An Examination of Different Motivational Orientations That Drive Graduate Students To Continue/Complete Their Education in the U.S

Cebrail Karayigit

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AN EXAMINATION OF DIFFERENT MOTIVATIONAL ORIENTATIONS
THAT DRIVE GRADUATE STUDENTS TO CONTINUE/COMPLETE THEIR
EDUCATION IN THE U.S.

A Dissertation
Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Philosophy

By
Cebrail Karayigit

August 2017
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Cebrail Karayigit

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DUQUESNE UNIVERSITY
SCHOOL OF EDUCATION
Department of Counseling, Psychology and Special Education

Dissertation
Submitted in Partial Fulfillment of the Requirements
For the Degree of Doctor of Philosophy (Ph.D.)

Executive Counselor Education and Supervision Program

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January 31, 2017

AN EXAMINATION OF DIFFERENT MOTIVATIONAL ORIENTATIONS
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ABSTRACT

AN EXAMINATION OF DIFFERENT MOTIVATIONAL ORIENTATIONS THAT DRIVE GRADUATE STUDENTS TO CONTINUE/COMPLETE THEIR EDUCATION IN THE U.S.

By
Cebrail Karayigit
August 2017

Dissertation supervised by Dr. Matt Bundick

Different types and levels of motivation can play an important role for graduate students to continue their studies. The current research study was one of the few studies that examined if domestic and international graduate students differ on their level of different motivational orientations to continue their education. This study employs a quantitative research design intended to investigate different types of psychologically based motivational factors that contribute to international graduate students’ motivation toward completing their programs, in particular in relation to domestic students. More specifically, this study is guided by two prominent theories of motivation, Self Determination Theory (SDT; Deci & Ryan, 1985; Deci & Ryan, 2002) and Achievement Goal Theory (Nicholls, 1989; Elliot, 1997), to examine and understand how different types of motivation—such as intrinsic motivation, extrinsic motivation, approach motivation, and avoidance motivation—affect graduate students’ motivation to continue
their education in the U.S. These two theoretical frameworks provide a lens for understanding how different types of motivation that can propel graduate students to continue their education. Data was collected via online surveys with graduate students in the U.S. universities, including both international and domestic students. The Achievement Goal Questionnaire-Revised (AGQ-R, Elliot & Murayama, 2008) and Academic Motivation Scale (AMS, Vallerand et al., 1992) were used to operationalize the different forms of motivation. The findings from this study did not provide broad support for the notion that there are strong differences between international and domestic students in their motivational orientations toward completing their education, but it did suggest at least the possibility by way of the significant and marginally significant results that it may still be important to explore further understanding of the differences in their level of motivation among graduate students. Overall, this study has attempted to advance our knowledge about the different motivational orientations held by international graduate students in relation to continuing/completing to their program, and in relation to domestic graduate students. Finally, the study addresses some of its limitations and recommendations for future research based upon the results.
DEDICATION

To the loving memory of my father, Fevzi Karayigit.

To my mother, who has had the arduous task of raising seven children by herself.

To my wife, who supported me in all my endeavors.

To my daughter and son, who make life fun.
ACKNOWLEDGEMENT

I would like to extend my sincerest thanks and appreciation to all of the faculty and staff in the Counselor Education Program at Duquesne University. First, I want to thank my committee chair Dr. Matt Bundick for his guidance, expertise, support, and encouragement along the way. Thank you for our endless thought provoking discussions, for helping me to cultivate myself as a researcher and thinker. Matt has always been a source of inspiration both as a professional and as an individual. I would also like to thank my committee members; Dr. Gibbs Kanyongo and Dr. Waganesh Zeleke. Thank you for your feedback, direction, and support when I needed it.

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Lastly, there are number of family and friends who supported me emotionally. This dissertation could not have been completed without the guidance and support of numerous individuals. I am thankful I had so many supporters to make this journey with me.
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Chapter 1: Introduction

How do you stay motivated to persist in your graduate school program when you are studying outside of your home country? This is one of the most common questions that international graduate students are likely to be asked, given that on top of the usual challenges of persisting in graduate school international students face many additional challenges related to being in a foreign country. Common challenges (e.g., academic, social, and cultural barriers) associated with international students many of which are not typical of native graduate students have been studied extensively (e.g., Kuo, 2011; Lee, 2013), but relatively little is known about what motivates them to complete their education in the face of these unique challenges. The motivation to complete their education can vary depending on many factors that are believed to have an impact on their studies.

As an international student in the U.S., my personal journey toward completing a doctoral degree has influenced my interest to study the concept of motivation. What makes international graduate students persist in their graduate studies in the face of the known challenges? Castiglia (2006) states that there is not a single answer to know what drives students to persist in their studies because student motivation cannot be connected with a single construct. Therefore, there might be a lot of things that can motivate them, such as seeing a professor accomplish great things, being recognized by people, or being responsible for a family. The following statement attributed to Confucius also gives some idea of what might be motivating them to continue their education: “The will to win, the desire to succeed, the urge to reach your full potential... these are the keys that will unlock the door to personal excellence.” However, it is important to understand that the
primary sources of motivation can vary greatly depending on the student, and the unique nature of the experiences and challenges of international students in graduate programs in the U.S. are particularly worthy of investigation and better understanding. That said, there has been relatively little research exploring international graduate students’ motivation toward completing their education, which provides justification for further empirical study.

This study is guided by two prominent theories of motivation, Self Determination Theory (SDT; Deci & Ryan, 1985; Deci & Ryan, 2002) and Achievement Goal Theory (Nicholls, 1989; Elliot, 1997), to examine and understand how different types of motivation—such as intrinsic motivation, extrinsic motivation, approach motivation, and avoidance motivation—affect graduate students’ motivation to complete their education in the U.S. SDT is a study of human motivation that examines both people’s inherent growth tendencies and environmental factors (Ryan & Deci, 2000b). SDT is utilized as a lens to understand the role of intrinsic and extrinsic motivation in graduate students’ persistence in their studies. Achievement goal theory has been extensively studied as an important theoretical framework to explain students’ motivation in different settings (e.g., Ames, 1992; Wolters, Shirley & Pintrich, 1996; Covington, 2000; Hidi & Harackiewicz, 2000; Mattern, 2005; Fadlelmula, 2010). Whereas research employing achievement goal theory abounds in K-12 and undergraduate settings, this is not the case at the graduate school level. Therefore, this study adds to the current higher education literature on graduate students motivation by utilizing achievement goal theory as a lens to understand the role of approach and avoidance motivation in graduate students’ persistence in their studies. The study is guided by the overarching research question: How do different types
of motivations affect international graduate students’ desires to complete their education in the United States, even in spite of the challenges they are likely to face?

**Statement of the Problem**

Different types and levels of motivation can play an important role for graduate students to continue their studies. However, staying motivated and completing a graduate degree is a big challenge for many graduate students. While motivation is an important factor toward degree completion, both faculty and students consider the lack of motivation as one of the main reasons for non-completion of graduate programs (Gardner, 2008). According to a report released in 2008 by the Council of Graduate Schools, 57% of doctoral students, including all disciplines, do not complete their degrees in the U.S. (Council of Graduate Schools, 2008). Interestingly, this report found that international doctoral students’ program completion rate (67%) was significantly higher than domestic doctoral students’ program completion rate (54%) across in five broad fields, including Social Sciences. In the context of these disparate completion rates, motivation is an important construct to understand as a potential faction that may lead international graduate students to complete their degree successfully, even in the face of the likely additional challenges beyond those of domestic students. To this end, it is important to keep in mind that motivation is not a singular construct; different types of motivation can play an important role in the completion of a graduate students’ education.

The related question of why students decide to study abroad has also been studied extensively. According to Wilkins, Balakrishnan, and Huisman (2012), there are a lot of different reasons that can attract international students to decide to study overseas such as
quality of education, reputation of country/institution, high rankings, improved employment prospects, improving English language skills, experiencing a different culture, and personal factors. However, it is important to highlight that the aim of this study was not to examine the factors and types of motivations that influence students in their decisions to study in the U.S. graduate programs. Instead, this study aimed to explore why students who have already made that decision then continue to study in their U.S. graduate programs, and what types of motivations drive them to complete their education in the face of the known challenges. It is particularly important to better understand international graduate students’ primary motivation toward completing their graduate-level education in the U.S., both because there is little research that has investigated this topic (despite how important student motivation is toward graduation; Zhou, 2015), and in the light of the extensive research that has been conducted on international graduate students’ common challenges. While the percentage of international doctoral students completing rate is higher than domestic students, it is important to note that roughly 1/3 of them still do not complete their programs (Council of Graduate Schools, 2008). Therefore, there is a need to explore international students’ motivations in order to encourage the success of these students in toward overcoming their unique challenges and completing their graduate degrees successfully. Overall, this dissertation aimed to explore how different types of motivation contribute international graduate students’ motivation toward degree completion.

**Purpose and Research Questions**

Motivation is an important concept in many different areas such as counseling, school settings, careers, sports, and health care. As in many different areas, motivation
can also be an important element in graduate students’ studies to complete their program (Ivankova & Stick, 2007; Bain, Fedynich & Knight, 2010). A graduate student needs a certain level of motivation to continue his or her studies. McCollum and Kajs (2007) asserted that “motivation is a key element for academic and personal success because without it little learning and performance takes place” (p. 45). Therefore, knowing what motivates a graduate student to continue his or her program was the main point to understand and explore for the purpose of this study. This is important because it may provide higher education faculty and staff members with a deeper understanding of different motivational orientations to encourage graduate students to continue their studies, which in turn may help them provide solid guidance and support tailored as much as possible to their needs.

A host of different factors are thought to possibly contribute to graduate students’ persistence toward program completion. For example, Gibbs (2011) found that several external and structural factors contribute to graduate student persistence such as program advisement, academic peer support, family and peer support, and financial aid status. However, the purpose of the present study was to investigate different types of psychologically based motivational factors that contribute to international graduate students’ motivation toward completing their programs, in particular in relation to domestic students. Specifically, this study focused on four different types of motivation— intrinsic/mastery, extrinsic/performance, approach, and avoidance—within the frameworks of Self Determination Theory (SDT; Deci & Ryan, 1985; Deci & Ryan, 2002) and Achievement Goal Theory (Nicholls, 1989; Elliot, 1997) to examine graduate students’ motivation to continue their education. In this study, Self Determination
Theory (SDT; Deci & Ryan, 1985; Deci & Ryan, 2002) was presented to distinguish between different forms of motivation. SDT provides a theoretical framework to understand student motivation for researchers and practitioners (Reeve, 2012). In addition to SDT, Achievement Goal Theory (Nicholls, 1989; Elliot, 1997) was presented to further understand why graduate students’ continue to study, given its particular focus on academic motivation (Anderman & Patrick, 2012; Coolican, Cassidy, Dunn, Sharp, Tudway, Westbury & Simons, 2007).

The overarching question guiding this study was: How do different types of motivation explain international graduate students’ motivation to persist in their studies in the U.S. in the context of the challenges they are likely to face? The following subsidiary research questions were also formulated to guide this study:

1. Are there differences between international graduate students and domestic graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

2. Are there differences between international counseling graduate students and international non-counseling graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

3. Among international graduate students, are there differences between scholarship and non-scholarship students in their levels of different
types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

4. Is there a significant difference among international graduate students who intend to return their home country after graduation, those who intend to stay in the U.S. after graduation, and those who are undecided in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

5. Among international graduate students, is there a relationship between performance-avoidance motivation and their perception of English proficiency?

6. Among international graduate students, is there a relationship between performance-avoidance motivation and perception of challenges faced in their graduate studies?

**Significance of the Study**

The research and ultimate findings of this study will provide important knowledge regarding different types of motivational factors that lead international graduate students to persist in their education in the U.S. Findings from this study can assist American universities to provide tailored support for this minority group for completing their education successfully, given their unique challenges (e.g., language barrier) and potentially variant motivations from native U.S. students who have to date played a more prominent role in informing practice in higher education. Specifically, the field of
counseling might also benefit from this study as it provides information to the practitioners in student services offices of U.S. colleges and universities to be better equipped with the knowledge of what motivates the graduate-level students at their institutions, which in turn help them to better support these students.

This study can also encourage graduate students to increase their knowledge and awareness regarding their overall motivational orientation in their studies. This is important because the literature that provides recommendations and guidance for graduate students, especially for international graduate students, to be successful in their studies is very limited, and it is the goal of this study to contribute to American universities that will better prepare them to be successful in their studies as they face unique challenges. Therefore, this study provides a broader insight into the motivation of graduate students by identifying and exploring the potential impact of four different motivational factors contributing to graduate students’ motivation toward program completion.

**Definitions**

Self Determination Theory (SDT): Deci and Ryan (2002) described Self Determination Theory as macro theory of human motivation and personality that “focuses on the dialectic between the active, growth-oriented human organism and social contexts that either support or undermine people’s attempt to master and integrate their experiences into a coherent of self” (p. 27). According to SDT, the needs for competence, autonomy, and relatedness are considered to be three crucial necessities in understanding people’s motivation (Deci & Ryan, 2000).

International Students: International students are defined in various ways in the
literature. For the purpose of this study, international students are those who come to the U.S. to study at colleges and universities and have specific visas, such as F (student) visas and J (exchange) visitor visas (Open Doors, IEE).

Intrinsic motivation: Intrinsic motivation is defined as people having a natural inherent tendency to challenge themselves to broaden their potential in any situation (Deci & Ryan, 1985).

Extrinsic Motivation: Extrinsic motivation is defined as people acting for outcomes that stem from external sources instead of internal tendency (Deci & Ryan, 2002)

Approach Motivation: Approach motivation is defined as people taking action because of the likelihood of reaching positive events (Elliot, 2006).

Avoidance Motivation: Avoidance motivation is defined as people taking action to not face negative events or to avoid failure (Elliot, 2006).

Mastery Goals: Mastery goals refer to learning new skills and mastering the task to strive (Radosevich, Allyn & Yun, 2007).

Performance Goals: Performance goals are defined as people performing to demonstrate competence with respect to others (Radosevich, Allyn & Yun, 2007).

Summary

This chapter has introduced the present study that examines how different types of motivation can affect international graduate students’ desire to continue their education in the U.S in the face of the known challenges. In this concept, although common challenges faced by international graduate students have been studied extensively, the literature on what motivates them to study is limited. The goal of this study was to
examine different motivation orientations that drive graduate students to continue/complete their education, and compare these orientations across international statuses. One guiding question and six subsidiary research questions are offered to address how this quantitative oriented study will be explored. A general overview of the two theoretical frameworks that were used in this study has also been provided. Overall, the study was expected to yield recommendations for graduate students who study in the U.S. so that they can be successful in their studies as they face unique challenges.
Chapter 2: Literature Review

This section begins by investigating common challenges international students face in the U.S. As discussed earlier, current research has not explained how different types of motivation contribute to international graduate students’ motivation to complete their education in the U.S. It is also important to enhance our understanding of Self Determination Theory and Achievement Goal Theory in related to graduate students’ motivation. Therefore, the purposes of this literature are to: a) present an overview of international graduate students’ common challenges as catalogued in the previous literature; b) review and synthesize findings from previous research on different aspects of graduate students’ motivation; c) introduce Self Determination Theory and Achievement Goal Theory to propose a theoretical framework for better understanding international graduate student’s motivation in the context of the unique challenges they are likely to face; and d) provide an overview of four types of motivation: intrinsic motivation, extrinsic motivation, approach motivation, and avoidance motivation.

Motivation and Self Determination Theory (SDT)

Before discussing what motivates graduate students to complete their education in the U.S., it is important to define motivation. Motivation has been defined in many different ways. Ryan and Deci (2000a) stated that “to be motivated means to be moved to do something” (p. 54). Motivation is those forces within an organism that initiate and direct behavior (Petri, 1991). Therefore, while someone who does not have those forces to act is considered to be unmotivated, someone who has energy and direction to act is considered to be motivated (Ryan & Deci, 2000a). The study of motivation mainly deals with why questions because it is focused on the energy and direction (Deci & Ryan,
The question “Why do we do what we do?” nicely captures the concept of motivation. People do what they do because they believe their behaviors will allow them to achieve desired outcomes and goals (Deci & Ryan, 2000).

Although motivation has been considered as a single construct, it is important to understand there are different types of motivation (Ryan & Deci, 2000b; Ryan & Deci, 2000a; Oxford, 1996). For example, an international student can be motivated to learn English for the sake of getting a high score on the Test of English as a Foreign Language (TOEFL) and then to be able to get accepted to American universities. On the other hand, he or she might want to learn English because of his or her interest in learning new languages. Therefore, the orientation of motivation can be different based on what factors motivates people. In the concept of this research, one theory that may help to explain what factors motivates graduates students to complete their program is Self Determination Theory (SDT; Deci & Ryan, 1985; Deci & Ryan, 2002).

SDT has been considered as a major theory of motivation by many researchers. Ryan and Deci (2000a) distinguish between two different forms of motivation, intrinsic and extrinsic; this distinction is central to SDT. In addition, SDT proposes that it is crucial to examine people’s experiences of autonomy, competence, and relatedness for understanding human motivation (Deci & Ryan, 2000). If these needs are satisfied, people will be able to achieve psychological growth, integrity, and well-being (Ryan & Deci, 2000b).
**Intrinsic and extrinsic motivation.** Intrinsic and extrinsic types of motivation have been defined in many different ways. Intrinsic motivation is defined as “the inherent tendency to seek out novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn” (Ryan & Deci, 2000b, p. 70). In contrast, extrinsic motivation refers to “a broad array of behaviors having in common the fact that activities are engaged in not for reasons inherent in them but for instrumental reasons (Deci & Ryan, 2002, p. 42). While intrinsic motivation refers to natural motivation tendency to do an activity because of interest and enjoyment, extrinsic motivation refers to instrumental value where an activity is done for the sake of external rewards and separable outcome (Deci & Ryan, 2002; Ryan & Deci, 1985; Ryan & Deci, 2000a).

Although intrinsic motivation constitutes the most important form of SDT, extrinsic motivation is also an important concept in SDT, because self-determination can also exist in some extrinsically motivated behavior (Deci & Ryan, 1985). In other words, some extrinsically motivated behavior can be self-determined. Extrinsic motivation can exist in four different forms depending on their relative autonomy: *external regulation, introjected regulation, identified regulation*, and *integrated regulation* (Ryan & Deci, 2000a; Deci & Ryan, 2002). SDT proposes that these four types of extrinsic motivations can be ordered along a self-determination continuum, and can vary greatly from the least self-determined or least autonomous type to the most self-determined or most autonomous type of extrinsic motivation (Guay, Vallerand & Blanchard, 2000; Deci & Ryan, 1985; Deci & Ryan, 2002; Ryan & Deci, 2000a). Ryan and Deci (2002) stated it as follows:

“Of importance for the model is the SDT proposition that the different
Motivational orientations represent different levels of self-determination, which can be ordered along a self-determination continuum. Thus, intrinsic motivation is the most self-determined motivational type, followed by integrated regulation, identified regulation, introjected regulation, and external regulation. Amotivation involves a complete lack of self-determination” (p.44).

In this concept, it is important to look at an example of how students can be motivated by different extrinsic motivation types. For example, a graduate student keeps studying because of the fear of losing his/her scholarship. On the other hand, another graduate student keep studying in order to ensure his/her future career goals. While both students are extrinsically motivated, different types of extrinsic motivation can characterize their behavior. Therefore, it is important to understand different types of motivations can fall into the category of extrinsic motivation, because it will allow determining the levels of both self-determined and non-self-determined forms of motivation.
Achievement Goal Theory

Approach and avoidance motivation. Approach and avoidance motivation can be understood as components of the Achievement Goal Theory of achievement motivation. Achievement motivation is considered as a common part of everyday life such as in the classroom and at the workplace (Elliot & Church, 1997). Achievement goals constitute an important part of achievement motivation literature (Elliot & Murayama, 2008; Elliot, Murayama & Pekrun, 2011). According to Babad (2009), “achievement goal is the purpose for students’ competence-related activities, the motivation that drives them to pursue their learning and leads them to academic achievements” (p. 19).

The distinction between approach and avoidance motivation is not a new thing in the literature, beginning by the writings of the ancient Greek philosophers (Elliot, 1999; Elliot & Thrash, 2002; Elliot, 2006). In this concept, a lot of research provides a comprehensive review of historical considerations on the distinction of approach and avoidance motivation (see Elliot, 1999; Elliot & Covington, 2001). However, for the present purposes this study focused primarily on the definition of approach and avoidance motivation to provide readers with a basic distinction of approach and avoidance motivation. Levin’s (1935) conceptualization of positive and negative valances revealed the distinction between approach and avoidance motivation (as cited in Elliot & Covington, 2001). In terms of positive and negative valance, it is stated that “positive” and “negative” might refer to different meanings based on different contexts, such as beneficial/harmful or desirable/undesirable (Elliot, 2006).

According to Elliot (1999), “in approach motivation, behavior is instigated or directed by a positive or desirable event or possibility, whereas in avoidance motivation,
behavior is instigated or directed by a negative or undesirable event or possibility” (p. 170). In other words, while energization and direction of behavior stems from positive events in the approach motivation, energization and direction of behavior stems from negative events in the avoidance motivation (Elliot, 2006). It is important to note that while approach motivation may include both promoting new positive condition and maintaining existing positive condition; similarly, avoidance motivation may include both preventing new negative situation and avoiding existing negative condition (Elliot, 2006).

Interestingly, Elliot (2006) states that while approach motivation refers to thriving, avoidance motivation refers to surviving. In this concept, a recent study shows that although avoidance motivation is associated with negative consequences, it can be helpful to survive in some critical situations (Roskes, Elliot & De Dreu, 2014). For example, an international graduate student may study hard to prevent the possibility of losing his/her government scholarship. In this situation, it is clear that his/her behavior is directed by an undesirable possibility because he/she wants to prevent a new negative situation, which is the possibility of losing his/her scholarship. In this example, although avoidance motivation allows an international graduate student to keep studying, Elliot (2006) stated that it can be a stressful experience because of using a negative object as the hub of regulatory activity.
**Mastery and performance goals.** In the literature, the emphasis has been traditionally given to the two goal types: mastery and performance goals. In this sense, early achievement goal theory considered mastery and performance goals as two opposite constructs (Pintrich, 2000). In this mastery-performance dichotomy, while mastery goals referred to intrinsic motivation, performance goals referred to extrinsic motivation (Babad, 2009). Murdock and Anderman (2006) also used the terms performance goal and extrinsic motivation versus mastery goal and intrinsic motivation almost interchangeably. However, it is important to note that Elliot and Harackiewicz (1986) offered an alternative framework in which performance goal included two independent goals: “performance-approach goal” and “performance-avoidance goal”. In other words, they came up with three distinct achievement goal orientations instead of two distinct achievement goal orientations. In this trichotomous achievement goal conceptualization, they concluded that only performance-avoidance goals leaded to less task involvement and undermined intrinsic motivation. On the other hand, both mastery goal and performance-approach goal leaded positive task involvement and enhanced intrinsic motivation.

Elliot (1999) offered a new “achievement goal” framework that portrays a full 2X2 crossing of the mastery-performance and approach-avoidance distinction, allowing for the two profiles of motivation of specific interest in this present study: mastery-approach and performance-avoidance, which represents “the two goals that are composed of completely different dimensions” (Elliot & Murayama, 2008, p. 625). This new framework is considered as a further revision of the mastery-performance dichotomy and an extension of the trichotomous framework. Elliot and McGregor (2001) suggested that
mastery-avoidance goals differed from performance-avoidance goals in that mastery-avoidance goal has some positive outcomes when compared with performance-avoidance goals. In this study, particular attention was given to the mastery-avoidance goals in the 2X2 goal framework (Elliot & McGregor, 2001).

More recently, Elliot and Murayama (2008) found that while mastery-approach goals were positive predictors of the need for achievement, performance-avoidance goals were positive predictors of the fear of failure. Similarly, while mastery-approach goals enhance intrinsic motivation, performance-avoidance goals undermine intrinsic motivation. They also added that both mastery-avoidance and performance-approach goals can be somewhat conceptually related because the two goals share both of the need for achievement and fear of failure motives. For the purpose of this study, the fear of failure and the need for achievement were used as important dimensions to understand both domestic and international graduate students’ motivational orientations.

Overall, both SDT and Achievement Goal Theory were utilized as a lens to understand the role of different motivational orientations (e.g., intrinsic-extrinsic, approach-avoidance) in graduate students’ persistence in their studies. SDT provides a theoretical framework for linking intrinsic and extrinsic motivation to academic performance and graduate students persistence in their studies. In this context, SDT is applied to graduate students with regard to their respective motivations. While intrinsic motivation drives an individual to pursue an activity for a personal interest or enjoyment (e.g., a graduate students continues his or her studies for personal satisfaction), extrinsic motivation drives an individual to pursue an activity for an external outcome (e.g., a graduate student continues his or her studies to obtain a higher earning potential).
Similarly, achievement goal theory provides a theoretical framework to address why graduate students continue to study. When graduate students study out of personal curiosity and a need for achievement, their motivation is characterized by approach motivation. When graduate students study out of a fear of failure, their motivation is characterized by avoidance motivation.

**Overview of International Students’ Common Challenges**

Increasing numbers of international students are moving away from their home country for the sake of studying in the United States. The United States has been the nation that hosts the largest number of international students in the world. In the 2013-2014 academic year, over 886,052 international students chose to study at colleges and universities in the U.S, which is a record high (Open Doors, 2014). Also, graduate international students in the U.S. increased by 6% in the 2013-2014 academic year (Open Doors, 2014). Many graduate international students want to study abroad, especially in the USA, because the USA has broad opportunities in many different fields that are oftentimes not afforded in their home countries. In this concept, a recent report by the Institute of International Education (2015) found that 74% of prospective international students worldwide reported the U.S. as their top choice of country in which to pursue their studies. The majority of these students showed more positive view of studying in the U.S. than other countries because of several reasons such as wide range of schools and programs and high quality higher education system (IIE, 2015). It has also been found that international students who choose to study in U.S. colleges and universities have a high degree of motivation (Constantinides, 1992).
Although it is not an easy decision to leave one’s home country, many international students want to study a graduate program in the U.S. to make their dreams come true by taking the risk associated with different challenges or problems (Lee, 2013). In other words, while U.S. higher education institutions attract many international graduate students, it can also be a difficult cross-cultural transition for many international students (Zhai, 2002). In this concept, several researchers have explored the most common challenges for international graduate students. For example, Zhai (2002) considered adjustment problems (academic, cultural and language related) as international graduate students’ most significant challenges in the U.S. In addition to the adjustment problems faced by international students, Burkholder (2010) states that social relationships, racism and discrimination, language, academic achievement, finances, and mental health are considered the most predominant problem areas international graduate students face in the U.S. Reinicke (1986) found that while international students and domestic students might experience similar academic related difficulties, international students face unique challenges because of experiencing a different culture. In addition to the academic related stressors shared with domestic students, international students have some additional unique challenges such as cultural adoption, financial burdens, legal restrictions, and social oppression (Lee, 2013). While there is a need to address international doctoral students’ academic related problems, it is crucial to be aware of international graduate students’ uniqueness in the concept of the challenges they face (Ku, Lahman, Yeh & Cheng, 2008). English proficiency is also considered as a significant issue that can affect international graduate students’ academic, social, cultural, and personal adjustment (Kuo, 2011). In Kuo’s (2011) study of the language challenges
faced by international graduate students in the United States, he/she found the most severe language challenges for international graduate students were their listening comprehension and oral proficiency.

Despite the challenges faced, the majority of international students complete their education successfully (Council of Graduate Schools, 2008). However, little attention has been paid to how international graduate students navigate challenges to complete their program and what motivational orientation they have in their studies. As stated earlier, the Council of Graduate Schools (2008) found that international doctoral students’ program completion rate was significantly higher than domestic doctoral students’ program completion rate. However, it is important to note that their program completion does not necessarily refer to healthy and successful experiences, because they may be avoidance motivated. Sumer (2009) found that international students’ use of escape-avoidance coping strategy was a strong predictor of higher levels of depression. In other words, although avoidance motivation may lead them to complete their program, it may not be a psychologically healthy experience for them. A recent study supports this idea by stating that international graduate students’ higher level of program completion “does not imply professional or personal satisfaction” (Zhou, 2014). In this sense, one of the research questions of this study primarily examined if international graduate students were typically higher avoidance motivated when compared with domestic graduate students because it is important to understand what lead international graduate students to complete their program in the face of the known challenges. In order for the U.S. universities to provide academic and personal support to international graduate students, it is also critical to identify different motivational orientations that influence these
students to complete their program successfully. Therefore, one of the aims of this research was to explore what leads international graduate students to complete their education in the U.S. in the face of their common challenges.

**International Counseling Graduate Students**

Parallel to the growth of international students, the numbers of counseling graduate students are also increasing in the U.S (Reid & Dixon, 2012). However, there appears to be little research conducted on international counseling students’ challenges in the U.S. Recent literature shows that international counseling students face unique challenges when compared with domestic counseling students (Ng & Smith, 2009). In order to understand the challenges of international counseling students, it is important to note that counseling training requires a higher-level multicultural competence and a high degree of verbal English proficiency (Ng, 2006). Being an international graduate student in counseling program might be highly challenging and difficult due to the high requirements of counseling program in terms of the language proficiency necessary to interact with clients. In most counseling graduate programs, all students must enroll in clinical fieldwork. In their clinical training, international students may have some difficulties to work with American clients and supervisors because of language barriers (Mori, Inman & Caskie, 2009). Therefore, it is important to understand that language barrier might be a greater problem for international students in counselor education and related fields because these fields mostly require a higher level of English proficiency.

Ng (2006) found that international counseling students from non-Western countries experience a greater problem in areas related to English proficiency and cultural differences when compared with domestic counseling students and international
counseling students from Western countries. In this concept, language proficiency and cultural differences are the most predominant problem areas international counseling students, including the most successful students, from non-Western countries face in their studies (Ng, 2006). In a study investigating the training of international counseling students, Ng and Smith (2012) found that international counseling trainees feel less confident about their counseling performance when they do not have a greater use of English than their native language. Research has shown that international students in counseling related fields can also experience the specific challenge of language barrier in their studies (Lee, 2013). Lee (2013) considered language barrier as one of the specific challenges international graduate students in professional psychology can face in their clinical work. Therefore, this study incorporated a particular focus on the counseling field, and how international counseling students’ motivation to persist in their studies in the face of their unique challenges compare with domestic counseling students.

Although international counseling students have some unique challenges and needs that are not oftentimes faced by domestic students, they also bring great opportunities for domestic students and faculty members to grow in their profession (Ng & Smith, 2009; Ng & Smith 2012). For example, domestic students can gather first-hand knowledge by having a cross-cultural interaction with international counseling trainees (Smith & Ng, 2009). Contributing to their learning environment might be an important motive for international counseling students to keep studying. However, there is a dearth of research on the motivational orientations of international counseling students to complete their education in the U.S.
As noted earlier is the case with international graduate students in general, there are two primary reasons why it is important to know what motivates international counseling students to complete their education in the U.S. Firstly, the current body of literature lacks information on what motivates counseling graduate students to complete their education in the U.S. This research thus adds important information to the current body of counseling literature, and gives voice to the international counseling students’ motivations to study in the U.S. in the spite of unique challenges they face in their studies. Secondly, in order to help counseling graduate students to complete their education successfully, this research can provide both faculty members and counselor education graduate programs across U.S. institutions with valuable information to increase awareness and knowledge of the primary motivational orientations in counseling graduate students.

Turkish International Graduate Students

U.S. universities have been the primary destination for Turkish graduate students for decades. Turkey is also the top European country to send students to the U.S. to study (IIE, 2015). According to IIE (2015), 82% of Turkish prospective students reported the U.S. as their preferred destination to study. While Turkish universities have been facing overwhelming demands for higher education, local universities have not been able accommodate the growing number of graduate students (Burkholder, 2014). In this concept, Turkey’s Ministry of Education has been sponsored many students to pursue graduate studies in the U.S. universities. Turkish scholarship students are expected to return their home country to serve in universities after completing their education in the U.S. (Celik, 2012). According to Sumer (2009), the level of motivation to adapt to
American culture can be low among these students because of the intention of returning their home country. In a study with Turkish college students studying in the U.S., scholarship students also are found to experience more adjustment problems because of the pressure to be successful and to not lose their scholarship (Poyrazli, Arbona, Bullington & Pisecco, 2001). In order to understand the factors affecting Turkish international graduate students to complete their education, it is important to consider the context about Turkish scholarship students’ motivation to study.

Despite the fact that many Turkish international graduate students are finding the United States an attractive destination to study, there have been a few studies focusing on the specific challenges Turkish international graduate students face in the U.S. As a subgroup of international students, Turkish international graduate students are typically not an exception in the concept of facing the language barrier. In her study with Turkish graduate students in social sciences, Turan (2012) found that Turkish graduate students face diverse issues in their studies because of language barrier. Similarly, Burkholder (2014) examined the experience of six Turkish international graduate students at a Midwestern U.S. university and found that language barrier is one of the most common issues the participants face in the U.S. For example, some participant reported that their class preparation is five time more than a native speaker’s class preparation time because of language challenges.

On the other hand, research has shown that while Turkish international graduate students have many similar experiences with other international graduate students, they also have some unique experiences. For example, Tatar (2005) states that Turkish graduate students are not found to be silent in classroom, which contradicts with many
studies that stated majority of international students, including Asian international
graduate students (Liu, 2001; Kao & Gansneder, 1995) and African international
graduate students (Antwi & Ziyati, 1993), were silent. Moreover, Gertzog (2011)
examined academic experience of Turkish students in U.S higher education. The study
found that Turkish students experience some unique academic related challenges that are
not shared by other international students. For example, student grouping is not a
common practice, which refers to the idea of collectivist behavior, among Turkish
students. Therefore, it is important to understand that Turkish international graduate
students may have some unique experiences when compared with other international
students.

Recently, there have been several studies focusing on the motivation to learn
English among Turkish students (see Bektas-Cetinkaya, 2010; Koseoglu, 2013; Ozturk &
Gurbuz, 2012). However, motivation to complete a graduate program has not been
studies among Turkish international students studying in the U.S. Taken together, in the
context of unique characteristics of Turkish international students, it is important to
explore whether Turkish international graduate students have different motivational
orientation than other international graduate students. In this way, this study also
contributes the current body of knowledge by comparing of Turkish international
graduate students motivational orientations with other international students’
motivational orientation.

Motivation among Graduate Students

Although an extensive and growing body of the literature exists on school
children motivation and undergraduate students’ motivation, there is relatively little
research on what motivate graduate students for completing their education. It is believed that the motivation to pursue and complete a graduate degree can come from many different sources. Previous research has examined graduate students’ motivation from different aspects. Hegarty (2010) examined how graduate students are motivated to complete their program. The findings of this quantitative study indicated that graduate students are not typically intrinsically motivated toward degree completion. In another study of motivation in graduate level students, Gonzalez-Moreno (2012) examined the factors affecting music graduate student motivation, and revealed that male and female students are affected by different factors. Specifically, Gonzalez-Moreno found that male students focused more on competence on their studies while female students focused more the value of their studies. In a recent qualitative study on graduate students’ motivation toward degree completion, Zhou (2015) explored a group of international students’ motivations to complete their education. The four themes that emerged from this study were intrinsic interest in research, intrinsic interest in teaching, high utility of a U.S. earned Ph.D., and high emotional and social cost of quitting. In a similar study, Cardona (2013) examined the intrinsic and extrinsic factors affecting doctoral students to complete their degree. The study included 36 full-time doctoral students from four different disciplines to compare their motivation toward degree completion. The findings indicated that student motivation differ on four disciplines, as Psychology participants were the most intrinsically motivated to complete doctoral degree.

Although there has been relatively little research focused on graduate students’ motivation, there have been numerous studies conducted specifically on undergraduate students’ motivation. While graduate students are likely to have higher level of
motivation than undergraduate students (Artino & Stephens, 2009), the fact remains that both undergraduate and graduate students can exhibit similar types of motivation (intrinsic and extrinsic) toward degree completion. Therefore, the studies of undergraduates may still shed some light on the experience of graduate students in terms of different types of motivational orientation.

Smith (2011) investigated the intrinsic and extrinsic factors that influence a group of students to pursue and complete a bachelor’s degree. While the emergent extrinsic motivation themes were job promotion, pay increase, better job with another company, respect from employees, and more competitive workplace, the emergent themes for intrinsic motivation were experiencing pride in completing a bachelor’s degree, being the first family member to complete a bachelor’s degree, ability to gain more knowledge by completing a bachelor's degree, realizing a lifelong achievement, influencing others, and perceived motivating factors (Smith, 2001). In a similar study, Nolot (2011) focused on the motivational orientations for pursuing and completing a graduate degree among graduate students enrolled in a distance programs. The study found that the most influential motivational orientation to pursue graduate degree was professional advancement. Although the researcher did not categorize the professional advancement into intrinsic or extrinsic types of motivation, professional advancement factor included both intrinsic and extrinsic items such as to give me higher status in my job and to get a better job.

In another study on undergraduate student motivation, Isiksal (2010) investigated whether Turkish and US undergraduate students’ motivation differ based on the years they spent in university. One interesting finding of this study was that although US
undergraduates were more intrinsically oriented than Turkish undergraduates in their first year, Turkish undergraduates were more intrinsically oriented than US undergraduates in their third and fourth year of education. According to Isiksal (2010), these findings can be explained by differences in cultural and social contexts. For example, while college admission is highly competitive in Turkey, it is much easier to be admitted into a college in the U.S. Therefore, US freshman students’ decision to attend a college may be considered to be reflective of self interest, a form of intrinsic motivation.

**Summary**

This chapter has provided a review of the literature on graduate students’ motivation to study in the U.S. The chapter first reviewed the two theoretical frameworks of the study based on Self Determination Theory (SDT; Deci & Ryan, 1985; Deci & Ryan, 2002) and Achievement Goal Theory (Nicholls, 1989; Elliot, 1997). These two theoretical frameworks provide a lens for understanding how different types of motivation that can propel graduate students to continue their education. In this concept, a review of four different types of motivation were included; intrinsic motivation, extrinsic motivation, approach motivation, and avoidance motivation. In addition, mastery and performance goals were also included to explain the concept of Achievement Goal Theory.

The next section of the chapter looked at the literature that is focused mainly on international graduate students’ common challenges. How these challenges might affect their motivational orientations was discussed based on the previous literature. The common challenges of international counseling graduate students were also presented, followed by a discussion of their unique challenges compared other international
graduate students. Finally, the section provided Turkish international graduate students’ unique challenges to show how their characteristics can be different than other international graduate students.

The final section of this chapter presented an overview of graduate students’ motivation to study in the U.S. from different angles. The next chapter discusses the methodology that is used in this study.
Chapter 3: Method

The Overview

This study examines how different motivational orientations affect graduate students to persist in their studies and complete their education in the U.S. In this chapter, in addition to the methods used in this study, the sampling approach, description of graduate students participants, description of measures, ethical considerations, and limitations were discussed. The bases for this research were formed by the following research questions:

1. Are there differences between international graduate students and domestic graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, and performance-avoidance)?

2. Are there differences between international counseling graduate students and international non-counseling graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

3. Among international graduate students, are there differences between scholarship and non-scholarship students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

4. Is there a significant difference among international graduate students
who intend to return their home country after graduation, those who intend to stay in the U.S. after graduation, and those who are undecided in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

5. Among international graduate students, is there a relationship between performance-avoidance motivation and their perception of English proficiency?

6. Among international graduate students, is there a relationship between performance-avoidance motivation and perception of challenges faced in their graduate studies?

**Research Design**

This study employs a quantitative research design intended to examine graduate students’ motivations to continue and complete their education in the U.S. Data were collected via online surveys with graduate students in the U.S. universities, including both international and domestic students. The Achievement Goal Questionnaire- Revised (AGQ- R, Elliot & Murayama, 2008) and Academic Motivation Scale (AMS, Vallerand at al., 1992) are being used to operationalize the different forms of motivation for this study. In order to obtain a wide range of viewpoints and perspectives from international and domestic graduate students, some demographics variables were collected. In this concept, demographic information such as gender, country of origin, and field of study was requested for the purpose of analyzing how demographic trends can play an important role in different motivational orientations.
Sampling and Participants

The population for this study was graduate students currently enrolled in the U.S. universities. To address the research questions that pertain to different subgroups of types of graduate students, the researcher aimed to have participants from two broad groups: international graduate students and domestic graduate students. Within the group of international graduate students, subsamples of Turkish and non-Turkish students, as well as counseling and non-counseling students were obtained. Within the group of domestic graduate students, subsamples of counseling and non-counseling students were obtained. The participants for this study were enrolled in masters and doctoral level programs at universities in the U.S. The students were selected across different programs, primarily counseling education programs. Convenience stratified sampling method was utilized for the study. More specifically, stratified sampling was utilized for the study, selecting participants who can be divided into distinct categories. Although the sample is divided into non-overlapping subpopulations for the purposes of stratification, in some cases there is a potential overlap between the different subsamples (e.g., Turkish international graduate students and international counseling graduate students). While the sample was stratified across these groups, within these groups a convenience sampling approach was used. To be able to generalize to the population, the researcher made sure to include a large enough sample of each group.

To determine a minimum overall sample size needed for this study, a power analysis was conducted using the G*Power 3.1 software. Because the analyses involved multiple comparisons, the researcher used the more conservative $p < .01$ instead of the traditional $p < .05$ for the power analysis Type II error parameter. A statistical power
analysis was performed for sample size estimation, based on data from three previous studies in the literature (i.e., Gonzalez-Moreno, 2012; Hegarty, 2010; Sumer, 2009). These three studies used t-tests for their analyses, and reported effect sizes that involved similar motivational constructs and group comparisons similar to those in the present study (such as across academic programs). The effect sizes in these studies—translated for the purposes of this power analysis into Cohen’s $d$—were $d = 0.45$, $d = 1.21$, and $d = 0.82$. The average effect size was $d = 0.82$, which is considered a large effect size using Cohen’s (1988) criteria. To account for the likelihood of uneven distribution across different groups, an unequal allocation ratio of 2 to 1 was used as an input parameter. Thus, with the input parameters set at an anticipated effect size of $d = 0.82$, an allocation ratio across groups of 2:1, an alpha = .01, and power = 0.90, the projected overall sample size needed for the anticipated $t$-tests in this study was approximately $N = 104$. This was viewed as the minimum sample size; the researcher nonetheless aspired to a larger sample size given the potential for misestimation of one or more of the input parameters in the power analysis.

**Instrumentation**

There has been a lot of literature on the assessment of motivation. In this concept, self-report questionnaires are widely used to assess motivation. Since this study focused on four specific types of motivation, it is important to consider the various ways intrinsic-extrinsic and approach-avoidance types have been measured in the previous research. In a study by Guay, Wallerand and Blanchard (2000), a committee of experts (i.e., graduate students and professors) developed the 26 item Situational Motivation Scale (SIMS) to assess intrinsic and extrinsic motivation. In this scale, instead of asking participants to
report their motivations in general, participants were asked to report their motivation toward a single current situation. Approach and avoidance motivation has also been an important focus of motivation studies. In this context, Elliot and McGregor (2001) investigated the 2X2 achievement goal framework in their research. Four goals in the 2X2 (mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance) framework have been assessed by using the Achievement Goal Questionnaire (Elliot & McGregor, 2001). In this study, while mastery-approach and performance-approach goals are considered as positive constructs, mastery-avoidance and performance-avoidance are considered as negative constructs. Therefore, the positive and negative represented two ways that achievement motivation can be measured. Overall, even though achievement motivation is a complex construct, this study served as a useful theoretical and empirical tool for achievement motivation literature (Elliot & McGregor, 2001).

As discussed earlier, of the relatively few studies there have been on graduate students’ motivation, many of them have involved qualitative methods. For example, Zhou (2015) used qualitative approach to understand doctoral international students’ motivations to persist in their studies. Although qualitative studies offer important insight into graduate students’ motivation, it is difficult to have a broader perspective on their motivation orientations and the data from these studies are typically not amenable to explorations of relationships among variables that might be generalizable to a larger population. Therefore, this study examined graduate students’ motivation from a quantitative approach in order to capture a snapshot of graduate students’ motivation toward degree completion from a broader perspective, and investigate the research
questions laid out previously. This is important because it provides a good example for generalization. In addition, it is also important to compare international graduate students with domestic students in order to represent different nationalities in the literature (the U.S., Turkey, etc.). The Academic Motivation Scale (AMS, Vallerand at al., 1992) and Achievement Goal Questionnaire- Revised (AGQ- R, Elliot & Murayama, 2008), which are well-validated and commonly used measures of motivation, were used in this study.

**Academic motivation scale (AMS).** The AMS has been designed to assess college students’ intrinsic and extrinsic motivation (Vallerand et al., 1992). Based on Self Determination Theory, the AMS (Vallerand et al., 1992) has been used in numerous studies to assess student motivation in different settings, such as high school, college, and recently in graduate school. The scale contains 28 items and has 7 subscales; three subscales of intrinsic motivation (to know, toward accomplishment, and to experience stimulation), three subscales of extrinsic motivation (identified, introjected, and external regulation), and amotivation (i.e., lack of motivation) subscale. For the purpose of this study, only 4 items from the intrinsic motivation subscale and 4 items from the extrinsic motivation subscale were used. The item stem for all questions is “Why do you go to college?” with response options on a 7-point scale. A sample item from the intrinsic motivation subscale is “Because I experience pleasure and satisfaction while learning new things;” a sample item from the extrinsic motivation subscale is “To prove to myself that I am capable of completing my college degree.” Some small changes were made on each item to better fit the graduate student population (e.g., “college degree” was changed to “graduate degree”).

In order to assess both the reliability of the seven subscales and the factor
structure underlying item responses, Vallerand et al. (1992) asked 745 Canadian university students to complete the AMS. In this study, confirmatory factor analysis indicated a good fitting model: $\chi^2 = 748.64$, df= 303, $p \leq .001$; NFI= .93; AGFI= .91; GFI= .94. Internal consistency was assessed using Cronbach’s alpha coefficients. Cronbach’s alpha indicated good reliability and internal consistency of the items in scale that values varied from .83 to .86, except for the identified subscale, which had a value of .62.

In order to assess the concurrent and construct validity of the AMS, Vallerand et al. (1993) asked 217 college students to complete the AMS. According to Vallerand et al. (1993), although intrinsic motivation to experience stimulation subscale had a weaker correlation with various variables when compared with other two intrinsic subscales, correlations between AMS subscales and various motivational scales, correlations among the seven AMS subscales, and correlations between the AMS subscales and various motivational variables, such as perceived competence and self-actualization, supported adequate levels of concurrent and construct validity of the AMS. In recent years, several studies have been conducted to reexamine the validity of the AMS with different samples. For example, Cokley, Bernard, Cunningham & Motoike (2001) used confirmatory factor analysis to examine the factor structure of AMS with a U.S. college student sample. Results suggested that there was only a partial support for construct validity of the AMS. On the other hand, in their study with 1,406 college students, Fairchild, Horst, Finney and Barron (2005) found much stronger support for 7-factor structure of the AMS. More recently, Cokley (2014) examined the factor structure of the AMS with a racial and ethnic minority sample. Cokley (2014) did not found support for
the 7-factor model with a sample of 578 Black college students. Cokley (2014) warned researchers to be careful when they use the AMS with racial and ethnic minorities. He also concluded that one possible explanation why the model did not fit the data would be “the items do not adequately measure the intended construct representing academic motivation” (p.12). While validity of the AMS has been supported in motivational research, it is clear that researchers has called further investigation to examine validity of the AMS because of some insufficient validity evidence (e.g. Cokley et al., 2001; Fairchild et al., 2005), especially with racial and ethnic minority participants (Cokley, 2014).

**Achievement goal questionnaire-revised (AGQ-R)**. Elliot and McGregor (2001) designed the Academic Goal Questionnaire (AGQ) to investigate the 2 X 2 achievement goal framework by conducting three studies. The validity of AGQ has been supported in several studies (e.g., Elliot & McGregor, 2001; Finney, Pieper & Barron, 2004; Alrakaf et al., 2014). However, Elliot and Murayama (2008) identified some specific problems with the wording of some items in the AGQ. Therefore, they developed the Achievement Goal Questionnaire- Revised (AGQ-R) by examining some items to address the wording of the problem (AGQ-R; Elliot & Murayama, 2008). For example, since some items referred to a value or concern instead of referring to a goal, the same set of prefixes was selected for each goal scale to address the problem (Elliot & Murayama, 2008).

AGQ-R is a 12-item questionnaire, which includes three items on mastery-approach goals (i.e., the need for achievement), three items on mastery-avoidance goals, three items on performance-approach goals, and three items on performance-avoidance goals (i.e., fear of failure) on a scale of 1 (*strongly disagree*) to 5 (*strongly agree*).
Internal consistency was assessed using Cronbach’s alpha coefficients. Cronbach’s alpha indicated that each of the four factors has a high degree of internal consistency and reliability (Cronbach’s alphas: Mastery-approach, $\alpha=.84$; Mastery-avoidance, $\alpha=.88$; Performance-approach, $\alpha=.92$; and Performance-avoidance, $\alpha=.94$), which were satisfactory. Results also showed a strong support for structural validity of the AGQ-R and confirmatory factor analysis indicated a good fitting model: $\chi^2 (48, N = 229) = 78.32, p < .01$, $\chi^2/df = 1.63$; CFI = .99; IFI = .99; RMSEA = .053 (Elliot & Murayama, 2008). Elliot and Murayama (2008) found that four-factor structure was shown to fit the data better than alternative models with three- and two-factor structures. In this context, validation of AGQ-R has been examined and supported in several studies (e.g., Elliot & Murayama, 2008; Rosas, 2015). For example, AGQ-R was adapted in a sample of Argentinian university students to examine factor and dimensional structure (Rosas, 2015). In this study, Rosas (2015) found that four-factor structure was confirmed and confirmatory factor analysis indicated a good fitting model: $\chi^2 (48, N = 292) = 58.23, p = .148$, $\chi^2/df = 1.21$, CFI = .99, GFI = .96, IFI = .99, RMSEA = .027, AIC = 118.2, BIC = 228.5. In the study, Cronbach’s alpha indicated high level of internal consistency for all subscales (Cronbach’s alphas: $\alpha=$ Mastery-approach, .81; $\alpha=$ Mastery-avoidance, .91; $\alpha=$ Performance-approach, .92; and $\alpha=$ Performance-avoidance, .98).

**Procedure**

The online survey program Qualtrics was used to create an electronic version of the survey, which contains the demographic questions, Achievement Goal Questionnaire-Revised (AGQ-R), and Academic Motivation Scale (AMS). The survey was distributed online to all potential graduate student participants. Potential participants were contacted
by forwarding the survey link through selected Facebook pages (e.g., a Facebook group for international Turkish graduate students called “YLSY 2009 ABD”), listserves (e.g., the Counselor Education and Supervision Network Listserv or CESNET-L), and sent email to personal list of contacts who meet the study criteria. This latter approach also involved snowball sampling, through asking these contacts to pass the word along to contacts of theirs who meet the study criteria. The survey link included a consent form that explains the purpose and significance of the study, the importance of their participation, confidentiality, the anticipated length of the survey, and researcher contact information. In order to complete the survey, participants were asked to read and agree to the consent form. The consent form also informed potential participants that participation in this study is voluntary and potential subjects have the right to terminate their involvement in the study at any time before submitting the completed survey. Participants were directed to complete the demographics information after agreeing to participate. Demographics included gender, country of origin, level of education (master’s or PhD), and the field of study, this section also included some questions regarding rating their perception of their level of English proficiency, scholarship status, whether they intend to return their home country after graduation and their perceptions of the challenges they face in their studies.

SPPS software was used to analyze the data. Are there differences between international graduate students and domestic graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)? To examine research question one, \( t \)-tests were conducted to assess if levels of different types of motivational
orientations differed between international graduate students and domestic graduate students. Are there differences between international counseling graduate students and international non-counseling graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)? To examine research question two, t-tests were conducted to assess if levels of different types of motivational orientations differed between counseling graduate students and non-counseling graduate students. Among international graduate students, are there differences between scholarship and non-scholarship students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)? Prior completing the surveys, participants were asked to indicate their scholarship status. Participants choose between one of the following decisions: I am a scholarship student by my government and I am not a scholarship student by my government. To examine research question three, another set of t-tests were conducted to assess if levels of different types of motivational orientations differed between scholarship students and non-scholarship students.

Is there a significant difference among international graduate students who intend to return their home country after graduation, those who intend to stay in the U.S. after graduation, and those who are undecided in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)? Prior completing the surveys, participants were asked to indicate their decision to return home country after graduation. Participants choose between one of the three options: yes (I will return my home country after
graduation), no (I will stay in the U.S.), and other (undecided). To examine research question four, a set of one-way ANOVAs were conducted to determine if levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance) was different for groups with different decisions to return home country after graduation.

Among international graduate students, is there a relationship between performance-avoidance motivation and their perception of English proficiency? Among international graduate students, is there a relationship between performance-avoidance motivation and perception of challenges faced in their graduate studies? Prior completing the surveys, participants were asked to rate their perception on their level of English proficiency and challenges they face in their studies on scale of 1 to 5. While 1 represented very low proficiency and very little challenge (respectively), 5 represented very high proficiency and too much challenge (respectively). Finally, to examine research question five and six, correlation analyses were conducted to determine if the level of English proficiency, and the level of challenges faced had an impact on performance-avoidance motivation.

**Ethical Considerations and Limitations**

Participants were informed about the risks and benefits to participating in this study. This was a low-to-no-risk study, and participants’ exposure to stressful and uncomfortable topic was not greater than exposure in everyday life. Although the participants were told that they might not benefit from study directly, the results of the study can benefit future American and international graduate students in terms of their successful program completion. Participants also had the option to enter their email
addresses in order to opt into the lottery to win a gift card valued at $50. Anonymity was provided if participants did not enter their email addresses into the survey. Confidentiality was provided if participants chose to enter their email addresses into the lottery. Also, participation in this study required no monetary cost to them.

In any research, there are always some limitations on different aspect of the study. First of all, both AGQ-R and AMS have not been designed to assess graduate students’ motivation. Therefore, while the validity of both AMS and AGQ-R has been supported across different studies, both scales might bring some insufficient validity evidence because of using them in a different academic domain. For example, since AGQ-R was designed to assess achievement goals in a specific course content, generalization to a more general academic context remains questionable (Apostolou, 2013). Moreover, these scales were developed in a western context. Therefore, the use of both scales might not fit well with different racial and ethnic groups, which constitute an important component of this study. However, it is important to note that additional research has supported the validation of AGQ-R and successfully used the AGQ-R in different contexts (e.g., Elliot & Murayama, 2008; Rosas, 2015).

Another significant potential limitation concerns finding a representative sample. For example, some international graduate students targeted for recruitment may not be willing to participate in the survey. Since the participants’ responses might significantly differ from non-participants’ responses, non-response bias may occur, and it can be a potential threat to the study. Moreover, this study did not use a random sampling approach; it was difficult to reach a large sample size to make generalization about graduate students in the U.S. For example, lack of access to international counseling
graduate students listservs or inability to reach international counseling graduate students was a potential barrier to obtain a representative sample of the population of interest. Therefore, one of the major limitations of this study was having relatively small sample sizes for specific groups (e.g., international counseling students), which might negatively affect researcher’s ability to generalize.

Summary

This chapter described the methodology used in this study and how this research methodology will guide data collection and analysis. Quantitative methodology was chosen for this study to answer the research questions. Firstly, the chapter explained the sample selection. The subsequent section described the data collection phase for this study, which consisted of the demographic survey and two questionnaires by the online survey platform Qualtrics. The next section of the chapter has addressed how the reliability and validity of both AGQ-R and AMS has been supported through different studies. The processes of data analysis and the limitations of the study have also been discussed in this chapter. The data analysis plan includes conducting correlations, ANOVAs and t-tests. Lastly, one potential limitation in sampling strategy has been discussed.
Chapter 4: Results

This chapter provides an overview of the quantitative findings of this study and is organized according to the six research questions. The purpose of this study was to investigate different types of motivational orientations that contribute to international graduate students’ motivation toward completing their programs, in particular in relation to U.S. domestic students. Specifically, this study focused on four different types of motivation— intrinsic, extrinsic, approach, and avoidance—to examine graduate students’ motivation to continue their education. This chapter also includes quantitative analysis of different motivational orientations of different subgroups such as counseling international graduate and non-counseling international graduate students. Participants for this study were recruited through listservs for graduate students and through the investigator’s contacts through the use of convenience sampling and snowball sampling. The results of the statistical data analysis for this study are presented in this chapter through the use of tables and highlighted in the narrative.

Demographic Information (Descriptive Analysis of Sample)

Participants in this study included graduate students who were either identified by the researcher through the snowball sampling method or were recruited through listservs (e.g., CESNET). A total of 207 individuals consented to participate in this study. Of the 207 individuals, 201 completed the demographic, AGQ-R and AMS sections of the survey. In overall, of the 207 participants, while 200 of them have completed all survey questions, 7 of them completed at least first section of demographic questions and AGQ-R and did not complete AMS and the last section of demographic questions. On the other hand, all individuals who did not complete at least 50% of the survey in its entirety were
eliminated because their responses did not satisfy the minimum requirement of labeling at least one subscale. The final N (207) is the same with the number who consented because all participants who did not complete at least 50% of the survey were deleted from the dataset prior to data analysis. Since all remaining 207 participants meet this criterion, the final data set consisted of 207 participants and all of them were included in the analysis.

The descriptive statistics were analyzed using a frequency distribution in the SPSS statistical software version 23. The demographic information is provided in the following tables.

Of the 207 individuals in this study, the following demographics factors were noted. As shown in Table 1, there were 97 domestic graduate students and 110 international graduate students in this study. Participants’ levels of education were also analyzed in this study. There were 106 students enrolled in a master’s degree program and 101 students enrolled in a doctoral degree program in the U.S. (see Table 2).

Table 1

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic students</td>
<td>97</td>
<td>46.9</td>
</tr>
<tr>
<td>International students</td>
<td>110</td>
<td>53.1</td>
</tr>
<tr>
<td>Total</td>
<td>207</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 2

*Participants by Degree Type*

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s level</td>
<td>106</td>
<td>51.2</td>
</tr>
<tr>
<td>Doctoral level</td>
<td>101</td>
<td>48.8</td>
</tr>
<tr>
<td>Total</td>
<td>207</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 3 displays the distributions of participants by gender. While 7 of the participants chose not to give information about their gender, there were 89 male participants (44.5%) and 111 female participants (55.5%) in this research study.

Table 3

*Participants by Gender*

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>89</td>
<td>44.5</td>
</tr>
<tr>
<td>Female</td>
<td>111</td>
<td>55.5</td>
</tr>
<tr>
<td>Total</td>
<td>200 a</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\(^{a}\) Seven respondents choose not to provide a response to this question.

The breakdown of participants by field of study consisted of 120 students who were enrolled in a graduate degree program in counseling or a related field and 85 students who were enrolled in a graduate degree program in non-counseling fields. As noted in the Table 4, the majority of participants (58%) were enrolled in counseling or related fields. Only two participants choose not to give information about their field of study.
study. Of the 120 participants in counseling or related fields, 109 of them indicated their field of study as various counseling fields (e.g., school counseling, family counseling). The other 11 participants constituted fields related to counseling: 4 were in Special Education field, 2 were in Psychology, 2 were in Clinical Psychology, 2 were in Rehabilitation Science, and 1 was in Educational Psychology.

Table 4

*Participants by Field of Study*

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counseling and Related</td>
<td>120</td>
<td>58.5</td>
</tr>
<tr>
<td>Non-Counseling</td>
<td>85</td>
<td>41.5</td>
</tr>
<tr>
<td>Total</td>
<td>205(^a)</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\(^a\) Two respondents choose not to provide a response to this question.

International graduate participants provided information about their decision to return their home country after graduation. Of the 110 international graduate students, while 57 students decided to return their home country after graduation, 33 students decided to stay in the U.S. after graduation. 15 students were undecided, showed tendency toward neither staying in the U.S. nor returning to their home country after graduation (see table 5). Only 5 of them choose not to provide information about their decision to return their home country after graduation.
Table 5

Are you planning to return to your home country after graduation?

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>57</td>
<td>54.3</td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>31.4</td>
</tr>
<tr>
<td>Undecided</td>
<td>15</td>
<td>14.3</td>
</tr>
<tr>
<td>Total</td>
<td>105&lt;sup&gt;a&lt;/sup&gt;</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. Only international students were asked to answer this question.

<sup>a</sup> Five respondents chose not to provide a response to this question.

International graduate participants also provided information about their scholarship status. There were 53 participants sponsored by their home government, and 54 students not sponsored by their home government (see Table 6). Only 3 of them choose to not provide information about their scholarship status.

Table 6

Participants by Scholarship Status

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>53</td>
<td>49.5</td>
</tr>
<tr>
<td>No</td>
<td>54</td>
<td>50.5</td>
</tr>
<tr>
<td>Total</td>
<td>107&lt;sup&gt;a&lt;/sup&gt;</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. Only international students were asked to answer this question.

<sup>a</sup> Three respondents chose not to provide a response to this question.

Table 7 displays the distribution of participants by age range. The breakdown of participants by age range consisted of 47 students between the ages of 20 to 25, 84
students between the ages of 26 to 30, 45 students between the ages of 31-35, 12 students between the ages of 36 to 40, and 11 students age 41 or older. 8 of them choose not to give information about their age.

Table 7

Participants by Age Range

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25 years</td>
<td>47</td>
<td>23.6</td>
</tr>
<tr>
<td>26-30 years</td>
<td>84</td>
<td>42.2</td>
</tr>
<tr>
<td>31-35 years</td>
<td>45</td>
<td>22.6</td>
</tr>
<tr>
<td>36-40 years</td>
<td>12</td>
<td>6.0</td>
</tr>
<tr>
<td>41 and above</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>Total</td>
<td>199(^a)</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\(^a\) Eight respondents chose not to provide a response to this question.

In order to assess the reliability of the six subscales, internal consistency was assessed using Cronbach’s alpha coefficients. Table 8 summarizes Cronbach’s alpha reliabilities for all constructs in this study. Each motivation construct assessed by the AGQ-R—mastery-approach, performance-approach, mastery-avoidance, and performance-avoidance—consisted of 3 questions. Cronbach’s alpha indicated that each of the four constructs demonstrated acceptable internal consistency (mastery-approach, \(\alpha=.81\); mastery-avoidance, \(\alpha=.70\); performance-approach, \(\alpha=.78\); and performance-avoidance, \(\alpha=.80\)). Each motivation construct assessed by the AMS—intrinsic and extrinsic—consisted of 4 questions. Results showed a Cronbach’s alpha of \(\alpha=0.77\) for the
intrinsic subscale and $\alpha=0.80$ for extrinsic subscale, indicating good internal consistency of the items in the scale.

Table 8

*Reliability Tests*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach's Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastery-approach</td>
<td>.81</td>
<td>3</td>
</tr>
<tr>
<td>Performance-approach</td>
<td>.78</td>
<td>3</td>
</tr>
<tr>
<td>Mastery-avoidance</td>
<td>.70</td>
<td>3</td>
</tr>
<tr>
<td>Performance-avoidance</td>
<td>.80</td>
<td>3</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>.77</td>
<td>4</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>.80</td>
<td>4</td>
</tr>
</tbody>
</table>

**Results by Research Questions**

This study included 6 research questions. The results were analyzed with SPSS (version 23). Frequencies, Pearson correlations, ANOVAs and $t$-tests were utilized. Specifically, a series of independent sample $t$-tests were conducted to examine research question one, research question two, and research question three. A one-way analysis of variance (ANOVA) was conducted to answer research question four. Lastly, a correlation analysis was used to analyze research question five and research question six.

Different statistical tests of significance (e.g., $t$-tests, one-way ANOVAs, MANOVA) could be applied in this research. This study considered whether scores across multiple groups (e.g., students who decided to return, students who decided to
stay, and students who were undecided) were significantly different from each other. Whereas multivariate analyses (such as MANOVAs) could have been run, this researcher elected to run separate *t*-tests and ANOVAs. There were multiple reasons for this. First, conceptually the focus was not on omnibus effects across the dependent variables; instead, relations with the individual dependent variables were of primary interest.

Additionally, overall MANOVAs can show non-significant results, even when there are meaningful univariate differences; thus, a MANOVA the produces a non-significant *F*-test might preclude post-hoc analyses, thus obscuring uncovering differences between the independent variable’s groups. Moreover, from a statistical standpoint, MANOVA uses more *df*—which was not desirable given the moderate sample size of this study—and is more restrictive with regard to its assumption of multivariate normality. Taken together, and given the exploratory nature of the study, it was justified to err on the side of providing maximum opportunity for discovery of statistically significant results in this regard.

Before performing the statistical analyses that were used in the present study, it was important to check the following assumptions of the parametric tests, including: a) each group is drawn from a normally distributed population, b) the populations have a common variance, and c) and the relationships between the variables used in correlation analyses are linear. First, the test for normality—examining standardized skewness and the Shapiro-Wilks test—indicated all six of the motivation scale scores were statistically non-normal (*p* < .001 for each). However, since the analyses employed (*t*-tests, ANOVAs, and correlations) are generally regarded to be very robust to violation of the normality assumption, and transforming non-normal variables makes their interpretation
more difficult, the motivation scale scores were not transformed (see Lumley, Diehr, Emerson, & Chen, 2002). On the other hand, the Levene’s $F$ test revealed that the homogeneity of variance assumption was met for all of the motivation scales (mastery-approach: $p = .194$; performance-approach: $p = .051$; mastery-avoidance: $p = .872$; performance-avoidance: $p = .241$; intrinsic: $p = .325$; extrinsic: $p = .600$). Lastly, for the linearity assumption for the correlation analyses, a simple visual inspection of the scatterplots showed the linearity assumption was met and there were no outliers.

**Research question one.** Are there differences between international graduate students and domestic graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

The scores from all six subscales were used to address the first research question. An independent $t$-test was conducted to assess if levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance) differ between international graduate students and domestic graduate students. As shown in table 9, international graduate students ($M = 3.94$, $SD = 0.93$) were significantly lower in their mean level of performance-approach motivation than domestic graduate students ($M = 4.19$, $SD = 0.85$), $t(205) = 1.998$, $p = 0.04$. However, there were no significant differences between international graduate students and domestic graduate students on levels of mastery-approach ($t(205) = 0.091$, $p = 0.92$), mastery-avoidance ($t(205) = -0.265$, $p = 0.79$), performance-avoidance ($t(205) = 0.589$, $p = 0.55$), intrinsic motivation ($t(201) = 1.427$, $p = 0.15$), and extrinsic motivation ($t(199) = -0.637$, $p = 0.52$). Further, the effect sizes were mostly below 0.2, which is
considered a low effect size using Cohen’s (1988) criteria. The effect sizes (Cohen’s $d$) for these six sub-scales were all low at $d = .01$, $d = .02$, and $d = -.03$, $d = .08$, $d = .20$, and $d = -.09$ respectively.

Table 9

*T-Test: Motivation by Student Status*

<table>
<thead>
<tr>
<th>Student Status</th>
<th>$N$</th>
<th>$M$</th>
<th>$SD$</th>
<th>$SEM$</th>
<th>$t$</th>
<th>$df$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mstry_Apprch</td>
<td>Domestic</td>
<td>97</td>
<td>4.341</td>
<td>0.952</td>
<td>0.096</td>
<td>205</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>International</td>
<td>110</td>
<td>4.330</td>
<td>0.881</td>
<td>0.084</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perf_Apprch</td>
<td>Domestic</td>
<td>97</td>
<td>4.189</td>
<td>0.853</td>
<td>0.086</td>
<td>1.998</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>International</td>
<td>110</td>
<td>3.939</td>
<td>0.933</td>
<td>0.088</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mstry_Avoid</td>
<td>Domestic</td>
<td>97</td>
<td>3.785</td>
<td>1.063</td>
<td>0.108</td>
<td>-0.265</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>International</td>
<td>110</td>
<td>3.822</td>
<td>0.971</td>
<td>0.092</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perf_Avoid</td>
<td>Domestic</td>
<td>97</td>
<td>3.924</td>
<td>1.031</td>
<td>0.104</td>
<td>0.589</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>International</td>
<td>110</td>
<td>3.842</td>
<td>0.971</td>
<td>0.092</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrinsic</td>
<td>Domestic</td>
<td>95</td>
<td>4.057</td>
<td>0.659</td>
<td>0.067</td>
<td>1.427</td>
<td>201</td>
</tr>
<tr>
<td></td>
<td>International</td>
<td>108</td>
<td>3.923</td>
<td>0.669</td>
<td>0.064</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extrinsic</td>
<td>Domestic</td>
<td>94</td>
<td>3.651</td>
<td>0.909</td>
<td>0.093</td>
<td>-0.637</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>International</td>
<td>107</td>
<td>3.736</td>
<td>0.959</td>
<td>0.092</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Mstry_Apprch = Mastery-Approach, Perf_Apprch = Performance-Approach, Mstry_Avoid = Mastery-Avoidance, Perf_Avoid = Performance-Avoidance
**Research question two.** Are there differences between international counseling graduate students and international non-counseling graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance?  

Similar to the first research question, the scores from all six subscales were again examined in terms of the field of study. In order to examine research question two, $t$-tests were conducted to assess if levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance) differ between international counseling graduate students and international non-counseling graduate students. As shown in Table 10, international counseling graduate students and international non-counseling graduate students did not significantly differ in their levels of mastery-approach ($t(106) = -0.025, p = 0.98$), mastery-avoidance ($t(106) = -0.6, p = 0.55$), performance-approach ($t(106) = -0.595, p = 0.55$), or performance-avoidance ($t(106) = -0.531, p = 0.59$) motivation, nor did the two groups significantly differ with regard to their mean levels of intrinsic ($t(105) = 1.236, p = 0.21$) or extrinsic ($t(104) = 0.861, p = 0.39$) motivation.

Table 10

* $T$-Test: Motivation by Field of Study

<table>
<thead>
<tr>
<th></th>
<th>Int_Field</th>
<th>$N$</th>
<th>$M$</th>
<th>$SD$</th>
<th>$SEM$</th>
<th>$t$</th>
<th>$df$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mstry_Apprch</td>
<td>Int_Couns</td>
<td>31</td>
<td>4.354</td>
<td>0.922</td>
<td>0.165</td>
<td>-0.025</td>
<td>106</td>
<td>0.98</td>
</tr>
<tr>
<td></td>
<td>Int_Non_Couns</td>
<td>77</td>
<td>4.359</td>
<td>0.794</td>
<td>0.090</td>
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<tr>
<td>Perf_Apprch</td>
<td>Int_Couns</td>
<td>31</td>
<td>3.881</td>
<td>1.013</td>
<td>0.181</td>
<td>-0.595</td>
<td>106</td>
<td>0.55</td>
</tr>
</tbody>
</table>
Research question three. Among international graduate students, are there differences between scholarship and non-scholarship students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

Motivation was also examined in terms of scholarship status. Independent sample t-tests were again conducted to examine differences in levels of different types of motivational orientations as a function of current scholarship status (sponsored by home government or not). Overall, no significant differences were found between scholarship students and non-scholarship students on levels of mastery-approach ($t(105) = -0.19$, $p = 0.84$), performance-approach ($t(105) = -0.719$, $p = 0.47$), mastery-avoidance ($t(105) = 0.77$, $p = 0.44$), performance-avoidance ($t(105) = -0.736$, $p = 0.46$), intrinsic ($t(105) = -1.493$, $p= 0.13$), and extrinsic ($t(105) = 0.3$, $p = 0.76$) motivation.
Table 11

*T-Test: Motivation by Scholarship Status*

<table>
<thead>
<tr>
<th>Scholarship Status</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mstry_Apprch</td>
<td>Yes</td>
<td>53</td>
<td>4.345</td>
<td>0.819</td>
<td>0.112</td>
<td>-0.19</td>
<td>105</td>
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<tr>
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<td>No</td>
<td>54</td>
<td>4.376</td>
<td>0.844</td>
<td>0.114</td>
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<tr>
<td>Perf_Apprch</td>
<td>Yes</td>
<td>53</td>
<td>3.905</td>
<td>0.890</td>
<td>0.122</td>
<td>-0.719</td>
<td>105</td>
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<tr>
<td></td>
<td>No</td>
<td>54</td>
<td>4.030</td>
<td>0.911</td>
<td>0.124</td>
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<tr>
<td>Mstry_Avoid</td>
<td>Yes</td>
<td>53</td>
<td>3.918</td>
<td>0.933</td>
<td>0.128</td>
<td>0.77</td>
<td>105</td>
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<td>No</td>
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<td>3.774</td>
<td>0.992</td>
<td>0.135</td>
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<tr>
<td>Perf_Avoid</td>
<td>Yes</td>
<td>53</td>
<td>3.779</td>
<td>0.982</td>
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<td>-0.736</td>
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<td>No</td>
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<td>3.919</td>
<td>0.984</td>
<td>0.133</td>
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<tr>
<td>Intrinsic</td>
<td>Yes</td>
<td>53</td>
<td>3.825</td>
<td>0.621</td>
<td>0.085</td>
<td>-1.493</td>
<td>105</td>
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<tr>
<td></td>
<td>No</td>
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<td>4.018</td>
<td>0.711</td>
<td>0.096</td>
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<tr>
<td>Extrinsic</td>
<td>Yes</td>
<td>53</td>
<td>3.764</td>
<td>0.897</td>
<td>0.123</td>
<td>0.3</td>
<td>105</td>
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<tr>
<td></td>
<td>No</td>
<td>54</td>
<td>3.708</td>
<td>1.024</td>
<td>0.139</td>
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</tr>
</tbody>
</table>

*Note: Mstry_Apprch = Mastery-Approach, Perf_Apprch = Performance-Approach, Mstry_Avoid = Mastery-Avoidance, Perf_Avoid = Performance-Avoidance*
**Research question four.** Is there a significant difference among international graduate students who intend to return their home country after graduation, those who intend to stay in the U.S. after graduation, and those who are undecided in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

A one-way analysis of variance (ANOVA) was employed to determine if there were any significant differences between the responses of international graduate students with different intentions to return to their home country with regard to different types of motivational orientations. Participants were classified into three groups: students who decided to return home country after graduation ($n = 57$), students who decided not to return home country after graduation ($n = 33$), students who were undecided about returning to home country after graduation ($n = 15$). As shown in the Table 12, the group means were not statistically significant different in their levels of intrinsic, extrinsic, mastery-approach, mastery-avoidance, and performance-approach; however, the ANOVA results indicated one marginally significant difference suggesting that performance-avoidance scores differed somewhat between the three groups, $F(2, 102) = 2.665$, $p = 0.07$. Tukey’s post hoc tests were conducted to test for group mean differences in each pairwise comparison in performance-avoidance motivation. These analyses revealed that the mean difference between students who decided to return ($M = 3.78$, $SD = .903$) and students who were undecided ($M = 4.38$, $SD = .785$) was marginally statistically significant ($p = 0.09$), as well as the mean difference between students who decided not to return ($M = 3.72$, $SD = 1.15$) and students who were undecided ($p = 0.08$), but no other group differences were statistically significant.
Table 12

One-way ANOVAs for the Six Motivational Orientations

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mstry_Apprch</td>
<td>Between</td>
<td>1.676</td>
<td>2</td>
<td>.838</td>
<td>1.212</td>
<td>.30</td>
</tr>
<tr>
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<td>Groups</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Within</td>
<td>70.508</td>
<td>102</td>
<td>.691</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>72.184</td>
<td>104</td>
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<td></td>
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<tr>
<td>Perf_Apprch</td>
<td>Between</td>
<td>2.847</td>
<td>2</td>
<td>1.423</td>
<td>1.787</td>
<td>.17</td>
</tr>
<tr>
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<td>Groups</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>81.248</td>
<td>102</td>
<td>.797</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>84.095</td>
<td>104</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Mstry_Avoid</td>
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<td>2.866</td>
<td>2</td>
<td>1.433</td>
<td>1.547</td>
<td>.21</td>
</tr>
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<td>Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Within</td>
<td>94.466</td>
<td>102</td>
<td>.926</td>
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<tr>
<td></td>
<td>Total</td>
<td>97.332</td>
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<tr>
<td>Perf_Avoid</td>
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<td>5.055</td>
<td>2</td>
<td>2.527</td>
<td>2.665</td>
<td>.07</td>
</tr>
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<td>Groups</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>96.738</td>
<td>102</td>
<td>.948</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>101.793</td>
<td>104</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrinsic</td>
<td>Between</td>
<td>1.111</td>
<td>2</td>
<td>.556</td>
<td>1.245</td>
<td>.29</td>
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<tr>
<td></td>
<td>Groups</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Within</td>
<td>45.529</td>
<td>102</td>
<td>.446</td>
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<tr>
<td></td>
<td>Total</td>
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<td>104</td>
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<td></td>
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<tr>
<td>Extrinsic</td>
<td>Between</td>
<td>1.335</td>
<td>2</td>
<td>.668</td>
<td>.722</td>
<td>.48</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>94.377</td>
<td>102</td>
<td>.925</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>95.712</td>
<td>104</td>
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</tr>
</tbody>
</table>

Note: Mstry_Apprch = Mastery-Approach, Perf_Apprch = Performance-Approach, Mstry_Avoid = Mastery-Avoidance, Perf_Avoid = Performance-Avoidance
**Research question five.** Among international graduate students, is there a relationship between performance-avoidance motivation and their perception of English proficiency?

Participants were asked to rate their perception of their English proficiency (using a scale from 1=not at all proficient to 5=extremely proficient). The scores from the performance-avoidance subscale and the perception of English proficiency were used to address this research question. The results of (two-tailed Pearson) correlation analyses showed no significant correlations between the overall perceptions of English proficiency and performance-avoidance motivation among international graduate students, $r(106) = .040, p = .68$.

**Research question six.** Among international graduate students, is there a relationship between performance-avoidance motivation and perception of challenges faced in their graduate studies?

Participants were also asked about their perception of challenges faced in their graduate studies (using a scale from 1=not at all challenging to 5=extremely challenging). Similar to the previous research question, the relationship between the perception of challenges faced and avoidance-motivation scores was analyzed using the Pearson correlation (two-tailed). The results of this analysis revealed a statistically non-significant relationship between the perception of challenges faced and performance-avoidance motivation construct, $r(106) = .043, p = .66$.

**Summary**

This chapter provided a description of a sample of graduate student population, including demographic information, and a quantitative analysis of findings on graduate
students’ different types of motivation to continue their study. The scores on the AGQ-R and AMS assessed participants’ levels of the six different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, and performance-avoidance). The analyses explored the differences in the levels of these different types of motivational orientations between different groups (e.g., domestic graduate students and international graduate students). The analyses also explored the impact of scholarship status, decision to return home country after graduation, the perception of challenges faced in the U.S. and the perception of the level of English proficiency derived from international graduate students as it related to different types of motivational orientations.

The data revealed a significant difference between domestic graduate students and international graduate students in their level of performance-approach motivation. No significant differences were found between domestic graduate students and international graduate students on levels of intrinsic, extrinsic, mastery-approach, mastery-avoidance, and performance-avoidance motivations. The data also revealed no significant differences between international counseling graduate students and international non-counseling graduate students in their levels of motivational orientations. In addition, scholarship status had no significant impact on different types of motivational orientations.

The data also revealed that the mean performance-avoidance scores differed somewhat between the three groups: students who intend to return to their home country, students who intend to not return to their home country, and students who were undecided. Lastly, correlation analyses revealed both the perception of challenges faced and the perception of English proficiency were not significantly correlated with performance-avoidance motivation.
It is important to note that statistical problem of multiple comparisons—in which running many statistical tests increases the likelihood of a Type I error occurring—may be at play in the present study. This problem of multiple comparisons recognizes that the chance of spuriously obtaining at least one statistically significant result, when the significance level is set at the $p < .05$ level, is one in 20. Since the present study found one significant result at this $p < .05$ level among 26 comparisons, the possibility of multiple comparisons problem should not be ignored. Specifically, the statistically significant difference found at the $p < .05$ level between domestic graduate students and international graduate students in their level of performance-approach motivation may in fact be spurious. It is further noteworthy that the chance of finding a spurious result at the $p < .10$ marginal level of statistical is one in 10. Since the study found three results that met the $p < .10$ level, these results are slightly better than chance and may not in fact be spurious. The most common approach to addressing and potentially correcting for the multiple comparisons problem involves adjusting $p$-levels using a statistical correction such as the Bonferroni correction. In many circumstances, such a correction is warranted; however, in some situations, it is not necessary. According to Gelman, Hill, and Yajima (2013), one downside to the Bonferroni correction is that, while it carries the benefit of decreasing the likelihood of a Type I error, when applied to analyses with a large number of $t$-tests (such as the present study) it undesirably increases the likelihood of a Type II error. With the likelihood of Type II error increased, in the present study the application of a statistical correction such as the Bonferroni correction would have led to the obscuring of some potentially meaningful effect sizes. Moreover, and perhaps more compellingly in the context of the present study, according to Armstrong (2014) the use
of the Bonferroni correction (and similar statistical corrections) “depends on the
‘intention’ of the investigator. In an exploratory context, an investigator would not wish
to miss a possible effect worthy of further study and therefore, a correction would be
inappropriate” (p. 505). In order to provide insight into new territory—international
graduate students’ motivational orientations—which may more productively guide future
research, the study did not apply a statistical correction. Therefore, instead of making
strong claims of evidence that these particular findings are likely (or unlikely) to be
replicated, the nature of this study being the first of its kind and to a degree exploratory
should warrant some latitude in raising the possibility of real effects unconstrained by the
limitations of Bonferroni correction and similar statistical corrections.
Chapter 5: Discussion

This chapter begins with a brief summary of the problem addressed and the main results of this study. The discussion of the findings is provided for all six research questions. Recommendations for future research based upon the results and applicable literature is also provided. This chapter also presents limitations of the study and concludes with a summary of the study.

Summary of the Findings

The purpose of this research was to examine different types of motivational orientations (namely intrinsic, extrinsic, approach, and avoidance) that contribute graduate students’ motivation to continue their education. Emphasis was placed on the differences between specific groups of graduate students (e.g., domestic-international). Quantitative analyses presented in Chapter Four revealed that, with few exceptions, significant differences were not found between specific groups of graduate students on their levels of different types of motivations. International graduate students were expected to have significantly higher mean of avoidance motivation (e.g., performance-avoidance and mastery-avoidance) and lower mean of approach motivation compared to domestic graduate students. Results of the study partially supported one hypothesis and did not support the other hypothesis. The study found that international graduate students had significantly lower mean levels of approach (performance-approach) motivation. The study also found that international graduate students who were undecided had significantly higher mean levels of performance-avoidance motivation compared to international students who decided to return their home country and who decided to stay in the U.S. International counseling graduate students were expected to have significantly
higher mean of intrinsic motivation compared to international non-counseling graduate students, but this hypothesis was not supported. Additionally, findings in Chapter Four revealed that international graduate students’ level of English proficiency and level of challenges faced were not significantly correlated with a specific type of motivational orientation (performance-avoidance). Though many of the results showed null findings, the presence of a few statistically significant and marginally significant findings suggest graduate students’ motivational orientations may vary based on different groups, which provides a preliminary basis for future research in this area. The following section provides a summary of the findings as they relate to each of the six research questions of the study.

Conclusions

**Research question one.** Are there differences between international graduate students and domestic graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

The current research study was one of the few studies that examine if domestic and international graduate students differ on their level of different motivational orientations to continue/complete their education. For example, existing research has investigated the differences on the level of motivational orientation between American and Turkish students within a sample of college students (Isiksal, 2010). While American and Turkish undergraduate students’ intrinsic and extrinsic motivation differed based on the years they spent at college (Isiksal, 2010), the current findings revealed no statistically significant differences in their level of intrinsic and extrinsic motivation
between domestic and international graduate students. This conclusion seems to conflict with Isiksal (2010) research on the differences on their level of intrinsic and extrinsic motivation. Graduate students and undergraduate students may exhibit different levels of motivation (Artino & Stephens, 2009), and this may be one reason why their high level of motivation could have masked the differences between domestic and international graduate students. In other words, graduate students have the potential to have high motivation to continue their education, which may have led to similar levels of motivational orientations in all different types. According to Archambault (1984) “ceiling effects are likely occur when the average score of a group exceeds three-fourths of the maximum possible score” (p.16). Therefore, in this study, ceiling effects are likely be problem if the mean score is greater than 3.75. Since all mean levels are near the top of the scale (between 3.7 and 4.4 on a 5-point scale), differences among different groups may have been obscured by a potential ceiling effect.

Additionally, while several studies have examined different aspects of approach/avoidance motivation among undergraduate students (Rosas, 2015; Rock & Janoff-Bulman, 2009), no existing research was identified that had examined approach/avoidance motivation differences between domestic and international graduate students. However, cultural differences in approach and avoidance were highlighted by several studies (see Hamamura, Meijer, Heine, Kamaya & Hori, 2009; Lopes, 2009). For example, the common idea of Americans typically tend to have approach motivation and East Asians typically tend to have avoidance motivation was supported in Hamamura et al.’s (2009) study. Although the current study did not focus on cultural differences per se (i.e., how participants from different cultures can have different motivational orientations
to continue their studies), results of this study partially support findings of previous studies. The current findings suggest the possibility that domestic graduate students more frequently experience performance-approach motivation. On the other hand, the result of this study did not support those previous findings and there was no evidence supporting international graduate students more frequently experience avoidance motivation. This finding is also not consistent with Sumer (2009) study documenting that international students typically use escape-avoidance coping strategy. One possible explanation for this might be that international graduate students’ cultural background varied due to the make-up of the present sample, which included participants from parts of world with different cultural orientations (e.g., Turkey and Canada), and therefore this study did not predict cultural differences. For example, international students from Western countries (e.g., Europe, South America) may have different motivational orientation than international students from non-Western countries (e.g., South Korea) (Woodrow & Chapman, 2002). It is more likely that international students in the United States who come from other Western countries will have similar motivational orientations with domestic students. The lack of support in this study for the existing research findings regarding approach and avoidance motivation could also be due to another form of sample difference between the current and existing studies, specifically that the current study examined differences in within graduate student population. Previous studies typically did not include graduate students, but rather undergraduate college students (e.g., Artino & Stephens, 2009).
Research question two. Are there differences between international counseling graduate students and international non-counseling graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

This study was also unique because it includes participants from specific groups (e.g., International counseling graduate students, Turkish international graduate students). As previously mentioned, international students in counseling or related fields typically face greater challenges when compared students in non-counseling related fields. This is probably due to requiring a higher-level multicultural competence and a high degree of verbal English proficiency (Ng, 2006). This may lead counseling and non-counseling graduate students to have different motivational orientation to continue their graduate studies. For example, we expected different motivational orientations (e.g., intrinsic motivation) to be experienced more frequently by counseling international graduate students. Moreover, pursuing a career in counseling does not usually promise high salary, which may indicate international counseling students are expected to have lower level of extrinsic and higher level of intrinsic motivation compared to non-counseling international students. Contrary to this hypothesis, the current findings provided no evidence supporting the notion that counseling international graduate students and non-counseling international graduate students have different motivational orientations to continue their studies. One possible explanation for this might be that the experience of international counseling students from Western countries and international counseling students from non-western countries can be different. For example, international counseling graduate students from non-Western countries typically have lower level of
English proficiency and more cultural adjustment problems compared international counseling graduate students from Western countries (Ng, 2006), which also may lead different motivational orientations. Therefore, differences between international counseling and non-counseling graduate students could have been masked by the diversity of students (Western and non-Western) that made up counseling and non-counseling international participants in this study. Future research benefit from a focus on cultural differences (Western and non-Western countries), as well as the interaction of these cultural differences with field differences (counseling and non-counseling) among international population.

**Research question three.** Among international graduate students, are there differences between scholarship and non-scholarship students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?

This study was the first of its kind to examine the differences between scholarship and non-scholarship international graduate students in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance). Scholarship students typically have more adjustment problems because of the pressure to keep their scholarship status (Poyrazli, Arbona, Bullington & Pisecco, 2001). This pressure may lead them to have different motivational orientations to continue their studies; specifically, scholarship students are expected to more frequently experience avoidance motivation. However, the result of this study did not support this hypothesis and showed no significant difference in avoidance motivation between scholarship and non-scholarship international graduate
students. The reasons scholarship and non-scholarship international graduate students did not have a significant difference in their motivational orientations cannot be directly inferred from the present study, but it may be due to the nature of scholarship received not being clear. For example, some of scholarship students are required to return to their home country or pay all scholarship back if they wish to stay in the U.S. or did not complete their education successfully, whereas other international graduate students might not have such a requirement. This may have affects on their overall motivational orientations to continue/complete their education. In other words, the source of motivation for students who have a requirement of paying all scholarship back may be different than students who do not have such a requirement. For example, international graduate students who were awarded a scholarship with the obligation of having to pay back the money in the event of failure may more frequently experience the fear of failure. As stated previously, students’ motivation could be characterized by avoidance motivation when they study out of a fear of failure. Since this study did not focus on the nature of their scholarship status, there might be a need to separate them into different categories. Therefore, future research can focus on how scholarship differences may play a role in different motivational orientations.

**Research question four.** Is there a significant difference among international graduate students who intend to return their home country after graduation, those who intend to stay in the U.S. after graduation, and those who are undecided in their levels of different types of motivational orientations (intrinsic, extrinsic, mastery-approach, mastery-avoidance, performance-approach and performance-avoidance)?
Previous studies have shown that international students’ motivation is significantly associated with their sociocultural adaptation (Sumer, 2009; Hsu, 2011), and students who intend to return home country after graduation may have a lower level of motivation to adapt to American culture (Sumer, 2009). Moreover, intrinsic motivation might be a positive predictor of international students’ successful cultural adaptations into the host countries (see Hsu, 2011). On the other hand, international graduate students who decided to return home country after graduation may not be well adapted into American culture, which could possibly result in having different motivational orientation compared those who decided to stay in the U.S. For example, an international student who decided to stay in the U.S. may perform his or her clinical work for broadening his or her horizon in clinical work and academic excellence (e.g. intrinsic). On the other hand, an international student who decided to return home country may perform the task to meet the class requirement and avoid the negative outcome (e.g. avoidance motivation). Therefore, it was expected that international students’ decision to return to their home country might have a significant effect on different types of motivational orientations. The result of the present study indicated that international students who were undecided about returning home country more frequently experience avoidance motivation (performance-avoidance) than both international students who decided to stay in the U.S. and international students who decided to return home country after graduation. One reason for this may be the uncertainty about returning home country led international students trying to avoid an undesirable outcome such as failure or not graduating. Being undecided about returning to one’s home country can be frustrating, mostly because of focusing on social, emotional, and financial cost of staying
in the U.S. or returning home country. In addition to this, performance-avoidance motivation can be detrimental for performance (Damon, Harackiewicz, Butera, Mugny & Quiamzade, 2007). Therefore, international students who did not make a decision about returning home country might be more likely to simply try to survive in their graduate studies than students who made a decision about returning to their home country. The link between performance-avoidance motivation and uncertainty about returning home country needs more attention. Future research can focus on understanding this link further, and whether there is a relationship between uncertainty and performance-avoidance motivation in academic settings for international graduate students.

**Research Questions Five and Six.** Among international graduate students, is there a relationship between performance-avoidance motivation and their perception of English proficiency? Among international graduate students, is there a relationship between avoidance motivation performance-avoidance motivation and perception of challenges faced in their graduate studies?

The fifth and sixth questions of this study dealt with performance-avoidance motivation and its relationship with perception of English proficiency and perception of challenges faced. This study was the first of its kind to examine such a relationship. Previous studies indicated that international graduate students’ higher level of program completion “does not imply professional or personal satisfaction” (Zhou, 2015). In other words, international graduate students may tend to more frequently experience avoidance motivation in order to survive in their studies. The use of an escape-avoidance coping strategy among international students was also highlighted in Sumer’s (2009) study of international students’ adaptation to the U.S. in relation to intent to stay in the U.S. after
graduation. Therefore, this study examined whether international students’ level of English proficiency and level of challenges faced have a relationship with avoidance motivation. Correlational analyses are non-directional so this analysis was unable to identify whether level of English proficiency triggers avoidance motivation or if level of challenges faced leads to avoidance motivation. The result of this study showed no evidence to support a relationship between performance-avoidance motivation and perception of English proficiency, and perception of challenges faced. Though not expected, this result might be explained by the possibility that avoidance motivation cannot be simply aroused only by level of English proficiency or level of challenges faced, and that perhaps other factors (e.g., financial situation, cultural background, gender, level of education) are more powerful in leading international graduate students to experience avoidance motivation. This could explain why level of English proficiency or level of challenges faced does not solely have a relationship with performance-avoidance motivation. Future research might focus on understanding if avoidance motivation can be triggered by a broader factor (e.g., social and academic adaptation to the U.S.), instead of focusing on only English proficiency and perception of challenges.

Limitations of the Study

Although this study had several strengths (e.g., a fairly large sample size relative to other similar studies in this domain, the inclusion of a comparison group), there are several limitations to this study. In order to be able to generalize the findings to the graduate student population, such limitations related to sampling, data collection, instrumentation, and research design should be addressed in future research studies. One of the main limitations of this study involved the use of a snowball sampling technique,
which reduced the ability to generalize the research findings. This approach can pose a threat to external validity because the type of students who were reached might not accurately represent the graduate student population at large. Therefore, in future research a different sampling method (e.g., random sampling) may be used to lend itself to a more generalized population. Another limitation of the study was the recruitment of participants through online listservs. This can also pose a threat to external validity because the type of student who subscribed such listservs and wanted to answer such survey may bias who would respond to the survey.

The self-report nature of instruments was another limitation because of possible response bias. For example, international graduate students were asked to rate their level of English proficiency and the perception of challenges faced in their studies. In this case, some participants may have altered their responses to appear more favorable. This can indicate a potential presence of social desirability bias, which is corroborated by previous studies stating that “survey self-reports of motivation are likely subject to social desirability bias” (Antin & Shaw, 2012, p. 2). Therefore, response bias, a threat to internal validity, could have been an issue for this study. The AGQ-R and AMS measures were used in this study to examine graduate students’ motivation, which could represent an additional limitation because original scales were designed to measure college students’ motivation. This limitation might have manifested in the measure’s inability to fully address graduate students’ motivation to continue their education, which previous research has suggested may constitute different sources and levels of motivation (e.g. Artino & Stephens, 2009). Another limitation was that there were fewer international counseling graduate students than international non-counseling graduate since it is hard
to reach a lot of international counseling graduate students. This study could be replicated with proportional numbers of respondents in each group. In this sense, although having more subjects could have increased power of the statistical analysis, the subject number was higher than anticipated in a short period of time.

Lastly, another potential limitation of this study can be the researcher, who has been an international graduate student in the U.S. for 5 years. Although the researcher made every attempt to maintain objectivity and not bring his own attitudes and values into the study, there may nonetheless have been inadvertent researcher bias. Also, it is possible that the knowledge of some of the participants that the researcher shared the characteristic of being an international student himself may have biased how they reported their data. This is because some participants may feel they want to respond the survey to fulfill their role for the success of the study.

**Recommendations for Future Research**

Several recommendations for future research are made based on the conclusions. Future investigation is needed to better understand graduate students’ motivation—in particular, the motivation of international graduate students studying in the U.S.—from a broader perspective by utilizing an alternative data collection method and refining research design. For example, in addition to quantitative aspect of this study, a qualitative method such as interviews could be adopted with a subsample of the respondents to explore graduate students’ motivation to continue their education more in depth.

Motivation is a very broad concept. The use of AGQ-R and AMS is only one way of measuring graduate students’ motivation to continue their education. In this concept, another recommendation for future research would be to examine the relationship
between different types of motivational orientations (e.g., avoidance motivation) and other life stressors (e.g., financial situation, relationship issues). Therefore, future studies can illustrate other factors that may also influence graduate students motivation to continue their education.

It is also important to note that this study only examined a sample of domestic and international graduate students’ motivational orientations to continue their education in the U.S. Considering domestic graduate students in this study as homogenous group could have masked the differences between students from different racial ethnic and racial background (e.g., Caucasian, African-American). Similarly, considering international graduate students as homogenous group could also have masked the differences between students who have ancestries from different countries and cultural backgrounds. In other words, international graduate participants from a specific country might have different motivational orientations than participants from other country and this might be important to examine in future research. For example, we might expect that international students from an East Asian country (e.g., South Korea) more frequently experience avoidance motivation than international students from a North American Country (e.g., Canada); indeed, recent research supported this idea by documenting that East Asian typically experience avoidance motivation (Hamamura, Meijer, Heine, Kamaya & Hori, 2009; Lopes, 2009). For this reason, future research will also have to examine if participants from different countries more frequently experience a specific type of motivation than other type of motivation.

Although several studies have been conducted to examine various aspect of graduate student motivation (Gonzalez-Moreno, 2012; Nolot, 2011; Hegarty, 2010),
much is still unknown. One direction for future studies on graduate student motivation is to reexamine the assumption that international students can be avoidance motivated (e.g., Sumer, 2009) to continue their graduate studies. Therefore, future research should examine the role of avoidance motivation for continuing their graduate studies. Perhaps avoidance motivation is most important in a situation where international graduate students are uncertain about their future, which is partly supported in this study. This is because avoidance motivation can help students to survive in critical situations (Roskes, Elliot & De Dreu, 2014), when they are not certain about their future and can not focus on their studies. The final recommendation would be for future researchers to employ qualitative research designs to examine in more depth and in their own words graduate students’ motivation to continue their studies. As noted previously, interview methods (such as that employed by Zhou, 2015) could be fruitful to this end, as well as perhaps an open-ended questionnaire, both of which allow respondents to provide more detail in their responses as well as qualify and clarify their responses on why they continue their studies.

**Summary of the Study**

The purpose of this research was to investigate different types of psychologically based motivational factors that contribute to international graduate students’ motivation toward completing their programs, in particular in relation to domestic students. Participants identified through convenience stratified sampling and snowball sampling methods completed an electronic survey consisting of measures of demographic characteristics as well as multiple established measures of different types of motivational orientations. Emphasis was placed on exploring why students continue to study in
graduate programs and what types of motivations drive them to complete their education in the face of the known challenges. The findings from this study did not provide broad support for the notion that there are strong differences between international and domestic students in their motivational orientations toward completing their education, but it did suggest at least the possibility by way of the significant and marginally significant results that it may still be important to explore further understanding of the differences in their level of motivation among graduate students. Overall, this study has attempted to advance our knowledge about the different motivational orientations held by international graduate students in relation to continuing/completing to their program, and in relation to domestic graduate students.
References


Cardona, J. J. (2013). *Determined to succeed: Motivation towards doctoral degree*


Appendix A:

Name: Achievement Goal Questionnaire – Revised (AGQ-R)

Appendix B:

ACADEMIC MOTIVATION SCALE (AMS-C 28)


<table>
<thead>
<tr>
<th>Does not correspond at all</th>
<th>Corresponds a little</th>
<th>Corresponds moderately</th>
<th>Corresponds a lot</th>
<th>Corresponds exactly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>

**WHY DO YOU PERSIST IN YOUR GRADUATE STUDIES?**

1. For the pleasure that I experience in broadening my knowledge about a field which appeals to me. 1 2 3 4 5 6 7

2. Because my studies allow me to continue to learn about many things that interest me. 1 2 3 4 5 6 7

3. For the satisfaction I feel when I am in the process of accomplishing difficult academic activities. 1 2 3 4 5 6 7

4. Because graduate school allows me to experience a personal satisfaction in my quest for excellence in my studies. 1 2 3 4 5 6 7

5. To prove to myself that I am capable of completing my graduate degree. 1 2 3 4 5 6 7

6. Because I want to show myself that I can succeed in my studies. 1 2 3 4 5 6 7

7. In order to obtain a more prestigious job later on. 1 2 3 4 5 6 7

8. Because I want to have "the good life" later on. 1 2 3 4 5 6 7

**KEY FOR AMS-28**

# 1, 2, 3, 4 Intrinsic motivation (to know, toward accomplishment)

# 5, 6, 7, 8 Extrinsic motivation (introjected, external)
Appendix C:

School of Education  
Department of Counseling, Psychology, & Special Education

Recruitment Email

Dear Graduate Student,

My name is Cebrail Karayigit, and I am a doctoral candidate from the School of Education/Dept. of Counseling, Psychology, and Special Education at Duquesne University. I am writing to invite you to participate in my study entitled “An Examination of Different Motivational Orientations That Drive Graduate Students To Continue/Complete Their Education in the U.S.” To be eligible to be in this study, you need to identify yourself as graduate student at the master’s or doctoral level program in the United States.

The survey will take approximately 15 minutes or less to complete. Participation is completely voluntary and your answers will be anonymous. Prior to the start of the demographics questions and online surveys, you will be asked to read the informed consent form, and if you agree to the conditions, you will be asked to click “Yes, I agree” to give your consent to participate in this study. You will have the opportunity to enter your email address to gain entry into a drawing for a $50 gift card. The drawing will be held upon completion of the data collection. Entering your email is not required to participate in this study. If you choose to provide your email address, we will store it separately from your responses as a way to ensure the confidentiality of your responses.

If you are interested, please click on the link for the survey and additional information: www.

Remember, your participation is completely voluntary. You can choose to be in the study or not. If you have any questions, please do not hesitate to contact me (karayigitc@duq.edu) or my faculty advisor, Dr. Matt Bundick (bundickm@duq.edu).

Thank you for your time and consideration.

Sincerely,

Cebrail Karayigit, M.S.Ed.  
School of Education/Dept. of Counseling, Psychology, and Special Education  
karayigitc@duq.edu