Culture Shock: Causes and Symptoms

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Culture shock has been a topic of research for many years because of its negative effects on both education and workplace. Most international students and foreign workers experience culture shock yet little research exists which has investigated differences in its causes and symptoms. This paper investigates the symptoms and causes of culture shock in different nationalities and the moderating effects of demographic factors and travel patterns.

Keywords: Culture shock

1. Introduction

“Culture Shock” has been a topic of research for over 30 years by European and American anthropologists and psychologists (Eickelmann, 2006). It is usually used to describe the physical and emotional discomfort experienced when someone moves to a completely new environment, although it also may result in a positive learning experience leading to increased self-awareness and personal growth (Adler, 1987). A list of the negative symptoms and the various stages one may go through when experiencing culture shock, as well as suggestions for dealing with it, is described by Guanipa (1998), Sorrento Lingue-International Study Abroad Programs (2006), and Schneider (2006), although no empirical data were presented. Culture shock has its negative effects on both education and workplace. According to a European Conference on Educational Research (McFarland, 1999), “Research shows that 83% of reporting companies experience expatriate failure, and 86% attribute failure to candidate selection and inability to adapt to host cultures.” Some companies provide communication preparation for employees to help them adapt, but other causes of cultural shock are rarely addressed or acknowledged by companies or universities. Many students contact University Counseling services and report feeling more alienated because of the counselor’s lack of knowledge about their culture. For example, the emotional impact of moving from a gender-segregated to a mixed educational system was criticized instead of acknowledged and understood. (Experienced by second author). Numerous studies focused on the difficulties students of specific nationalities experienced in adapting to different cultures. For example, for Chinese students see Wan (2001), for Taiwanese students see Swagler & Ellis (2003), for African students see Constantine, Anderson, Gregory, Berkel, LaVerne, Cadwell & Utsey (2005). Another major focus of research has been the relationship between various personality characteristics and the ability to adapt to a foreign culture (Ward, Bochner, & Furnham, 2001; Swagler & Jome, 2005; Shaffer, Harrison, Grehersen, Black, & Ferzandiz, 2006).

2. Concept Definitions

2.1 Culture Shock

The formal definition proposed by the Department of Counseling and School Psychology at San Diego State University was adopted: “We can describe culture shock as the physical and emotional discomfort one suffers when coming to live in another country or a place different from the place of origin. This term expresses the lack of direction, the feeling of not knowing what to do or how to do things in a new environment, and not knowing what is appropriate or inappropriate.” (Guanipa, 1998) The variable “culture shock” was operationalized by calculating a total score of all the culture shock symptoms for each respondent, providing a multi-dimensional index score for “culture shock”. In order to calculate the score for each respondent, the following weights for each response category were assigned: “Not at all” was 1 point, “Slightly”: 2 points, “Moderately”: 3 points and “Heavily”: 4 points. Therefore based on the 10 symptoms listed, an index
score could range from a minimum of 10 points to a maximum of 40. Thus, the higher the score, the more culture shock the person had encountered. It was assumed that this yielded an interval scale in order to analyze the data by analysis of variance.

2.2 Causes of Culture Shock

Subjects were asked to indicate the degree to which they felt that 13 factors caused culture shock. A Likert scale from “Strongly disagree” (1) to “Strongly Agree” (5) was presented for each possible cause.

2.3 International Student

The definition included all students registered in the International Student Office, namely students with F1 and J1 visas.

2.4 Regions

As the samples for many countries were too small to be representative, the countries of origin were classified into several regions, according to their cultural similarity. Therefore our analysis was based on regions instead of country of origin. Our classification of regions was based on judgment and knowledge of the different cultures. (This was done by students from Palestine, Turkey, China and Russia). This is in keeping with Dowling and Welch (2005) who argue that one should not assume that national differences necessarily represent cultural difference. They argue that countries should be grouped based on their culture-common aspects. Our classification was as follows:

(1) South East Asia: Burma, China, Indonesia, Japan, Mongolia, Philippines, Singapore, South Korea, Taiwan, Thailand, Vietnam
(2) South Asia: India, Nepal, Pakistan, Sri Lanka
(3) Africa: Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Mozambique, Nigeria, South Africa, Tanzania
(4) West Europe: France, Germany, Hungary, Spain, Sweden, Switzerland, UK
(5) East Europe: Bulgaria, Romania, Russia, Turkey

3. Hypothesis

The main hypothesis was that international students from different countries experience different symptoms and causes of culture shock. Our dependent variables were the causes and symptoms of culture shock and our independent variable was country of origin (later combined to cultural regions). It was hypothesized that the following moderating variables would affect the relationship between the independent and dependent variables: level of degree pursued, travel patterns, previous exposure to the American culture, gender, age, and religion. Hypotheses for these variables are discussed in the following section.

4. Questionnaire

Data were collected from the target population using an on-line questionnaire. After extensive pre-testing, a questionnaire was sent to the respondents by e-mail. (see Appendix 1 for copy of the questionnaire).

The first question asked the country of origin. As previously explained, this response was used to classify respondents into different regions for analysis.

The second question asked their level of degree being pursued. It was assumed that there would be a significant difference between respondents having different levels of education. For example, undergraduate students are likely to be younger and less experienced and therefore would experience greater culture shock.

The third question inquired about their length of time in the University. This question could be a benchmark for the length of their stay in US at the same time. People who studied longer at CSUEB would have stayed longer in US and therefore have less severe culture shock.

The fourth and fifth questions were designed in order to test the difference between those respondents who had previously visited US before coming to study and those who did not. The number of visits to US prior to coming for an extended period was thought to moderate the extent of culture shock as the greater the number of prior visits, the less the culture shock.

The sixth question was directed at testing the hypotheses about the diminishing effect of culture shock among the respondents who had previous experience of living in a foreign country for an extended period, which was defined as “more than 3 months”. Questions 4-6 were included based on the discussion by Eickelmann (2006) who stated, “Research has shown that the more well-traveled and practiced (sic) at absorbing, accepting and adapting you are, the more easily you overcome culture shock.”

The seventh question was used to define the dependent variable “Symptoms of culture shock”. Each category in the question represented a symptom of culture shock and was defined based on previous research (Guanipa, 1998 and Schneider, 2006). These categories were: (1) Irritability, (2) Homesickness, (3) Sudden intense feeling of loyalty to your own culture (social withdrawal), (4) Overeating or loss of appetite, (5) Boredom, (6) A Need for excessive sleep, (7)
Depression, (8) Loss of ability to study effectively, (9) Marital or relationship stress, (10) Feeling sick much of the time (headache, upset stomach). Subjects were asked to indicate the frequency of experiencing each symptom during the first year of their stay in the United States.

The eighth question defined the other dependent variable, “Causes of culture shock”. Each category in this question represented a possible causal factor of culture shock, and respondents were asked to indicate the degree to which they felt it was a cause of culture shock. These elements were: (1) Language, (2) Interpersonal Communication (body language, facial expressions), (3) Politics, (4) Mentality (mental attitude) (5) Religion, (6) American’s Attitude towards International Students, (7) Infrastructure, (8) Service Quality, (9) Education System, (10) Food, (11) Environmental Concerns, (12) Social Responsibility, and (13) Immigration Policies. The answers indicated how crucial the respondents considered the differences in these 13 elements between their home country and the U.S.

Questions 9 through 11 collected information in order to classify respondents by the moderating variables of Gender, Age and Religion.

Question 12 was an open ended question to identify potential drawbacks of our questionnaire and generate areas for future research on the nature of culture shock.

5. Selection of Sample

Our plan was to reach all 571 international students with the help of Center of International Education. Unfortunately, the e-mails that enrolment services sent to all registered international students did not reach everyone because of full mail boxes of recipients and of internet service errors. A 33.5% response rate was achieved after editing, giving a usable sample of 191 respondents. Four responses were eliminated due to lack of indicating their country of origin. Three more samples in which the respondents reported that their country of origin was the United States were also eliminated as were partially completed questionnaires. As the question about “country of origin” was an open-ended question, students used different expressions for their countries. For example, students reported “China”, “P. R. China”, “Hong Kong, China” and “Macau, China”, and these were consolidated into “China”. This was later classified into the region “South East Asia”.

5.1 Processing of small samples

Some categories in the survey did not have sufficient sample size for statistical analysis. In such cases, categories were collapsed into other categories. The following changes were made:

(1) Age (Question 10): “40 or Older” was combined with “35-39” creating the new category “35 or older”.
(2) Religion (Question 11): We removed “Jewish” because of small sample size (Only one respondent).
(3) Middle Eastern, South American, and North American respondents were omitted due to small sample size.

5.2 Analysis

The analysis consisted of two main parts. First, we analyzed the degree to which international students encountered various symptoms of culture shock during their first-year visit to the US. Secondly, we analyzed the causes of culture shock. Analyses (again using univariate analyses of variance) were done for each of the following moderating variables: regions, education level, age, gender, religion, length of study at CSUEB, the number of times students have been to the US, and whether students had been in other countries before they came to the US.

6. Results

6.1 Symptoms of Culture Shock

For question 7, which asked how often various symptoms were experienced during the first year after coming to the United States, 52% the respondents indicated a “Moderate” or “Heavy” level for Homesickness, 44% for Social Withdrawal, and 44% for Boredom. The symptoms experienced the least (50% or greater indicating “Not at all”) were Over-eating or Loss of Appetite (55%), Loss of Ability to Study Effectively (50%), and “Feeling Sick Much of the Time (headache and upset stomach) (62%). As shown in Table 1, virtually 100% of the respondents indicated that they had experienced symptoms of culture shock. Out of 178 respondents, 56 experienced more than 7 different symptoms of culture shock, 47 experienced 6-7 symptoms, 39 experienced 4-5 symptoms, 22 experienced 2-3 symptoms, and 6 respondents experienced only one of the symptoms. Eight respondents reported no symptoms at all (Refer to Table 1, Appendix 2).

6.2 Analyses by Moderating Variables

6.2.1 Regions

There were no significant differences in terms of experiencing culture shock between international students from different regions. This did not support our hypothesis and seemed to indicate that the symptoms cut across all national boundaries!

6.2.2 Education

International Students with different educational levels had a significant difference in experiencing culture shock (P=.008).
Our hypothesis, which was supported, was that since graduate students were generally older, more experienced and more knowledgeable than undergraduate students, they would experience less culture shock. The “Other” category, which consisted of exchange students, was not considered due to the small sample size. Exchange students who selected “other” category did not specify if they were graduate or undergraduate exchange students. For this reason, they were not included in either category. (Refer to Table 2, Appendix 2).

6.2.3 Age
Different age ranges did not show a significant difference. It is interesting to note that a plot of the means showed that the culture shock mean score and age ranges were inversely proportional. Since graduate students are generally older than undergraduates, this would support the previous results.

6.2.4 Gender
The study showed that there was no significant difference between males and females in the degree to which respondents encountered culture shock. This is somewhat surprising given that gender is often a significant moderating variable. While Hofstede (1980, 2001) concluded that cultural dimensions do not differ by gender, Stedham and Yamamura (2004) stated that women tend to be more relationship oriented with strong emphasis on interaction, communication, and harmony. This statement in turn suggests that women are more likely than men to experience internal issues of cultural differences.

6.2.5 Religion
There were no significant differences between students with different religions. After further analysis, it was discovered that 49 students answered “Other” as religion, 35 of them being from India. The option “Hindu” was missing from the survey. Since there are other religions in India, it could not be assumed that all “Other” Indians were Hindu.

6.2.6 Length of Study at California State University, East Bay (CSUEB)
There were no significant differences in the means of culture shock scores between students who had studied at CSUEB for different lengths of time. This was contrary to the hypothesis that the longer you were at the University, the less culture shock you would experience.

6.2.7 Times been to the U.S.
This factor was highly significant (p=.001). Students who had visited the United States for the first time and those who had been here only once before had statistically significant higher means of culture shock than those who had visited twice or more. This finding supported the hypothesis that the more exposure you had to the U.S. culture, the less the culture shock. (Refer to Table 3, Appendix 2).

6.2.8 Previous Travels
Question 6 asked if they had lived in a country different than their country of origin for more than 3 months prior to coming to the United States. The assumption was that students who had previously been to other countries had already encountered culture shock and therefore they would have less culture shock when they came to the US for the first time. The results supported this hypothesis (p =.012) (Refer to Table 4, Appendix 2). Further study about whether there were significant differences according to which countries and how many countries they had visited would be interesting but were beyond the scope of this study.

7. Causes of Culture Shock
The 13 elements of culture shock that international students were asked to consider as causes of culture shock were analyzed by assigning a score ranging from 1 for “Strongly Disagree”, to 5 for “Strongly Agree”. The higher the score, the greater was the student’s agreement that the element was a cause of their culture shock. As shown in Table 6, the percentage (50% or greater) of the respondents who indicated “Slightly Agree” and “Strongly Agree” to the causes of culture shock are as follows:

- (1) Language – 64%
- (2) Immigration Policies – 61%
- (3) Mentality (Mental attitude) – 60%
- (4) Education System – 58%
- (5) Interpersonal Communication (Body Language, Facial Expressions) – 58%
- (6) Food – 57%

All but 8 of the respondents indicated that they believed that culture shock was caused by at least one of the 13 causes. Twenty-seven respondents believed culture shock is caused by over 9 causes, 40 believed it is caused by 8-9 causes, 43 believed it is caused by 6-7 causes, 32 believed it is caused by 4-5 causes, 23 believed it is caused by 2-3 causes, and only 7 believed that it is caused by only one cause. Thus the concept “Culture Shock” is multi-determined, making it more challenging to overcome since numerous factors constitute its cause. (Refer to Table 6, Appendix 2).
Results of further analyses of these factors by various moderating variables follows:

7.1 Geographic Regions
There were statistically significant differences in the causal elements of “language”, “interpersonal communication”, “politics”, “mentality”, and “American’s Attitude towards international students” between students from different regions. (Refer to Table 5, Appendix 2). Students from South East Asia and East Europe had the highest means in Language, indicating that those students had significantly most difficulties in language skills, which became the major causes of their culture shock. For the causal element of Interpersonal Communication, results indicated that students from South East Asia and from Africa felt this was the major cause. The results showed students from East and West Europe as well as Africa considered Politics and Mentality to be the primary causes of culture shock. “American’s Attitude Towards International Students” was cited as the major element by students from South East Asia.

7.2 Education
There was a significant difference (p=.049) in educational level and belief that Religion was a cause of culture shock. Undergraduate students tended to agree more than graduates that religion was the cause of their culture shock. (Refer to Table 7, Appendix 2).

7.3 Age
There was a significant difference in Interpersonal Communication by different age groups, the younger the age group the more crucial was this element perceived. (Refer to Table 8, Appendix 2). The hypothesis was that as you age you tended to become more flexible and thus find it easier to communicate with others. The “35 or over” category was combined with the 30-34 one due to small sample size.

7.4 Gender
There was no significant difference between males and females in considering the causes of culture shock. This was also found to be true in the analysis of symptoms. Again, this was a surprising finding since many psychological variables are found to be gender specific. Further research on this variable should prove enlightening.

7.5 Religion
There were significant differences between students with different religions in the elements of “language”, “politics”, and “Service Quality” (Refer to Table 9, Appendix 2). Muslim and Buddhist respondents indicated Language as the major cause of culture shock. As for Politics, both Muslim and Christian students showed the highest mean scores. This is not surprising given the current conflict between the US and Middle East countries and thus lends support to the validity of the questionnaire. Service Quality is difficult to interpret as those indicating “no religion”, followed by Muslim and Christian, felt this element was the major cause of culture shock.

7.6 Length of Time Studying at CSUEB
As shown in Table 10 (See Appendix 2), there was a significant difference in “religion” between the length of time students had been studying at the University. It appears that between 1-2 years of study, religion becomes more important than before or after although the data do not clearly support any interpretation. This is an area needing further study.

7.7 Times Have Been to the U.S.
There were no significant differences in this category, contrary to the expectation that those who had been to the U.S. more often before coming here to study would experience less culture shock. Obviously the nature of their experience in their previous visits was a modifying factor.

7.8 Extent of Previous Travels
There was no significant difference in students who had been to other countries before they went to the US for the first time and those who had not. This did not support the hypothesis that those who had already experienced culture shock, and thus would have fewer symptoms of culture shock, would be expected to indicate significantly fewer causes. Obviously, more research is needed in this area.

8. Summary
Our main hypothesis was that different students (in terms of countries, education level, age, experience, gender and religion) had different levels of culture shock (in terms of symptoms and causes).

8.1 Culture shock symptoms
From the analysis, we concluded that all international students experience culture shock although there were different symptoms. Graduate students had encountered less culture shock than the undergraduate students and younger students had encountered more culture shock than the older students. This follows logically from the assumption that graduate students are older than undergraduates. The students who had been to other countries before they came to the US had
encountered less culture shock than those who have never been to other countries before. No matter where the students came from, no matter whether they were male or female, and no matter which religion they had, the majority encountered culture shock when they first came to the US.

8.2 Causes of culture shock

In regard to the causes of culture shock, we concluded that different students also had different reasons for experiencing culture shock. The differences were significant among students from different regions. South East Asia and East European students reported that their culture shock was mainly caused by Language. South East Asian and African students had more difficulties in Interpersonal Communication. American’s Attitude Towards International Students was cited as the major cause by students from South East Asia only. East and West Europe and students from Africa reported that Politics and Mentality were the major casual elements. Students of different ages attributed different causes for their culture shock. The younger students regarded Interpersonal Communication as a major cause of their culture shock in comparison to the older students. Students who had been to other countries before they came to the US had less difficulty in Interpersonal Communication; thus they tended to minimize it as a cause of their culture shock. However, students who had not previously been to other countries considered Interpersonal Communication to be a major cause of their culture shock. There were no significant gender differences.

9. Discussion and Implications of Study

9.1 Implication for Counselors

Based of these findings, almost all students should be expected to experience some symptoms of culture shock, with most experiencing multiple symptoms. By understanding the different causes of culture shock as it relates to a person’s background, academic counselors will be able to better understand and deal with this issue in more depth. As mentioned earlier, the fact that younger students feel that Interpersonal Communication is the main cause of culture shock means that they are unlikely to seek help from Americans and will feel isolated. Based on this, counselors in academic settings should include counselors from different backgrounds, not only to provide an alternative view of the experience but also to help coordinate and educate other counselors who might not have diverse cultural backgrounds. The fact that culture shock is multi-dimensional in its cause means that no “simple” action can be taken to ameliorate its symptoms.

9.2 Implications for Companies

Companies need to understand the issues that foreign workers might encounter and be better equipped to deal with the situation. For example, we saw that Language, Mentality, Interpersonal Communication, Politics, and American’s Attitude Towards International Students were the main causes of culture shock depending on the region. Thus it is important that managers understand these causes in depth and be able to facilitate a smooth transition for both students and workers. The current concentration on only language and technical skills is not enough to provide this transition to another culture. Further understanding of student’s and employee’s backgrounds will increase the likelihood of better performance and greater social adaptability. These issues of recruitment, selection and training, and compensating employees are discussed in detail by Dowling and Welch (2005).

9.3 Limitations of the Study

(1) Because of the breadth of the study, the grouping of the countries into various regions was not based on a specific cultural or interpersonal attribute; instead, it was based on general informal understanding of the similarities between different cultures in different countries. Therefore it is possible that variances within those regions may be greater than the variances between them. However, the statistically significant results obtained between regions indicate that this possibility did not mask regional differences as defined.

(2) The difference in the wording of the questions about causes and symptoms may have produced inconsistent and interpretive discrepancies in the results. While the question about the symptoms asks the respondents if they personally experienced such symptoms as a result of culture shock, the question about causes asks the respondents what they believe to be a cause of culture shock which may or may not have been based on personal experience. No attempt was made to link specific symptoms with their causes.

(3) For the purpose of encouraging the respondents to answer all the questions without being overwhelmed with the number of alternatives, possible symptoms and causes were reduced. For example, only 10 out of possible 16 or more symptoms were listed. The most common symptoms and causes were selected based on informal conversations with international students. Therefore, there are no data on other possible symptoms and causes as listed in Guanipa (1998).

(4) As in any study utilizing a census, it is possible that those who responded were only the ones who had experienced culture shock. Although highly unlikely, this remains a possibility. Attempts to interview those who did not return the survey, in order to compare their responses with those who did, proved unsuccessful due to small sample size.

(5) Forty-one comments were written in response to Question 12 which asked for comments or suggestions about culture shock among International students. A review of these indicated that “blame” for culture shock was divided between both
the U.S. and the students’ lack of efforts to adapt to the American culture. No further content analysis was performed.

(6) The usual assumption that the Likert scale produces an interval scale is always open to question.

(7) Since each respondent was able to check multiple symptoms and multiple causes, it was not reasonable to use linear regression to establish the best predictor of culture shock from the list of causes. Future research could ask respondents to pair each symptom with its corresponding cause. Conversely, each cause could result in multiple symptoms.

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Appendix 1. International students and cultural shock questionnaire

This survey is conducted by MBA students of CSUEB. Our goal is to research culture shock among the international students at CSUEB. All the information in this questionnaire below is confidential and will be used for educational purposes only. We appreciate your cooperation and help. Thank you!

1. What is your country of origin? ________________________________________________________

2. What type of degree are you pursuing in CSUEB?
   ___ Undergraduate degree       ___ Graduate Degree
   ___ Other, please specify__________

3. How long have you been studying in CSUEB?
   ___ Less than 6 months         ___ Between 6 months to 1 year
   ___ More than 1 year to 2 years ___ More than 2 years

4. Is this the first time that you came to the United States?
   ___ Yes   ___ No
5. If you answered “NO” to question 4, how many times have you visited USA before you came here to study?
   __1 time   __2 – 3 times   __ more than 3 times   __ I moved to live in the USA

6. Have you lived in a country for an extended period (more than 3 months) different from your country of origin prior to coming to the USA?
   __No   __ If Yes, please indicate the country (or countries) _______________________

7. Have you experienced the following symptoms during the first year after coming to the United States? (Please check the appropriate box)

| Symptom                                                                                                                | Not at all 1 | Slightly 2 | Moderately 3 | Heavily 4 |
|------------------------------------------------------------------------------------------------------------------------|--------------|------------|--------------|-----------|
| Irritability                                                                                                            |              |            |              |           |
| Homesickness                                                                                                             |              |            |              |           |
| Sudden intense feeling of loyalty to your own culture (social withdrawal)                                                |              |            |              |           |
| Overeating or loss of appetite                                                                                        |              |            |              |           |
| Boredom                                                                                                                 |              |            |              |           |
| A need for Excessive sleep                                                                                                |              |            |              |           |
| Depression                                                                                                              |              |            |              |           |
| Loss of ability to study effectively                                                                                   |              |            |              |           |
| Marital or relationship stress                                                                                          |              |            |              |           |
| Feeling sick much of the time (headache, upset stomach)                                                                  |              |            |              |           |
| Other (please specify)                                                                                                  |              |            |              |           |

8. Please indicate the degree to which you consider the following elements as causes of culture shock.

| Element                                                                                                                  | Strongly Disagree 1 | Slightly Disagree 2 | Uncertain 3 | Slightly Agree 4 | Strongly Agree 5 |
|--------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|-------------|------------------|------------------|
| Language                                                                                                                 |                     |                     |             |                  |                  |
| Interpersonal Communication (body language, facial expressions)                                                           |                     |                     |             |                  |                  |
| Politics                                                                                                                 |                     |                     |             |                  |                  |
| Mentality (mental attitude)                                                                                              |                     |                     |             |                  |                  |
| Religion                                                                                                                 |                     |                     |             |                  |                  |
| American’s Attitude toward International Students                                                                       |                     |                     |             |                  |                  |
| Infrastructure                                                                                                           |                     |                     |             |                  |                  |
9. Please indicate your gender:
   _ Male          _ Female

10. What is your age?
   _ 18 – 23          _ 35 - 39
   _ 24 – 29          _ over 40
   _ 30 - 34

11. Religion:
   _ Christian       _ Muslim        _ Jewish
   _ Buddhist        _ None           _ Prefer Not to Say
   _ Other           

12. Please feel free to add any comments or suggestions about culture shock among International Students

Thank you for your time!!!

Appendix 2. Tables

Table 1. Symptoms of Culture Shock

| Symptom                                      | Not at all | Slightly | Moderate | Heavily | Response Average |
|----------------------------------------------|------------|----------|----------|---------|------------------|
| Dislability                                  | 46% (77)   | 24% (60) | 20% (39) | 5% (10) | 1.91             |
| Homesickness                                 | 14% (23)   | 30% (50) | 26% (52) | 26% (52) | 2.93             |
| Sudden instance feeling of loyalty to your own culture (social withdrawal) | 22% (36) | 33% (64) | 27% (52) | 17% (34) | 2.23             |
| Overeating or loss of appetite               | 55% (90)   | 25% (42) | 14% (27) | 3% (16)  | 1.73             |
| Jondren                                      | 90% (144)  | 5% (8)   | 2% (3)   | 0% (0)   | 1.99             |
| A need for excessive sleep                   | 48% (77)   | 24% (40) | 20% (35) | 11% (21) | 1.95             |
| Depression                                   | 9% (15)    | 31% (55) | 26% (52) | 18% (34) | 1.50             |
| Loss of ability to study effectively        | 50% (87)   | 26% (51) | 14% (27) | 10% (20) | 1.85             |
| Marital or other relationship stress         | 40% (67)   | 34% (58) | 12% (23) | 24% (47) | 1.91             |
| Feeling sick, much of the time (headache, upset stomach) | 22% (32) | 36% (60) | 7% (14)  | 5% (10)  | 1.55             |

**Total Respondents:** 198

Table 2. Education Level and Culture Shock Means

| Level        | N     | Mean | Std. Deviation | Sig. |
|--------------|-------|------|----------------|------|
| Undergraduate| 65    | 21.97| 6.22           |      |
| Graduate     | 109   | 19.17| 6.12           |      |
| Between groups|      |      |                | P=.003|

(adipeen this question) 3
Table 3. Frequency of Visiting the U.S. and Culture Shock Means

|                | N  | Mean | Std. Deviation | Sig. |
|----------------|----|------|----------------|------|
| First Time     | 92 | 20.16| 5.89           |      |
| 1 Time         | 30 | 23.60| 6.28           |      |
| 2-3 Times      | 17 | 18.47| 3.83           |      |
| More Than 3 Times | 14 | 15.93| 4.46           |      |
| Between groups |    |      |                | P = .001 |

Table 4. Previous Experience in Foreign Country and Culture Shock Means

|          | N  | Mean | Std. Deviation | Sig.  |
|----------|----|------|----------------|-------|
| No       | 143| 20.71| 6.28           |       |
| Yes      | 34 | 17.71| 5.68           | P = .012 |

Table 5. Differences in Causes of Culture Shock by Regions

| ELEMENT                                    | REGION                | N   | Mean | Std. Deviation | Sig. |
|--------------------------------------------|-----------------------|-----|------|----------------|------|
| Language                                   | South East Asia       | 94  | 4.05 | 1.14           | P = .001 |
|                                            | South Asia            | 45  | 2.40 | 1.47           |      |
|                                            | Africa                | 7   | 3.00 | 1.29           |      |
|                                            | West Europe           | 16  | 3.19 | 1.60           |      |
|                                            | East Europe           | 14  | 4.21 | 1.19           |      |
| Interpersonal Communication (body language, facial expressions) | South East Asia | 94  | 3.71 | 1.18           | P = .010 |
|                                            | South Asia            | 46  | 2.87 | 1.53           |      |
|                                            | Africa                | 8   | 3.50 | .93            |      |
|                                            | West Europe           | 16  | 3.13 | 1.41           |      |
|                                            | East Europe           | 14  | 3.29 | 1.49           |      |
| Politics                                   | South East Asia       | 94  | 2.82 | 1.22           | P = .016 |
|                                            | South Asia            | 46  | 2.35 | 1.16           |      |
|                                            | Africa                | 8   | 3.38 | 1.41           |      |
|                                            | West Europe           | 16  | 3.38 | 1.15           |      |
|                                            | East Europe           | 14  | 3.07 | 1.27           |      |
| Mentality (mental attitude)                | South East Asia       | 94  | 3.35 | 1.11           | P = .003 |
|                                            | South Asia            | 46  | 3.15 | 1.43           |      |
|                                            | Africa                | 8   | 4.25 | 1.04           |      |
|                                            | West Europe           | 16  | 4.25 | .86            |      |
|                                            | East Europe           | 14  | 4.00 | 1.30           |      |
American's Attitude toward International Students

| Region          | N  | Mean | Std. Deviation | Sig. |
|-----------------|----|------|----------------|------|
| South East Asia | 94 | 3.10 | 1.19           | P = .024 |
| South Asia      | 46 | 2.43 | 1.34           |      |
| Africa          | 8  | 2.63 | 1.06           |      |
| West Europe     | 16 | 2.44 | 1.41           |      |
| East Europe     | 14 | 2.50 | 1.16           |      |

Table 6. Causes of Culture Shock

| Element                          | N  | Strongly disagree | Slightly disagree | Uncertain | Slightly agree | Strongly agree | Response Average |
|----------------------------------|----|-------------------|-------------------|-----------|----------------|---------------|-----------------|
| Language                         | 13% (27) | 7% (15) | 8% (17) | 33% (68) | 31% (60) | 1.47 |
| Interpersonal Communication (body language, facial expressions) | 15% (29) | 24% (47) | 13% (25) | 35% (66) | 23% (45) | 3.37 |
| Polite                           | 22% (45) | 22% (45) | 27% (53) | 23% (45) | 19% (39) | 2.54 |
| Mannerly (mental attitude)       | 21% (43) | 22% (45) | 22% (45) | 30% (61) | 22% (42) | 3.37 |
| Religion                         | 24% (52) | 26% (52) | 23% (46) | 23% (46) | 11% (21) | 2.75 |
| American's Attitude toward       | 10% (20) | 26% (50) | 18% (35) | 26% (50) | 19% (38) | 2.88 |
| International Students           |     |                   |                   |           |               |               |
| Infrastructure                   | 21% (41) | 18% (36) | 39% (77) | 12% (25) | 2.04 |
| Service Quality                  | 20% (40) | 15% (30) | 23% (46) | 30% (61) | 20% (40) | 3.08 |
| Education System                 | 15% (30) | 15% (30) | 14% (27) | 46% (92) | 16% (32) | 3.31 |
| Food                             | 15% (29) | 15% (29) | 15% (29) | 34% (68) | 26% (52) | 3.38 |
| Environmental Concerns           | 19% (38) | 20% (40) | 27% (53) | 27% (54) | 12% (24) | 2.90 |
| Social responsibility            | 21% (42) | 15% (30) | 27% (55) | 24% (48) | 13% (25) | 2.90 |
| Immigration Policies             | 12% (24) | 11% (22) | 18% (36) | 27% (54) | 44% (88) | 3.54 |
| Total Respondents                | 198 |                   |                   |           |               | 3               |

Table 7. Differences in Educational Level and Belief that Religion was a causal Element

| Element         | Educational Level | N  | Mean | Std. Deviation | Sig. |
|-----------------|-------------------|----|------|----------------|------|
| Religion        | Undergraduate     | 65 | 3.14 | 1.29           | P = .049 |
|                 | Graduate          | 109| 2.63 | 1.34           |      |

Table 8. Differences in Interpersonal Communication by Age Group

| Element | Age Group | N  | Mean | Std. Deviation | Sig. |
|---------|-----------|----|------|----------------|------|
| Attitude| 17-23     | 54 | 3.00 | 1.24           | P = .045 |
|         | 24-29     | 86 | 2.91 | 1.34           |      |
|         | 30-34     | 26 | 2.23 | .99            |      |
Table 9. Differences in Causal Elements by Religion

| Element         | Religion   | N  | Mean | Std. Deviation | Sig. |
|-----------------|------------|----|------|----------------|------|
| Language        | Buddhist   | 25 | 3.92 | 1.35           | P=.001|
|                 | Christian  | 46 | 3.46 | 1.44           |      |
|                 | Muslim     | 10 | 4.20 | .79            |      |
|                 | Other      | 51 | 2.76 | 1.59           |      |
|                 | None       | 44 | 4.09 | 1.11           |      |
| Politics        | Buddhist   | 25 | 2.56 | 1.12           | P=.011|
|                 | Christian  | 47 | 3.19 | 1.21           |      |
|                 | Muslim     | 10 | 3.20 | 1.23           |      |
|                 | Other      | 52 | 2.38 | 1.17           |      |
|                 | None       | 44 | 2.89 | 1.28           |      |
| Service Quality | Buddhist   | 25 | 2.8  | 1.47           | P=.038|
|                 | Christian  | 47 | 3.21 | 1.37           |      |
|                 | Muslim     | 10 | 3.30 | 1.25           |      |
|                 | Other      | 52 | 2.75 | 1.40           |      |
|                 | None       | 44 | 3.59 | 1.40           |      |

Table 10. Length of Time Studying and Element of Religion

| Element         | Length of Time Studying | N  | Mean | Std. Deviation | Sig. |
|-----------------|-------------------------|----|------|----------------|------|
| Religion        | Less Than 6 Months      | 43 | 2.53 | 1.37           | P=.009|
|                 | 6 Months to 1 Year      | 22 | 2.23 | 1.27           |      |
|                 | 1 - 2 Years             | 63 | 3.19 | 1.19           |      |
|                 | More Than 2 years       | 50 | 2.88 | 1.37           |      |