

Keeping up to date with the events happening in their home country is important for foreign athletes. The Pew Research Center concluded that college-aged students are more likely to use the Internet to gather news (Rosentsitel et al., 2011, pp. 1-2). The Internet helps foreign athletes to keep more current on the news about their home country than if they had to rely solely on the traditional news channels. This leads to the next research question.

RQ6: What is the relationship between main sources of news about home country and the extent of culture shock symptoms foreign athletes experienced?

Research shows that personality traits are associated with the amount of culture shock individuals experience (Mendenhall & Oddou, 1985). Closed-minded, ethnocentric athletes are more likely to perceive Hawai‘i negatively and perhaps experience increased levels of culture shock. Examples of closed-minded personality traits are conscientiousness and neuroticism (Buchanan et al., 2005). Open-minded and flexible athletes may experience decreased levels of culture shock. Examples of open-minded personality traits are openness, extraversion, and agreeableness (Buchanan et al., 2005). Personality and athletic abilities need to be weighted equally, when deciding if an athlete will be beneficial to the university’s athletics.

RQ7: What are the relationships between personality traits and the extent of culture shock symptoms foreign athletes experienced?

RQ7a: What is the relationship between openness and the extent of culture shock symptoms foreign athletes experienced?

RQ7b: What is the relationship between extraversion and the extent of culture shock symptoms foreign athletes experienced?

RQ7c: What is the relationship between agreeableness and the extent of culture shock symptoms foreign athletes experienced?

RQ7d: What is the relationship between conscientiousness and the extent of culture shock symptoms foreign athletes experienced?

RQ7e: What is the relationship between neuroticism and the extent of culture shock symptoms foreign athletes experienced?

Finally, it is important to find out what foreign athletes perceive to be the changes are in their academic and athletic performances, if any, since moving to the University of Hawai‘i at Mānoa.

RQ8: What are the self-reported changes in performances of a foreign athlete the season after entering the program at the University of Hawai‘i at Mānoa (UHM) compared to the performances during the last season in their home country?

RQ8a: What is the self-reported change in athletic statistics of a foreign athlete the season after entering the program at UHM compared to the athletic statistics during the last season in their home country?

RQ8b: What is the self-reported change in GPA of a foreign athlete the semester after entering the program at UHM compared to the GPA during the last semester in their home country?

Key Concepts

Culture shock symptoms

Conceptual Definition: Culture shock occurs when an individual is placed into a foreign culture and experiences stress related to the new culture. Kelervo Oberg (1960) coined culture shock by saying that it is "anxiety that results from losing all familiar signs and symbols of social intercourse" (p. 177). For the purpose of this study, symptoms are signs or indications that the respondent feels have changed since moving to Hawai'i.

The main symptoms of culture shock examined in this study are stress (Brown & Holloway, 2008), physical strain (Varner & Beamer, 2005), and homesickness (Campbell & Sonn, 2009). According to Wolff (1950), culture-related stress is a type of long-term stress that is minimized only by relearning how to live in a new culture (pp. 1044-1059).

Operational Definition: The concept was measured by asking the respondent the following two sets of question: First, a question was asked regarding the symptoms that are commonly experienced after moving to a new location. A second question was asked to measure perceived level of stress, using nine items selected from the 10-question scale of Perceived Stress by Sheldon Cohen (1983). One item was eliminated from the original scale as it was irrelevant for the present study.

People commonly experience the following after moving to a new location. Please check how often you have experienced each **after moving to Hawai‘i**.

	1. Never	2. Almost Never	3. Sometimes	4. Fairly Often	5. Very Often
Homesickness	☐	☐	☐	☐	☐
Jet Lag	☐	☐	☐	☐	☐
Loss of Sleep	☐	☐	☐	☐	☐
Crying	☐	☐	☐	☐	☐
Headaches	☐	☐	☐	☐	☐
Loneliness	☐	☐	☐	☐	☐
Loss of appetite	☐	☐	☐	☐	☐
Stress	☐	☐	☐	☐	☐
Misunderstand of social norms in Hawai‘i	☐	☐	☐	☐	☐
Illness	☐	☐	☐	☐	☐
Increased physical strain	☐	☐	☐	☐	☐
Aggression (off the field)	☐	☐	☐	☐	☐
Mental Confusion	☐	☐	☐	☐	☐
Intimidation from other teammates	☐	☐	☐	☐	☐
Withdrawal from social activity	☐	☐	☐	☐	☐
Rebellion against rules or regulations	☐	☐	☐	☐	☐
Anxiety	☐	☐	☐	☐	☐
Feeling like something was not right	☐	☐	☐	☐	☐
Insecurity	☐	☐	☐	☐	☐
Depression or unhappiness with life	☐	☐	☐	☐	☐
Confusion of the language (ex: Slang words)	☐	☐	☐	☐	☐
Frustration	☐	☐	☐	☐	☐
Rejection from other students	☐	☐	☐	☐	☐
Rejection from locals (non-students)	☐	☐	☐	☐	☐
Other-	☐	☐	☐	☐	☐

The respondent was also asked to recall the first semester at the University of Hawai‘i at Mānoa (UHM) and answer the following nine questions selected from “Perceived Stress Scale” created by Sheldon Cohen (1983).

Please select only one answer per question:

	1. Never	2. Almost Never	3. Sometimes	4. Fairly Often	5. Very Often
During your first semester at UHM, how often did you become upset because of something that happened that was not expected?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel nervous and “stressed?”	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel confident about your ability to handle your personal problems?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel that things were going your way?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you find that you could not cope with all the things that you had to do?	☐	☐	☐	☐	☐
During your first semester at UHM, how often were you able to control irritations in your life?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel you were in charge of your life?	☐	☐	☐	☐	☐
During your first semester at UHM, how often were you angered because of things that were out of your control?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel difficulties were piling up so high that you could not overcome them?	☐	☐	☐	☐	☐

Main sources of stress

Conceptual Definition: The main sources of stress refer to categories of sources through which the respondents experience stress. They include injury, road trips, health, athletic performance, opponents and officials during games, media, grade point average, eligibility, time management, keeping connected to home country, alcohol/drugs, sleep

deprivation, meeting people, transportation, food, housing, cultural traditions, holidays, and coaches, teammates, trainers, friends, roommates, family, etc. These sources of stress were identified through in-depth interviews and focus group discussions with foreign athletes who have previously graduated from the UHM.

Operation Definition: The concept was measured by the following questions on how often the respondent experienced a stress related to each of the sources listed:

How frequently have the following become a **major stress** factor in your life?

	1. Never	2. Almost never	3. Sometimes	4. Frequently	5. Almost Always
Injury	☐	☐	☐	☐	☐
Traveling (road trips)	☐	☐	☐	☐	☐
Physical Health	☐	☐	☐	☐	☐
Satisfaction with body	☐	☐	☐	☐	☐
Athletic Performance	☐	☐	☐	☐	☐
Opponents during games	☐	☐	☐	☐	☐
Officials during games	☐	☐	☐	☐	☐
Media-negative criticism	☐	☐	☐	☐	☐
GPA (Grade Point Average)	☐	☐	☐	☐	☐
Eligibility	☐	☐	☐	☐	☐
Time Management	☐	☐	☐	☐	☐
Keeping connected to home country	☐	☐	☐	☐	☐
Alcohol/ Drugs	☐	☐	☐	☐	☐
Sleep Deprivation	☐	☐	☐	☐	☐
Meeting new people	☐	☐	☐	☐	☐
Parties	☐	☐	☐	☐	☐
Emotional Health	☐	☐	☐	☐	☐
Transportation	☐	☐	☐	☐	☐
Food	☐	☐	☐	☐	☐
Housing	☐	☐	☐	☐	☐
Religion	☐	☐	☐	☐	☐
Reactions of cultural traditions from home country	☐	☐	☐	☐	☐
Missing cultural traditions from home country	☐	☐	☐	☐	☐
American holidays that you cannot relate to	☐	☐	☐	☐	☐
Home holidays that you cannot attend	☐	☐	☐	☐	☐
Lack of food from home country	☐	☐	☐	☐	☐

How frequently do the following people become a **major stress** factor in your life?

Sources of Stress	1. Never	2. Almost never	3. Sometimes	4. Frequently	5. Almost Always
Coaches	☐	☐	☐	☐	☐
Teammates	☐	☐	☐	☐	☐
Athletic Trainers	☐	☐	☐	☐	☐
Girlfriend/Boyfriend	☐	☐	☐	☐	☐
Roommate/Suitemate	☐	☐	☐	☐	☐
Athlete from another sport	☐	☐	☐	☐	☐
Student from home country	☐	☐	☐	☐	☐
Student from other foreign country	☐	☐	☐	☐	☐
American Student	☐	☐	☐	☐	☐
Family in Hawai‘i	☐	☐	☐	☐	☐
Family in home country	☐	☐	☐	☐	☐
Friends in Hawai‘i	☐	☐	☐	☐	☐
Friends in home country	☐	☐	☐	☐	☐
Academic Advisors	☐	☐	☐	☐	☐
Tutor/ Mentor	☐	☐	☐	☐	☐
Professor	☐	☐	☐	☐	☐
Classmate	☐	☐	☐	☐	☐
Media Outlets	☐	☐	☐	☐	☐
Referees or Officials	☐	☐	☐	☐	☐
NCAA	☐	☐	☐	☐	☐
Fans	☐	☐	☐	☐	☐
Critics (people against the team)	☐	☐	☐	☐	☐

Main sources of social support

Conceptual Definition: For this study, the main sources social support refers to those who provide the respondent with social, academic, athletic, financial and/or cultural help. A social support network, in this study, is a group that consists of individuals who make a foreigner feel cared for and provide assistance to that person (Farh et al., 2010, p. 466). Emotional, informational, and instrumental supports are all recognizable and commonly known. Emotional support is shown though empathy, concern, and trust (House, 1981). Informational support is advice that is given with the intent of satisfying a specific problem (House, 1981). Instrumental support is usually given in the form of physical or financial support (House, 1981).

Operational Definition: This concept was measured by asking a question of the respondents based on their source of support in each of the five categories created by the focus group of foreign athletes who have already gradated from the University of Hawai‘i at Mānoa.

Which category does each **source** provide the greatest amount of **support**?

Sources of Support	Athletic	Academic	Social	Financial	Cultural	N/A
Coaches	☐	☐	☐	☐	☐	☐
Teammates	☐	☐	☐	☐	☐	☐
Athletic Trainers	☐	☐	☐	☐	☐	☐
Girlfriend/Boyfriend	☐	☐	☐	☐	☐	☐
Roommate/Suitemate	☐	☐	☐	☐	☐	☐
Athlete from another sport	☐	☐	☐	☐	☐	☐
Student from home country	☐	☐	☐	☐	☐	☐
Student from other foreign country	☐	☐	☐	☐	☐	☐
American Student	☐	☐	☐	☐	☐	☐
Family in Hawai‘i	☐	☐	☐	☐	☐	☐
Family in home country	☐	☐	☐	☐	☐	☐
Friends in Hawai‘i	☐	☐	☐	☐	☐	☐
Friends in home country	☐	☐	☐	☐	☐	☐
Academic Advisors	☐	☐	☐	☐	☐	☐
Tutor/ Mentor	☐	☐	☐	☐	☐	☐
Professor	☐	☐	☐	☐	☐	☐
Classmate	☐	☐	☐	☐	☐	☐
Media Outlets	☐	☐	☐	☐	☐	☐
Referees or Officials	☐	☐	☐	☐	☐	☐
NCAA	☐	☐	☐	☐	☐	☐
Fans	☐	☐	☐	☐	☐	☐
Critics (people against the team)	☐	☐	☐	☐	☐	☐

Sources of information on the culture in Hawai‘i

Conceptual Definition: Sources of information on the culture in Hawai’i refers to the channels though which respondents actively sought out information prior to coming to Hawai‘i. Two common sources of information are primary and secondary sources. Primary sources of information are the original source, while secondary sources are built on reactions or additions to the original source. Secondary sources are more easily available and include newspaper or television stories, Facebook or Twitter statuses, or through another person removed from the original source.

Operational Definition: This concept was measured through the following questions in the questionnaire:

Did you spend time actively learning about the culture, language, or social norms in Hawai‘i once signing a letter of intent with the University of Hawai‘i at Mānoa?	☐Yes If yes, which of the following sources did you use to learn about the culture in Hawai‘i before moving to UH? Check all that apply. 1. ☐Internet 2. ☐Book 3. ☐TV show 4. ☐Person who had lived in Hawai‘i 5. ☐Magazine 6. ☐Newspaper (Print) 7. ☐Newspaper (Online) 8. ☐Radio 9. ☐Travel guide for Hawai‘i 10. ☐University of Hawai‘i at Mānoa website 11. ☐Government website 12. ☐Social Networking Site 13. ☐Future Coach 14. ☐Future Teammate 15. ☐Other (Please Specify) _____	☐No (go to next question)

Communication with family

***Conceptual Definition*:** Communication with family refers to the frequency of communication with each of the respondent's family members, as well as the main channels of communication with family. In this study, family includes one the respondent left in the home country as well as that in Hawai'i.

***Operational Definition*:** The concept was measured through the following questions on how often the respondent communicates with their family, and the top three communication channels used to communicate with family:

How often do you communicate with the following members of your family? Select N/A if you do not have the family member listed below.

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. At least once a day	7. N/A
Mother	☐	☐	☐	☐	☐	☐	☐
Father	☐	☐	☐	☐	☐	☐	☐
Child (your own)	☐	☐	☐	☐	☐	☐	☐
Brother	☐	☐	☐	☐	☐	☐	☐
Sister	☐	☐	☐	☐	☐	☐	☐
Aunt	☐	☐	☐	☐	☐	☐	☐
Uncle	☐	☐	☐	☐	☐	☐	☐
Cousin	☐	☐	☐	☐	☐	☐	☐
Niece	☐	☐	☐	☐	☐	☐	☐
Nephew	☐	☐	☐	☐	☐	☐	☐
Grandmother	☐	☐	☐	☐	☐	☐	☐
Grandfather	☐	☐	☐	☐	☐	☐	☐
Guardian	☐	☐	☐	☐	☐	☐	☐
Spouse	☐	☐	☐	☐	☐	☐	☐

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. At least once a day	7. N/A
How often do you communicate with your family in your home country?	☐	☐	☐	☐	☐	☐	☐

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. Every day	7. N/A
How often do you communicate with your family who live in Hawai‘i?	☐	☐	☐	☐	☐	☐	☐

What channels do you use to communicate with your family? Select the top three channels. Label the most frequently used channel number one, then the second most frequently used channel number two, then the third most frequently used channel number three.

1. ☐ Video Chat software 2. ☐ Facebook 3. ☐ Twitter 4. ☐ Blog	5. ☐ Phone 6. ☐ Text Messages 7. ☐ Email 8. ☐ Instant Messaging	9. ☐ Letters (handwritten) 10. ☐ Group website 11. ☐ Photo Sharing sites 12. ☐ Other (Please specify):

Communication with friends

***Conceptual Definition*:** Communication with friends refers to the frequency of communication with each of the respondent's friends, as well as the main channels of communication with friends. In this study, friends include those the respondent left in the home country as well as those in Hawai'i.

***Operational Definition*:** The concept was measured through the following questions on how often the respondent communicates with their friends, and the top three communication channels used to communicate with friends:

Amongst your friends, with whom do you communicate with the most often? Please select up to five friends maximum. If less than five friends select "N/A" for the remainder of friends.

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. Every Day	7. N/A
Friend #1	☐	☐	☐	☐	☐	☐	☐
Friend #2	☐	☐	☐	☐	☐	☐	☐
Friend #3	☐	☐	☐	☐	☐	☐	☐
Friend #4	☐	☐	☐	☐	☐	☐	☐
Friend #5	☐	☐	☐	☐	☐	☐	☐

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. Every day	7. N/A
How often do you communicate with your friends in your home country?	☐	☐	☐	☐	☐	☐	☐

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. Every day	7. N/A
How often do you communicate with your friends in Hawai‘i?	☐	☐	☐	☐	☐	☐	☐

What channels do you use to communicate with your friends? Select the top three channels. Label the most frequently used channel number one, then the second most frequently used channel number two, then the third most frequently used channel number three.

1. ☐ Video Chat software 2. ☐ Facebook 3. ☐ Twitter 4. ☐ Blog	5. ☐ Phone 6. ☐ Text Messages 7. ☐ Email 8. ☐ Instant Messaging	9. ☐ Letters (handwritten) 10. ☐ Group website 11. ☐ Photo Sharing sites 12. ☐ Other (Please specify):

Source of news about home country

***Conceptual Definition*:** Source of news about home country refers to the media sources through which the respondent obtains information to track the news in the home country.

***Operational Definition*:** The concept was measured though the following questions about media sources used for acquiring news in the respondent's home country:

What media sources do you use to track the news in your home country?

1. ☐ Video Chat software 2. ☐ Newspaper (online) 3. ☐ Newspaper (print) 4. ☐ Facebook	5. ☐ Twitter 6. ☐ Internet 7. ☐ Government Website 8. ☐ TV Show (Online)	9. ☐ TV Show (on television) 10. ☐ Magazine 11. ☐ Radio 12. ☐ Other (Please specify):

Openness

***Conceptual Definition*:** For this study, openness is a personality trait that refers to the level of intellectual curiosity, preference for experiencing a variety of different things and thriving in creative environments.

Operational Definition: This concept was measured through two questions in the questionnaire derived from the Five Factor Model of Personality in which respondents were asked to choose how representative a statement is of them (Buchanan et al., 2005). Select the answer that describes you best.

	1. Not True	2. Somewhat True	3. True	4. Very True
I am quick to understand things.	☐	☐	☐	☐
I spend time reflecting on things.	☐	☐	☐	☐

Extraversion

Conceptual Definition: For this study, extraversion, as a personality trait, refers to the degree to which a person is outgoing and energetic (Buchanan et al., 2005). People score high on extraversion are stimulated through other people and enjoy being in the company of others.

Operational Definition: This concept was measured through the following two questions on the questionnaire derived from the Five Factor Model of Personality in which respondents were asked to choose how representative a statement is of them (Buchanan et al., 2005).

Select the answer that describes you best.

	1. Not True	2. Somewhat True	3. True	4. Very True
I talk to a lot of different people at parties.	☐	☐	☐	☐
I am comfortable around people.	☐	☐	☐	☐

Agreeableness

Conceptual Definition: For this study, agreeableness, as a personality trait, refers to the degree to which the respondent is friendly, compassionate, cooperative, trying to please others, and interested in others (Buchanan et al., 2005).

Operational Definition: This concept was measured through the following two questions on the questionnaire derived from the Five Factor Model of Personality in which respondents were asked to choose how representative a statement is of them (Buchanan et al., 2005).

Select the answer that describes you best.

	1. Not True	2. Somewhat True	3. True	4. Very True
I am interested in people.	☐	☐	☐	☐
I take time to learn about others.	☐	☐	☐	☐

Conscientiousness

Conceptual Definition: For this study, conscientiousness, as a personality trait, refers to the extent to which the respondent is efficient and organized (Buchanan et al., 2005). Conscientious personalities practice more self-disciple than other personalities.

Operational Definition: This concept was measured through the following two questions in the questionnaire derived from the Five Factor Model of Personality in which respondents were asked to choose how representative a statement is of them (Buchanan et al., 2005).

Select the answer that describes you best.

	1. Not True	2. Somewhat True	3. True	4. Very True
I follow a schedule.	☐	☐	☐	☐
I like order.	☐	☐	☐	☐

Neuroticism

Conceptual Definition: For this study, neuroticism, as a personality trait, refers to the degree to which an individual is emotionally unstable. People who score high on neuroticism are (1) likely to be more sensitive and nervous (Buchanan et al., 2005), and (2) more susceptible to experiencing negative emotions such as anger, sadness, or extreme stress. They are viewed as ethnocentric people who are too set in their social norms to change (Mendenhall & Oddou, 1985).

Operational Definition: This concept was measured through the following two questions on the questionnaire derived from the Five Factor Model of Personality in which respondents were asked to choose how representative a statement is of them (Buchanan et al., 2005).

Select the answer that describes you best.

	1. Not True	2. Somewhat True	3. True	4. Very True
I get stressed out easily.	☐	☐	☐	☐
I worry about things.	☐	☐	☐	☐

Relative level of athletic statistics

Conceptual Definition: Relative level of athletic statistics refers to the respondent's perceptions about (1) changes in his/her athletic performance at the UHM since moving to Hawai'i as compared to the final season in his/her home country, and (2) the reasons for the change in athletic performance, if any.

Operational Definition: The concept was measured by the following two questions, which are based entirely on a self-report without using any formal statistics.

How consistent do you feel that your personal athletic statistics were after moving to the University of Hawai'i at Mānoa?	1. ☐ Lowered Significantly 2. ☐ Lowered Slightly 3. ☐ Unchanged (go to question…) 4. ☐ Increased Slightly 5. ☐ Increased Significantly

	1. Coaching Staff	2. Teammates	3. Climate	4. Altered rules and/or regulations	5. Homesickness	6. Culture Shock	7. Other (please specify)
If your statistics changed (either lowered or increased) after moving to the University of Hawai'i at Mānoa, what do you feel were the reasons for the change in your statistics?	☐	☐	☐	☐	☐	☐	☐ Specify:

Relative level of GPA

Conceptual Definition: Relative level of GPA refers to the respondent's perceptions about (1) changes in his/her academic performance at the UHM since moving to Hawai'i and (2) the reasons for the change in GPA, if any.

Operational Definition: The concept was measured by the following two questions. No formal records of academic performance were used.

How consistent do you feel that your personal GPA was after moving to the University of Hawai'i at Mānoa?	1. ☐ Lowered Significantly 2. ☐ Lowered Slightly 3. ☐ Unchanged (go to question…) 4. ☐ Increased Slightly 5. ☐ Increased Significantly

	1. Coaching Staff	2. Teammates	3. Climate	4. Altered rules and/or regulations	5. Homesickness	6. Culture Shock	7. Other (please specify)
If your GPA changed (either increased or decreased) after moving to the University of Hawai'i at Mānoa, what do you feel were the reasons your GPA changed?	☐	☐	☐	☐	☐	☐	☐ Specify:

Chapter 4

Methods

This chapter discusses the methods used for this study. The data for the study was collected through an online survey of 53 foreign athletes at the University of Hawai‘i at Mānoa (UHM).

The Sample

The sample consisted of foreign athletes who attended University of Hawai‘i at Mānoa as of January 1, 2012 and were participating in an approved sport during the 2011-2012 seasons. Athletes must have been full time, degree-seeking students at the UHM. They must have been born outside of the 50 United States. US Territories such as Guam and America Samoa were considered as outside of the US. The athletes must have lived in Hawai‘i for less than four years at the time of the study. In order to comply with the Institutional Review Board (IRB), all respondents were at least 18-years-old.

A saturation sampling technique was used in this study. The sampling frame used was constructed using the rosters of all sports located on the athletics website. All foreign athletes were eligible and included in the sample for this study. The sample size was 53 athletes from 19 different countries.

The Instrument

The questionnaire had 27 questions, designed on Survey Builder. After pretesting the instrument using foreign athletes who had previously graduated from the University of Hawai‘i at Mānoa, the instrument was revised for clarification.

Questions 1-6 were asked to obtain information about respondent’s backgrounds such as the gender, age, enrollment status, sponsorship, and living arrangements (including where they live and with whom.)

Questions 7-8 were used to observe the symptoms the respondents were experiencing and how stressed out they were their first semester at University of Hawai‘i at Mānoa.

Questions 9-10 were designed to obtain information about the extent to which and through what channels foreign athletes learned about the culture in Hawai‘i before moving.

Questions 11-18 covered how often respondents communicated with their family members and friends. Respondents were asked about how often and via which communication channels they communicated with each family member. Respondents were also asked how often they communicate with each of their friends (up to five friends), and what channels they use to communicate with their friends both in the home country and in Hawai'i. The question regarding the five friends that one communicates with the most frequently was clarified by adding the phrase "If less than five friends, select "N/A" for the remainder of friends."

The media sources that respondents used to track the news in their home country was measured by question 19.

Questions 20 and 21 were about the sources of stress. Question 22 measured what kind of support each group of people from Question 21 provided. The types of sources specified were athletic, academic, social, financial, and cultural. Based on the results of pretesting the draft instrument, the following five potential sources of stress and support were added to questions 21 and 22: media outlets, fans, critics, referees or officials, and the NCAA (National Collegiate Athletic Association).

Question 23 measured the personality traits, using ten items derived from The Five Factor Model of Personalities.

Questions 24-27 were designed to obtain information about perceived changes in the respondent's athletic and academic performances after moving to Hawai'i and the perceived reasons for the changes, if any.

The consent form described the survey objectives, time commitments (approximately 20 minutes), benefits of participation, risks of participation, confidentiality, voluntary participation, and rights of the respondent. The consent form included the researcher's contact information, the thesis chair's contact information and the UH Committee on Human Bodies contact information.

Administration of the Instrument

Data was collected during January and February 2012. All foreign athletes were asked to complete a questionnaire. The questionnaire was sent to each athlete using their @hawaii.edu email provided by the school via the online directory on the University of

Hawai‘i at Mānoa homepage, together with a consent form that was approved by the IRB. The consent form was included in each email sent, including follow up emails (Appendix A). The instrument was an online survey sent out using Survey Builder. The first email sent on January 9, 2012 discussed why the survey was sent to them, and ask for their participation. A week after the initial email was sent, a follow up email was sent to remind athletes about the survey. Additional emails were sent every week reminding students to complete the questionnaire until February 15, 2012 when the final respondent completed the questionnaire.

Data Analysis

A codebook (Appendix C) was created for all the variables in the questionnaire. The data was entered into the Statistical Package for the Social Sciences (SPSS, Version 20) using the codes specified in the codebook. The frequencies and cross-tabulations were performed on SPSS.

Chapter 5

Results and Discussion

This chapter presents the results from the data analysis. It begins with descriptions of the respondents, and follows with the answers to the research questions. The sample included every registered foreign athlete at the University of Hawai‘i at Mānoa as of January 2012.

Respondent Characteristics

A total of 53 student athletes at the University of Hawai‘i (UHM) completed an online questionnaire. Table 1 shows the age, sex, the semester first enrolled at UHM, source of financial support, and housing situation of each respondent. There were disproportionately more female respondents (32 or 60.4%) than male respondents (21 or 39.6%). The sample included respondents who were 18-23 years old. The greatest number of students (12 or 22.6%) first enrolled at UHM in Fall 2010. In terms of the main source of financial support, 79.3% of the respondents reported being on scholarship: 60.4% on athletic scholarship and 18.9% on a non-athletic scholarship.

In terms of living arrangements, 67.9% of the respondents lived on campus, 22.6% lived off campus in a house, and 9.4% lived off campus in an apartment. 22.7% of the respondents lived with other athletes, either of the same sport (18.9%) or a different sport (3.8%). One respondent reported living with an assistant coach listed under “Other.”

Communication with Family Members and Friends

Respondents were asked how often they communicate with their friends and family members who live either in their home country or in Hawai‘i. Any family members or friends with whom they communicated at least once a week were rank ordered.

As shown in Table 2.1, mother were the family member that respondents communicated with most frequently, with 67.9% of the respondents reporting that they communicate with their mother more than once a week, followed by sister (50.9%) and father (41.6%).

Table 1: Respondent Characteristics

		Frequency	Percent	Valid Percent	Cumulative Percent
Age	18- years-old	4	7.5	7.5	7.5
	19-years-old	16	30.2	30.2	37.7
	20-years-old	4	7.5	7.5	45.3
	21-years-old	15	28.3	28.3	73.6
	22-years-old	11	20.8	20.8	94.3
	23-years-old	3	5.7	5.7	100.0
	Total	**53**	**100.0**	**100.0**	
Mean= 20.42, Median= 21.00, Mode=19					
Sex	Male	21	39.6	39.6	39.6
	Female	32	60.4	60.4	100.0
	Total	53	100.0	100.0	
First enrolled at UHM in:	Fall 2008	6	11.3	11.3	11.3
	Spring 2009	5	9.4	9.4	20.8
	Fall 2009	6	11.3	11.3	32.1
	Spring 2010	6	11.3	11.3	43.4
	Summer 2010	4	7.5	7.5	50.9
	Fall 2010	12	22.6	22.6	73.6
	Spring 2011	6	11.3	11.3	84.9
	Summer 2011	4	7.5	7.5	92.5
	Fall 2011	4	7.5	7.5	100.0
	Total	**53**	**100.0**	**100.0**	
Main source of financial support	Themselves	6	11.3	11.3	11.3
	Family	5	9.4	9.4	20.8
	Athletic Scholarship	32	60.4	60.4	81.1
	Other Scholarship	10	18.9	18.9	100.0
	Total	**53**	**100.0**	**100.0**	
Place of residence	On campus	36	67.9	67.9	67.9
	Off campus- Apartment	5	9.4	9.4	77.4
	Off campus- House	12	22.6	22.6	100.0
	Total	**53**	**100.0**	**100.0**	
Living with:	International student- other country	13	24.5	24.5	24.5
	Athlete- same sport	10	18.9	18.9	43.4
	Athlete- other sport	2	3.8	3.8	47.2
	Roommate-non athlete	27	50.9	50.9	98.1
	Other- assistant coach	1	1.9	1.9	100.0
	Total	**53**	**100.0**	**100.0**	

Table 2.1: Communicate with Family Members (in %)

Communicate with:	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. Every day	7. N/A	Combined % of at least once a week
Mother	0.0	7.5	24.5	43.4	17.0	7.5	0.0	67.9
Sister	9.4	17.0	0.0	39.6	0.0	11.3	22.6	50.9
Father	0.0	24.5	17.0	18.9	17.0	5.7	17.0	41.6
Brother	9.4	17.0	0.0	32.1	0.0	0.0	41.5	32.1
Grandmother	22.6	7.5	17.0	24.5	7.5	0.0	20.8	32.0
Aunt	43.4	15.1	15.1	7.5	0.0	0.0	18.9	7.5
Grandfather	24.5	7.5	7.5	7.5	0.0	0.0	52.8	7.5
Cousin	49.1	9.4	26.4	5.7	0.0	0.0	9.4	5.7
Child	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Guardian	17.0	0.0	0.0	0.0	0.0	0.0	83.0	0.0
Nephew	17.0	0.0	0.0	0.0	0.0	0.0	83.0	0.0
Niece	17.0	7.5	0.0	0.0	0.0	0.0	75.5	0.0
Spouse	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Uncle	41.5	17.0	17.0	0.0	0.0	0.0	24.5	0.0

As shown in Table 2.2, in terms of the channels of communication with family members, 45.3% of the respondents selected video chat software as their first choice, followed by Facebook and phone (17.0% each). As the second choice, 24.5% of the respondent chose email, followed by text messages (15.1%) and email (13.2%). Finally, as the third choice, 18.9% of the respondents selected Twitter, followed by video chat software and email (13.2% each).

As can be seen in Table 3, in terms of the channels of communication with friends, 32.1% of the respondents selected video chat software as their first choice, followed by phone (17.0%), Facebook and text messaging (15.1% each). As the second choice, video chat software again was chosen by 20.8% of the respondents, followed by email (18.9%) and phone (15.1%). Video chat software ranked the top of the list (17.0%) as the third choice of communication channels, followed by Twitter (15.1%) and email (13.2%).

The channels of communication that foreign athletes used to keep in touch with their family members was very similar to how they keep in touch with friends. Facebook tied with phone as the second main channel used for communicating with family

members, and tied with text messaging as the third main channel used for communicating with friends. Twitter, blogs, photo-sharing websites, and group websites were some of the least frequently used channels for communicating with both family members and friends. Even with new social media beginning to dominate the communication market, foreign athletes at the University of Hawai'i at Mānoa did not use them as frequently, with the exception of Facebook.

Table 2.2: Channels of Communication with Family (in %)

Communicate Via:	Not Selected	1st Choice	2nd Choice	3rd Choice
Video Chat Software	30.2	45.3	11.3	13.2
Email	56.6	5.7	24.5	13.2
Facebook	62.3	17.0	11.3	9.4
Phone	62.3	17.0	13.2	7.5
Text Messages	69.8	11.3	15.1	3.8
Instant Messaging	77.4	3.8	9.4	9.4
Twitter	81.1	0.0	0.0	18.9
Blog	90.6	0.0	7.5	1.9
Letters (handwritten)	84.9	0.0	7.5	7.5
Group Website	92.5	0.0	0.0	7.5
Photo Sharing sites	94.3	0.0	0.0	5.7
Other	100.0	0.0	0.0	0.0

Table 3: Channels of Communication with Friends (in %)

Communicate Via:	Not Selected	1st Choice	2nd Choice	3rd Choice
Video Chat Software	30.2	32.1	20.8	17.0
Email	56.6	11.3	18.9	13.2
Phone	62.3	17.0	15.1	5.7
Facebook	62.3	15.1	13.2	9.4
Text Messages	69.8	15.1	9.4	5.7
Instant Messaging	77.4	1.9	9.4	11.3
Twitter	81.1	1.9	1.9	15.1
Letters (handwritten)	84.9	0.0	7.5	7.5
Blog	88.7	3.8	3.8	3.8
Group Website	92.5	1.9	0.0	5.7
Photo Sharing sites	94.3	0.0	0.0	5.7
Other	100.0	0.0	0.0	0.0

Answers to Research Questions

RQ1: What is the extent of culture shock symptoms foreign athletes experience after moving to Hawai'i?

Foreign athletes experience many symptoms of culture shock after moving to Hawai'i as shown in Table 4.1. Experiencing stress toped the list with over half (54.7%) of the respondents reporting experience of stress "fairly often" or "very often," followed by increased physical strain (39.6%), and homesickness (37.8%).

While physical strain has been reported in past research as among the symptoms commonly experience by foreigners in general, it has not been as prominently ranked as it has in this study. The reason why it is the second most frequently reported symptom might be due to the fact that the sample for the present study consists entirely of athletes, athletes are more likely to experience physical strain than non-athletes, and foreign athletes in the study might have attributed their experience of physical strain more to culture shock than to physical illness.

It should be noted that, although the following four symptoms have been found repeatedly in past research on culture shock as important since the early work by in LaRay Barna (1967), they did not rank high in the present study: withdrawal from social situations (26.5%), depression (20.8%), jet lag (15.0%), and frustration (9.4%).

When some of the main symptoms of culture shock presented in Table 4.1 are used to answer subsequent research questions (i.e., RQ4 through RQ7e), they will be dichotomized by recoding "never," "almost never," and "sometimes" into "*Sometimes or less*" and "fairly often" and "very often" into "*Often.*"

Among the responses to the nine questions in the "Perceived Stress Scale" (Cohen, 1983), over half (51.0%) of the respondents reported that they felt that things were going their way "fairly often" or "very often" during their first semester at UHM, followed by 37.8% responding that they felt they were in charge of their lives. Nevertheless, the next three items represent negative items, with 32.1% reporting they could not cope with all the things that they had to do, 30.2% responded that they were angered because of things that were out of their control, and 30.2% answered that they felt nervous and "stressed."

Table 4.1: Symptoms Experienced After Moving to Hawai‘i (in %)

Symptoms experienced after moving to Hawai'i:	1. Never	2. Almost Never	3. Sometimes	4. Fairly Often	5. Very Often	Combined % of only "Fairly Often" and "Very Often"
Stress	5.7	5.7	34.0	45.3	9.4	54.7
Increased physical strain	9.4	9.4	41.5	30.2	9.4	39.6
Homesickness	1.9	26.4	34.0	17.0	20.8	37.8
Withdrawal from social activity	32.1	30.2	11.3	20.8	5.7	26.5
Anxiety	20.8	28.3	28.3	20.8	1.9	22.7
Feeling like something was not right	13.2	18.9	45.3	22.6	0.0	22.6
Insecurity	34.0	22.6	20.8	22.6	0.0	22.6
Depression or unhappiness with life	41.5	32.1	5.7	20.8	0.0	20.8
Headaches	32.1	20.8	26.4	20.8	0.0	20.8
Loss of Sleep	11.3	13.2	54.7	20.8	0.0	20.8
Rebellion against rules or regulations	45.3	22.6	11.3	20.8	0.0	20.8
Loneliness	11.3	56.6	11.3	9.4	11.3	20.7
Mental Confusion	32.1	35.8	13.2	18.9	0.0	18.9
Misunderstand social norms in Hawai‘i	30.2	43.4	7.5	18.9	0.0	18.9
Illness	11.3	41.5	28.3	7.5	11.3	18.8
Loss of appetite	50.9	0.0	34.0	15.1	0.0	15.1
Jet Lag	5.7	32.1	47.2	7.5	7.5	15.0
Rejection from other students	71.7	7.5	9.4	11.3	0.0	11.3
Frustration	5.7	35.8	49.1	9.4	0.0	9.4
Crying	34.0	54.7	3.8	5.7	1.9	7.6
Aggression (off the field)	45.3	32.1	15.1	7.5	0.0	7.5
Confusion of the language (ex: Slang words)	41.5	20.8	30.2	7.5	0.0	7.5
Intimidation from other teammates	52.8	20.8	20.8	5.7	0.0	5.7
Rejection from locals (non-students)	52.8	20.8	20.8	5.7	0.0	5.7
Other	0.0	0.0	0.0	0.0	0.0	0.0

Note: The last column showing "Combined % of only "Fairly Often" and "Very Often" is used to present the data in a rank order, and is separated from the original five categories using a double line.

Table 4.2: Degree of Stress Experienced (in %)

During your first semester at UHM, how often:	1. Never	2. Almost Never	3. Sometimes	4. Fairly Often	5. Very Often	Combined % of only "Fairly Often" and "Very Often"
Did you feel that things were going your way?	7.5	11.3	30.2	47.2	3.8	51.0
Did you feel you were in charge of your life?	0.0	13.2	49.1	17.0	20.8	37.8
Did you find that you could not cope with all the things that you had to do?	0.0	13.2	54.7	18.9	13.2	32.1
Were you angered because of things that were out of your control?	13.2	28.3	28.3	28.3	1.9	30.2
Did you feel nervous and "stressed?"	0.0	49.1	20.8		30.2	30.2
Did you become upset because of something that happened that was not expected?	13.2	32.1	30.2	18.9	5.7	24.6
Did you feel difficulties were piling up so high that you could not overcome them?	5.7	47.2	32.1	15.1	0.0	15.1
Did you feel confident about your ability to handle your personal problems?	28.3	32.1	28.3	11.3	0.0	11.3
Were you able to control irritations in your life?	17.0	18.9	54.7	9.4	0.0	9.4

Note: The last column showing "Combined % of only "Fairly Often" and "Very Often" is used to present the data in a rank order, and is separated from the original five categories using a double line.

RQ2: What are the main sources of stress for foreign athletes?

As shown in Table 5.1, the top five main sources of stress reported by foreign athletes in this study are athletic performance (54.7%), food (35.8%), time management (35.8%), lack of food from their home country (34.0%) and transportation (34.0%). Interestingly, alcohol, drugs, and parties were not reported as sources of stress. They might have been under reported due to the sensitivity associated with them. Some respondents might have thought that, if they answered those questions truthfully, it could hurt their chances of playing for the university.

Table 5.1: Sources of Stress (in %)

Sources of Stress	1. Never	2. Almost Never	3. Sometimes	4. Frequently	5. Almost Always	Combined % of only "Frequently" and "Almost Always"
Athletic Performance	0.0	15.1	30.2	39.6	15.1	54.7
Food	17.0	39.6	7.5	35.8	0.0	35.8
Time Management	5.7	22.6	35.8	26.4	9.4	35.8
Lack of food from home country	22.6	9.4	34.0	15.1	18.9	34.0
Transportation	7.5	52.8	5.7	13.2	20.8	34.0
Home holidays that you cannot attend	26.4	15.1	34.0	24.5	0.0	24.5
Injury	0.0	34.0	41.5	17.0	7.5	24.5
Housing	13.2	49.1	15.1	15.1	7.5	22.6
Satisfaction with body	17.0	34.0	26.4	15.1	7.5	22.6
Opponents during games	5.7	41.5	32.1	17.0	3.8	20.8
GPA (Grade Point Average)	34.0	24.5	24.5	0.0	17.0	17.0
Reactions of cultural traditions from home country	49.1	26.4	7.5	0.0	17.0	17.0
Emotional Health	43.4	26.4	13.2	7.5	9.4	16.9
Sleep Deprivation	24.5	0.0	62.3	5.7	7.5	13.2
Keeping connected to home country	41.5	24.5	25.5	0.0	9.4	9.4
Eligibility	66.0	11.3	15.1	0.0	7.5	7.5
Officials during games	58.5	17.0	17.0	7.5	0.0	7.5
Traveling (road trips)	43.4	5.7	43.4	7.5	0.0	7.5
Missing cultural traditions from home country	45.3	26.4	22.6	0.0	5.7	5.7
Physical Health	9.4	32.1	52.8	5.7	0.0	5.7
Religion	71.5	22.6	0.0	0.0	5.7	5.7
Alcohol/ Drugs	75.5	17.0	7.5	0.0	0.0	0.0
American holidays that you cannot relate to	67.9	7.5	24.5	0.0	0.0	0.0
Media-negative criticism	54.7	35.8	9.4	0.0	0.0	0.0
Meeting new people	49.1	35.8	15.1	0.0	0.0	0.0
Parties	69.8	7.5	22.6	0.0	0.0	0.0

Note: The last column showing "Combined % of only 'Frequently' and 'Almost Always' is used to present the data in a rank order, and is separated from the original five categories using a double line.

In terms of people as sources of stress, 43.4% of the respondents reported teammates as the source of stress "frequently" or "almost always," followed by coaches (33.9%), as shown in Table 5.2. Many categories of people with whom the athletes may not interact frequently, such as academic advisors, athletes from other sports, classmates, fans, tutors and mentors, were reported as sources that do not produce much stress to the respondents.

Table 5.2: Other People as Sources of Stress (in %)

Sources of Stress	1. Never	2. Almost Never	3. Sometimes	4. Frequently	5. Almost Always	Combined % of only "Frequently" and "Almost Always"
Teammates	0.0	32.1	24.5	43.4	0.0	43.4
Coaches	17.0	7.5	41.5	24.5	9.4	33.9
Athletic Trainers	49.1	17.0	15.1	18.9	0.0	18.9
American Student	26.4	39.6	17.0	17.0	0.0	17.0
Professor	7.5	24.5	50.9	17.0	0.0	17.0
Friends in home country	43.4	28.3	15.1	5.7	7.5	13.2
Family in home country	41.5	24.5	24.5	9.4	0.0	9.4
NCAA	62.3	3.8	24.5	9.4	0.0	9.4
Roommate/Suitemate	24.5	22.6	43.4	0.0	9.4	9.4
Student from other foreign country	45.3	37.7	7.5	9.4	0.0	9.4
Friends in Hawai‘i	35.8	17.0	39.6	7.5	0.0	7.5
Referees or Officials	69.8	7.5	15.1	7.5	0.0	7.5
Girlfriend/Boyfriend	41.5	22.6	30.2	0.0	5.7	5.7
Academic Advisors	54.7	45.3	0.0	0.0	0.0	0.0
Athlete from another sport	56.6	32.1	11.3	0.0	0.0	0.0
Classmate	39.6	45.3	15.1	0.0	0.0	0.0
Critics (people against the team)	56.6	26.4	17.0	0.0	0.0	0.0
Family in Hawai‘i	79.2	0.0	20.8	0.0	0.0	0.0
Fans	62.3	18.9	18.9	0.0	0.0	0.0
Media Outlets	81.1	0.0	18.9	0.0	0.0	0.0
Student from home country	54.7	45.3	0.0	0.0	0.0	0.0
Tutor/Mentor	84.9	15.1	0.0	0.0	0.0	0.0

Note: The last column showing "Combined % of only 'Frequently' and 'Almost Always' is used to present the data in a rank order, and is separated from the original five categories using a double line.

RQ3: What are the main sources of social support for foreign athletes?

The respondents were asked to identify which of the five categories of support—*athletic, academic, social, financial* and *cultural*—each source (listed in the first column in Table 6.1) provides the most. Tables 6.2-6.6 present separate rankings of the amount of support provided for the five categories of support.

Table 6.1: Sources of Support (in %)

Sources of Support	Athletic	Academic	Social	Financial	Cultural	N/A
Athletic Trainers	100.0	0.0	0.0	0.0	0.0	0.0
Coaches	96.2	0.0	0.0	0.0	3.8	0.0
Friends in Hawai‘i	0.0	0.0	90.6	0.0	9.4	0.0
Friends in home country	9.4	0.0	90.6	0.0	0.0	0.0
Professor	0.0	100.0	0.0	0.0	0.0	0.0
Family in home country	7.5	9.4	26.4	47.2	9.4	0.0
Student from home country	7.5	0.0	66.0	17.0	0.0	9.4
Teammates	28.3	0.0	62.3	0.0	0.0	9.4
Student from other foreign country	0.0	50.9	15.1	0.0	17.0	17.0
Academic Advisors	0.0	81.1	0.0	0.0	0.0	18.9
American Student	0.0	7.5	66.0	0.0	7.5	18.9
Athlete from another sport	9.4	0.0	71.7	0.0	0.0	18.9
Classmate	0.0	73.6	7.5	0.0	0.0	18.9
Roommate/Suitemate	17.0	0.0	64.2	0.0	0.0	18.9
Tutor/ Mentor	0.0	73.6	0.0	0.0	0.0	26.4
Girlfriend/Boyfriend	9.4	0.0	45.3	0.0	7.5	37.7
Family in Hawai‘i	7.5	7.5	17.0	9.4	11.3	47.2
Fans	45.3	0.0	7.5	0.0	0.0	47.2
NCAA	45.3	0.0	0.0	0.0	0.0	54.7
Media Outlets	0.0	7.5	26.4	0.0	7.5	58.5
Referees or Officials	35.8	0.0	0.0	0.0	0.0	64.2
Critics (people against the team)	17.0	0.0	9.4	0.0	0.0	73.6

As shown in Table 6.2, athletic trainers (100.0%) and coaches (96.2%) were reported as providers of the greatest amount of *athletic* support as expected. Fans and

NCAA tied for the distant third source of *athletic* support with 45.3% of the respondents reporting that they offer the greatest amount of *athletic* support.

Table 6.2: Sources of Athletic Support (in %)

Sources of Support	Athletic
Athletic Trainers	100.0
Coaches	96.2
Fans	45.3
NCAA	45.3
Referees or Officials	35.8
Teammates	28.3
Critics (people against the team)	17.0
Roommate/Suitemate	17.0
Athlete from another sport	9.4
Friends in home country	9.4
Girlfriend/Boyfriend	9.4
Family in Hawai‘i	7.5
Family in home country	7.5
Student from home country	7.5

In terms of the sources of *academic* support (Table 6.3), all (100.0%) of the respondents selected professors as the greatest source, followed by academic advisors (81.1%), classmates (73.6%), and tutors and mentors (73.6%). It is noteworthy that students from other foreign country were ranked as the fifth source (50.9%) of *academic* support, while American student (7.5%) was found to be among the lowest.

Table 6.3: Sources of Academic Support (in %)

Sources of Support	Academic
Professor	100.0
Academic Advisor	81.1
Classmate	73.6
Tutor/Mentor	73.6
Student from other foreign country	50.9
Family in home country	9.4
American student	7.5
Family in Hawai‘i	7.5

As for the sources of *social* support (Table 6.4), friends in Hawai‘i and friends in home country tied at the top (90.6%), followed by athletes from other sports (71.7%).

American students and students from home country tied as the fourth source (66.0%) of *social* support, followed by roommates/suitemates (64.2%), and teammates (62.3%).

Table 6.4: Sources of Social Support (in %)

Sources of Support	Social
Friends in Hawai‘i	90.6
Friends in home country	90.6
Athlete from other sport	71.7
American student	66.0
Student from home country	66.0
Roommate/Suitemate	64.2
Teammate	62.3
Girlfriend/Boyfriend	45.3
Family in home country	26.4
Media outlets	26.4
Family in Hawai‘i	17.0
Student from other foreign country	15.1
Critics	9.4
Classmates	7.5
Fans	7.5

In terms of the sources of *financial* support (Table 6.5), family in the home country (47.2%) was the only notable source, with students from home country came in as a very distant second (17.0%). It is interesting to note that 60.4% (Table 1) of the respondents are on scholarship, but none (0.0%) of them selected coaches as a source of *financial* support.

Table 6.5: Sources of Financial Support (in %)

Sources of Support	Financial
Family in home country	47.2
Student from home country	17.0
Family in Hawai‘i	9.4

As can been seen in Table 6.6, there were no substantial forms of *cultural* support reported. Nevertheless, it is noteworthy that 17.0% of the respondents selected students from other foreign countries as the source that provides the greatest amount of *cultural* support, followed by family in Hawai‘i (11.3%). It appears that at least some foreign

athletes at UHM rely on other foreign students for *cultural* as well as *academic* supports. It is somewhat counterintuitive to find that friends in Hawai'i do not appear to provide any more *cultural* support than does family in home country—they are tied as the third (9.4%).

Table 6.6: Sources of Cultural Support (in %)

Sources of Support	Cultural
Student from other foreign country	17.0
Family in Hawai‘i	11.3
Family in home country	9.4
Friends in Hawai‘i	9.4
Girlfriend/Boyfriend	7.5
Media outlets	7.5
Coaches	3.8

RQ4: What is the relationship between sources of information on culture in Hawai‘i prior to moving and the extent of culture shock symptoms foreign athletes experienced?

When asked if respondents actively spent time learning about the culture, language, and social norms in Hawai‘i once they signed a letter of intent with the university, 21 respondents (or 39.6%) answered yes (Table 7.1).

The top three symptoms of culture shock presented in Table 4.1 (earlier in this chapter)—stress, physical strain, and homesickness—are selected to answer this research question. They are dichotomized by recoding "never," "almost never," and "sometimes" into "*sometimes or less*" and "fairly often" and "very often" into "*often.*"

Table 7.1: Learn About Culture in Hawai‘i (in %)

	Yes	No
Did you spend time actively learning about the culture, language, or social norms in Hawai‘i once signing a letter of intent with the University of Hawai‘i at Mānoa?	39.6	60.4

As can be seen in Table 7.2 about the sources of information about the culture in Hawai'i before moving to UHM, "people who had lived in Hawai‘i" and "social

networking sites" were chosen the most (9.4% each); followed by the Internet, magazines, travel guides about Hawai‘i and the university website (7.5% each).

Table 7.2: Sources of Information about Culture in Hawai‘i (in %)

Sources of information about culture in Hawai‘i:	Yes (Selected)	No (Not Selected)	Not Applicable
Person who had lived in Hawai‘i	9.4	30.2	60.4
Social Networking Site	9.4	30.2	60.6
Internet	7.5	32.1	60.4
Magazine	7.5	32.1	60.4
Travel guide for Hawai‘i	7.5	32.1	60.6
UHM Website	7.5	32.1	60.4
Book	3.8	35.8	60.4
Future Coach	3.8	35.8	60.6
Future Teammate	3.8	35.8	60.4
Newspaper (Online)	3.8	35.8	60.4
Radio	3.8	35.8	60.6
TV Show	3.8	35.8	60.4
Government website	1.9	37.7	60.4
Newspaper (Print)	1.9	37.7	60.6
Other	0.0	39.6	60.4

Table 7.3 shows the associations between whether or not the respondent actively sought to learn about the culture, language, or social norms in Hawai'i is related and the frequencies of experiencing stress, physical strain, and homesickness.

Of the students who learned about culture in Hawai‘i before moving, 76.2% experienced stress often, while only 40.6% of those who did not learn about culture in Hawai'i prior to moving did (Table 7.3). There is a moderate relationship (Phi= -.349) between the frequency of experiencing stress and learning about Hawai‘i prior to moving. Those who learned about culture in Hawai'i prior to moving were more likely to experience stress often than those who did not learn about culture in Hawai'i. There is also a slight relationship (Phi= -.132) between the frequency of experiencing physical strain and learning about Hawai‘i prior to moving. There is almost no relationship (Phi=.074) between the frequency of experiencing homesickness and learning about Hawai‘i prior to moving.

Table 7.3: Relationships of Learning about Culture in Hawai‘i Prior to Moving with Stress, Physical Strain, and Homesickness

			Learn about culture in Hawai‘i prior to moving		Total
			Yes	No	
Stress	Sometimes or less	Count % within Learn	5 23.8%	19 59.4%	24 45.3%
	Often	Count % within Learn	16 76.2%	13 40.6%	29 54.7%
Total		Count % within Learn	21 100.0%	32 100.0%	53 100.0%
Phi=-.349					
Physical Strain	Sometimes or less	Count % within Learn	11 52.4%	21 65.6%	32 60.4%
	Often	Count % within Learn	10 47.6%	11 34.4%	21 39.6%
Total		Count % within Learn	21 100.0%	32 100.0%	53 100.0%
Phi=-.132					
Homesickness	Sometimes or less	Count % within Learn	14 66.7%	19 59.4%	33 62.3%
	Often	Count % within Learn	7 33.3%	13 40.6%	20 37.7%
Total		Count % within Learn	21 100.0%	32 100.0%	53 100.0%
Phi=.074					

People who lived in Hawai‘i and Social Networking Sites (SNS) were the two main sources cited by the respondents who had attempted to learn about the culture in Hawai‘i before moving to UHM. Table 7.4 presents cross-tabulations between the main sources of information about culture in Hawai’i and the frequency of experiencing stress, physical strain, and homesickness. Of those 21 who reported that they spent time actively learning about the culture in Hawai‘i before moving to Hawai‘i, only five used person who had lived in Hawai’i and another five used SNS as the main source of information. Of those five who had used person who had lived in Hawai’i, four experienced stress “often,” three experienced physical strain “often,” and only one experienced homesickness “often.” Of those five who had used SNS, four experienced stress “often,” three experienced physical strain “often” and two experienced homesickness “often.” Given the extremely small cell counts, no further bivariate analysis was performed.

Table 7.4: Frequencies of Experiencing Stress, Physical Strain, and Homesickness by Main Sources of Information to Learn about the Culture in Hawai‘i Prior to Moving— Person who Lived in Hawai‘i and Social Networking Site

		Main sources of information to learn about culture in Hawai‘i prior to moving			
Frequency of experiencing:		Person who had lived in Hawai‘i		Social Networking Site	
		Yes	No	Yes	No
Stress	Sometimes or less	1	4	1	4
	Often	4	12	4	12
Total		5	16	5	16
Physical Strain	Sometimes or less	2	9	2	9
	Often	3	7	3	7
Total		5	16	5	16
Homesick	Sometimes or less	4	10	3	11
	Often	1	6	2	5
Total		5	16	5	16

Note: Due to the small number of athletes (i.e., 16, 10 or 7) who experienced each symptom “often,” and even smaller number of athletes who selected a person who lived in Hawai‘i or social networking sites as the main source of information to learn about Hawai‘i prior to moving (i.e., 5), use of associational measures would not be appropriate.

RQ5: What is the relationship between the frequency of communication with family members and friends and the extent of culture shock symptoms foreign athletes experienced?

In terms of communicating with *family* and *friends* in *home country*, 58.5% of the respondents reported communicating with their *family* at least once a week (Table 8.1), while only 41.5% of the respondents indicated that they communicate with their *friends in home country* (Table 8.2). As for communication with *family* and *friends* in *Hawai'i*, all (100.0%) of the respondents said that they communicate with *friends* at least once a week (Table 8.2), while only 20.8% reported that they communicate with *family* (Table 8.1). Overall, the respondents communicate with their *friends in Hawai'i* most frequently, with over 67.9% of them at least once a day (Tale 8.2).

RQ5ai: What is the relationship between the frequency of communication with family members in their home country and the extent of culture shock symptoms foreign athletes experienced?

As shown in Table 8.3, there is a moderate but negative relationship (Phi= -.382) between the frequency of communicating with family in home country and the frequency of experiencing stress. Those who experience stress often are more likely (58.6%) to communicate with their family in home country less than once a week than those who experience stress sometimes or less (20.8%). In contrast, those who experience stress sometimes of less are more likely (79.2%) to communicate with their family in home country at least once a week than those who experience stress often (41.4%).

There is a weak association (Phi=.213) between the frequency of communicating with family in home country and the frequency of experiencing physical strain. Those who experience stress sometimes or less are more likely (50.0%) to communicate with family in home country less than once a week than those who experience stress often (28.6%). In contrast, those who experience stress often are more likely (71.4%) to communicate with family in home country at least once a week than those who experience stress sometimes or less (50.0%).

There is a very slight relationship between the frequency of communicating with family in home country and the frequency of experiencing homesickness (Phi=.103).

Table 8.1: Frequency of Communication with Family (in %)

How often do you communicate with your family:	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. At least once a day	Combined % of only at least once a week
In your home country?	0.0	9.4	32.1	9.4	32.1	17.0	58.5
Who live in Hawai‘i? (N=24)	20.8	20.8	37.5	0.0	0.0	20.8	20.8

Note: The last column showing “Combined % of only “At least once a week” (merging 4 through 6) is used to present the data in a rank order, and is separated from the original seven categories using a double line.

Table 8.2: Frequency of Communication with Friends (in %)

How often do you communicate with your friends:	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. At least once a day	Combined % of only at least once a week
In your home country?	0.0	7.5	50.9	7.5	17.0	17.0	41.5
Who live in Hawai‘i?	0.0	0.0	0.0	24.5	7.5	67.9	100.0

Note: The last column showing “Combined % of only “At least once a week” (merging 4 through 6) is used to present the data in a rank order, and is separated from the original seven categories using a double line.

Table 8.3: Relationships between Communicating with Family in Home Country with Stress, Physical Strain & Homesickness

			Stress		Total
			Sometimes or less	Often	
Communicate with family in home country	Less than once a week	Count %within Stress	5 20.8%	17 58.6%	22 41.5%
	At least once a week	Count %within Stress	19 79.2%	12 41.4%	31 58.5%
Total		Count %within Stress	24 100.0%	29 100.0%	53 100.0%
Phi=-.382					
			Physical Strain		
Communicate with family in home country	Less than once a week	Count %within Strain	16 50.0%	6 28.6%	22 41.5%
	At least once a week	Count %within Strain	16 50.0%	15 71.4%	31 58.5%
Total		Count %within Strain	32 100.0%	21 100.0%	53 100.0%
Phi=.213					
			Homesickness		
Communicate with family in home country	Less than once a week	Count %within Homesick	15 45.5%	7 35.0%	22 41.5%
	At least once a week	Count %within Homesick	18 54.5%	13 65.0%	31 58.5%
Total		Count %within Homesick	33 100.0%	20 100.0%	53 100.0%
Phi=.103					

RQ5aii: What is the relationship between the frequency of communication with family members in Hawai'i and the extent of culture shock symptoms foreign athletes experienced?

There is a slight negative relationship (Phi=-.185) between the frequency of communication with family in Hawai'i and the frequency of experiencing physical strain (Table 8.4). Those who experience physical strain often are slightly more likely (88.9%) to communicate with family in Hawai'i less than once a week than those who experience physical strain sometimes or less (73.3%). In contrast, those who experience stress sometimes of less are slightly more likely (26.7%) to communicate with family in Hawai'i at least once a week than those who experience stress often (11.1%). Frequency of communicating with family in Hawai'i shows little association with stress and homesickness.

RQ5bi: What is the relationship between the frequency of communication with friends in their home country and the extent of culture shock symptoms foreign athletes experienced?

There is a slight negative association (Phi=-.182) between the frequency of communication with friends in home country and the frequency of experiencing homesickness (Table 8.5). Those who experience homesickness often are slightly more likely (70.0%) to communicate with friends in home country less than once a week than those who experience homesickness sometimes or less (51.5%). In contrast, those who experience homesickness sometimes of less are slightly more likely (48.5%) to communicate with friends in home country at least once a week than those who experience homesickness often (30.0%).

There is a weak negative relationship (Phi=-.179) between the frequency of communicating with friends in home country and the frequency of experiencing physical strain. Those who experience stress sometimes or less are slightly more likely (65.6%) to communicate with friends in home country less than once a week than those who experience stress often (47.6%). In contrast, those who experience stress often are slightly more likely (52.4%) to communicate with friends in home country at least once a

week than those who experience stress sometimes or less (34.4%). There appears to be a negligible association (Phi=.074) between the frequency of communicating with friends in home country and the frequency of experiencing stress.

Table 8.4: Relationships between Communicating with Family in Hawai‘i with Stress, Physical Strain, and Homesickness

			Stress		Total
			Sometimes or less	Often	
Communicate with family in Hawai‘i	Less than once a week	Count %within Stress	7 77.8%	12 80.0%	19 79.2%
	At least once a week	Count %within Stress	2 22.2%	3 20.0%	5 20.8%
Total		Count %within Stress	9 100.0%	15 100.0%	24 100.0%
Phi=-.026					
			Physical Strain		
Communicate with family in Hawai‘i	Less than once a week	Count %within Strain	11 73.3%	8 88.9%	19 79.2%
	At least once a week	Count %within Strain	4 26.7%	1 11.1%	5 20.8%
Total		Count %within Strain	15 100.0%	9 100.0%	24 100.0%
Phi=-.185					
			Homesickness		
Communicate with family in Hawai‘i	Less than once a week	Count %within Homesick	12 80.0%	7 77.8%	19 79.2%
	At least once a week	Count %within Homesick	3 20.0%	2 22.2%	5 20.8%
Total		Count %within Homesick	15 100.0%	9 100.0%	24 100.0%
Phi=.026					

Table 8.5: Relationships between Communicating with Friends in Home Country with Stress, Physical Strain, and Homesickness

			Stress		Total
			Sometimes or less	Often	
Communicate with friends in home country	Less than once a week	Count %within Stress	15 62.5%	16 55.2%	31 58.5%
	At least once a week	Count %within Stress	9 37.5%	13 44.8%	22 41.5%
Total		Count %within Stress	24 100.0%	29 100.0%	53 100.0%
Phi=.074					
			Physical Strain		
Communicate with friends in home country	Less than once a week	Count %within Strain	21 65.6%	10 47.6%	31 58.5%
	At least once a week	Count %within Strain	11 34.4%	11 52.4%	22 41.5%
Total		Count %within Strain	32 100.0%	21 100.0%	53 100.0%
Phi=.179					
			Homesickness		
Communicate with friends in home country	Less than once a week	Count %within Homesick	17 51.5%	14 70.0%	31 58.5%
	At least once a week	Count %within Homesick	16 48.5%	6 30.0%	22 41.5%
Total		Count %within Homesick	33 100.0%	20 100.0%	53 100.0%
Phi=-.182					

RQ5bii: What is the relationship between the frequency of communication with friends in Hawai‘i and the extent of culture shock symptoms foreign athletes experienced?

All (100.0%) of the respondents communicate with their friends in Hawai‘i at least once a week, with 67.9% communicating daily (Tables 8.2 and 8.6). Twenty-nine respondents (54.7%) reported experiencing stress often (Table 4.1). There is a weak negative association (Phi=-.219) between the frequency of communicating with friends in Hawai‘i and the frequency of experiencing stress (Table 8.6). Those who experience stress often are more likely (41.4%) to communicate with friends in Hawai’i less than once a day than those who experience stress sometimes or less (20.8%). In contrast, those who experience stress sometimes or less are more likely (79.2%) to communicate with friends in Hawai’i daily than those who experience stress often (58.6%). There is a very slight negative relationship between the frequency of communicating with friends in Hawai‘i and the frequency of experiencing homesickness (Phi=-.132).

RQ6: What is the relationship between main sources of news about home country and the extent of culture shock symptoms foreign athletes experienced?

As shown in Table 9.1, there are three mains ways that foreign athletes obtain news about their home country: 24.5% of the respondents reported using Facebook as the source of news, followed by online newspapers (20.8%) and the Internet (20.8%). There is a moderate negative relationship (Phi= -.362) between the frequency of experiencing stress and using Facebook as a main source of news (Table 9.2). Those who experience stress less frequently are more likely (41.7%) to use Facebook as a main source of news about home country than those who experience stress often (10.3%). Using Facebook as a main source of news about home country shows little to almost no associations with the other two symptoms of culture shock: homesickness (Phi=.099) and physical strain (Phi=-.014).

Table 8.6: Relationships between Communicating with Friends in Hawai‘i with Stress, Physical Strain, and Homesickness

			Stress		Total
			Sometimes or less	Often	
Communicate with friends in Hawai‘i	1-6 times a week	Count	5	12	17
		%within Stress	20.8%	41.4%	32.1%
	Everyday	Count	19	17	36
		%within Stress	79.2%	58.6%	67.9%
Total		Count	24	29	53
		%within Stress	100.0%	100.0%	100.0%
Phi=-.219					
			Physical Strain		
Communicate with friends in Hawai‘i	1-6 times a week	Count	11	6	17
		%within Strain	34.4%	28.6%	32.1%
	Everyday	Count	21	15	36
		%within Strain	65.6%	71.4%	67.9%
Total		Count	32	21	53
		%within Strain	100.0%	100.0%	100.0%
Phi=.061					
			Homesickness		
Communicate with friends in Hawai‘i	1-6 times a week	Count	9	8	17
		%within Homesick	27.3%	40.0%	32.1%
	Everyday	Count	24	12	36
		%within Homesick	72.7%	60.0%	67.9%
Total		Count	33	20	53
		%within Homesick	100.0%	100.0%	100.0%
Phi=-.132					

Table 9.1: Source of News (in %)

Source of News	Yes (Selected)	No (Not Selected)
Facebook	24.5	75.5
Newspaper (online)	20.8	79.2
Internet	20.8	79.2
TV Show (online)	11.3	88.7
Radio	5.7	94.3
Twitter	5.7	94.3
Government Website	3.8	96.2
Magazine	3.8	96.2
TV Show (on television)	3.8	96.2
Newspaper (print)	0.0	100.0
Other	0.0	100.0
Video Chat Software	0.0	100.0

As can be seen in Table 9.3, there is very slight negative relationship (Phi=-.110) between use of online newspapers as a main source of news about home country and the frequency of experiencing homesickness. Those who experience stress less frequently are very slightly more (24.2%) likely to obtain news about home country from online newspapers than those who experience stress often (15.0%).

Table 9.4 shows that using the Internet as a source of news is somewhat related to the frequency of experiencing homesickness (Phi=-.206). Those who experience homesickness less frequently are slightly more (27.3%) likely to use the Internet as a main source of news about home country that those who experience homesickness often (10.0%).

Table 9.2: Relationships between using Facebook as a Main Source of News with Stress, Physical Strain, and Homesickness

			Stress		Total
			Sometimes or less	Often	
Facebook as a main source of news	No (Not Selected)	Count %within Stress	14 58.3%	26 89.7%	40 75.5%
	Yes (Selected)	Count %within Stress	10 41.7%	3 10.3%	13 25.5%
Total		Count %within Stress	24 100.0%	29 100.0%	53 100.0%
Phi=-.362					
			Physical Strain		Total
Facebook as a main source of news	No (Not Selected)	Count %within Strain	24 75.0%	16 76.2%	40 75.5%
	Yes (Selected)	Count %within Strain	8 25.0%	5 23.8%	13 24.5%
Total		Count %within Strain	32 100.0%	21 100.0%	53 100.0%
Phi=-.014					
			Homesickness		Total
Facebook as a main source of news	No (Not Selected)	Count %within Homesick	26 78.8%	14 70.0%	40 75.5%
	Yes (Selected)	Count %within Homesick	7 21.2%	6 30.0%	13 24.5%
Total		Count %within Homesick	33 100.0%	20 100.0%	53 100.0%
Phi=.099					

Table 9.3: Relationships between using Online Newspapers as a Main Source of News with Stress, Physical Strain, and Homesickness

			Stress		Total
			Sometimes or less	Often	
Online Newspapers as a main source of news	No (Not Selected)	Count %within Stress	19 79.2%	23 79.3%	42 79.2%
	Yes (Selected)	Count %within Stress	5 20.8%	6 20.7%	11 20.8%
Total		Count %within Stress	24 100.0%	29 100.0%	53 100.0%
Phi=-.002					
			Physical Strain		Total
Online Newspapers as a main source of news	No (Not Selected)	Count %within Strain	26 81.2%	16 76.2%	42 79.2%
	Yes (Selected)	Count %within Strain	6 18.8%	5 23.8%	11 20.8%
Total		Count %within Strain	32 100.0%	21 100.0%	53 100.0%
Phi=.061					
			Homesickness		Total
Online Newspapers as a main source of news	No (Not Selected)	Count %within Homesick	25 75.8%	17 85.0%	42 79.2%
	Yes (Selected)	Count %within Homesick	8 24.2%	3 15.0%	11 20.8%
Total		Count %within Homesick	33 100.0%	20 100.0%	53 100.0%
Phi=-.110					

Table 9.4: Relationships between using the Internet as a Main Source of News with Stress, Physical Strain, and Homesickness

			Stress		Total
			Sometimes or less	Often	
Internet as a main source of news	No (Not Selected)	Count %within Stress	19 79.2%	23 79.3%	42 79.2%
	Yes (Selected)	Count %within Stress	5 20.8%	6 20.7%	11 20.8%
Total		Count %within Stress	24 100.0%	29 100.0%	53 100.0%
Phi=-.002					
			Physical Strain		
Internet as a main source of news	No (Not Selected)	Count %within Strain	25 78.1%	17 81.0%	42 79.2%
	Yes (Selected)	Count %within Strain	7 21.9%	4 19.0%	11 20.8%
Total		Count %within Strain	32 100.0%	21 100.0%	53 100.0%
Phi=-.034					
			Homesickness		
Internet as a main source of news	No (Not Selected)	Count %within Homesick	24 72.7%	18 90.0%	42 79.2%
	Yes (Selected)	Count %within Homesick	9 27.3%	2 10.0%	11 20.8%
Total		Count %within Homesick	33 100.0%	20 100.0%	53 100.0%
Phi=-.206					

RQ7: What are the relationships between personality traits and the extent of culture shock symptoms foreign athletes experienced?

Table 10.1 shows the five items that are more representative of the personality traits of the respondents, while Table 10.2 presents the five items that are less representative. The two most representative items were measures of openness, with 0.0% of the respondents responding "Not True" and highest combined % of "True or Very True"—"*I spend time reflecting on things*" (81.2%) and "*I am quick to*

understand things" (73.6%). All the respondents indicated that they were at least somewhat open. Being interested in people (agreeable), worrying about things (neurotic), and being orderly (conscientious) were also included in the top five most representative personality-trait items. Buchanan et al. (2005) state that people who show signs of being neurotic or conscientious may be more prone to experiencing culture shock.

As can be seen in Table 10.2, the conscientiousness item—"I follow a schedule"—was the lowest or least representative trait of the respondents, with 18.9% of the respondents indicating "Not True." Overall, it appears that the majority of the foreign athletes at UHM are not neurotic, nor extraverted. The majority of them indicated that they do not get stressed out easily, are not comfortable around people and do not go out of their way to speak to different kinds of people at parties. Buchanan et al. (2005) suggest that if a high level of culture shock was exhibited, their introverted personalities could be to blame.

RQ7a: What is the relationship between openness and the extent of culture shock symptoms foreign athletes experienced?

"I am quick to understand things" and "I spend time reflecting on things" were the two items used to measure the concept of openness. As shown in Table 10.3, being "quick to understand things" shows weak relationships with the frequency of experiencing stress (Phi=.229) and the frequency of experiencing homesickness (Phi=.202), and a very weak negative association with the frequency of experiencing physical strain (Phi=-.127). Somewhat counter intuitively, those who reported being "quick to understand things" seemed to experience stress more "often" (61.5%) than those who characterized themselves as not being quick to understand things (35.7%).

As can be seen in Table 10.4, spending "time reflecting on things" shows weak negative relationships with the frequency of experiencing homesickness (Phi=-.222) and the frequency of experiencing physical strain (Phi=-.201), and a very weak negative association with the frequency of experiencing stress (Phi=-.148).

These somewhat mixed associations may suggest that the two items used to measure the concept of openness may be tapping different dimensions of extraversion.

RQ7b: What is the relationship between extraversion and the extent of culture shock symptoms foreign athletes experienced?

The two items measuring extraversion—"I talk to different people at parties" and "I am comfortable around people"—show mixed associations with the extent of culture shock symptoms. As can be seen in Tables 10.5 and 10.6, although "talking to different people at parties" is moderately related (Phi=.272) with the frequency of experiencing stress, "being comfortable around people" shows a slight negative association with the frequency of experiencing stress (Phi=-.169) and a very weak negative relationship (Phi=-.100) with the frequency of experiencing physical strain. These mixed associations may suggest that the two items used to measure the concept of extraversion may be tapping different dimensions of extraversion.

RQ7c: What is the relationship between agreeableness and the extent of culture shock symptoms foreign athletes experienced?

Both measures of agreeableness—"I am interested in people" and "I take time to learn about others"—also display mixed relationships with some symptoms of culture shock. Table 10.7 shows that "being interested in people" is slightly related (Phi=.143) to homesickness. As can be seen in Table 10.8, however, there is a weak negative relationship (Phi=-.147) between "taking time to learn about others" and the frequency of experiencing physical strain. As is the case with the extraversion measures, these two items used to measure agreeableness may also tap different dimensions of the concept.

RQ7d: What is the relationship between conscientiousness and the extent of culture shock symptoms foreign athletes experienced?

Conscientious personality was measured by "I follow a schedule" and "I like order." As can be seen in Table 10.9, there are no notable associations. There is, however, one very slight negative relationship (Phi= -.117) between "liking order" and the frequency of experiencing stress. Those who like order are very slightly more

(50.0%) likely to experience stress less frequently than those who do not like order (38.1%).

RQ7e: What is the relationship between neuroticism and the extent of culture shock symptoms foreign athletes experienced?

Neuroticism is measured by " I worry about things" and "I get stressed out easily." As shown in Table 10.12, those who worry about things are more (66.7%) likely to experience stress often than those who do not worry about things (35.5), showing that there is a moderate relationship (Phi=.308) between "worrying about things" and the frequency of experiencing stress. Nevertheless, it shows a slight negative relationship (Phi= -.165) with physical strain.

There is a weak association (Phi= .161) between "being stressed out easily" and the frequency of experiencing stress, as can be seen in Table 10.11. Although this relationship is very weak, it suggests a tautology because the two measures seem to measure the same phenomenon—"being stressed out easily" and "being stressed frequently."

Table 10.1: Five Personality Traits that occur Most Frequently (in %)

	Open – I spend time reflecting on things	Open – I am quick to understand things	Agreeable – I am interested in people	Neurotic – I worry about things	Conscientious- I like order
Not True	0.0	0.0	7.5	7.5	7.5
Somewhat True	18.9	26.4	20.8	30.2	32.1
True	34.0	17.0	49.1	54.7	37.7
Very True	47.2	56.6	22.6	7.5	22.6
Total	100.0	100.0	100.0	100.0	100.0
Combined % of "True" and "Very True"	81.2	73.6	71.7	62.2	60.3

Table 10.2: Five Personality Traits that occur Least Frequently (in %)

	Conscientious - I follow a schedule	Extravert - I am comfortable around people	Agreeable - I take time to learn about others	Extravert - I talk to different people at parties	Neurotic- I get stressed out easily
Not True	18.9	0.0	7.5	7.5	7.5
Somewhat True	28.3	50.9	45.3	52.8	54.7
True	52.8	28.3	47.2	32.1	30.2
Very True	0.0	20.8	0.0	7.5	7.5
Total	100.0	100.0	100.0	100.0	100.0
Combined % of "True" and "Very True"	52.8	49.1	47.2	39.6	37.7

Table 10.3: Relationships of the Personality Trait of Openness (Being Quick to Understand Things) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Open – Quick to understand things		Total
		Not True	True	
Stress-Sometimes or less	Count %within Understand	9 64.3%	15 38.5%	24 45.3%
Stress-Often	Count %within Understand	5 35.7%	24 61.5%	29 54.7%
Total	Count %within Understand	14 100.0%	39 100.0%	53 100.0%
Phi=.229				
Physical Strain-Sometimes or less	Count %within Understand	7 50.0%	25 64.1%	32 60.4%
Physical Strain-Often	Count %within Understand	7 50.0%	14 35.9%	21 39.6%
Total	Count %within Understand	14 100.0%	39 100.0%	53 100.0%
Phi=-.127				
Homesick-Sometimes or less	Count %within Understand	11 78.6%	22 56.4%	33 62.3%
Homesick-Often	Count %within Understand	3 21.4%	17 43.6%	20 37.7%
Total	Count %within Understand	14 100.0%	39 100.0%	53 100.0%
Phi=.202				

Table 10.4: Relationships of the Personality Trait of Openness (Spend Time Reflecting on Things) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Open – Spend time reflecting on things		Total
		Not True	True	
Stress-Sometimes or less	Count %within Reflecting	3 30.0%	21 48.8%	24 45.3%
Stress-Often	Count %within Reflecting	7 70.0%	22 51.2%	29 54.7%
Total	Count %within Reflecting	10 100.0%	43 100.0%	53 100.0%
Phi=-.148				
Physical Strain-Sometimes or less	Count %within Reflecting	4 40.0%	28 65.1%	32 60.4%
Physical Strain-Often	Count %within Reflecting	6 60.0%	15 34.9%	21 39.6%
Total	Count %within Reflecting	10 100.0%	43 100.0%	53 100.0%
Phi=-.201				
Homesick-Sometimes or less	Count %within Reflecting	4 40.0%	29 67.4%	33 62.3%
Homesick-Often	Count %within Reflecting	6 60.0%	14 32.6%	20 37.7%
Total	Count %within Reflecting	10 100.0%	43 100.0%	53 100.0%
Phi=-.222				

Table 10.5: Relationships of the Personality Trait of Extraversion (Talk to Different People at Parties) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Extraverted- Talk to different people at parties		Total
		Not True	True	
Stress- Sometimes or less	Count %within Parties	18 56.2%	6 28.6%	24 45.3%
Stress- Often	Count %within Parties	14 43.8%	15 71.4%	29 54.7%
Total	Count %within Parties	32 100.0%	21 100.0%	53 100.0%
Phi=.272				
Physical Strain- Sometimes or less	Count %within Parties	20 62.5%	12 57.1%	32 60.4%
Physical Strain- Often	Count %within Parties	12 37.5%	9 42.9%	21 39.6%
Total	Count %within Parties	32 100.0%	21 100.0%	53 100.0%
Phi=.054				
Homesick- Sometimes or less	Count %within Parties	21 65.6%	12 57.1%	33 62.3%
Homesick- Often	Count %within Parties	11 34.4%	9 42.9%	20 37.7%
Total	Count %within Parties	32 100.0%	21 100.0%	53 100.0%
Phi=.086				

Table 10.6: Relationships of the Personality Trait of Extraversion (Being Comfortable Around People) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Extraverted-Comfortable around people		Total
		Not True	True	
Stress-Sometimes or less	Count %within Comfortable	10 37.0%	14 53.8%	24 45.3%
Stress-Often	Count %within Comfortable	17 63.0%	12 46.2%	29 54.7%
Total	Count %within Comfortable	27 100.0%	26 100.0%	53 100.0%
Phi=-.169				
Physical Strain-Sometimes or less	Count %within Comfortable	15 55.6%	17 65.4%	32 60.4%
Physical Strain-Often	Count %within Comfortable	12 44.4%	9 34.6%	21 39.6%
Total	Count %within Comfortable	27 100.0%	26 100.0%	53 100.0%
Phi=-.100				
Homesick-Sometimes or less	Count %within Comfortable	17 63.0%	16 61.5%	33 62.3%
Homesick-Often	Count %within Comfortable	10 37.0%	10 38.5%	20 37.7%
Total	Count %within Comfortable	27 100.0%	26 100.0%	53 100.0%
Phi=.015				

Table 10.7: Relationships of the Personality Trait of Agreeableness (Being Interested in People) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Agreeable-Interested in people		Total
		Not True	True	
Stress-Sometimes or less	Count	7	17	24
	%within Interested	46.7%	44.7%	45.3%
Stress-Often	Count	8	21	29
	%within Interested	53.3%	55.3%	54.7%
Total	Count	15	38	53
	%within Interested	100.0%	100.0%	100.0%
Phi=.017				
Physical Strain-Sometimes or less	Count	8	24	32
	%within Interested	53.3%	63.2%	60.4%
Physical Strain-Often	Count	7	14	21
	%within Interested	46.7%	36.8%	39.6%
Total	Count	15	38	53
	%within Interested	100.0%	100.0%	100.0%
Phi=-.090				
Homesick-Sometimes or less	Count	11	22	33
	%within Interested	73.3%	57.9%	62.3%
Homesick-Often	Count	4	16	20
	%within Interested	26.7%	42.1%	37.7%
Total	Count	15	38	53
	%within Interested	100.0%	100.0%	100.0%
Phi=.143				

Table 10.8: Relationships of the Personality Trait of Agreeableness (Take Time to Learn About Others) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Agreeable-Learn about others		Total
		Not True	True	
Stress-Sometimes or less	Count %within Learn	13 46.4%	11 44.0%	24 45.3%
Stress-Often	Count %within Learn	15 53.6%	14 56.0%	29 54.7%
Total	Count %within Learn	28 100.0%	25 100.0%	53 100.0%
Phi=.024				
Physical Strain-Sometimes or less	Count %within Learn	15 53.6%	17 68.0%	32 60.4%
Physical Strain-Often	Count %within Learn	13 46.4%	8 32.0%	21 39.6%
Total	Count %within Learn	28 100.0%	25 100.0%	53 100.0%
Phi=-.147				
Homesick-Sometimes or less	Count %within Learn	17 60.7%	16 64.0%	33 62.3%
Homesick-Often	Count %within Learn	11 39.3%	9 36.0%	20 37.7%
Total	Count %within Learn	28 100.0%	25 100.0%	53 100.0%
Phi=-.034				

Table 10.9: Relationships of the Personality Trait of Conscientiousness (Follow a Schedule) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Conscientious-Follow a schedule		Total
		Not True	True	
Stress-Sometimes or less	Count %within Schedule	12 48.0%	12 42.9%	24 45.3%
Stress-Often	Count %within Schedule	13 52.0%	16 57.1%	29 54.7%
Total	Count %within Schedule	25 100.0%	28 100.0%	53 100.0%
Phi=.052				
Physical Strain-Sometimes or less	Count %within Schedule	26 64.0%	16 57.1%	32 60.4%
Physical Strain-Often	Count %within Schedule	9 36.0%	12 42.9%	21 39.6%
Total	Count %within Schedule	25 100.0%	28 100.0%	53 100.0%
Phi=.070				
Homesick-Sometimes or less	Count %within Schedule	15 60.0%	18 64.3%	33 62.3%
Homesick-Often	Count %within Schedule	10 40.0%	10 35.7%	20 37.7%
Total	Count %within Schedule	25 100.0%	28 100.0%	53 100.0%
Phi=-.044				

Table 10.10: Relationships of the Personality Trait of Conscientiousness (Preferring Order) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Conscientious-Prefers order		Total
		Not True	True	
Stress-Sometimes or less	Count %within Order	8 38.1%	16 50.0%	24 45.3%
Stress-Often	Count %within Order	13 61.9%	16 50.0%	29 54.7%
Total	Count %within Order	21 100.0%	32 100.0%	53 100.0%
Phi=-.117				
Physical Strain-Sometimes or less	Count %within Order	12 57.1%	20 62.5%	32 60.4%
Physical Strain-Often	Count %within Order	9 42.9%	12 37.5%	21 39.6%
Total	Count %within Order	21 100.0%	32 100.0%	53 100.0%
Phi=-.054				
Homesick-Sometimes or less	Count %within Order	14 66.7%	19 59.4%	33 62.3%
Homesick-Often	Count %within Order	7 33.3%	13 40.6%	20 37.7%
Total	Count %within Order	21 100.0%	32 100.0%	53 100.0%
Phi=.074				

Table 10.11: Relationships of the Personality Trait of Neuroticism (Stressed Out Easily) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Neurotic-Stressed out easily		Total
		Not True	True	
Stress-Sometimes or less	Count %within Stressed	17 51.5%	7 35.0%	24 45.3%
Stress-Often	Count %within Stressed	16 48.5%	13 65.0%	29 54.7%
Total	Count %within Stressed	33 100.0%	20 100.0%	53 100.0%
Phi=.161				
Physical Strain-Sometimes or less	Count %within Stressed	21 63.6%	11 55.0%	32 60.4%
Physical Strain-Often	Count %within Stressed	12 36.4%	9 45.0%	21 39.6%
Total	Count %within Stressed	33 100.0%	20 100.0%	53 100.0%
Phi=.086				
Homesick-Sometimes or less	Count %within Stressed	21 63.6%	12 60.0%	33 62.3%
Homesick-Often	Count %within Stressed	12 36.4%	8 40.0%	20 37.7%
Total	Count %within Stressed	33 100.0%	20 100.0%	53 100.0%
Phi=.036				

Table 10.12: Relationship of the Personality Trait of Neuroticism (Worry About Things) with Stress, Physical Strain, and Homesickness

Frequency of experiencing:		Neurotic-Worry about things		Total
		Not True	True	
Stress-Sometimes or less	Count	13	11	24
	%within Worry	65.0%	33.3%	45.3%
Stress-Often	Count	7	22	29
	%within Worry	35.0%	66.7%	54.7%
Total	Count	20	33	53
	%within Worry	100.0%	100.0%	100.0%
Phi=.308				
Physical Strain-Sometimes or less	Count	10	22	32
	%within Worry	50.0%	66.7%	60.4%
Physical Strain-Often	Count	10	11	21
	%within Worry	50.0%	33.3%	39.6%
Total	Count	20	33	53
	%within Worry	100.0%	100.0%	100.0%
Phi=-.165				
Homesick-Sometimes or less	Count	12	21	33
	%within Worry	60.0%	63.6%	62.3%
Homesick-Often	Count	8	12	20
	%within Worry	40.0%	36.4%	37.7%
Total	Count	20	33	53
	%within Worry	100.0%	100.0%	100.0%
Phi=-.036				

RQ8: What are the self-reported changes in performances of a foreign athlete the season after entering the program at University of Hawai'i at Mānoa (UHM) compared to the performances during the last season in their home country?

The respondents were asked to provide self-assessment on any changes in their athletic and academic performances during their first semester at the University of Hawai'i at Mānoa. For both athletic and academic performances, 19 respondents (35.8%) reported that their level of performances were unchanged. This left 34 athletes who perceived that their performances in their first semester at the University of Hawai'i at Mānoa (UHM) chanced. Athletically and academically, altered rules and regulations encountered at UHM were perceived to be the main reasons for the change.

RQ8a: What is the self-reported reported change in athletic statistics of a foreign athlete the season after entering the program at UHM compared to the athletic statistics during the last season in their home country?

As shown in Table 11.1, only 34 respondents reported that their athletic statistics changed the first season they played for the University of Hawai'i at Mānoa (UHM): more (20 students or 58.8%) reported that their athletic statistics increased rather than decreased (14 students or 41.2%) after moving to Hawai'i. Among those 14 respondents who reported that their athletic statistics decreased, six felt that it was due to "Homesickness and Culture Shock," five cited "Coaching Staff and Teammates," and three attributed it to new "Climate and Rules/Regulations." There was almost no relationship (Lambda=.045) between the change in athletic statistics after moving to Hawai'i and the perceived reason for the change in athletic statistics. It should be noted, however, it would not be appropriate to assign too much meaning to the associational measurements due to the small number of valid cases.

RQ8b: What is the self-reported changes in GPA of a foreign athlete the semester after entering the program at UHM compared to the GPA during the last semester in their home country?

Of the 34 respondents whose GPA changed in their first semester at the University of Hawai'i at Mānoa, 30 students reported an increase in GPA and only four (11.8%) reported a decrease in GPA (Table 11.2). Of those four students who reported a decrease in GPA, three cited "Climate and Rules/Regulations" and one reported "Coaching Staff and Teammates." There is no relationship (Lambda=.000) between a change in GPA after moving to Hawai'i and the perceived reason for the change. Again, it is inappropriate to give too much meaning to the use of associational measures because of the sample number of valid cases.

Many athletes, especially foreign athletes, are required to meet with academic advisors, tutors and mentors for at least six hours a week (Nagatani Academic Center, 2011). Some foreign athletes may benefit from such academic support and see an increase in GPA.

Table 11.1: Relationship between the Change in Athletic Statistics after Moving to Hawai'i and the Reason for the Change

			Perceived reason for the change			Total
			Coaching Staff & Teammates	Climate & Rules/ Regulations	Homesickness & Culture Shock	
Athletic Statistics after moving to Hawai'i	Lowered	Count %within Change	5 41.7%	3 30.0%	6 50.0%	14 41.2%
	Increased	Count %within Change	7 58.3%	7 70.0%	6 50.0%	20 58.8%
Total		Count %within Change	12 100.0%	10 100.0%	12 100.0%	34 100.0%
Lambda=.045						

*Note: Due to the small number of the respondents (i.e., 34) who reported their athletic statistics changed after moving to Hawai'i, assigning too much meaning to the associational measure would not be appropriate.

Table 11.2: Relationship between the Change in GPA after Moving to Hawai‘i and the Reason for the Change

			Perceived reason for the change			Total
			Coaching Staff & Teammates	Climate & Rules/ Regulations	Homesickness & Culture Shock	
GPA after moving to Hawai‘i	Lowered	Count %within Change	1 25.0%	3 13.0%	0 0.0%	4 11.8%
	Increased	Count %within Change	3 75.0%	20 87.0%	7 100.0%	30 88.2%
Total		Count %within Change	4 100.0%	23 100.0%	7 100.0%	34 100.0%
Lambda=.000						

*Note: Due to the small number of the respondents (i.e., 34) who reported their GPA changed after moving to Hawai’i, assigning too much meaning to the associational measure would not be appropriate.

Chapter 6
Conclusion

The purpose of this study was to examine foreign athletes' experiences of culture shock at University of Hawai'i at Mānoa. This chapter examines the summary of major findings and conclusions, contributions and limitations of this study, and suggestions for future research.

Summary of Major Findings and Conclusion

The respondent characteristics show that when communicating with family members and friends video chat software is the most commonly used channel of communication; 69.8% of the respondents reported using video chat software when talking with family members (Table 2.2) and 69.6% of the respondents chose video chat software when talking with friends (Table 3) as one of their top three choices of channels of communication. Jones (2002) found that hearing the physical voice of a loved one decreases stress levels. Video chat software being chosen as the most frequently used channel in the present study is consistent with Jones' finding that 69% of students prefer video chat software conversations to text-mediated conversations.

Foreign athletes in this study reported both physical and psychological symptoms: stress (54.7%), physical strain (39.6%), and homesickness (37.8%). This is consistent with Varner and Beamer's (2005) findings that many times respondents encounter physical (i.e., illness or physical strain) and psychological (i.e., frustration, homesickness, or depression) symptoms of culture shock. Our findings were also somewhat consistent with what Campbell and Sonn (2009) found: that the three most common symptoms that athletes experience are homesickness, racism, and lack of social support. In the present study racism and lack of social support were not among the top three symptoms of culture shock reported.

In terms of the main sources of stress, athletic performance was most frequently reported (54.7%), followed by interactions with teammates (43.4%) and coaches (33.9%). As the main sources of social support, coaches were considered as providers of athletic (96.2%) and cultural (3.8%) support while teammates were also viewed as social (62.3%) and athletic (28.3%) supporters.

Facebook (24.5%) was the top choice for the main source of news about the respondents home country followed by online newspapers (20.8%) and Internet (20.8%). This is consistent with the findings reported by the Pew Research Center's Project for Excellence in Journalism Study (Rosenstiel et al., 2011) for the age group 18-39; the Internet was the top source of news.

Many studies have examined how quickly social-media is changing the way people communicate. Nevertheless, for the foreign athletes in this study, video chat software was their top choice of communication channel, with 45.3% of the respondents selecting it as their first choice of medium to communication with their family, and 32.1% electing it as their first choice for communicating with their friends. The ability to seek and see family members and friends through the use of video chat software made it the number one channel of communication with family and friends, not through social media. Respondents in this study may be more interested in one-on-one, dyadic, and private forms of communication instead of the more public forms of communication seen through social media.

Only 39.6% of the respondents reported that they spent time actively learning about the culture in Hawai'i after signing a letter of intent with the University of Hawai'i at Mānoa. As the main source used to learn about the culture in Hawai'i before moving, "people who had lived in Hawai‘i " and "social networking sites" were chosen by 9.4% of the respondents each.

Openness was the most common personality trait found among the respondents. "Spending time reflecting on things" (81.2%) was reported the most, followed by "being quick to understand things" (73.6%). A majority of the respondents reported that they were not very extraverted. Only 49.1% of respondents reported "true" or "very true" that they were comfortable around people, and only 39.6% responded "true" or "very true" that they talk to different people at parties.

Contributions of the Study

This was the first study of culture shock experienced by foreign athletes at the University of Hawai'i at Mānoa. Previous studies examined culture shock among foreign students or foreigner in general, but this study focused specifically on foreign *athletes.*

This study examines the symptoms of culture shock such as stress, physical strain, and homesickness individually, while other studies focused on the elements of culture shock collectively. This study first examines what symptoms are most commonly experienced and how those experiences are associated with other parts of the respondent's life such as communication with family members, newsgathering, and athletic performance.

Although many studies have reported on the rapid diffusion of social-media as a communication medium, this study shows that foreign athletes at UHM are an exception to their findings. Communication via social media, with the exception of Facebook that is often used for newsgathering, does not rank highly on their channels of communication with family members or friends. Instead, it is video chat software.

Limitations of the Study

The main limitation of the study has to do with the size of the sample. Even though all 53 athletes enrolled at UHM at the time of the study participated in the survey, the small size presented problems with some bivariate analyses. Due to the small cell counts (many under five), use of associational measures was deemed inappropriate for some tables (i.e., Table 7.4, Table 11.1, and Table 11.2).

There are limitations that relate to the measurements. The questionnaire was composed of self-reported questions. When using such questions, it is important to understand that the data could be compromised if the respondents did not answer truthfully. An example of this could be Question 20 "How frequently have the following become a major stress factor in your life?" where respondents could potentially have underreported alcohol, parties, and drugs as sources of stress.

Another measurement limitation of this study includes how personality traits were measured which presented problems in coding, transforming and analysis. The response categories were not balanced. The options given to respondents were "Not True," "Somewhat True," "True," and "Very True." Only one option was given as untrue, while three were given for true. When these variables were transformed "Somewhat True" was included with "Not True." This question could have yielded better results if it had been

written in a more balance manner such as using a Likert-type scale with several values ranging from “Strongly Disagree” to “Strongly Agree.”

Suggestions for Future Research

The findings from this study raised several possibilities for future research about how foreign athletes experience culture shock.

1. Future studies should focus on “when” and “how” foreign athletes experienced culture shock, instead of focusing on “whether or not” a respondent experienced culture shock. Open-ended questions could be asked in a self-administered survey, in a face-to-face interview, or in a focus group setting.
2. An increased focus on ethnocentrism and cultural relativity would add extra dimensions when discussing personality traits. Future researchers would need to develop a measurement much like the research done by Buchanan et al. (2005) for The Five Factor of Personality Traits used in this study.
3. Other data collection techniques could be used to allow for specific athletic statistics to supplement the self-reported statistics given on the questionnaire. For instance, a basketball player’s number of baskets made throughout the season could be found online then contrasted with the athletes’ self-report on how their statistics changed. Supplementing self-reported statistics with actual statistics would improve the accuracy of the measurement. This would mean that the study could no longer be anonymous, but, instead of using their identities, the researcher could assign an identification number and use that instead for confidentiality.
4. It would be helpful for future researchers to attempt to gather the mean GPA of the university, of all athletes, and of all foreign athletes to see if foreign athletes receive higher GPAs than other athletes or general student population. Gathering actual GPAs could account for a possible under or over reporting of GPAs. GPAs were not available at the time of this study due to the close proximity of the end of the school year.
5. Future research should include more specific variables about each athlete including what sport they play and how many other teammates are from foreign

countries. This could be further explored in relation to mentors on the team, or how a lone foreign athlete on a team interacts with American born teammates.

6. In addition to including specifics about each foreign athlete, future research should include in the sample domestic athletes that attend UHM. Knowing what symptoms of culture shock domestic athletes at UHM experience would allow the researcher to isolate foreign athletes' experiences with culture shock using domestic athletes as a control.

Appendix A: Consent Form

University of Hawai'i
Consent to Participate in Research
Culture Shock in Foreign Athletes at the University of Hawai'i at Mānoa

My name is Heather Blount, and I am a graduate student at the University of Hawai'i (UH). A requirement of my Master's degree program is to conduct a research project. The purpose of my project is to assess foreign students and their experience with culture shock after enrolling at UH Mānoa. Participation in this study will involve the completion of an anonymous on-line (Internet) survey. I am asking you to participate in this project because you are at least 18 years old and enrolled as a student at UH Mānoa.

Project Description – Activities and Time Commitment: Participants will fill out a survey that is posted on the Internet. Survey questions are primarily multiple choice. Completion of the survey will take approximately 20 minutes. Around 50 people will take part in this project.

Benefits and Risks: There will be no direct benefit to you for participating in this survey. The results of this project may contribute to a better understanding of the preferences and needs of UH Mānoa when guiding new athletes after arrival in Hawai'i. There is little risk to you in participating in this project.

Confidentiality and Privacy: This survey is anonymous. I will not ask you to provide any personal information that could be used to identify you. Likewise, please do not include any personal information, such as your name, in your survey responses.

Voluntary Participation: Participation in this project is voluntary. You can freely choose to participate or to not participate in this survey, and there will be no penalty or loss of benefits for either decision. If you agree to participate, you can stop at any time without any penalty or loss of benefits to which you are otherwise entitled.

Questions: If you have any questions about this study, you can contact me at (678) 425-4479 & hblount@Hawai'i .edu. You can also contact my faculty advisory, Dr. Joung-Im Kim, at (808) 956-8881 & joungim@Hawai'i .edu. If you have any questions about your rights as a research participant, you can contact the UH Committee on Human Studies at (808) 956-5007 or uhirb@Hawai'i .edu.

To Access the Survey: Please follow the link included in this email for the survey and instructions for completing it. Submittal of the survey will be considered as your consent to participate in this study.

Please print a copy of this page for your reference.

Appendix B: Online Survey

1. Sex
   ☐Male ☐Female

2. Age_____

3. What was the first semester you enrolled at the University of Hawai‘i at Mānoa?
   ☐ Fall 2008
   ☐ Spring 2009
   ☐ Summer 2009
   ☐ Fall 2009
   ☐ Spring 2010
   ☐ Summer 2010
   ☐ Fall 2010
   ☐ Spring 2011
   ☐ Summer 2011
   ☐ Fall 2011
   ☐ Spring 2012

4. Are you sponsored by? (Select all that apply)
   ☐ Yourself
   ☐ Your family
   ☐ Scholarship-Athletic Department
   ☐ Scholarship- Other
   ☐ Other- _____

5. Where do you live?
   ☐ On-Campus Residence Halls
   ☐ Off- Campus Apartment
   ☐ Off- Campus House

6. Who do you live with?
   ☐ International Students- Same country as yourself
   ☐ International Students- Other foreign country
   ☐ American Host Family
   ☐ Relatives
   ☐ On your own
   ☐ Athlete- Same team as yourself
   ☐ Athlete- Other team
   ☐ Roommate- Non athlete
   ☐ Other- _____

7. People commonly experience the following after moving to a new location. Please check how often you have experienced each **after moving to Hawai‘i**.

	1. Never	2. Almost Never	3. Sometimes	4. Fairly Often	5. Very Often
Homesickness	☐	☐	☐	☐	☐
Jet Lag	☐	☐	☐	☐	☐
Loss of Sleep	☐	☐	☐	☐	☐
Crying	☐	☐	☐	☐	☐
Headaches	☐	☐	☐	☐	☐
Loneliness	☐	☐	☐	☐	☐
Loss of appetite	☐	☐	☐	☐	☐
Stress	☐	☐	☐	☐	☐
Misunderstand of social norms in Hawai‘i	☐	☐	☐	☐	☐
Illness	☐	☐	☐	☐	☐
Increased physical strain	☐	☐	☐	☐	☐
Aggression (off the field)	☐	☐	☐	☐	☐
Mental Confusion	☐	☐	☐	☐	☐
Intimidation from other teammates	☐	☐	☐	☐	☐
Social withdrawal from social activity	☐	☐	☐	☐	☐
Rebellion against rules or regulations	☐	☐	☐	☐	☐
Anxiety	☐	☐	☐	☐	☐
Feeling like something was not right	☐	☐	☐	☐	☐
Insecurity	☐	☐	☐	☐	☐
Depression or unhappiness with life	☐	☐	☐	☐	☐
Confusion of the language (ex: Slang words)	☐	☐	☐	☐	☐
Frustration	☐	☐	☐	☐	☐
Rejection from other students	☐	☐	☐	☐	☐
Rejection from locals (non-students)	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐

8. Please select only one answer per question:

	1. Never	2. Almost Never	3. Sometimes	4. Fairly Often	5. Very Often
During your first semester at UHM, how often did you become upset because of something that happened that was not expected?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel nervous and "stressed?"	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel confident about your ability to handle your personal problems?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel that things were going your way?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you find that you could not cope with all the things that you had to do?	☐	☐	☐	☐	☐
During your first semester at UHM, how often were you able to control irritations in your life?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel you were in charge of your life?	☐	☐	☐	☐	☐
During your first semester at UHM, how often were you angered because of things that were out of your control?	☐	☐	☐	☐	☐
During your first semester at UHM, how often did you feel difficulties were piling up so high that you could not overcome them?	☐	☐	☐	☐	☐

9. Did you spend time actively learning about the culture, language, or social norms in Hawai‘i once signing a letter of intent with the University of Hawai‘i at Mānoa?	☐Yes 10. If yes, which of the following sources did you use to learn about the culture in Hawai‘i before moving to UH? Check all that apply. ☐Internet ☐Book ☐TV show ☐Person who had lived in Hawai‘i ☐Magazine ☐Newspaper (Print) ☐Newspaper (Online) ☐Radio ☐Travel guide for Hawai‘i ☐University of Hawai‘i at Mānoa website ☐Government website ☐Social Networking Site ☐Future Coach ☐Future Teammate ☐Other (Please Specify) _____	☐No (go to following question)

11. Amongst **family** with whom do you communicate with most?

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. Every Day	7. N/A
Mother	☐	☐	☐	☐	☐	☐	☐
Father	☐	☐	☐	☐	☐	☐	☐
Child (your own)	☐	☐	☐	☐	☐	☐	☐
Brother	☐	☐	☐	☐	☐	☐	☐
Sister	☐	☐	☐	☐	☐	☐	☐
Aunt	☐	☐	☐	☐	☐	☐	☐
Uncle	☐	☐	☐	☐	☐	☐	☐
Cousin	☐	☐	☐	☐	☐	☐	☐
Niece	☐	☐	☐	☐	☐	☐	☐
Nephew	☐	☐	☐	☐	☐	☐	☐
Grandmother	☐	☐	☐	☐	☐	☐	☐
Grandfather	☐	☐	☐	☐	☐	☐	☐
Guardian	☐	☐	☐	☐	☐	☐	☐
Spouse	☐	☐	☐	☐	☐	☐	☐

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. At least once a day	7. N/A
12. How often do you communicate with your **family** in your **home** country?	☐	☐	☐	☐	☐	☐	☐
13. How often do you communicate with your **family** in **Hawai'i**?	☐	☐	☐	☐	☐	☐	☐

14. What channels do you use to communicate with your **family**?
Select the top three channels. Label the most frequently used channel number one, then the second most frequently used channel number two, then the third most frequently used channel number three.

☐ Video Chat software	☐ Phone	☐ Letters (handwritten)
☐ Facebook	☐ Text Messages	☐ Group website
☐ Twitter	☐ Email	☐ Photo Sharing sites
☐ Blog	☐ Instant Messaging	☐ Other

15. Amongst your friends, with whom do you communicate with the most often? Please select as many friends as possible. If less than five friends select "N/A" for the remainder of friends.

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. Every Day	7. N/A
Friend #1							
Friend #2							
Friend #3							
Friend #4							
Friend #5							

	1. Never	2. 1-2 times a month	3. 3-4 times a month	4. 1-3 times a week	5. 4-6 times a week	6. At least once a day	7. N/A
16. How often do you communicate with your **friends** in your **home** country?	☐	☐	☐	☐	☐	☐	☐
17. How often do you communicate with your **friends** in **Hawai'i**?	☐	☐	☐	☐	☐	☐	☐

18. What channels do you use to communicate with your **friends**? Select the top three channels. Label the most frequently used channel number one, then the second most frequently used channel number two, then the third most frequently used channel number three.

☐ Video Chat software	☐ Phone	☐ Letters (handwritten)
☐ Facebook	☐ Text Messages	☐ Group website
☐ Twitter	☐ Email	☐ Photo Sharing sites
☐ Blog	☐ Instant Messaging	☐ Other (please specify)

19. What media sources do you use to track the **news** in your **home** country?

☐ Video Chat software	☐ Twitter	☐ TV Show (on television)
☐ Newspaper (online)	☐ Internet	☐ Magazine
☐ Newspaper (print)	☐ Government Website	☐ Radio
☐ Facebook	☐ TV Show (Online)	☐ Other (Please specify)

20. How frequently have the following become a **major stress** factor in your life?

Sources of Stress	1. Never	2. Almost never	3. Sometimes	4. Frequently	5. Almost Always
Injury	☐	☐	☐	☐	☐
Traveling (road trips)	☐	☐	☐	☐	☐
Physical Health	☐	☐	☐	☐	☐
Satisfaction with body	☐	☐	☐	☐	☐
Athletic Performance	☐	☐	☐	☐	☐
Opponents during games	☐	☐	☐	☐	☐
Officials during games	☐	☐	☐	☐	☐
Media-negative criticism	☐	☐	☐	☐	☐
GPA (Grade Point Average)	☐	☐	☐	☐	☐
Eligibility	☐	☐	☐	☐	☐
Time Management	☐	☐	☐	☐	☐
Keeping connected to home country	☐	☐	☐	☐	☐
Alcohol/ Drugs	☐	☐	☐	☐	☐
Sleep Deprivation	☐	☐	☐	☐	☐
Meeting new people	☐	☐	☐	☐	☐
Parties	☐	☐	☐	☐	☐
Emotional Health	☐	☐	☐	☐	☐
Transportation	☐	☐	☐	☐	☐
Food	☐	☐	☐	☐	☐
Housing	☐	☐	☐	☐	☐
Religion	☐	☐	☐	☐	☐
Reactions of cultural traditions from home country	☐	☐	☐	☐	☐
Missing cultural traditions from home country	☐	☐	☐	☐	☐
American holidays that you cannot relate to	☐	☐	☐	☐	☐
Home holidays that you cannot attend	☐	☐	☐	☐	☐
Lack of food from home country	☐	☐	☐	☐	☐

21. How frequently do the following people become a **major stress** factor in your life?

Sources of Stress	1. Never	2. Almost never	3. Sometimes	4. Frequently	5. Almost Always
Coaches	☐	☐	☐	☐	☐
Teammates	☐	☐	☐	☐	☐
Athletic Trainers	☐	☐	☐	☐	☐
Girlfriend/Boyfriend	☐	☐	☐	☐	☐
Roommate/Suitemate	☐	☐	☐	☐	☐
Athlete from another sport	☐	☐	☐	☐	☐
Student from home country	☐	☐	☐	☐	☐
Student from other foreign country	☐	☐	☐	☐	☐
American Student	☐	☐	☐	☐	☐
Family in Hawai‘i	☐	☐	☐	☐	☐
Family in home country	☐	☐	☐	☐	☐
Friends in Hawai‘i	☐	☐	☐	☐	☐
Friends in home country	☐	☐	☐	☐	☐
Academic Advisors	☐	☐	☐	☐	☐
Tutor/ Mentor	☐	☐	☐	☐	☐
Professor	☐	☐	☐	☐	☐
Classmate	☐	☐	☐	☐	☐
Media Outlets	☐	☐	☐	☐	☐
Referees or Officials	☐	☐	☐	☐	☐
NCAA	☐	☐	☐	☐	☐
Fans	☐	☐	☐	☐	☐
Critics (people against the team)	☐	☐	☐	☐	☐

22. Which category does each **source** provide the greatest amount of **support**?

Sources of Support	Athletic	Academic	Social	Financial	Cultural	N/A
Coaches	☐	☐	☐	☐	☐	☐
Teammates	☐	☐	☐	☐	☐	☐
Athletic Trainers	☐	☐	☐	☐	☐	☐
Girlfriend/Boyfriend	☐	☐	☐	☐	☐	☐
Roommate/Suitemate	☐	☐	☐	☐	☐	☐
Athlete from another sport	☐	☐	☐	☐	☐	☐
Student from home country	☐	☐	☐	☐	☐	☐
Student from other foreign country	☐	☐	☐	☐	☐	☐
American Student	☐	☐	☐	☐	☐	☐
Family in Hawai‘i	☐	☐	☐	☐	☐	☐
Family in home country	☐	☐	☐	☐	☐	☐
Friends in Hawai‘i	☐	☐	☐	☐	☐	☐
Friends in home country	☐	☐	☐	☐	☐	☐
Academic Advisors	☐	☐	☐	☐	☐	☐
Tutor/ Mentor	☐	☐	☐	☐	☐	☐
Professor	☐	☐	☐	☐	☐	☐
Classmate	☐	☐	☐	☐	☐	☐
Media Outlets	☐	☐	☐	☐	☐	☐
Referees or Officials	☐	☐	☐	☐	☐	☐
NCAA	☐	☐	☐	☐	☐	☐
Fans	☐	☐	☐	☐	☐	☐
Critics (people against the team)	☐	☐	☐	☐	☐	☐

23. Select the answer that describes you best.

	1. Not True	2. Somewhat True	3. True	4. Very True
I am quick to understand things.	☐	☐	☐	☐
I spend time reflecting on things.	☐	☐	☐	☐
I talk to a lot of different people at parties.	☐	☐	☐	☐
I am comfortable around people.	☐	☐	☐	☐
I am interested in people.	☐	☐	☐	☐
I take time to learn about others.	☐	☐	☐	☐
I follow a schedule.	☐	☐	☐	☐
I like order.	☐	☐	☐	☐
I get stressed out easily.	☐	☐	☐	☐
I worry about things.	☐	☐	☐	☐

24. How consistent do you feel that your personal athletic statistics were after moving to the University of Hawai‘i at Mānoa?	☐ Lowered Significantly ☐ Lowered Slightly ☐ Unchanged (go to next question) ☐ Increased Slightly ☐ Increased Significantly

	1. Coaching Staff	2. Teammates	3. Climate	4. Altered rules and/or regulations	5. Homesickness	6. Culture Shock	7. Other (please specify)
25. If your statistics changed (either lowered or increased) after moving to the University of Hawai‘i at Mānoa, what do you feel were the reasons for the change in your statistics?	☐	☐	☐	☐	☐	☐	☐ Specify:

26. How consistent do you feel that your personal academic statistics were after moving to the University of Hawai‘i at Mānoa?	☐ Lowered Significantly ☐ Lowered Slightly ☐ Unchanged (go to next question) ☐ Increased Slightly ☐ Increased Significantly

	1. Coaching Staff	2. Teammates	3. Climate	4. Altered rules and/or regulations	5. Homesickness	6. Culture Shock	7. Other (please specify)
27. If your GPA changed (either increased or decreased) after moving to the University of Hawai‘i at Mānoa, what do you feel were the reasons your GPA changed?	☐	☐	☐	☐	☐	☐	☐ Specify:

Appendix C: Codebook

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
2	RID		Respondent ID	01= Athlete 1 02= Athlete 2 … 53=Athlete		Nominal	
1	GENDER	1	Respondent sex	1= Male 2= Female 9= No Response	9	Nominal	
2	AGE	2	Age of respondent	18= 18-years-old 19= 19-years-old … 25= 25-years-old 99= No Response	99	Scale	
2	ENROLL	3	First semester enrolled at UHM	01= Fall 2008 02= Spring 2009 03= Summer 2009 04= Fall 2009 05= Spring 2010 06= Summer 2010 07= Fall 2010 08=Spring 2011 09= Summer 2011 10= Fall 2011 11= Spring 2012 99= No Response	99	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SPONSOR	4	Sponsored by	1= Themselves 2= Their Family 3= Athletic Scholarship 4= Other Scholarship 5= Other 9= No Response	9	Nominal	
1	RESIDENCE	5	Where they live	1= On Campus 2= Off-Apartment 3= Off- House 9= No Response	9	Nominal	
2	LIVEWITH	6	Who they live with	1= Inter-Same 2= Inter-Other 3= Host-USA 4= Family 5= Alone 6= Athlete-Same 7= Athlete-Other 8= Roommate-Non 9= Other-Assistant Coach 99= No Response	99	Nominal	
1	SYMHO	7-1	Homesickness	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SYMJL	7-2	Jet lag	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMSLEE	7-3	Loss of sleep	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMCRY	7-4	Crying	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMHEAD	7-5	Headaches	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SYMLONE	7-6	Loneliness	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMEAT	7-7	Loss of Appetite	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMSTR	7-8	Stress	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMMIS	7-9	Misunderstood social norms in Hawai‘i	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SYMILL	7-10	Illness	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMPHY	7-11	Increased physical strain	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMAGG	7-12	Aggression	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMMEN	7-13	Mental confusion	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SYMINT	7-14	Intimidation from other teammates	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMSOC	7-15	Withdrawal from social activities	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMREB	7-16	Rebellion against rules and regulations	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMANX	7-17	Anxiety	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SYMFEE	7-18	Feel like something is not right	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMINS	7-19	Insecurity	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMDEP	7-20	Depression or unhappiness with life	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMCON	7-21	Confusion of the language	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SYMFRU	7-22	Frustration	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMRS	7-23	Rejection from other students	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMRL	7-24	Rejection from locals	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	SYMOTH	7-25	Other symptoms	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	PSSUP	8-1	Upset because something happened that was not expected	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	PSSNE	8-2	Feel nervous and stressed	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	PSSCO	8-3	Confident about ability to handle their personal problems	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	PSSGO	8-4	Things were going their way	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	PSSTH	8-5	Cope with things they had to do	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	PSSIR	8-6	Control irritations in their life	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	PSSCH	8-7	In charge of their life	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	PSSAN	8-8	Angered because of things that were out of their control	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	PSSDI	8-9	Difficulties piling up so high that they could not overcome	1= Never 2= Almost Never 3= Sometimes 4= Fairly Often 5= Very Often 9= No Response	9	Ordinal	
1	LEA	9	Spend time learning about culture in Hawai‘i	1= Yes 2=No 9= No Response	9	Nominal	
1	CIHINT	10-1	Internet-Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHIBOO	10-2	Book-Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHITV	10-3	TV Show- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHIHI	10-4	Person who had lived in Hawai‘i- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHIMAG	10-5	Magazine- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHINP	10-6	Print Newspaper- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	CHINO	10-7	Online newspaper- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHIRAD	10-8	Radio- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHITRA	10-9	Travel guide to Hawai‘i- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHIUHM	10-10	UHM website- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHIGOV	10-11	Government website- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHISNS	10-12	Social networking site- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHIFC	10-13	Future Coach- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHIFT	10-14	Future Teammate- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	
1	CHIOTH	10-15	Other- Culture	0= No (Not Checked) 1= Yes (Checked) 8= Not Applicable	8	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	FAMMOM	11-1	Mother	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FAMDAD	11-2	Father	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FAMCHI	11-3	Child (of their own)	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	FAMBRO	11-4	Brother	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FAMSIS	11-5	Sister	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FAMAUN	11-6	Aunt	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	FAMUNC	11-7	Uncle	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FAMCUZ	11-8	Cousin	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FAMNIE	11-9	Niece	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	FAMNEP	11-10	Nephew	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FAMGMA	11-11	Grandmother	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FAMGPA	11-12	Grandfather	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	FAMGUA	11-13	Guardian	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FAMSPO	11-14	Spouse	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	COMFIH	12	Communicate with family in home country	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	COMFHI	13	Communicate with family in Hawai‘i	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	CHAVCH	14-1	Video chat software- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	CHAFB	14-2	Facebook- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	CHATWI	14-3	Twitter- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	CHABLO	14-4	Blog- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	CHAPHO	14-5	Phone- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	CHATXT	14-6	Text messaging- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	CHAEMA	14-7	Email- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	CHAIM	14-8	Instant messaging- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	CHALET	14-9	Letters (handwritten)- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	CHAGW	14-10	Group website- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	CHAPSW	14-11	Photo sharing website- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	CHAOTH	14-12	Other channel to communicate- Family	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	FRIONE	15-1	Friend one	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	FRITWO	15-2	Friend two	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FRITHR	15-3	Friend three	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	FRIFOU	15-4	Friend four	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	FRIFIV	15-5	Friend five	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	CFHC	16	Communicate with friends in home country	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	CFHI	17	Communicate with friends in Hawai‘i	1= Never 2= 1-2 Month 3= 3-4 Month 4= 1-3 Week 5= 4-7 Week 6= Every Day 8= Not Applicable 9= No Response	8, 9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	MSVCH	18-1	Video chat software- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSFB	18-2	Facebook- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSTWI	18-3	Twitter- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSBLO	18-4	Blog- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSPHO	18-5	Phone- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSTXT	18-6	Text messaging- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	MSEMA	18-7	Email- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSIM	18-8	Instant messaging- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSLET	18-9	Letters (handwritten)- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSGW	18-10	Group website- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSPSW	18-11	Photo sharing website- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	
1	MSOTH	18-12	Other channel to communicate- Friend	0= Not Chosen 1= 1st Choice 2- 2nd Choice 3= 3rd Choice		Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	NEWVCS	19-1	Video chat software- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWNO	19-2	Online newspaper- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWP	19-3	Print newspaper- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWFB	19-4	Facebook- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWTW	19-5	Twitter- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWWB	19-6	Website- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWGW	19-7	Government website- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWTVO	19-8	Online TV show- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWTVTV	19-9	TV show on TV- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWMAG	19-10	Magazine- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWRAD	19-11	Radio- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	
1	NEWOTH	19-12	Other news tracking sources- News	0= No (Not Checked) 1= Yes (Checked)		Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	MSFINJ	20-1	Injury	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFTRA	20-2	Traveling	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFPH	20-3	Physical health	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFSAT	20-4	Satisfaction with body	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	MSFAP	20-5	Athletic performance	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFOPP	20-6	Opponents	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFOFF	20-7	Officials	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFMED	20-8	Media	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	MSFGPA	20-9	GPA	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFELI	20-10	Eligibility	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFTIM	20-11	Time management	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFKHC	20-12	Keeping connected to home country	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	MSFAD	20-13	Alcohol/Drugs	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFSLE	20-14	Sleep deprivation	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFPPL	20-15	Meet new people	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFPAR	20-16	Parties	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	MSFEMO	20-17	Emotional health	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFTRA	20-18	Transportation	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFFOO	20-19	Food	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFHOU	20-20	Housing	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	MSFREL	20-21	Religion	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFREA	20-22	Reactions to cultural traditions from home country	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFMISS	20-23	Missing cultural traditions from home country	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFUSA	20-24	American holidays you cannot relate to	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	MSFHOL	20-25	Holidays that you cannot attend in home country	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	MSFLOF	20-26	Lack of food from home country	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSCOA	21-1	Coaches- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSTEA	21-2	Teammates- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SOSAT	21-3	Athletic Trainers- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSGFBF	21-4	Girlfriend/Boyfriend-Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSROOM	21-5	Roommate/Suitemate-Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSATH	21-6	Athlete from another sport- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SOSSHC	21-7	Student from home country-Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSOFC	21-8	Student from other foreign country-Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSUSA	21-9	American student-Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSFAHI	21-10	Family in Hawai‘i- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SOSFAHC	21-11	Family in home country-Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSFRHI	21-12	Friends in Hawai‘i-Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSFRHC	21-13	Friends in home country-Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSAA	21-14	Academic advisors- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SOSTM	21-15	Tutor/Mentor- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSPRO	21-16	Professor- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSCLAS	21-17	Classmate- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSMED	21-18	Media- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SOSREF	21-19	Referees/ Officials- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSNCAA	21-20	NCAA-Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSFAN	21-21	Fans- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	
1	SOSCRIT	21-22	Critics- Stress	1= Never 2= Almost Never 3= Sometimes 4= Frequently 5= Almost Always 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SUPCOA	22-1	Coaches- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPTEA	22-2	Teammate- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPAT	22-3	Athletic trainers- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SUPGFBF	22-4	Girlfriend/Boyfriend-Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPROOM	22-5	Roommate/ Suitemate-Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPATH	22-6	Athlete from another sport- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SUPSHC	22-7	Student from home country- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPOFC	22-8	Student from other foreign country- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPUSA	22-9	American student- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SUPFAHI	22-10	Family in Hawai‘i-Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPFAHC	22-11	Family in home country-Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPFRHI	22-12	Friends in Hawai‘i-Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SUPFRHC	22-13	Friends in home country- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPAA	22-14	Academic advisors- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPTM	22-15	Tutor/Mentor- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SUPPRO	22-16	Professor- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPCLAS	22-17	Classmate- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPMED	22-18	Media-Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SUPREF	22-19	Referees/ Officials-Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPNCAA	22-20	NCAA-Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	SUPFAN	22-21	Fans- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	SUPCRIT	22-22	Critics- Support	1= Athletic 2= Academic 3= Social 4= Financial 5= Cultural 8= Not Applicable 9= No Response	8, 9	Nominal	
1	PERQUI	23-1	Quick to understand things	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	
1	PERTIM	23-2	Time reflecting on things	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	
1	PERPPL	23-3	Talk to different people at parties	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	PERCOM	23-4	Comfortable around people	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	
1	PERINT	23-5	Interested in people	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	
1	PERTTL	23-6	Time to learn about others	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	
1	PERSCH	23-7	Follow a schedule	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	PERORD	23-8	Order	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	
1	PERSTRE	23-9	Stressed out easily	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	
1	PERWOR	23-10	Worry about things	1= Not True 2= Somewhat True 3= True 4= Very True 9= No Response	9	Ordinal	
1	ATST	24	Athletic stats after	1= Lowered Significantly 2= Lowered Slightly 3= Unchanged 4= Increased Slightly 5= Increased Significantly 9= No Response	9	Ordinal	

Digit Width	Variable Name	Question Number	Description	Code	Missing Values	Level of Measurement	Notes
1	STAT	25	Athletic stats motive	1= Coaching Staff 2- Teammates 3= Climate 4= Rules and Regulations 5= Homesickness 6= Culture Shock 7= Other 8= Not Applicable 9= No Response	8, 9	Ordinal	
1	ACST	26	Academic stats after	1= Lowered Significantly 2= Lowered Slightly 3= Unchanged 4= Increased Slightly 5= Increased Significantly 9= No Response	9	Ordinal	
1	GPA	27	Academic stats motive	1= Coaching Staff 2- Teammates 3= Climate 4= Rules and Regulations 5= Homesickness 6= Culture Shock 7= Other 8= Not Applicable 9= No Response	8, 9	Ordinal	

References

Abarbanel, J. (2009). Moving with emotional resilience between and within cultures. *Intercultural Education*, 133.

Adler, P. (1975). The transitional experience: An alternative view of culture shock. *Journal of Humanistic Psychology*, 13-23.

Barna, L. (1976). How culture shock affects communication. *Communication*, 1-18.

Baym, N. K., Zhang, V. B., & Lin, M. (2004). Social interactions across media. *New Media & Society, 6*, 299–318.

Bennett, J. (1998). *Transition shock: Putting culture shock in perspective*. Yarmouth, ME: Intercultural Press.

Black, J. (1990). Personal dimensions and work role transitions. *Management International Review*, 30,119-134.

Bochner, S. (1977). Friendship patterns of overseas students: A functional model. *International Journal of Psychology*, 12, 277-294.

Bock, P. (1971). Culture shock: a reader in modern cultural anthropology. *American Anthropology, 73(6),* 257-289.

Brown, L., & Holloway, I. (2008). The initial stage of the international sojourn: excitement or culture shock?. *British Journal of Guidance & Counseling*, 33-49.

Buchanan, T., Johnson, J. A., & Goldberg, L. R. (2005). Implementing a five-factor personality inventory for use on the internet. *European Journal of Psychological Assessment*, 21, 115-127.

Cegala, D.(1981). Interaction involvement: A cognitive dimension of communication competence. *Communication Education*, 109-121.

Campbell, E., & Sonn, C. (2009). Transitioning into the AFL: Indigenous football players' perspectives. *Athletic Insight: The Online Journal of Sports Psychology*, *11(3),* Retrieved from http://www.athleticinsight.com/Vol11Iss3/Feature.htm

Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24,* 386-396.

Downes, M. & Thomas, A. (1999). Managing overseas assignments to build organizational knowledge. *Human Resource Planning*, 22, 33-48.

Farh, C., Bartol, K., Shapiro, D., & Shin, J. (2010). Networking abroad: A process model of how expatriates form support ties to facilitate adjustment. *Academy of Management Review*, 35, 434-454.

Fontaine, G. (2000). Skills for successful international assignments to, from, and within Asia and the pacific: implications for preparation, support, and training. In U. C. V. Haley (Ed.) *Strategic management in the Asia Pacific: Harnessing regional and organization change for competitive advantage,* 327-345. Oxford, England: Butterworth-Heinemann.

Foster, G. (1962). *Traditional Cultures: The impact of technological change*. NY: Harper and Row.

Giddens, A. (1991). *Modernity and self-identity: Self and society in the late modern age.* Cambridge: Blackwell.

Grosse, C. U. (2002). Managing communication within virtual intercultural teams. *Business Communication Quarterly, 65*(4), 22–38.

Guo-Ming, C. (1992). Communication adaptability and interaction involvement as predictors of cross-cultural adjustment. *Communication Research Reports*, 33-41.

Haskins, D. (1999). Culture shock. *College Teaching*, 122.

House, J. (1981). *Work stress and social support.* Reading, MA: Addison-Wesley.

Horrigan, J. B. (2001). *Online communities: Networks that nurture long-distance relationships and local ties*. Retrieved from http://www.pewinternet.org/PPF/r/47/report_display.asp

Jones, S. (2002). *The Internet goes to college: How students are living in the future with today's technology*. Retrieved from http://www.pewinternet.org/PPF/r/71/report_display.asp

Learning Assistance Center. (2011). About us. Retrieved from http://Mānoa.Hawai‘i.edu/learning/

Lysgaard, S. (1955). Adjustment in a foreign society: Norwegian Fulbright grantees visiting the United States. *International Social Science Bulletin*, 45-51.

Mānoa Institutional Research. (2010). Total headcount enrollment by ethnicity. Unpublished raw data, Office of the Vice Chancellor for Academic Affairs, University of Hawai‘i at Mānoa, Honolulu, Hawai‘i. Retrieved from http://Mānoa.Hawai‘i.edu/ovcaa/mir/pdf/ena6.pdf

Maundeni, T. (2001). The role of social networks in the adjustment of African students to British society: Students' perceptions. *Race, Ethnicity & Education, 4*, 253–276.

McLachlan, D. & Justice, J. (2009). A grounded theory of international student well-being. *Journal of Theory Construction & Testing*, 27-32.

Mendenhall, M., & Oddou, G. (1985). The dimensions of expatriate acculturation: A review. *Academy of Management Review*, 10, 39-48.

Nagatani Academic Center. (2011). About Us. Retrieved from http://www.advising.Hawai‘i.edu/saas/desktop.htm

National Collegiate Athletic Association. (2011). Athletics. Retrieved from http://www.ncaa.org

Nine, C.(1967). Experiences in culture shock. *Modern Language Journal*.

Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical Anthropology*, *7*, 177-182.

Pantelidou, S., & Craig, T. (2006). Culture shock and support: A survey in Greek migrant students. *Social Psychiatry & Psychiatric Epidemiology*, 41, 777-781.

Pollett, T., Roberts, S. & Dunbar, R. (2011). Use of social network sites and instant messaging does not lead to increased offline social network size, or to emotionally closer relationships with offline network members. *CyberPsychology, Behavior & Social Networking,* 14, 253-258.

Punnett, B. J. (1997). Towards an effective management of expatriate spouses. *Journal of World Business*, 3,243-258.

Putman Jr., I. (1954). Cultural shock and communication in international student exchange. *Speech Teacher*, 112.

Rosenstiel, T., Michell, A., Purcell, K., & Rainie, L. (2011). Pew Research Center’s Project for Excellence in Journalism and Internet & American Life Project. Retrieved from http://www.journalism.org/analysis_report/local_news.

Shaffer, M., & Harrison, D. (2001). Forgotten partners of international assignments: Development and test of a model of spouse adjustment. *Journal of Applied Psychology*, 86,238-254.

Shaikh, B., & Deschamps, J. (2006). Life in a university residence: Issues, concerns and responses. *Education for Health*, 19, 43-51.

Shilling, M. (1993). Avoid expatriate culture shock. *HRMagazine* , 58-63.

Sims, R. & Schraeder, M. (2004). An examination of salient factors affecting expatriate culture shock. *Journal of Business and Management,* 1-11.

Solomon, C. (1994). Success abroad depends on more than job skills. *Personnel Journal*, 4,51-59.

Tange, H. (2005). In a cultural no man's land or, how long does culture shock last. *Journal of Intercultural Communication,* 2.

University of Hawai‘i at Mānoa Athletics. (2011). Retrieved from http://www.Hawai‘iathletics.com/

University of Hawai‘i at Mānoa Athletics Annual Report. (2010). Retrieved from http://www.Hawai‘iathletics.com/documents/2010/9/5/UHMAnnualReport2009_10.pdf?

Varner, I. & Beamer, L. (2005). *Intercultural Communication in the Global Workplace.* Boston, MA: McGraw-Hill.

Ward, C., et al. (2003). *The psychology of culture shock.* New York: Rutledge.

Wolff, H. G., (1950). Life stress and bodily disease-a formulation. *Association for Research in Nervous and Mental Disease*, 1059-1044.

Zhou, Y., Jindal-Snape, D., Topping, K., & Todman, J. (2008). Theoretical models of culture shock and adaptation in international students in higher education. *Studies in higher education*, 63-75.