

## Analyzing International Students' Study Anxiety in Higher Education

Rezvan Khoshlessan  
Kumer Pial Das  
Lamar University, USA

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### ABSTRACT

*The purpose of this study is to explore international students' study anxiety in a mid-sized public four-year university in Southeast Texas by comparing their existing study anxiety along lines of nationality, gender, age, major, degree, and stage of education. The subjects were selected using a convenience sample during the Spring of 2013. The researcher collected pertinent demographic data and used a modified version of the Study Anxiety Questionnaire (SAQ). The non-parametric statistical analysis focuses on the students' perceptions and the study anxiety of international students which has been grouped into five anxiety subgroups. The results demonstrate some differences in anxiety levels among different demographic groups.*

**Key Words:** study anxiety, international student, social anxiety, family anxiety, language anxiety, exam anxiety, presentation anxiety

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The anxiety experienced among college students is assumed to be a very important factor in a learning process. Many studies have been made to come across solutions to lead this anxiety which might avert learners from learning to motivation. Rosen (2008) explained anxiety as a “major source of energy” and looked at anxiety as a positive factor. He admitted that no one could escape from it since people live in an unpredictable society. Living in a community, Rosen added, full of everyday changes lead to anxiety. He believed anxiety can be reduced when people change their perspectives in life. In his article, Rosen concluded, “just enough anxiety creates the optimal condition for learning” (p. 36).

Students in their college years confront many obstacles. One of the main problems they face is how to deal with anxiety especially study anxiety (Vitasari, Abdul Wahab, Othman, Herawan, & Sinnadurai, 2010). Chapell et al. (2005) compared undergraduate and graduate students' test anxiety gender wise. They found that female undergraduates had significantly higher test anxiety for higher GPAs than male undergraduates. The results of a study on anxiety levels of graduate and undergraduate student showed that graduate students experienced greater levels of anxiety (Poyrazli & Kavanaugh, 2006). Woodrow (2006) claimed that language learning anxiety differed from other forms of anxiety and affected students learning outcome. Therefore, for students study anxiety becomes a real phenomenon; the sources of anxiety and its control reveal the importance of study anxiety (Vitasari, Abdul Wahab, Othman, Herawan, & Sinnadurai, 2010).

Altbach and Knight (2007) reported a significant increase of international students in the United States. They stated that the recent demand for internationalization and globalization of our world resulted in the inflow of international students in this country. Institute of International Education (2015) reported a 20 percent enrollment of the 4.5 million international students worldwide who were pursuing higher education in the US. But like every other college students, international students have their barriers. One of their major issues is how to deal with study anxiety which is common in every international student (Vitasari et al. 2010). Trice (2003) investigated the challenges of international graduate students. One of the main problems she observed was functioning in English. Achieving their goals and adjusting socially/culturally were also other factors involved.

The purpose of this study is to explore the perception of international students on study anxiety which has been sub-grouped into five categories (exam anxiety, language anxiety, social anxiety, family anxiety, and presentation anxiety). Specific research questions included the following:

- R1. Is there any statistically significant difference in study anxiety between male and female international students?
- R2. Is there any statistically significant difference in study anxiety between undergraduate and graduate international students?
- R3. Is there any statistically significant difference in study anxiety among different class levels (freshman, sophomore, junior, senior, masters, and doctorate)?
- R4. Is there any statistically significant difference in study among international students based on their discipline?
- R5. Is there any statistically significant difference in the study among international students based on the length of their study in the United States?

## **Definitions**

The study employed the following definitions:

1. Globalization is known as the interrelation and connection of nation-states and regions which build up through the international economic, social and cultural intercourse and goes beyond borders (Zheng, 2010).
2. International students are individuals enrolled in higher education institutions and who are on temporary student visas and are non-native English speakers (Stevens, Emil, & Yamashita, 2009).
3. Graduate students are individuals in a graduate school seeking an advanced degree such as masters or doctoral (Stevens, Emil, & Yamashita, 2009).
4. "Student anxiety" is the feelings, thoughts, and experiences that create an apprehension level during the study process and affect the students' academic performance (Vitasari et al., 2010).

## **LITERATURE REVIEW**

McLachlan and Justice (2009) claimed that learning opportunities for international students have increased in the past decade. This increase has led to a change in the global setting of higher education. Institute of International Education (2015) findings showed that from the vast majority of respondents worldwide 74 percent of prospective students reported the U.S. as their top choice for higher studies. Andrade (2006) and the Institute of International Education (2015) reported the rise in the number of international students in English-speaking countries such as the United States of America, the United Kingdom, Australia, and Canada to name a few. It is believed that by gaining experience in their college years and sharing it at work in their home countries, international students create a global understanding. This could help developing positive relations between U.S. and their home countries (Nikias, 2008).

The total number of international students in the U.S. colleges and universities is reported to be 886,052 (Open Doors Report, 2014). Open Doors Report recounted an eight percent increase over the prior year in the number of international students. Interestingly, in 2014, the number of undergraduate international students was 42% which obviously was higher than the 37% of graduate students (Open Doors Report, 2014). Open Doors Report also reported that California as the top host state, New York City as the top host city and Business and Management followed by Engineering as the topped fields of study in the United States of America. Open Doors Report (2014) identified an increase in the number of students from Asia. China, India, and Korea together account for 50% of the international students' population.

Political conflicts and international terrorism are primary reasons why many international students do not get an opportunity to study in the

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United States (Fisher, 2010). The decline in admissions reached the highest after the event of September 11, 2001; however, the decline stabilized by 2007 (H. R. No.110-73, 2007). Fischer (2010) reported that a renewed focus on attracting international students to U.S. colleges with more persistence and creativity could be a reason for the stabilization.

### **Learners' Anxiety in University Classes**

Hartmann (2014) stated, “anxiety is a subjective state of fear, apprehension, or tension” which “in the face of a naturally fearful or threatening situation; anxiety is a normal and understandable reaction” (p. 1). Anxiety is quite frequently seen in classes where students face problems throughout their learning process (Casado & Dereshiwsky, 2004; Kim, 2009; Marcos-Llinas & Garau, 2009; Sparks & Ganschow, 2007). Sizoo, Jozkowskia, Malhotra, and Shapero (2008) claimed that anxiety affected students’ performances and made them fall behind in class. For students, study anxiety becomes a real phenomenon; the sources of anxiety and its control reflect the importance.

### **Learners’ Exam Anxiety in Class**

Kesici and Erdogan (2009) found test anxiety as one of the most significant predictors of mathematics anxiety. They added instructors should avoid approaches and activities that may cause test anxiety in students. Tsai and Li (2012) reported the higher the test anxiety levels for the students were, the lower their grade in the English reading proficiency test. Moreover, the findings of Rezazadeh and Tavakoli (2009) revealed three factors regarding study anxiety. First, female students had a higher level of test anxiety in contrast to male students. Second, there was a statistically significant negative correlation between test anxiety and academic achievement. And third, there was no meaningful relationship between test anxiety and years of study.

### **Learners’ Language Anxiety in Class**

Researchers emphasize on a certain level of anxiety that might improve students’ performance. When a student starts a conversation or interacts with others, anxiety might be seen. As defined by MacIntyre and Gardner (1994) language anxiety is “the feeling of tension and apprehension especially associated with second language contexts, including speaking, listening, and learning” (p. 284). Studies report different levels of anxiety among Foreign Language Learners (FLL), Second Language Learners (SLL) and Communicative Anxiety of Learners (CAL) (Bonifacci, Candria & Contento, 2007; Casado & Dereshiwsky, 2004; Marcos-Llinas & Garau, 2009). Aspects such as reading comprehension, writing, listening and speaking anxiety were noted among learners which varied in different groups (Kim, 2009). In a study done by Marcos-Llinas and Garau (2009) advanced foreign language

learners showed higher levels of language anxiety. Also, these advanced level students reported feeling more pressure while studying than learners in the intermediate and beginning level. In their study, advanced learners with higher levels of anxiety had higher grades in their foreign language course. This result elaborated having language anxiety to some level was beneficial, and the traditional belief of the negativity of language anxiety in learning becomes a question (Marcos-Llinas & Garau, 2009).

On the contrary, Sparks and Ganschow (2007) findings revealed that lower anxiety levels existed among students with higher scores in their foreign language courses which were a result of high language proficiency. This study aroused the query of whether truly the problem of anxious learners was due to their foreign language proficiency or language learning skills. As reported by Sparks and Ganschow (2007), foreign language aptitude and native language learning skills were related. To their belief, if these language learning skills were practiced from the very first years of schooling, learners would face less anxiety in their foreign language learning classes later on in their study years.

Skinner (2009) stated that learning the English-language and the different learning styles in other countries were some of the challenges of international students. International students arrive with their strategies for studying which usually do not fit in the existing culture. Learning strategies must be modified. Poyrazli and Kavanaugh (2006) and Bell (2008) confirmed anxiety and strain among international students who lacked English proficiency and reported that international students were more anxious about their studies. Humphries (2011) investigated the language anxiety of Chinese international students in an Australian university. She claimed creating a bond between the professor, and student helped reduce international students' language anxiety.

### **Learners' Social Anxiety in Class**

Cowden (2009) claimed social anxiety "is a term that is used to describe an experience of anxiety regarding a social situation, interaction with others, or being scrutinized by other people" (p. 16). Russell and Topham (2012) reported the existence of social anxiety among students. In their study, they stated that "social anxiety is a persistent, hidden disability that impacts on learning and well-being (p. 375). They added students with social anxiety need pedagogical support. Moreover, Cowden (2009) emphasized the effect social anxiety has on various needs of a student in the educational system. Okazaki (2000) examined 39 Asian Americans and 42 White Americans who reported different levels of social anxiety.

The results showed that Asian Americans reported higher levels of social anxiety than White Americans on both interview and written conditions. Weaver (2012) affirmed "public speaking is not a favorite activity of most people—in fact, many people seem to fear public speaking

or at least avoid it when they can. But most people are also not crippled with embarrassment or anxiety when they have to present in front of a class or when they are called on to answer a question. For students with social anxiety, being put into the spotlight occasionally during class presentations or participation is enough to make them avoid those classes altogether” (p. 1). Sena, Lowe, and Lee (2007) mentioned in almost any learning setting there were some basic fundamental strategies that aided students to succeed and overcome their social anxiety. For example, professors could provide pre-planned topics for conversation for students to prepare when attending social events. Also, instructors could handout the questions that would be asked before the session, so that students had time to go over them. They could also suggest to anxious students to arrive early to class and other social functions to make the entrance easier and less stressful for them (Lein, 2008).

Abeysekera (2008) reported females preferred to be quiet and listen to lectures. They chose the traditional format of learning and did not want to participate in group study. In the Chinese culture, the silence was valued for women and being impassive was acceptable. Female Chinese students confront problems identifying themselves as students and learners in class (Hsieh, 2006). Dao, Lee, and Chang (2007) also found higher depression in female Taiwanese graduate students compared to the male graduate students. In a similar study, Misra, Crist, and Burant (2003) reported female international students highly reacted to stressors in comparison to male international students.

### **Learners’ Family Anxiety in Class**

Negative family factors such as parents’ divorce, money problems in the family, and abusive childhood experiences to name a few cause anxiety disorders (Bogels & Brechman-Toussaintb, 2006). These family anxiety disorders contribute to the development of study anxiety among students (Vitasari et al., 2010). Moreover, Hughes and Gullone (2008) reported aspects such as communication, affection, conflicts, satisfaction, and closeness among family members in some way is related to internalizing symptoms and anxiety disorders. This suggests that the expression of symptoms may have common effects on relationships within families which will affect students in their course studies (Viasari, Abdul Wahab, Othman, & Awang, 2010).

### **Learners’ Presentation Anxiety in Class**

Devi and Feroz (2008) studied communication apprehension which was an anxiety seen in oral presentations. They argued that students with higher communicative competence showed less anxiety in their performance. They found that students exhibited anxiety, but it did not affect their grades. In another research on the levels of anxiety in

communication courses, Witt, and Behnke (2006) reported a different preventative anxiety of learners. The cause of this particular anxiety, as mentioned in their study, was students being uncomfortable in new contexts given in class by the instructor. In their research, public speaking being “impromptu” or “extemporaneous” was very stressful for students and made the learners quite anxious. Al-Hebaish (2012) investigated the correlation between general self-confidence and academic achievement in the oral presentation course among 53 undergraduate female English majors from Taibah University in Saudi Arabia. The results showed that students with higher self-confidence had less anxiety while giving an oral presentation. This study recommended that language instructors should help increase their students’ self-confidence to develop their oral performance achievement.

## **RESEARCH METHOD**

This was a nonexperimental study that utilized correlational methods to investigate the relationships between the level of study anxiety and variables such as nationality, gender, age, major, degree, and stage of education in international students. Correlational studies are used to investigate the strength of linear relationships between variables (McMillan & Schumacher, 2010).

### **Participants**

This study was conducted at a mid-sized (10,000 - 20,000 students; see Texas Higher Education Coordinating Board, 2012) Texas public four-year institution, with a diverse student population of over 14,000 students, 589 from countries other than the United States. Initially, a power analysis was conducted; a priori using a free power analysis tool, G\*Power (Faul, Erdfelder, Buchner, & Lang, 2009), to determine the needed sample size.

Based on the power analysis for a one-tailed small effect (0.03) with a significance level of 0.05, a minimum sample of  $n=67$  was needed. To account for possible attrition, it was determined that a sample size of 85 international students would be selected to participate in the study. All participants were international college students (undergraduate and graduate) during the Spring 2013 semester. This sample was a convenience sample.

The following hypotheses were proposed:

H1: A strong relationship exists between gender and anxiety.

H2: Anxiety level varies between undergraduate and graduate students.

H3: Anxiety level varies among different class levels (freshman, sophomore etc.).

H4: International student's majors (disciplines) have influences on anxiety level.

H5: A strong relationship exists between the length of the study and anxiety.

### **Instrumentation**

In addition to creating several questions about pertinent sample characteristics, the instrument was administered to the sample via an internet survey host site, OrgSync.com™. The instrument used was the Study Anxiety Questionnaire (SAQ) (Vitasari, Abdul Wahab, Othman, & Awang, 2010). The researcher was granted permission by the developers of the instrument to use and make minor modifications to meet the needs of the study.

### **Student Demographics**

Several student-level characteristics were measured by demographic questions created by the researcher and included at the beginning of the electronic survey used for this study. The students answered multiple-choice questions regarding gender (male/female) and the students' education status (Freshman, Sophomore, Junior, Senior, Masters, or Doctoral). The question related to the country of origin was open-ended because the international students who participated in this study were from 20 different countries. This mid-sized university consists of six colleges: College of Arts and Sciences, College of Business, College of Education and Human Development, College of Engineering, and College of Fine Arts and Communication. The participants were enrolled in 22 different majors, and their ages ranged from 18 to 55. The majority of the participants were between 24 to 29 years of age. Regarding the international students' stage in their program, they chose one of the following: "I am taking courses," "I have finished all coursework requirements," "I am preparing for comprehensive exams and other requirements to meet additional requirements before dissertation," or "I passed my written and oral comprehensive exams and am writing my doctoral dissertation." All six variables were coded and the data was analyzed.

### **Study Anxiety Questionnaire**

The Study Anxiety Questionnaire (SAQ) (Vitasari, Abdul Wahab, Othman, & Awang, 2010) was used in the current study to measure self-reported student study anxiety. The purpose of the Study Anxiety Questionnaire (SAQ) is to investigate students' study anxiety in courses in colleges or universities. It was originally designed to measure the seven sources of study anxiety among college students based on their feelings,

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experiences, and thoughts regarding anxiety during their study in college-level courses.

The original Study Anxiety Questionnaire (SAQ) included 40 items that measured seven sources of Study Anxiety on a five-point Likert-scale with the response options of *Never* (1), *Almost Never* (2), *Rarely* (3), *Fairly Often* (4), or *Very Often* (5). The scores of the items are for each source, to provide a measure of each source of anxiety, and all scores can be added to provide a composite measure of study anxiety. The lower the score, the lower the study anxiety. Regarding the reliability of the instrument, the original Study Anxiety Questionnaire (SAQ) (Vitasari et al., 2010) had an overall Cronbach's  $\alpha = .93$ ; an indication of high reliability showing that the developers instrument has excellent internal consistency (Kline, 1999). Vitasari, Abdul Wahab, Herawan, Othman, and Sinnadurai (2011) used a factor analysis to verify the validity of all items identifying the seven sources of study anxiety of the (SAQ).

For the current study, the researcher used a modified version of the SAQ; only 29 items from the original Study Anxiety Questionnaire (SAQ) (Vitasari, Abdul Wahab, Othman, & Awang, 2010) were used. Participants' responses to the items were added to provide a composite measure of student study anxiety. The modified instrument had an overall Cronbach's  $\alpha = .90$ , which was comparable to the original. Data Collection Procedures

The first step of the researcher in the data collection procedure was to obtain permission to use the modified SAQ (Vitasari et al., 2010) for this study and approval from the university's Institutional Review Board (IRB). The next step was to upload an electronic copy of the demographic form and the modified SAQ into an internet survey host site, OrgSync.com™. Orgsync provides an online community management system to higher education institutions in the United States and Canada. Finally, an email was sent to the International Office requesting help to disseminate an email to all international students inviting them to participate in the survey. The International Office at the participating university sent the request for participation to all international students along with an electronic link to the survey. After the initial invitation had been sent out to the participants, a weekly reminder was sent out to students until 85 students had responded (four weeks). Participants had to respond to all the questions and submit their responses to be counted as a participant.

The respondents represented approximately a 14% response rate of the total population of the international students. There are three assumptions for this response rate. First, the number of items students had to answer might have been too many, even though there was no time limitation and students could have saved their information and continued at a later time. Second, it might have been because students had to reply to all three sections to be able to submit their answers. Third, a barrier might have been that some students did not use their university email. Response

rates in online surveys (average rate of 33%) are generally much lower than traditional paper surveys (average rate of 56%) (Nulty, 2008), but recent research suggests that despite the low response rate, findings are typically comparable to surveys with higher response rates (Holbrook, Krosnick, & Pfent, 2007; Keeter, Kennedy, Dimock, Best, & Craighill, 2006). Once the data collection period ended, the data was extracted from OrgSync.com™ and placed into Statistical Package for the Social Sciences (SPSS) 22.0 for analysis.

## RESULTS

Table 1 shows the demographics of the international student population at the University, as well as of the sample in the current study. About 87% of the students who took the survey were from Asia.

**Table 1: Population and Sample Comparisons of International Student Characteristics**

Characteristics	Population ( <i>N</i> = 589)	Sample ( <i>n</i> = 85)
Education Status		
Freshman	62 (10.5)	4 (04.7)
Sophomore	18 (03.1)	5 (05.9)
Junior	28 (04.8)	2 (02.4)
Senior	46 (07.8)	2 (02.4)
Master	373 (63.3)	60 (70.6)
Doctoral	62 (10.5)	12 (14.1)
Gender		
Male	416 (70.6)	33 (38.8)
Female	173 (29.4)	52 (61.2)
Continent		
Africa	14 (2.4)	2 (02.4)
Americas	34 (5.8)	3 (03.5)
Asia	486 (82.3)	74
Australia	5 (0.8)	(87.1)
Europe	50 (0.8)	1 (01.2)
		5 (05.9)
College/School of Study		
Arts & Sciences	190 (32.3)	24 (28.2)
Business	72 (12.2)	20 (23.5)
Education & Human Development	41 (7.0)	15 (17.6)
Engineering	274 (46.5)	24 (28.2)
Fine Arts & Communication	12 (02.0)	2 (02.4)

About 71% of the survey respondents were working on their master degree while 14% of the students were working on their doctorate. Regarding other

characteristics, 61% of the respondents were female and 39% male. The female participants were not chosen deliberately. They were just the ones who showed more interest and took part in this study. Cronbach's alpha scores for our study were as follows: exam anxiety: 0.787; language anxiety: 0.727; social anxiety: 0.741; family anxiety: 0.626; presentation anxiety: 0.841; overall: 0.909. A commonly accepted rule of thumb for describing internal consistency using Cronbach's alpha is as follows: excellent when  $\alpha \geq 0.9$ ; good when  $0.8 \leq \alpha < 0.9$ ; acceptable when  $0.7 \leq \alpha < 0.8$ ; questionable when  $0.6 \leq \alpha < 0.7$ ; poor when  $0.58 \leq \alpha < 0.6$ ; unacceptable when  $0 \leq \alpha < 0.5$ . All but one of our scores was either good or acceptable. Even though the alpha score for family anxiety subscale was questionable, the overall instrument demonstrated good internal consistency with Cronbach's alpha of 0.909.

Once reliability of the instrument was established, non-parametric tests were used to all test five hypothesis discussed in this study. In other words, non-parametric tests were used to determine whether there were statistically significant differences in response between two or more groups. In particular, the researchers used the Mann-Whitney U test to investigate the first hypothesis involving gender. Out of 29 questions, they found only one question where the difference was significant. The distribution of "I feel tense while studying for exams" is the same across gender hypothesis and was rejected ( $p\text{-value} = 0.001$ ). Male students reported more anxiety than female students during exam preparation. Moreover, they used the Mann-Whitney U test to examine the difference between undergraduate and graduate students (Hypothesis 2); however, there was no significant difference found. The researchers also used Kruskal-Wallis (K-W) test which is another non-parametric test to compare more than two groups. The K-W test had been used to test the third hypothesis. In other words, the test had been conducted to investigate the difference among different class levels (freshman, sophomore, junior, senior, masters, and doctorate). The following table (Table 2) shows the results of the items where evidence was found to reject the null hypothesis for a significance level of 0.05: In all of these four anxieties discussed in Table 2, freshmen showed the most anxiety and doctorate students showed the least anxiety.

The study explored whether the international students' majors (disciplines) had any influence on the anxiety level (Hypothesis 4). The students were regrouped in the following categories: engineering; science and mathematics; business; humanities, arts, and education. The frequency breakdown of these categories is engineering (35%), science and math (17%), business (28%) and humanities arts and education (20%). The K-W test was used to investigate whether any significance difference existed among these students based on their discipline and found that only one of the null hypothesis was rejected for this category (discipline). The K-W test showed that there was a significant difference in the distribution of "I feel

that class presentations have low contributions to my studying”. In other words, students in all disciplines, according to our study, did not value class presentations the same. Engineering students did not recognize class presentations as a contributing factor of their study while education students valued it the most.

**Table 2: Hypothesis Tests Summary for the Class Level and Anxiety**

Null Hypothesis	Test	Significance	Decision
The distribution of I feel depressed after taking an exam is the same across class level	K-W test	0.021	Reject the null hypothesis
The distribution of I feel my heart beating very fast during important exams is the same across class level	K-W test	0.006	Reject the null hypothesis
The distribution of I study hard but am not successful in class is the same across class level	K-W test	0.025	Reject the null hypothesis
The distribution of I face many difficulties in studying when there are too many classmates is the same across class level	K-W test	0.047	Reject the null hypothesis

**Table 3: Hypothesis Test Summary for is the Length of the Study in the Current Program and Anxiety**

Null Hypothesis	Test	Significance	Decision
The distribution of I feel depressed after taking an exam is the same across the length of the study	K-W test	0.005	Reject the null hypothesis
The distribution of I find that my childhood experiences make me feel anxious across the length of the study	K-W test	0.038	Reject the null hypothesis
The distribution of I feel a lack of confidence during my presentations is the same across the length of the study	K-W test	0.017	Reject the null hypothesis
The distribution of I feel my heart beating very fast during important exams is the same across the length of the study	K-W test	0.038	Reject the null hypothesis

Finally, the fifth hypothesis involving the length of the study was also tested. The frequency distribution of this variable was as follows: first semester (19%); second semester (23%); third semester (13%); fourth to the fifth semester (19%); more than five semesters (26%). The K-W test was used to investigate whether any significance difference existed among international students based on the length of the study. The following table (Table 3) shows the results of the items where the study found evidence to reject the null hypothesis for a significance level of 0.05.

A few noteworthy patterns had been observed in the analysis of anxiety and the length of the study. The depression after taking an exam had been observed the most among the second and third semester students. This anxiety was almost identical among newcomers and students who were already in the program four or more semesters. A similar pattern had also been observed involving anxiety related to childhood experiences where third semester students reported they felt anxious fairly often. Lack of confidence had been observed the most among third semester students. This remarkable level of anxiety among third semester students could be contributed to job uncertainty, visa status, financial crisis and academic progress. Students from all groups divided by the length of the study reported presentation anxiety; however, this anxiety level reached its peak during the second and third semester of their study.

## **DISCUSSION AND CONCLUSION**

The findings of the present study should be carefully interpreted because this study focused on a particular group of international students at a specific institution. Thus, the generalizability of the findings beyond this group of international students is limited. Due to the location, this study was limited to international students living and studying in the US. Future studies should consider looking at other variables closely for these groups.

The generality of this finding should be investigated with a bigger and diverse sample. Also, changes may be made to the instrument and after checking the reliability and validity of the modified instrument further examination be performed. Future study may include other institutions and may compare differences by region and institutional type. An interesting study would be comparing national and international students' levels of study anxiety in different environments. Thus, if knowing what anxiety level is normative in any given cultural environment and to what this anxiety pertains, unbiased comparisons between culturally diverse groups in a new cultural environment would be possible and more meaningful.

There were several limitations in this study. First, the study was exploratory and correlational. Thus, no causal conclusions could be made. Second, the questionnaire and survey were distributed by campus email, therefore, students that do not use campus email did not have access to the

survey to complete the survey instrument. There were also delimitations that bound the study. For example, graduate participants consist of masters and doctorate international university students. Moreover, the study was performed in a single mid-sized university in a southern state in the United States.

## **IMPLICATIONS**

The findings of this study supported Wu, Garza, and Guzman (2015) study which reported the existence of academic challenges among international students and mentioned these challenges were also evident in communication with professors, classmates, and staff. Lack of confidence had been reported among third semester students. However, the findings of this study did not support Wu et al. (2015)'s claim regarding social isolation. Students did not report any sign of homesickness. The era of social networking might have an impact on the issue. International students also did not report any racial discrimination and campus environment issue.

Moreover, this study showed there is very little relationship between gender and anxiety (these two groups have statistically significant difference only in exam anxiety). This was a sharp contrast to other studies. Misra and McKean (2000) reported that undergraduate females had more effective time management behaviors than undergraduate males, but also experienced higher academic stress and anxiety. Since majority of our subjects were graduate students, it is our conclusion that anxiety difference between male and female students diminishes as students get older. However, stress was reported while studying for exams among male and female students and our findings contradicted Misra and McKean (2000)'s findings and showed that female students feel less anxiety while preparing for exams than male students. The results indicated that as female students got older they overcome anxiety level faster than male students.

On the other hand, few significant differences have been observed among different class levels. As Table 2 suggests, anxiety level among freshman or sophomore students is different than that of doctoral students. Astin (1993) reported the existence of fear among freshman and sophomore students which resulted negatively in their final grades. He suggested to schools to provide learning environments with no fear. The duration of the time students are in current program is also an item of interest where the anxiety level is significantly different.

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**REZVAN KHOSHLESSAN, EdD**, holds a doctorate in Educational Leadership specialized in Higher Education from Lamar University, Beaumont (Texas-USA), a Master of Arts in TEFL from Islamic Azad University, Tehran North Branch (Tehran-Iran), and a Bachelor of Arts in English Literature from Tehran University (Tehran-Iran). Currently, she works for the Texas Intensive English Program (TIEP) at Lamar University as an Instructor where she teaches international students who are studying in different English proficiency levels. In addition, she is a researcher and reviews articles on teaching and learning at the Center for Teaching and Learning Enhancement (CTLE) and works as a part-time assistant for the CTLE director. Her research interest includes higher education, active and collaborative techniques, and study anxiety. Email: [rkhoshless@lamar.edu](mailto:rkhoshless@lamar.edu)

**KUMER PIAL DAS, PhD**, is an associate professor of statistics at Lamar University (LU), TX. He has been teaching undergraduate and graduate statistics courses at LU since his PhD in mathematics from Auburn University in 2005. His research interest is in the area of statistics, big data analytics, undergraduate research and international education. He is a recipient of 2013 Mathematical Association of America's Alder award for distinguished teaching. He is also a recipient of the 2016 Robert Hogg Award for excellence in teaching undergraduate statistics. He has published extensively on a variety of topics in statistics and mathematics with his undergraduate and graduate students and has received many awards for supervising students in research. He has been named the 2015 Lamar University Research Scholar in recognition of a lifetime of outstanding scholarly and creative achievements. Because of his enthusiastic involvement in undergraduate research he was appointed as the founding director of the Office of Undergraduate Research at LU in 2013 and he is continuing to serve the office since then. He is also a recipient of the 2016 Fulbright International Education Administrator Seminar Award to France. Email: [kumer.das@lamar.edu](mailto:kumer.das@lamar.edu)

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