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Identifying characteristics that lead to better academic performance for international students in U.S. colleges

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IDENTIFYING CHARACTERISTICS THAT LEAD TO BETTER ACADEMIC

PERFORMANCE FOR INTERNATIONAL STUDENTS IN U.S. COLLEGES

A dissertation proposal submitted in partial satisfaction

of the requirements for the degree of

Doctor of Education in Organizational Leadership

by

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This dissertation, written by

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DEDICATION

I dedicate this dissertation to my family members: to my kind and supportive wife Zohreh, to my

lovely Dad, and Mom, my siblings Saba, Javad and Kazem, who supported me with their heart.

Also, I dedicate this dissertation to all international students around the world.

ACKNOWLEDGMENTS

VITA

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Rajabbeigi, H. (in press). Positive psychology for improving well-being of faculty members: a content analysis.

Hanson, J., Martinez, F., Baker, T., Chang, Y, Rajabbeigi, H, Sumner, J. (2018). Facets of Cuban Health Care. For a virtual conference presentation for the Association for the Study of the Cuban Economy (ASCE) 2018, July 27, 2018.

Rajabbeigi, H. (2018). Positive Leadership and better performance for presentation at the the GXNU-Pepperdine GSEP Scholars Innovation Exchange 2018, Normal University Yanshan Campus, Guilin, China: May 9.

Rajabbeigi, H., Fraizer, L. (2018). Rethinking Possibilities for English Language Learners: Exploring Emerging E-learning Technologies for Raising TOEFL Scores

Fox J., Sidhu S., Harrison Jr. M., Rajabbeigi H., Calhoun D., Opong C., & Fraizer L. (2016). Reimagining Education in the Juvenile Justice System. Submitted for presentation at the International Organization of Social Sciences and Behavioral Research Conference. San Antonio, Texas

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Rajabbeigi, H. (2014). Effectiveness of Agricultural Applied-Scientific Trainings on professional and Personal Empowerment.14th Annual International Business Conference on Sustainability, Globalization and Business Education, North Florida

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- Entrepreneurship   Social Entrepreneurship
- Educational Leadership   E-learning and curriculum development

ABSTRACT

A large proportion of students in the United States is international students. Thus, educational leaders need to facilitate the learning process for this population. This study investigated the characteristics of international students that affect their academic performance. The purpose of this study was to determine how individual characteristics of international students affect the learning strategies they choose and how it affects their academic performance. For this purpose, the survey was designed according to the literature, which measures characteristic variables based on VIA character strengths (Peterson & Seligman, 2004), learning strategies (MSLQ) developed by Pintrich et al. (1991), and academic performance of international students in the United States. It was hypothesized that a stronger character correlates with learning strategies and academic performance. The findings revealed a positive correlation between each of the character strengths variables (love of learning, social intelligence, self-regulation, and perseverance) and the learning strategies. Also, each of the character strengths variables correlated positively with academic performance. The multiple regression analysis revealed that character strengths and learning strategies could predict academic performance, but demographic characteristics could not predict academic performance.

Chapter 1: Introduction

Background of Study

Many students around the world pursue their academic goals in other countries to acquire the skills and knowledge required in the global economy of today. Students from around the world are interested in continuing their studies in the United States, because of the quality of education provided by American institutions. The Open Doors Report of 2019 shows that the total number of international students in the United States is 1,095,299, a 0.05% increase over the previous year. International students comprise 5.5% of the total higher education population (Institute of International Education, 2019, November 18). International students consider the United States as a place they can actualize their dreams, and as a land of opportunities.

Furthermore, international students find a flourishing climate in the United States educational institutions. They can develop their global competencies and become familiar with other people from other countries. Besides all these positive points, there are some challenges for students who decide to study abroad. For instance, international students in the United States experience social issues such as culture shock, language barriers, and racial prejudice; and psychological problems such as homesickness, stress, helplessness, rejection, isolation, and social anxiety (He & Hutson, 2018; In, 2016; Jackson et al., 2013; Lowinger et al., 2014; Ortaçtepe, 2013; Y. Wang et al., 2018).

Positive psychology provides a practical framework to investigate a variety of social and psychological problems experienced by international students in the United States. Researchers in the emerging field of positive psychology have discovered some individual characteristics, such as positive emotions, positive feedback, and social relationships, which could help students achieve their long-term goals in their academic career (Csikszentmihalyi, 1991; Peterson &

Seligman, 2004; Ryan & Deci, 2017; Seligman et al., 2009). For example, Peterson and Seligman (2004) proposed individual characteristics and categorized those strengths into 24 categories. Among these categories of character strengths, love of learning, self-regulation, perseverance, and social intelligence are investigated by researchers in higher education to help international students deal with their social and psychological problems (Jackson et al., 2013; Liao et al., 2012; Mamiseishvili, 2012; Poyrazli & Isaiah, 2018).

Love of Learning

Love of learning is one of the essential virtues categorized by Peterson and Seligman (2004) that helps international students achieve their academic goals. This psychological characteristic is similar to the state of *flow* proposed by Csikszentmihalyi (1991) and provides an opportunity for researchers to investigate the intrinsic motivation of international students. Csikszentmihalyi (1991) showed that people experience inherent enjoyment when engaging in some activities such as solving a problem, writing academic papers, playing computer games, or learning a second language. He states, "Any activity contains a bundle of opportunities for action, or 'challenges,' that require appropriate skills to realize. For those who do not have the right skills, the activity is not challenging; it merely is meaningless" (Csikszentmihalyi, 1991, p. 50). In their invaluable research, Csikszentmihalyi (1991) and Peterson and Seligman (2004) found that actions with appropriate levels of challenging tasks create more flow among students if they have a proper level of skills to conquer those challenges. Thus, international students in the United States with higher love of learning have more flow in their academic endeavors and follow their educational goals with higher levels of intrinsic motivation (Csikszentmihalyi, 1991; Peterson & Seligman, 2004).

Self-Regulation

International students who possess an appropriate level of self-regulation are more successful in higher education in the United States (Seligman et al., 2009). Knowles et al. (2015) showed that adults have the potential to take charge of their learning process. Also, self-regulation, which is one of the most critical requirements of self-directed learning, is among 24 character strengths categorized by Peterson and Seligman (2004), which has a positive effect on the achievement of international students in the United States.

Perseverance

Academic performance can be a result of personal endeavors and persistence in achieving long-term goals. Duckworth (2016) researched how people persisted passionately on achieving their goals and concluded that gritty students have higher levels of persistence; they make a considerable amount of effort to achieve their goals. For instance, they spend more time on their assignments at home and outside of the classroom. International students with a more intrinsic interest in learning, developing their social network, utilizing available resources, and improving their academic performance have adequate level of grit in their educational activities.

Social Intelligence

Psychologists like Vygotsky, Piaget, and Lewin considered society as an essential factor affecting the behavior of people. For instance, Vygotsky and Cole (1978) theorized people's behavior is shaped by social forces in their environment; for example, as children grow up, they learn to adapt their behavior in their social context. In this regard, students make relationships with their peers, faculty, and educational leaders to follow their goals. It is very challenging for international students to communicate with other students and faculty because of language and cultural issues (In, 2016; Jackson et al., 2013; Lowinger et al., 2014). They might experience

feelings such as shame, anxiety, lack of self-efficacy, and social anxiety among negative emotions communicating with others in the university or college (Jackson et al., 2013; Liu & Lin, 2016; L. Wang et al., 2017). Faculty members and educational leaders should provide a supportive environment for international students to conquer these feelings.

Learning Strategies

International students can utilize a variety of learning strategies according to their educational character strengths and academic goals to enhance their academic performance (Bandura, 1997; Hofer et al., 1998; Knowles et al., 2015; Tyler, 2013). For instance, they can utilize their social context of educational institutions and use the dialogical method introduced by Freire (2000). They can converse with peers and instructors about topics related to their field of study (Freire, 2000; Knowles et al., 2015; Tyler, 2013). It is a valuable opportunity for international students from different countries to have a dialogue with other students and become familiar with other cultures (Jean-Francois, 2019).

Furthermore, goal setting and appropriate learning strategies help students to regulate their learning effectively. These self-regulatory activities are cognitive and motivational strategies used by students to monitor their learning (Schunk & Zimmerman, 1998). Cognitive strategies, such as the rehearsal, elaboration, and organizational strategy. Also, they mentioned notetaking, self-evaluation, test-taking, and group discussions as additional cognitive strategies. These strategies assist students in developing self-regulatory learning in their academic careers. Therefore, international students in higher education can utilize these self-regulatory strategies to acquire global competencies such as English language proficiency, leadership skills, social intelligence, multicultural literacy, and cross-cultural awareness.

Some students utilize their social environment for learning and use collaborative learning strategies. For instance, they build communities of practice (COP), introduced by Lave and Wenger (1991), which includes groups of students working with each other to reach their academic goals defined by their instructors or by themselves. Collaborative learning can help international students to form multicultural communities and take the appropriate learning trajectory according to their status in the school. At the beginning of the learning process, they are new-comers, and then gradually play more critical roles in the community by taking an apprenticeship to become masters in the future (Lave & Wenger, 1991). Furthermore, research shows COPs with a higher level of diversity help international students in the United States to make meaningful relationships with their multicultural classmates and enhance their academic performance (Kemp, 2010; Lave & Wenger, 1991).

Many scholars have researched the activities outside the classroom, which help students experience what they learned in their course studies (Knowles et al., 2015; Kolb, 2014; Tyler, 2013). Experiential learning is another learning strategy that helps students to become more engaged in their academic careers (Csikszentmihalyi, 1991; Knowles et al., 2015; Kolb, 2014; Peterson & Seligman, 2004; Tyler, 2013). For instance, Kolb (2014) discusses the importance of experience in the learning process and how students can enhance their performance in an academic environment. He explains the process of learning as "the creation of knowledge and meaning, [which] occurs through the active extension and grounding of ideas and experiences in the external world and internal reflection about the attributes of these experiences and ideas" (Kolb, 2014, p. 78).

Academic Performance

There is an old proverb that states if you can define something, then you can measure it. Regarding academic performance, the spectrum of definitions is broad because of the importance of this concept in higher education; thus, a variety of evaluation methods emerged to measure academic performance more accurately (L. D. Fink, 2013; Marzano & Kendall, 2008; Ryan & Deci, 2017; Suskie, 2018). For instance, rubrics, GPA, grading, qualitative feedback, written and oral feedback, and quantitative feedback are well-known evaluation methods in academia (Marzano & Kendall, 2008; Ryan & Deci, 2017). There is some research on the efficacy of assessment methods employed by faculty members; for instance, researchers emphasized the social interaction and supportive role of faculty in evaluating the academic performance of students (Mezirow & Taylor, 2011; Taylor & Marienau, 2016; Tinto, 2012). Also, it depends on the requirements of the coursework, for instance, assessment of written assignments in a sociology or psychology class is different from science, technology, engineering, and mathematics (STEM; L. D. Fink, 2013; Knowles et al., 2015). In social sciences, it seems qualitative methods of evaluation are more appropriate than quantitative ones, and in STEM fields, the reverse is true (Marzano & Kendall, 2008). For instance, Duckworth (2016) suggested positive feedback in assessing the progress of students, might enhance their perseverance in their academic tasks. Also, Dweck (2012), in her explanation of fixed and growth mindsets, distinguished between faculty, parents, coaches, and mentors and explained that their evaluation can affect the real performance and mindset of students.

Problem Statement

Some international students have higher engagement, motivation, and interest in the following educational goals. Some others suffer from a lack of commitment, which might be a

result of language barriers, culture shock, and distance from home country (He & Hutson, 2018; In, 2016; Ortaçtepe, 2013; L. Wang et al., 2017). Research shows students who score high in character strengths achieve appropriate results meeting challenges, and they have adequate level of persistence in achieving their long-term goals (Bandura, 1997; Duckworth, 2016; Peterson & Seligman, 2004).

Research shows a variety of psychological and social problems observed among international students, which affect their academic performance. Lack of knowledge or ability to make connections with educational resources, teachers, leaders, and peers (He & Hutson, 2018); lack of self-efficacy in utilizing appropriate learning strategies (Bandura, 1997); social anxiety (Jackson et al., 2013); and cultural barriers (In, 2016) are among the problems observed by researchers.

Purpose of Research

The purpose of this quantitative survey research is to explore the relationship between four character strength variables derived from Peterson and Seligman (2004) character strength model (educational character strength) and learning strategies derived from the literature review in the areas of adult learning, self-regulatory learning, and learning theories affecting academic performance of international students in the United States. Also, the impact of demographic characteristics of international students on their academic performance is investigated to reveal the possibility of any linear regression between mentioned variables.

Theoretical Framework

This study investigates the success of international students in their academic endeavors based on a variety of psychological and learning theories, including positive psychology (Peterson & Seligman, 2004; Seligman et al., 2009), self-determination theory (Ryan & Deci,

2017), self-regulated learning (Schunk & Zimmerman, 1998), and social learning theories

(Bandura, 1997). Based on theoretical frameworks, the relationship between the three primary

constructs is depicted in Figure 1, which includes educational character strength, learning

strategies, and academic performance.

Figure 1

Theoretical Framework
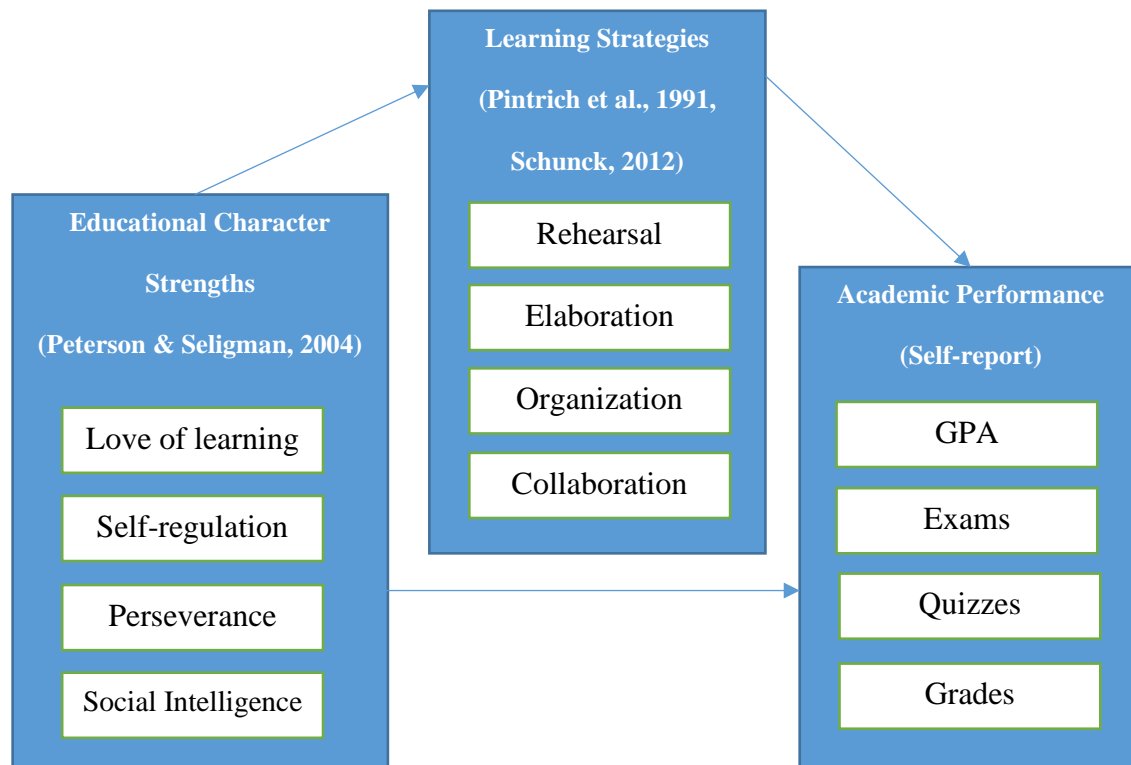
Note. The theoretical framework shows the relationship between educational character strength,

learning strategies, and academic performance.

Educational character strength is a construct based on positive psychology theory, which

is an aggregation of four variables—love of learning, social intelligence, self-regulation,

perseverance—which stem from positive psychology theories. The primary dependent variable

or outcome of this study is a construct named academic performance which, is calculated by

aggregating vital factors in the achievement of students, such as GPA, exams, class assessment, grades, and quizzes. Also, learning strategies (rehearsal, elaboration, organization, and collaboration) are considered as a mediator of independent and dependent variables.

Research Questions

Four main research questions are investigated through this research.

1. Is there any relationship between the educational character strength of international students in the United States and the learning strategies they utilize?

2. Is there any relationship between learning strategies used by international students in the United States and their academic performance?

3. Is there any relationship between the educational character strength of international students and their academic performance?

4. Is there any relationship between academic performance, educational character strength, and learning strategies when accounting for demographic factors?

Research Hypotheses

Based on suggested research questions, these hypotheses are formulated:

- H1: There is a positive relationship between educational character strength and academic performance.

- H2: There is a positive relationship between educational character strength and learning strategies.

- H3: There is a positive relationship between learning strategies and academic performance.

- H4: There is a linear relationship between academic performance, learning strategies, and educational character strength accounting for demographic factors.

Definitions

Here are the key terms of the research:

- *Social intelligence:* Peterson and Seligman (2004) define social intelligence as "one's relationships with other people, including the social relationships involved in intimacy and trust, persuasion, group memberships, and political power" (p. 339).

- *Self-directed learning:* Knowles et al. (2015) considered self-directed learners as adults who can set their goals and achieve those goals with their self-determined learning strategies.

- *Intrinsic motivation:* Ryan and Deci (2017) consider intrinsic motivation as a natural human propensity that motivates people intrinsically. In contrast with extrinsic motivation, which drives people with extrinsic goals such as grades, rewards, bonuses, and promotions, intrinsic motivation is something people do because they find work enjoyment. As Csikszentmihalyi (1991) defined, there are some activities that people enjoy doing, such as playing games and solving problems. There are no worldly consequences for the intrinsic motivation of people.

- *Self-efficacy:* People evaluate their strengths and weaknesses regarding their success and failure in the face of their learning experience. Bandura (1997), in his social learning theory, emphasized the social context of individuals that shape their belief system about their capabilities; he considered the belief system of people about their efficacy as self-efficacy, which is an essential factor in achieving goals.

- *Experiential learning:* Kolb (2014) emphasizes the importance of experience and interaction with the social context in the process of learning. Experiential learning helps people to have real-world experience and develop their competencies.

- *The community of practice:* Lave and Wenger's theory of community of practice is based on their situated learning theory, which considers learners as social entities in a community who enhance their learning through playing different roles in the society.

- *Growth mindset:* Dweck (2012) categorized learners into two different groups, people with a fixed mindset consider their abilities as fixed characteristics determined by forces outside their domain of control, and those people with a growth mindset believe that they can use their talent their futures.

- *Perseverance:* "Voluntary continuation of goal-directed action despite obstacles, difficulties, or discouragement" (Peterson & Seligman, 2004, p. 229).

- *International students:* In this study defined as students with a student visa who came from abroad to study in the United States.

- *Academic performance:* Students in higher education have a variety of capabilities and actualize their educational aspirations to achieve their goals; they perform with different degrees in their assignments, exams, and class participation, which is usually evaluated by faculty members, peers, or themselves. In this study, a construct of academic performance is developed to measure it as a quantitative variable.

- *Learning strategies:* Learners utilize a variety of approaches to achieve their academic goals; there are many recognized learning strategies such as memorization, collaboration, community building, elaboration, and organization, which help students enhance their academic performance.

Significance of the Study

Who Might Benefit From the Outcomes of This Study, and Why?

This study provides a framework for institutions of higher education in the United States, and especially international offices of colleges and universities, to improve the academic performance of international students by helping them promote their educational character by considering the positive psychology theories and modern learning strategies. In addition to international offices, faculty members can benefit from the outcomes of this study in their academic careers. For instance, they can modify their syllabus according to the educational character, and they can provide appropriate instructions regarding learning strategies for their international students.

How Might the Outcomes of This Study be Utilized or Applied?

The results of this study provides an outlook for leaders in higher education organizations in the United States to facilitate the learning process for international students. The results of this study offer an informative perspective for faulty members to facilitate the learning process for international students.

How Will This Study Add to What Currently Exists in Professional Literature?

There is a vast body of literature in the area of positive psychology. Still, the lack of research among international students in the United States is apparent, and this research discovers factors affecting the success of this group of learners.

Why is it Essential to Conduct This Study in This Manner and at This Time?

Investigating the situation of international students in the United States provides a framework for policymakers, leaders, and instructors in higher education to consider differences

between domestic and international students. This study opens the window for higher education leaders to familiarize themselves with this group of students in the United States.

Chapter Summary

International students in the United States experience many challenges discussed in this chapter, and the strategies mentioned in the background of the study are helpful to overcome those challenges. For instance, self-regulation helps international students to achieve desirable results in their academic endeavors. They should know how to set appropriate goals and stick to the goals with proper strategies. Also, it is essential to develop a love of learning with positive emotions to have a positive attitude toward learning. Additionally, they should persist in their career to achieve the goals and utilize the learning strategies mentioned in this chapter to achieve better academic performance. Therefore, this study provides a positive framework for international students and educational leaders who deal with these students to understand better the factors affecting academic performance and utilize appropriate learning strategies to achieve better performance.

Chapter 2: Literature Review

The purpose of this study is to determine the main factors affecting the academic performance of higher education international students in the United States. Because much of the literature discusses higher education students in general, this literature review considers the following: the educational character strengths of higher education students, including international students, their learning strategies, and their academic performance.

Students who value lifelong learning have high levels of intrinsic motivation. They can regulate their learning, set goals, plan, organize, and evaluate their learning (Zimmerman, 2008). Educators who provide a supportive environment for students facilitate their autonomy learning (Ryan & Deci, 2017). They recognize the importance of self-regulation for learning and use appropriate assessments to enhance the self-directedness of students.

International students face challenges in the United States, such as distance from the homeland, culture shock, language barriers, and social distancing. Students who can use self-regulatory strategies in learning, overcome these challenges, and flourish in a foreign country (He & Hutson, 2018; Liu & Lin, 2016; Poyrazli & Isaiah, 2018). They have persistence in achieving their career goals, and they have intrinsic motivation for learning.

The review of literature discovers critical factors affecting the success of international students in the United States. Strengths of international students, such as their perseverance, intrinsic motivation, self-regulated learning strategies, and social capabilities, are essential in the academic performance of students. Also, educators play a vital role in the academic success of international students.

Educational Character Strength

Several studies have indicated a relationship between students' academic performance and character strengths. Seligman and Peterson (2004) identified 24 character strengths within individuals. Among those strengths, four seem to be directly related to one's academic performance: love of learning, self-regulation, perseverance, and social intelligence. Marks and Wade (2015) explained how focusing on the strength of learners can help them to flourish in their academic endeavors. Among the positive characteristics, they concentrate on positive emotions, passion for learning, social capabilities, and learning strategies.

Love of Learning

There are many researchers in the emerging field of positive psychology who have investigated the emotional states of students during the learning process. The positive emotional state in an academic context can be described with different terms such as *love of learning* (Peterson and Seligman, 2004), *intrinsic motivation* (Ryan & Deci, 2017), *self-regulated learning* (Bandura, 1997, Schunk & Zimmerman, 1998), and *well-developed interest* (Hidi & Renninger, 2019). For instance, Peterson and Seligman (2004) emphasized "cognitive engagement" and "positive feelings" in students who experience the love of learning (p. 163). Their study shows that students with higher levels of love of learning are more intrinsically motivated to perform their academic activities, and they do not need someone to assign them planned activities. In other words, students who experience autonomy in the process of learning are more interested in learning than those who experience control. Thus, they have positive feelings about learning.

The Role of Positive Emotions in Learning. Positive emotions play a crucial role in the learning of students (Peterson & Seligman, 2004; Schunk, 2012; Silvia, 2006; Zull, 2002, 2006).

Learning itself has a positive effect on the "internal reward system" of the brain; thus, people enjoy learning new things (Zull, 2002, p. 51). Zull (2002) emphasized the role of emotions in learning: "Our emotions still seem very important, and if we want to help people learn, we must expect to encounter emotion, and we must take it seriously" (p. 52). Recent studies indicate that students who experience positive emotions in the process of learning are more engaged in their academic tasks than other students (Ciarrochi et al., 2016; Cohn & Fredrickson, 2012; Dismore et al., 2019; In, 2016; Rowe et al., 2015). These students experience different positive emotions while learning, such as enjoyment, interest, and flow, which affect their academic performance (Alt, 2015; Seligman et al., 2009; Silvia, 2006).

Scientific research shows that enjoyment and pleasure are among the positive emotions; however, enjoyment is more important in development and learning (Csikszentmihalyi, 1991). People experience pleasure when they satisfy a need. For instance, eating, drinking, and sleeping are pleasant experiences (Csikszentmihalyi, 1991). But enjoyment occurs when a person achieves a goal with appropriate skills. For instance, reading, writing, and conducting a survey are enjoyable activities that use a person's skills.

When students learn competencies to achieve academic goals, they experience enjoyment, and they become more complex persons (Csikszentmihalyi, 1991). Therefore, learning can be an enjoyable activity for people. As Csikszentmihalyi (1991) states, "After an enjoyable event we know that we have changed, that our self has grown: in some respect, we have become more complex as a result of it" (p. 46). Thus, learning can help people to grow and acquire skills to overcome complex challenges in their lives.

Interest and enjoyment are among the positive emotions that help students to explore new possibilities in their academic environment. Although Silvia (2006) distinguished between

enjoyment and interest, both of these positive emotions improve learning for students. While people are more interested in doing complex tasks, they enjoy doing simple tasks. According to Silvia (2006), people like to seek new situations and diverse experiences to tackle the challenges they face in the future. Thus, learning skills to perform complex tasks such as reading, writing, and doing academic assignments is correlated with the experience of positive emotion of interest.

Positive emotions also can enhance students' cognitive and social capabilities (Cohn & Fredrickson, 2012; Rowe et al., 2015). Regarding cognitive enhancement, "positive emotions (e.g., joy, interest, appreciation) function in the short term to *broaden* one's attention and quell heightened bodily reactivity to *build* one's cognitive, social, psychological, and physical resources over the long term" (Cohn & Fredrickson, 2012, p. 169). Also, positive emotions enhanced a range of cognitive and social functions, including memory, concentration, and communication, while negative emotions obstructed this process (Rowe et al., 2015). Happy students and those students with higher levels of interest in their academic subjects are more likely to have better academic performance than other students. Thus, positive emotions such as enjoyment, happiness, and interest are significant facilitators of learning.

Development of Interest in Learning. Interest as a positive emotion has attracted many scholars in positive psychology studies (Peterson & Seligman, 2004; Sansone & Smith, 2000; Silvia, 2006). As a character strength, interest is associated with a student's love of learning and curiosity, qualities that help students to learn (Peterson & Seligman, 2004). Furthermore, students can develop strategies to enhance their interest in routine academic activities (Sansone & Smith, 2000). If students find some of the activities to be tedious, they can utilize a variety of interest-enhancing strategies to achieve their academic goals. For instance, if a student must memorize parts of the body for a biology test, they might enhance this activity by creating

drawings of the body parts or telling stories about each of these parts. To make the activity even more interesting, they might utilize their social environment and organize study groups with their classmates to learn collaboratively.

Students can use their social environment to enhance their interests in different academic topics with the support of educators, parents, and classmates who are in various stages of learning (Hidi & Renninger, 2019). Their interest development includes steps such as becoming familiar with the learning environment and content, seeking further information about the subject area, and ultimately independent learners with well-developed interests and intrinsic motivation to learn. Students with well-developed interests are more engaged than students with less-developed interests in research, learning, and information seeking. In the early stages of interest development, the students' social environment plays an important role, and usually, educators utilize a variety of interventions to enhance students' interest. For instance, educators might use inquiry or problem-based teaching methods, or they might design collaborative activities to make students more engaged in learning.

Social Contexts of Learning. The social environment of students including their parents, friends, competitors, and instructors; has a positive effect on students' love of learning and is an essential factor in creating intrinsic motivation (Bergin, 2016; Peterson & Seligman, 2004; Ryan & Deci, 2017). Students who are part of a social group that supports their basic psychological needs (autonomy, competence, and relatedness), have high levels of intrinsic motivation, and they achieve their goals without external stimuli such as grades. Providing choice to students, avoiding control, and letting them find their interests are other essential factors of a social environment that fosters their passion for learning.

Being part of such a group fulfills a fundamental human need (belongingness/relatedness; Bergin, 2016; Ryan & Deci, 2017). When students work on their assignments in groups, they have higher levels of intrinsic motivation than when working individually. They provide feedback to their groupmates, and they have a constructive collaboration with groupmates, which leads to higher academic performance and engagement. Even though competition may result in undesirable outcomes for some students, instructors can provide a positive social environment to maintain healthy competition to enhance academic performance of students. Therefore, educators who focus on group assignments encourage students to collaborate with fellow students and develop their interests in that subject area. Schools as a social environment have an essential role in developing interests, and instructors can develop interests among students by giving them a choice, feedback, and meaningful relationships.

Receiving support from other classmates makes students more interested in academic activities (Masika & Jones, 2016). When students work collaboratively in study groups, they support each other, and this collaboration has a positive effect on their emotional state. Doing assignments in groups creates more student engagement in academic activities. Therefore, student engagement flourishes in communities of learners.

Furthermore, a meaningful relationship between instructor and student impacts learning positively (Dismore et al., 2019). Instructors who utilize social context appropriately enhance the enthusiasm of students toward learning. Positive relationships between instructors and students cause students to become more engaged in learning.

Self-Regulation

Peterson and Seligman (2004) included self-regulation as a character strength in their 24 categories. Self-regulation or self-control helps people to pursue goals and meet standards. In an

academic environment, those students who can control their feeling, thinking, and emotions in their tasks acquire desirable results in their academic performance (Peterson & Seligman, 2004). Self-regulation in learning theories produced different theories such as self-regulated learning (SRL; Schunk & Zimmerman, 1998), self-determination theory (SDT; Ryan & Deci, 2017), and Self-directed learning (SDL; Knowles et al., 2015). These theories consider human beings as creatures with free will; therefore, they can set goals, plan, and develop strategies to achieve their goals.

The Role of Self-regulation in Learning. Self-regulation helps students to regulate their learning through goal setting, planning, organizing, and evaluation (Schunk, 2012). Students who set goals for their academic activities and evaluate their progress according to standards are self-regulated. They can plan their actions to achieve their goals with effort. Instructors can enhance the self-regulation of their students by providing several choices in learning through research projects (McCarthy, 2015; Ryan & Deci, 2017). For instance, instructors can provide alternatives for students to select the topic of research instead of dictating predetermined topics. Also, instructors can give students a degree of freedom to plan their time and accomplish research with their own schedule.

Furthermore, self-regulation correlates with intrinsic motivation in a positive direction. According to Schunk (2012), "as skills develop and students believe they are becoming more competent, they perceive a sense of control and self-determination over learning. The activities become more intrinsically motivating, and positive social reinforcers (e.g., praise, feedback) assist the process" (p. 389). Neuroscientific research also supports findings that students can self-regulate their motivation through the system of intrinsic rewards in the brain. Zull (2002) explains when students and educators engage in the process of learning itself instead of

concentrating on extrinsic motivators, the intrinsic reward system of the brain begins to work. Students can then enhance the intrinsic reward system of the brain with a variety of activities such as playing games, exercising, playing and listening to music, dancing, and participating in discussions.

Supporting autonomous behavior in educational institutions will provide an opportunity for students to become self-determined learners (Ryan & Deci, 2017). "Substantial evidence shows that autonomy-supportive versus controlling teaching strategies foster more autonomous forms of motivation in students and the higher quality engagement, performance, and positive experience associated with it" (Ryan & Deci, 2017, p. 351). Similar to Ryan and Deci's (2017) idea about self-determination behavior, Knowles (2015) believed self-directedness is an essential factor in learning. Especially for international students, self-directed learning is a necessary factor for their academic achievement.

Initiating learning strategies is another crucial aspect of self-regulated learning, which helps students to achieve their academic goals (Barak et al., 2016). Especially for distance learners who suffer from a lack of social interactions, it is vital to regulate learning with appropriate strategies. For instance, self-regulated learners in an online program can initiate cognitive and metacognitive strategies. Also, they can utilize elaborative strategies and make connections between what they learned and their real life. For example, when an instructor wants to teach students to set goals, he can use the acronym *SMART* to help students to remember the characteristics of a *Specific*, *Measurable*, *Achievable*, *Relevant*, and *Timely* goal. When students recall the word smart, they can recall the attributes of the goal (Schunk, 2012). Also, international students can use self-regulated learning strategies to set goals, evaluate their

learning, and receive feedback from peers. These students utilize their social environment properly to achieve expected results in their academic endeavors.

Mastery goals determined by learners affect their intrinsic motivation and enhance their academic performance (Sommet & Elliot, 2017). Learners who can set mastery goals achieve their goals with self-regulated learning. They master skills and knowledge through self-regulated learning. For instance, students in a psychology class might have mastery goals of developing counseling skills to interview clients, and they utilize self-regulation to achieve this goal. They have higher persistence facing challenges, and they enjoy learning because of the learning itself, not because of the consequences of education.

The development of technologies for learning requires students to develop self-regulation to overcome challenges related to technological advancements (Poitras & Lajoie, 2017). Many students today spend a considerable amount of their learning time online behind their computers. They should utilize self-regulation in learning to concentrate on their academic task. If they want to get good grades, they need self-regulation to enhance their academic performance. For instance, writing the literature review is a challenging task for many students, especially international students. They can utilize self-regulated learning in online learning environments to determine goals, initiate strategies, and plan to complete their research projects and their literature review writing.

Self-regulation and Academic Performance. Self-regulation also impacts the students' academic performance positively (Liu & Lin, 2016; Poyrazli & Isaiah, 2018; Shi, 2018). For instance, metacognitive strategies used by international students in the USA improved their GPA (Poyrazli & Isaiah, 2018). These strategies comprised a variety of self-regulatory methods such

as planning, goal setting, and time management in learning. Also, they realized students who used these strategies were more successful in their academic tasks than those who did not.

Furthermore, the autonomy of students affects their academic performance through setting mastery goals (Ryan & Deci, 2017; Sommet & Elliot, 2017). Students who set mastery goals, improve their skills in different areas. For instance, students who study abroad set master goals to improve their foreign language skills. Also, these students use more complicated learning strategies and engage in deep learning when they have more control over their learning process (Knowles et al., 2015; Ryan & Deci, 2017; Sommet & Elliot, 2017).

Another study conducted by Poitras and Lajoie (2017) shows the utility of SRL in social science studies. They explained how students in a history course could utilize SRL in defining their academic goals, planning their education, and regulating their cognitive strategies. Also, Bruso and Stefaniak (2016) conducted quantitative research using the Motivated Strategies for Learning Questionnaire (MSLQ) to reveal the relationship between self-regulated learning and academic performance. They found the GPA of students who utilize self-regulation is higher than those who do not use self-regulated learning.

Post-secondary educators utilize a variety of self-regulatory models to enhance the academic performance of their students. For instance, assigning research projects for graduate students relies on the self-regulatory behavior of students (McCarthy, 2015). In particular, action research helps postgraduate students to develop self-regulation in learning and help them to become autonomous learners. They can conduct research projects, determine their academic goals, and research with more self-efficacy. They acquire related competencies to do research independently, plan their research projects, self-regulate their learning through research, and ultimately become self-regulated learners.

Furthermore, self-regulation correlates with positive emotions and enhances academic performance through optimism, self-efficacy, and hope (Asikainen et al., 2018). Students with an optimistic perspective toward their future can self-regulate their learning, and they achieve appropriate academic results. They are happy students with hope, courage, and positive psychological state who achieve their educational goals.

Educators can develop self-regulatory skills with a variety of interventions such as workshops, tutoring, and coursework (Wolters & Hoops, 2015; Wolters & Hussain, 2015). For instance, Schunk and Zimmerman (1998) designed coursework for graduate students in the United States to educate self-regulated learning strategies, and they found that students' academic performance enhanced at the end of the coursework.

Students who collaborate with their classmates and receive feedback on their learning are more likely to use self-regulatory learning strategies than students who only receive feedback from their instructors. Thus, instructors who encourage peer feedback, enhance the academic performance of students, and facilitate self-regulation for them.

The Impact of Self-efficacy on Self-regulated Learning. Bandura (1997) developed his theory of self-efficacy based on the autonomy of people and emphasized the capabilities of people in controlling their behavior. Thus, students with higher levels of self-efficacy are more successful in self-regulation of the learning process. They can set goals, develop strategies, and evaluate their progress. Pajares (2008) emphasized the role of self-efficacy beliefs in the self-regulated behavior of students in academic settings. Those students who have stronger feelings in their capabilities are more engaged in using self-regulated learning strategies. They set challenging goals for their academic tasks and evaluate their learning process with self-

reflection, self-monitoring, and self-evaluation (Zimmerman, 2008). Also, recent research shows self-efficacy is a prerequisite of self-regulation for international students (Lowinger et al., 2014).

Relying on the social cognitive theory of learning, Zimmerman and Schunk (2012) emphasized the role of the social environment as a facilitator of self-regulation. International students who motivate themselves with social interactions could enhance their performance in self-regulated learning (Jackson et al., 2013; Liao et al., 2012). They can achieve goals with the support of peers, instructors, and parents.

Self-regulation helps international students to control their learning effectively. For example, Bembenutty (2016) conducted a survey among graduate and undergraduate students in a university in the United States. The results of his research show students who delay their gratification are more successful in their studies.

Students use their cognitive abilities to perform their academic tasks by solving math problems, writing a literature review, doing research, and reading for courses. Doing these cognitive tasks requires students to regulate their cognition. Metacognitive skills help students to manage their cognitive tasks. Students use these metacognitive skills to control their learning (Follmer & Sperling, 2016; Pajares, 2008; Schunk, 2012). Students with a robust belief system about their cognitive and metacognitive abilities have high self-efficacy, and thus they believe they can use these skills in academic tasks (Bandura, 1997; Pajares, 2008). Research by Follmer and Sperling (2016) examined the cognitive and metacognitive abilities of undergraduate students in the United States. They found a positive correlation between cognitive and metacognitive strategies used by students. Based on these strategies, scholars have designed interventions to help students overcome learning barriers. For instance, some interventions can help higher education teach self-regulation in learning (Wolters & Hoops, 2015). For example,

coursework, workshops, and tutoring are among the popular methods which help students to regulate their learning behavior.

Students' ability to self-regulate their learning is more critical to their success in online educational environments than in traditional academic settings (Park & Yun, 2017). The research shows that students who utilize more in-depth learning strategies and regulate their motivation are more successful than other students in online learning. Also, international students who participate in online learning need higher levels of self-regulation, as recent research by Barak et al. (2016) shows students who learn in online settings need self-regulation strategies to facilitate their learning process.

Writing assignments such as essays, reflections, blogs, and journals are among conventional methods in higher education that need higher levels of self-regulation. Utilizing peer-feedback on writings are investigated by researchers, and they found there is a positive relationship between peer-feedback and self-regulated writing behavior among college students (Huisman et al., 2017).

One of the most important components of self-regulation in higher education is time management (Schunk, 2012; Schunk & Zimmerman, 1998; Zimmerman et al., 1992). Time is a limited resource for students in post-secondary institutions, and they need self-regulatory skills to use this valuable resource efficiently. Time management involves "scheduling, planning, and managing one's study time" (Pintrich et al., 1991, p. 25). Recent research shows that students who spend time on their academic tasks more efficiently have better academic performance than their peers who did not manage their time (Thibodeaux et al., 2017). These students plan their tasks according to the available time, and they have a well-developed plan for every academic assignment. For instance, they can schedule to perform their writing tasks at a specific time in

the morning. Or they can plan to perform extracurricular activities during the afternoon. In other words, they can regulate their learning according to the specified times during the day.

Perseverance

Persistence, perseverance, or grit is strength in students who overcome barriers to learning (Peterson & Seligman, 2004). Students with perseverance can endure their academic activities with self-regulation (Mason, 2018), and they can achieve goals (Duckworth, 2016). For instance, international students in the United States have many difficulties, such as distance from the homeland, cultural barriers, and overcoming their social anxiety. However, when these students have a high level of perseverance, they continue their academic careers; otherwise, they abandon their goals and go back to their homeland. Research by Liao et al. (2012) shows students with higher perseverance stay in the USA and continue their careers. Thus, grit is an essential predictor for academic and career success.

The Importance of Perseverance in Learning. Students might encounter obstacles in achieving their goals in higher educational institutions, but some of them with higher levels of motivation and self-efficacy will persist in achieving their goals (Bandura, 1997; Dewey, 1923; Seligman et al., 2009). Recently Duckworth's (2016) research also shows the importance of grit in achieving higher levels of performance in academic tasks. Regarding the persistence of international students, Muenks et al. (2017) explored the regression analysis of the perseverance of college students in the United States. They concluded that grit predicts the academic performance of students. They used statistical factor analysis to determine how different components of grit are related to engagement and academic performance of students.

Students who find their academic tasks interesting ones have higher levels of persistence. According to Peterson and Seligman (2004),

People persist longer (even in the face of failure) when they are more intrinsically

motivated to perform the task, as is the case when people enjoy the task (aside from the

setbacks) or they believe it plays a central role in their own identity. (pp. 235-236)

Also, there is a positive relationship between self-efficacy of students and their persistence

(Bandura, 1997). Additionally, scholars found a positive correlation between positive attitudes of

students regarding their academic tasks and persistence (Bol et al., 2016; Zimmerman et al.,

1992).

International students have more challenges in their educational careers, and they should

have more persistence to complete their academic programs (He & Hutson, 2018; In, 2016). The

success of international students in the USA depends on their long-standing motivation to

achieve their goals (Duckworth, 2016). Educational institutions invest in their social capital to

build more reliable connections with international students (Mamiseishvili, 2012).

Hazen and Alberts (2006) investigated factors affecting the persistence of international

students in continuing their careers in the USA. They concluded economic and professional

elements are strong incentives for international students to stay in the U.S. In contrast, personal

and societal factors tend to draw students back to their home countries. In other words,

international students have stronger social ties in their homeland; therefore, their persistence is

related to other incentives such as economic ones.

Gritty students have personal characteristics, such as industriousness, conscientiousness,

and self-control (Mason, 2018). They value the academic tasks and stick to their goals. They

commit to achieving their goals. Thus, they persevere in front of difficulties and challenges, and

they are hard workers. Grit predicted the academic performance of international and domestic

students in the United States.

Persisting in difficult academic tasks such as writing a literature review, needs organization, time management, planning, and goal setting. Graduate students who are familiar with these metacognitive skills persist in literature review writing, and they can achieve their goals in the planned timeline. For instance, they can set goals to write a specific number of pages in the specified deadline. Then they should use appropriate self-regulatory strategies to achieve the required page number in the specified timeline. Especially international students need to have more persistence in their academic tasks, they should know how to set goals, stick with the plan, and persist to achieve their goals in the timeline determined by themselves. Also, educators can help them to enhance their self-regulatory skills and perseverance.

Perseverance and Self-regulated Learning. Students who perform their academic tasks through self-regulation have enough perseverance in the face of difficulties (Pajares, 2008). Research shows that grit, self-regulated learning, and academic performance are positively correlated with each other (Wolters & Hussain, 2015). Students who use cognitive and metacognitive strategies to self-regulate their learning, persevere to achieve their academic goals. For instance, international students encounter difficulties in communicating with people who speak a different language, they can use self-regulation to learn language skills, and they can persist in overcoming this challenge.

Self-regulation and grit are the two main variables that predict the academic performance of students (Muenks et al., 2017). Using grit as a character strength is a critical factor for students to self-regulate their learning. For instance, international students in the USA can persist in their academic tasks with the self-regulation of their learning. Also, research shows that students who use self-regulatory strategies achieve their educational goals with persistence in performing their academic tasks (Bernardo et al., 2019, October).

One component of self-regulation, goal setting is an essential factor in the grit of students (Duckworth, 2016; Pintrich et al., 1991; Wolters & Hoops, 2015; Wolters & Hussain, 2015). Students who set specific, measurable, and achievable goals are more likely to persist in front of setbacks. They have a plan to achieve their goals, and they stick to their efforts to achieve goals with girt. Thus, they achieve their goals even if they encounter problems.

Thus, self-regulation helps students to manage their resources appropriately and persist in the face of challenges. They use metacognitive strategies to set goals, plan, use strategies, and manage their time with perseverance to achieve their goals.

Perseverance and Academic Performance. Research shows that students with more perseverance acquire a higher GPA than students with less stamina (Mamiseishvili, 2012). Likewise, among international students in the United States, perseverance is a strong predictor for a high GPA. These students can regulate their learning, adapt to the culture, and improve their academic performance with high levels of grit. In a study of European countries, Bernardo et al. (2019) investigated the impact of learning strategies and self-regulated learning on students' perseverance. Students who used self-regulated learning strategies persisted more than other students in their academic careers. They set goals and continued to achieve them. In general, students' perseverance is an essential factor in their academic performance. Students with higher grit are more likely that other students to graduate from post-secondary institutions (Duckworth, 2016).

For international students, social support plays a vital role in their perseverance (Huisman et al., 2017; Lee & Durksen, 2018; Poyrazli & Isaiah, 2018). International students in a supportive social environment are more likely to persist in achieving their academic goals than students who study in a social environment that is not supportive. For instance, the supportive

relationship between faculty members and international students has a positive effect on their perseverance. On the other hand, faculty members who do not care about the psychological needs of international students negatively impact students' tenacity. In these cases, international students may perhaps leave the academic program and return to their homeland rather than completing their program. Thus, post-secondary educators must be trained to create meaningful relationships with international students to enhance their perseverance.

Social Intelligence

The fourth character strength required for the success of international students in the United States is social intelligence, which refers to the social capabilities of students in developing relationships with their instructors, peers, and educational leaders (Peterson & Seligman, 2004). Socially intelligent students interact with the people around them and build communities to enhance their learning (Lave & Wenger, 1991). They have enough self-efficacy in regulating their learning through meaningful social connections (Bandura, 1997). Thus these students use a variety of in-depth learning strategies to improve their academic performance (Schunk & Zimmerman, 1998).

Social Cognitive Theory. Albert Bandura, the founder of social cognitive theory (SCT), considered people to be "self-organizing, proactive, self-reflecting, and self-regulating" agents who affect their social environments (Pajares, 2008, p. 111). SCT emphasizes the reciprocal relationship between people and their social environments. People play a proactive role in this relationship, and they can use their social context to learn from people around them. For instance, students learn through observing their peers' learning, social interaction with their peers, and asking questions from their instructors.

Students' social environment is an essential factor determining their behavior (Bandura, 1997; Schmieder-Ramirez & Mallette, 2007; Schunk, 2012). These students have the strength of social intelligence, "the ability to understand people and effectively relate to them" (American Psychological Association, 2020c, Social Intelligence section). Social intelligence helps students evaluate and develop their social capabilities to become more competent in achieving their academic tasks (Peterson & Seligman, 2004). For instance, social intelligence helps students make meaningful relationships with their peers, enhance their communication in the classroom, and expand their social networks to improve their learning.

Thus, international students who are socially intelligent have a robust social network, and they can also make meaningful relationships with people around them. They can utilize their social environment to flourish in the educational system of the United States. According to SCT, these students have high self-efficacy, and they self-regulate their learning with perseverance in the face of challenges (Bandura, 1997; Pajares, 2008; Peterson & Seligman, 2004).

Social Intelligence and Learning. Students with higher levels of social intelligence can develop meaningful relationships with their peers, professors, and educational leaders (Schunk, 2012; Seligman et al., 2009; Vygotsky & Cole, 1978). Therefore, they can achieve their academic goals with higher levels of motivation. They have better academic performance, and they can utilize their social context better than other students. Especially this psychological construct is vital for international students because they are from a different culture, and they need more energy to invest in developing their social networks in the United States (Jackson et al., 2013; Liu & Lin, 2016; Slantcheva-Durst & Knaggs, 2019).

Gardner (2011) explained the role of interpersonal intelligence in the everyday life of people, which helps people to recognize feelings, moods, and emotional states of other people

around a person. In an academic context, this ability allows students to make meaningful

relationships with their peers, professors, educators, and educational leaders.

International students who make meaningful relationships with the social environment

have better academic performance (In, 2016).

Researchers determined help-seeking as an essential factor that helps students to regulate

their learning and utilize social environment (Hofer et al., 1998; Pajares, 2008; Schunk &

Zimmerman, 1998). Recent research by Karabenick and Gonida (2018) demonstrates the

importance of help-seeking in self-regulated learning. It shows one of the most critical factors in

the help-seeking behavior of students is their social intelligence.

Gulliford et al. (2019) utilized positive psychology to understand the impact of gratitude

on the social intelligence of people through an online intervention. They found a positive

relationship between positive attitude and expression of appreciation toward people and the

social intelligence of people.

The Importance of Social Intelligence for International Students. Although parents,

teachers, coaches, and educational leaders all have an essential role in developing interest among

students, instructors find it more challenging to facilitate social interactions for international

students than domestic students because of cultural barriers (Jean-Francois, 2019; Liao et al.,

2012; Liu & Lin, 2016). Educators can develop a supportive climate for international students to

foster their social intelligence and help them to integrate into the college (Tinto, 2012).

Furthermore, educators can design coursework, interventions, and workshops for

international students to enhance their social intelligence (Zautra et al., 2015). Especially

because of the global pandemics such as COVID-19, online interventions can help international

students to strengthen their social intelligence. International students in an online environment

can utilize these interventions to make meaningful relationships with peers, professors, and academic leaders.

Creating online communities of learners is another way to enhance the social intelligence of international students (Kemp, 2010; Liao et al., 2012). Although the language is one of the most critical barriers for international students, educators can develop multicultural communities to facilitate their social interaction (Jackson et al., 2013; Jean-Francois, 2019; Liu & Lin, 2016; Rowe et al., 2015). Also, research shows the relationship between international students and their instructors is a crucial factor in fostering autonomy and self-efficacy (Jackson et al., 2013; Poyrazli & Isaiah, 2018). International students need to regulate their learning with appropriate goals (Poyrazli & Isaiah, 2018; Shi, 2018). Also, these students feel that they are critical parts of the community of learners, and they belong to their school. Thus, these students are more likely to utilize self-regulated learning strategies and have better academic performance (Won et al., 2018).

Learning Strategies

Learning strategies, study skills, learning styles, and teaching methods are vital concepts in modern education by which learners and instructors can take bold action towards academic goals. Regardless of the differences in the mentioned concepts, quite a few common elements provide higher education students with achieving their goals. These strategies include cognitive strategies, metacognitive strategies, experiential learning, critical thinking, and collaborative learning. Some students take advantage of these strategies in their education.

Cognitive Strategies

Students use different cognitive, metacognitive, and motivational strategies to perform their academic tasks (Schunk, 2012; Schunk & Zimmerman, 1998). The emphasis of cognitive

strategy is on the memory of students and how they can utilize it to achieve their goals (Schunk & Zimmerman, 1998). Metacognitive strategies facilitate the self-regulatory skills of students and enhance self-regulated learning. Also, students utilize a variety of methods to motivate themselves in performing their academic tasks (Schunk, 2012; Zimmerman, 2008).

Furthermore, cognitive learning strategies such as rehearsal, elaboration, and organization are associated with the academic performance of adult learners (Warr & Downing, 2000). Also, metacognitive learning strategies, such as planning and emotional control, are positively correlated with academic performance.

Metacognitive Strategies

Learning goals determine the path for students to achieve the desired goals, then students can utilize appropriate strategies to achieve those goals (Schunk, 2012; Zimmerman, 2008). Self-regulated learning strategies such as rehearsal, collaborative learning, group learning, etc. are among the strategies which help students to achieve their self-set goals (Hofer et al., 1998; Zimmerman, 2008).

Zimmerman and Pons (1986) developed a structured interview to evaluate the learning strategies used by adult students in colleges in the United States. Students use learning strategies to direct their behavior toward their academic goals. For instance, they evaluate their learning by different criteria, organize instructional materials, initiate goals and plans, conduct searches to gather information, structure their environment, use rehearsing to memorize information, and seek social assistance from their teachers, peers, and parents.

Self-regulation is an essential factor in utilizing appropriate learning strategies. For example, Wilson and Narayan (2016) evaluated the impact of self-efficacy on self-regulated learning strategies. They conducted mixed-method research in a college in the United States and

found students with higher levels of self-efficacy use more complicated learning strategies. Especially in today's world of online giants, international students must utilize self-regulated learning strategies. Kizilcec et al. (2017) conducted a study in a Massive Open Online Course (MOOC) to find the correlation between self-regulated learning strategies and academic performance of students. Their research shows students who utilize goal setting, strategic planning, self-evaluation, elaboration, and help-seeking could pass their online courses successfully.

Experiential Learning

Based on neuroscientific research, Zull (2006) emphasized four significant factors in designing learning experiences: gathering, reflecting, creating, and testing. Each of these elements is associated with an area in the brain: sensory, back-integrative, front-integrative, and motor. Active learning takes place when all four mentioned areas of the brain are engaged in. Especially in today's higher education system, with time limitations, instructors should provide an appropriate time in class for students to reflect on their learning. Reflection is an essential step in any learning process when students think about their learning experience, and they have enough time to rerun the earned data from the environment in their brain to understand the meaning of information and create their comprehension of the content. Furthermore, reflection may lead to more creativity, the ability to solve real-world problems as well as choosing the proper and parented options among big data.

According to Kolb (2014), "learning, the creation of knowledge and meaning, occurs through the active extension and grounding of ideas and experiences in the external world and internal reflection about the attributes of these experiences and ideas" (p. 78). Therefore, international students need to acquire real-world experience related to their field of study. For

instance, students in the field of higher education can go to the schools and teach some courses as a volunteer to experience what they learned in the classroom.

Students who utilize service-learning and acquire experience in the real world develop higher levels of reflective thinking in their learning process (Barnes & Caprino, 2016). Qualitative research among undergraduate students in the United States demonstrates a positive relationship between critical thinking and service-learning. This research is connected with experiential learning developed by Kolb and approves a higher level of thinking capabilities among students who participate in real-world activities.

Recent studies investigated the effectiveness of learning strategies among international students. For instance, Shi (2018) investigated the impact of self-efficacy on self-regulated learning strategies of adult English learners in the United States. The results of his research show students who have higher self-efficacy use more complicated learning strategies. Also, Isik et al. (2018) conducted quantitative research and found students who use in-depth learning strategies could improve their academic performance.

International students who participate in online learning, use different learning strategies, for instance, Manganello et al. (2019) explored self-regulated learning strategies among engineering students in an online web-based environment. He argues that web-based technologies can help students to foster their self-regulated learning.

Also, collaboration is another important facet of learning strategies, and research shows students who utilize collaborative learning strategies have better academic performance than students in traditional settings (Alt, 2015). When students participate in communities of practice, they have higher levels of motivation to continue their academic careers (Masika & Jones, 2016).

Qualitative research and appreciative inquiry help researchers to know more about the active learning of students via communities of practice.

Critical Thinking

According to the *APA Dictionary of Psychology*, critical thinking is "a form of directed, problem-focused thinking in which the individual tests ideas or possible solutions for errors or drawbacks" (American Psychological Association, 2020a, Critical Thinking section). Educators who rely on the self-regulation of students develop critical thinking. They utilize problem-solving to encourage students to think critically about subjects. For instance, international students who evaluate Western countries' culture can understand the differences between their own culture and the host culture (Hammersley-Fletcher & Hanley, 2016).

In contrast with surface strategies such as memorizing, and rote learning, critical thinking is a deep learning strategy (Park & Yun, 2017). International students who developed self-regulatory learning strategies earned higher scores in critical thinking. They evaluate evidence and connect new knowledge with existing knowledge. They analyze situations and developed arguments to support their position in learning. Also, students with high critical thinking abilities question their instructors rather than passively receive knowledge from them.

Educators design curriculum according to experiential learning, service-learning, and problem-solving to enhance the critical thinking skills of students (Barnes & Caprino, 2016; L. D. Fink, 2013; Wolfe, 2010). Thus, experience is a crucial element in critical thinking. Students who use critical thinking to solve real-world problems, engage in the process of learning. For instance, educators consider a specific time in their class for students to reflect on their learning. Students can write a journal to reflect on their learning experience, and they enhance their critical thinking.

Critical thinkers are open-minded individuals who benefit from conversations with others (Peterson & Seligman, 2004). They have a dialogue with other people with multicultural ideas, and it helps students to collaborate with a diverse culture in the educational institutions. For instance, they can evaluate their own believes and compare them with those students who are on the opposite side. This conversation is like the Socratic method of teaching, which allows students to question everything, even they can criticize the powers in society. It helps to develop democratic institutions in the college.

Collaborative Learning

Like Bandura's (1997) SCT, Freire's (2000) dialogical learning, Lave and Wenger's (1991) communities of practice, and Mezirow and Taylor's (2011) transformative learning, collaborative learning emphasizes the proactive role of learners in the learning process. Learning takes place when students collaborate with their instructors to create knowledge (McNamee & Moscheta, 2015). Students who ask questions in the classroom are collaborative learners. They help to develop understanding in a dialogical manner. They are not passive receivers of knowledge, but they collaborate in the development of expertise.

Learning communities is a form of collaborative learning which, assigns students to study groups to work on a research or study project (Tinto, 2012). Students in the learning communities "share the experience of gaining that knowledge together. They form communities within and between classes that reinforce the impact of their shared learning experience" (Tinto, 2012, pp. 71-72). There is a collaboration between students with each other and their instructors. For instance, in a doctoral program in the United States, faculty assign research projects to groups of students. They work on the project collaboratively and present the results at the end of

the semester as a group. Thus collaborative learning enhances the engagement of students and develops a sense of self-efficacy among them (Tinto, 2012).

Students with a higher score in social intelligence have a better performance in collaborative learning than students with lower scores. The success of cooperative learning groups such as learning communities depends on the social intelligence of individual members of these groups. On the other hand, collaborative learning influences the social intelligence of students. In other words, there is a reciprocal relationship between social intelligence and collaborative learning. Thus, educators who are aware of the social intelligence of students can create a productive collaborative learning environment that helps students to learn effectively, create knowledge, collaborate, and enhance their social intelligence.

Academic Performance

Evaluation of Academic Performance in Higher Education

Educators and educational institutions are interested in considering the evaluation of the academic performance of students in designing the educational curriculum (L. D. Fink, 2013; Suskie, 2018; Tyler, 2013). Educational objectives are important in helping students to regulate their learning process (Bandura, 1997; Schunk & Zimmerman, 1998). Students achieve these goals with a variety of performance levels (Zimmerman et al., 1992). Instructors and educational intuitions can evaluate the performance of students by using appropriate criteria and standards (Tyler, 2013).

Educators assess the academic performance of students through research. They observe their behavior, gather data on their learning, and evaluate it with quantitative or qualitative research methods (Schunk, 2012). For instance, using quizzes, written exams, multiple-choice exams, and oral exams are among the methods used by educators to evaluate the academic

performance of students. However, the development of technology provided new availabilities for instructors to understand their students' performance properly. For instance, online learning opens new opportunities to evaluate the performance of students. They sit behind their screen and watch videos, surf websites, and gather information about the topic of study. Thus, educators can monitor the learning of students through online technologies.

According to Brown et al. (2016), students' perception of feedback from peers, teachers, and parents has a positive effect on self-regulation and academic performance. They conducted an online survey among students in the United States, and their factor analysis show when students receive positive feedback during the course, they have appropriate motivation to achieve their academic goals.

Lucieer et al. (2016) conducted an online survey among medical students and found a positive correlation between self-regulation and academic performance. Other research in this line of thought shows the same results, for instance, Fonteyne et al. (2017) investigated the self-regulation behavior of students in Belgium and found it is a good predictor for their academic performance. Also, Clinton (2018) compared two assessment methods to realize the effectiveness of quizzes versus reflections. Her study shows there is no meaningful difference between the two approaches regarding the academic performance of students.

Furthermore, qualitative data on the performance of students is a growing trend through the use of technology for learning. For instance, educators have access to the online activities of students that helps them to analyze qualitative data and assess the learning of students. Data such as text messages, blogs, websites, and social media activity of students are among the criteria for evaluating the learning of students.

New Trends in Performance Assessment

The evaluator role of educators has changed to the facilitator of learning during the last decade (Knowles et al., 2015). The new era demands students to become self-directed learners. They control the process of learning through self-regulatory strategies such as goal-setting, self-monitoring, self-evaluation, and self-assessment. As SCT shows, social context also plays a vital role in the evaluation of learning. For instance, peer evaluation, peer feedback, and peer review help learners to enhance their performance relying on feedback from their classmates, peers, and groupmates.

Educators who emphasize grades rather than the academic performance of students affect the intrinsic motivation of students. Gradeless learning can enhance intrinsic motivation and develop lifelong learning (McMorran et al., 2017). Institutionalized education, extrinsic motivators, grades, and unhealthy competition hinder the growth of learners from becoming lifelong learners.

Preparing students to play critical roles in their society requires an accurate assessment of their capabilities. Any assessment procedure requires achievable goals and objectives. Recent studies on educational assessment show the importance of goals in learning. Thus, educators develop curriculum according to a variety of goals. For instance, an educator who develops a curriculum for mathematics can set the cognitive goal of memorizing mathematical operations. Also, higher-order goals such as critical thinking, self-regulation, analyzing, evaluating, synthesizing, and applying educational concepts are crucial for a standard assessment.

Recent educational assessment relies on higher-order and metacognitive skills of students rather than rote learning. For example, one of the main capabilities of today's students is critical

thinking. Thus, educators assign students to group writing projects to enhance their critical thinking and social abilities.

Although traditional curriculum relied on grades and GPA to evaluate the progress of students, today, educational institutions rely on gradeless learning (McMorran et al., 2017). Research shows students who learn for a better grade do not have enough intrinsic motivation for learning. Also, students who learn because they enjoy learning have a love of learning, and they have better academic performance than those who learn for grade.

International Students' Academic Performance

Talsma et al. (2019) conducted a quantitative study among international students in the United States and realized there is a positive relationship between self-efficacy of students and their academic performance. Kickert et al. (2019) argue that high stake testing helps educational institutions to evaluate the academic performance of their students. Stevens et al. (2010) also found the positive impact of reflective journal writing among international students in the United States. They are themselves international students in the United States who participated in a thoughtful journal writing project and conducted action research to find the effectiveness of journal writing in academic performance.

Regarding the academic performance of international students, studies revealed the challenges and achievement factors that affect the academic performance of international students in the United States (Jackson et al., 2013; Liu & Lin, 2016; Poyrazli & Isaiah, 2018). The study of international students in the United States shows a positive relationship between individual characteristics and academic performance.

Feedback plays a vital role in the success of international students (Brown et al., 2016). Educators who provide feedback on the assignments, encourage students to enhance their

academic performance. They rely on the strength of students to foster self-efficacy for learning. International students who received feedback from their classmates or educators perform better than students who did not receive feedback (He & Hutson, 2018; Kizilcec et al., 2017).

<center>**Chapter 3: Methods**</center>

The purpose of this quantitative survey research is to explore the relationship between educational character strengths, learning strategies, and academic performance of international students with a variety of demographic backgrounds. Educational character strengths is determined by four variables derived from the VIA character strengths survey developed by Peterson and Seligman (2004), and learning strategies will be determined by the MSLQ developed by Pintrich et al. (1991). For academic performance, the self-report items in the questionnaire is used.

This study attempts to answer the following questions: (a) Is there any relationship between the educational character strength of international students in the United States and the learning strategies they utilize? (b) Is there any relationship between the learning strategies used by international students in the United States and their academic performance? (c) Is there any relationship between the educational character strength of international students and their academic performance? (d) Is there any relationship between international students' academic performance, educational character strength, and learning strategies when accounting for demographic factors?

Research Design

A research design is a procedure that helps researchers communicate with the real world, and there are two main research designs: quantitative and qualitative (Creswell & Creswell, 2018; Kumar, 2019; Mertens, 2020). The quantitative design answers the research questions through an objective process and qualitative design through a subjective lens (Creswell, 2014; Kumar, 2019). In quantitative research, the researcher begins with a hypothesis and by means of inductive thinking, answers the research questions. In contrast, qualitative research answers

questions through the deductive process of thinking (Creswell, 2014; Creswell & Creswell, 2018; Kumar, 2019; Mertens, 2020). Because of the structured, objective, organized, and standard process of quantitative designs, the researcher decided to conduct a quantitative study to answer the research questions.

This study investigates the questions through a quantitative survey design. According to Creswell (2014), "a survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (p. 155). Since the purpose of this study is to investigate the relationship between characteristics of international students and their academic performance, the survey is a cross-sectional design that collects data at one point in time (Creswell, 2014). According to Kumar (2019), a cross-sectional design is a snapshot of the population regarding their characteristics, and it is a sound research design to determine the relationship between variables of the population. Thus, this research collected data at one time from participants to assess the relationship between variables.

This study explores the relationship between educational character strengths (Peterson & Seligman, 2004), learning strategies (Pintrich et al., 1991), and academic performance of international students in the United States. The survey is designed based on the literature review, which includes four main sections measuring demographic variables, educational character strengths, learning strategies, and academic performance of international students. Most of the references utilized in the literature review are recent peer-reviewed journal articles, which are categorized according to the year of publication in Figure 2. As Figure 2 shows, more than 50% of references are published between 2016 and 2020.

Figure 2

The Percentage of References by Year of Publication
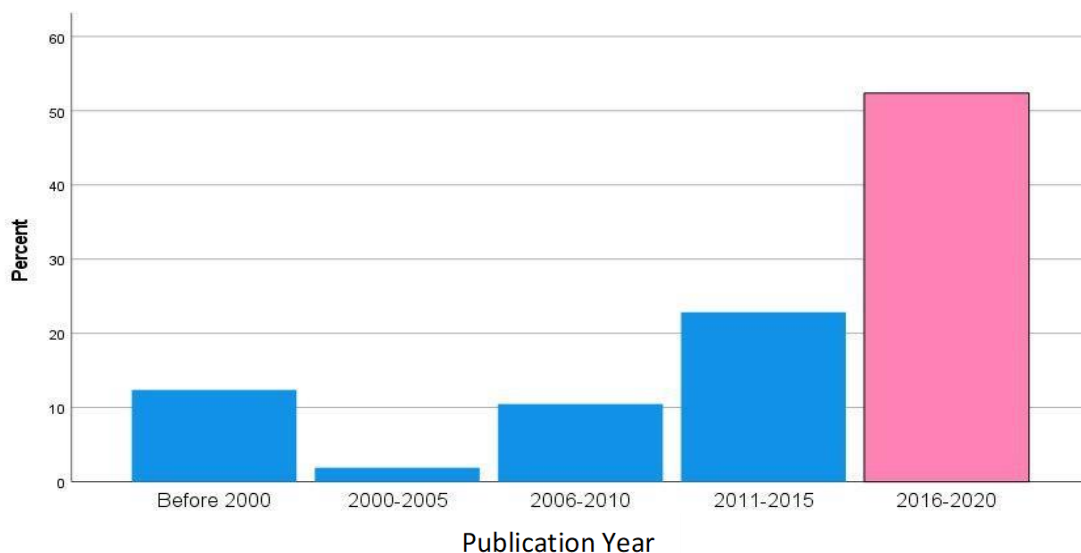
Four hypotheses investigated in the research through the statistical methods are depicted in Table 1. Since the study is nonexperimental, quantitative data analysis reveals the relationships between variables. There are three main variables in the study educational character strength, learning strategies, and academic performance. The first question investigates the correlation between character strength and learning strategies of international students. The second question investigates the correlation between learning strategies and academic performance of international students. The third question explores the relationship between character strength and academic performance. And finally, the last question investigates the relationship between these three variables when accounting for demographics.

Table 1

Research Questions, Related Hypotheses, Scales, and Statistical Approaches

Research Question	Related Hypothesis	Scales/Survey	Statistical Approach
(1) Is there any relationship between the educational character strength of international graduate students in the United States and the learning strategies they utilize?	H0: None of the four VIA scores is related to the MSLQ total score. H1: At least one of the four VIA scores is related to the MSLQ total score.	(1) VIA character subscales of love of learning, social intelligence, perseverance, and self-regulation. (2) MSLQ	Correlation
(2) Is there any relationship between learning strategies utilized by international students in the United States and their academic performance?	H0: MSLQ total score is not related to academic performance. H1: MSLQ total score is related to academic performance.	(1) MSLQ (2) self-reported academic performance	Correlation

Research Question	Related Hypothesis	Scales/Survey	Statistical Approach
(3) Is there any relationship between the educational character strength of international students and their academic performance?	H0: None of the four VIA scores is related to the academic performance score. H1: At least one of the four VIA scores is related to academic performance.	(1) VIA character subscales of love of learning, social intelligence, perseverance, and self-control. (2) self-reported academic performance	Correlation
(4) What is the relationship between the linear combination of educational character strength, learning strategies, and demographic characteristics with academic performance?	H0: The linear combination of educational character strength, learning strategies, and demographic characteristics is not related to academic performance. H1: The linear combination of	Demographic Information	Multiple Regression

Research Question	Related Hypothesis	Scales/Survey	Statistical Approach
	educational character strength, learning strategies, and demographic characteristics are related to academic performance.		

Sources of Data

The population of this study includes international students who study in the United States, reached using the professional networking website LinkedIn. The convenience sampling, in combination with snowball sampling, is used to draw a sample of international students in the United States after the sample size is determined with an appropriate statistical method. According to A. Fink (2013), a convenience sample is used when people who are willing to complete the survey are also accessible to the researcher. Cohen et al. (2007) describe a convenience sample as an opportunity sample as "it involves choosing the nearest individuals to serve as respondents and continuing that process until the required sample size has been obtained" (p. 114). This study used LinkedIn as a platform to recruit participants using a combination of snowball and convenience sampling methods.

The sample size for this study is determined according to the desired statistical power of 0.80 and medium effect size of $r = 0.30$ at standard alpha level (0.05), which is 85 participants for the study (Field, 2009). Therefore, to acquire the desired power level of statistical analysis for the study, the researcher collected data from 140 participants.

Data Collection Strategies and Procedures

Using LinkedIn (https://www.linkedin.com/) and Qualtrics (https://www.qualtrics.com/), the researcher collected data from international students in the United States. LinkedIn is a powerful social media platform that can be used as a research tool for recruiting participants in research. The LinkedIn social network of the researcher currently has approximately 1,000 connections. After using the pre-filtering feature of LinkedIn, it is determined that 400 of them are in higher education institutions in the United States. These 400 connections are used to access international students.

The procedure of data collection, as depicted in Figure 3, includes three phases. In the first phase, the researcher created a post and send the recruitment letter (Appendix A) to LinkedIn connections to inform them about the purpose of the research and find potential volunteers. In the second phase, the researcher sent the invitation letter (Appendix B) to potential participants. And finally, the researcher posted a link to the Qualtrics survey for participants. At the end of the data collection procedure, the researcher downloaded the data as an encrypted file from Qualtrics into a personal laptop for data analysis with Statistical Package for Social Sciences (SPSS).

Figure 3

The Procedure of Data Collection

Phase 1: Post the Recruitment Letter on LinkedIn	Phase 2: Invite potential participants via LinkedIn	Phase 3: Send the Qualtrics link to participants
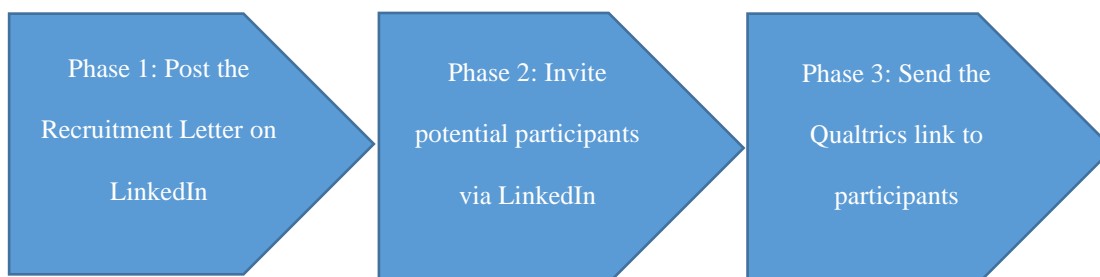
Tools/Instruments Used

The questionnaire (Appendix C) includes four sections. The first section includes questions about the demographic background of participants, including their age, gender, race, ethnicity, country of origin, educational level, educational program, and university or college they are attending. The second section of the questionnaire includes items from VIA Character to measure four variables (love of learning, social intelligence, self-regulation, and perseverance) related to the educational character strength of international students (Peterson & Seligman, 2004; Seligman, 2002; Seligman et al., 2004; VIA Institute On Character, 2017). The third section of the questionnaire includes items adapted from MSLQ (Pintrich et al., 1991) to evaluate learning strategies utilized by international students. And finally, academic performance is evaluated via the self-report of international students with questions such as "What is your GPA?", "How do you perform in your exam, quizzes, and assignments?", "How do you perform in your class assignments?", etc.

Human Subjects Considerations

The researcher has passed the Collaborative Institutional Training Initiative (CITI) course (Appendix D) provided by Pepperdine University's Institutional Review Board (IRB) to ensure

this research follows ethical and legal guidelines of the United States, standardized instruments, and usual online methods to communicate with participants of the study. All participants in this study received an invitation to participate voluntarily and a consent form positioned at the beginning of the Qualtrics survey. According to the American Psychological Association (2020b), "during the informed consent process, authors should describe studying participants the data they intend to collect, save, and/or share with other researchers and obtain their approval" (p. 13). Therefore, the consent procedure for the research includes the consent forms, which should be approved by participants before collecting data (see Appendix E). Also, participants' responses will be shared only on an aggregate level and not on an individual level.

The research has the minimum risk to participants, and they only complete the standardized questionnaire, which takes around 30 minutes in one session through Qualtrics. To minimize the risk for participants, the researcher utilized standardized instruments. All responses are anonymous and saved in SPSS format for data analysis. Since it is a quantitative survey, the identity of participants is not a relevant issue. Thus, there are no questions that ask about participants' identifying information. The findings are reported in Chapter 4 as quantitative tables produced with IBM SPSS (version 27), and there is no identifying information about participants linked to collected data and in the final report.

Proposed Analysis

This study investigates three main variables, the educational character strength, learning strategies, and academic performances of international students with a variety of demographic backgrounds. There are four steps, as depicted in Figure 4, which facilitated the data analysis process for this study. The first step in data analysis was entering collected data from Qualtrics into the SPSS dataset and process descriptive statistical analysis. The second step was to run a

correlational analysis to find the correlation coefficient between each pair of variables, as proposed in the hypothesis of research (educational character strength, learning strategies, and academic performance). The third step was investigation of the linear regression of academic performance as an outcome and the educational character strength and learning strategies as predictors. Finally, a multiple regression determined if educational character strength, learning strategies, and demographic variables are significant predictors of academic performance.

Figure 4

Planned Steps for Analyzing Quantitative Data
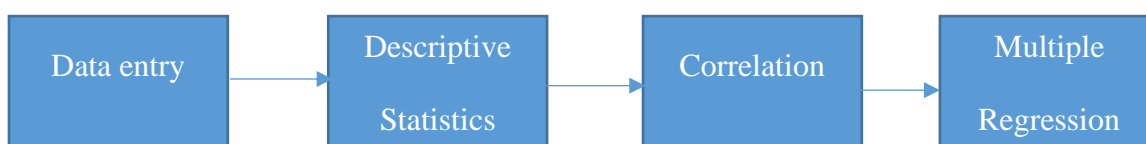
Equation 1 shows the statistical model for predicting academic performance:

$$Academic\ Performance = b_0 + b_1 Demographics + b_2 Edu\ Chr\ Str + b_3 Lear\ Strg + \varepsilon_i \ (1)$$

For the demographics, each of the categorical variables such as gender, race, ethnicity, and country of origin entered into the model, and multiple regression is conducted to determine if we can predict academic performance with these variables.

The primary reference in analyzing data will be Discovering Statistics Using IBM SPSS, written by Field (2009), and the software IBM SPSS (version 27) was rented to conduct required data analysis for this study.

Means to Ensure Study Validity

Field (2009) distinguishes between validity and reliability and explains,

One way to try to ensure that measurement error is kept to a minimum is to determine properties of the measure that give us confidence that it is doing its job properly. The first

property is validity, which is whether an instrument measures what it sets out to measure.

The second is reliability, which is whether an instrument can be interpreted consistently

across different situations. (p. 11)

Also, A. Fink (2013) believes measurement validity comes from reliable and valid survey

instruments, while design validity is about the context in which the survey takes place.

As Creswell (2014) mentioned, "When one modifies an instrument or combines

instruments in a study, the original validity and reliability may not hold for the new instrument,

and it becomes important to reestablish validity and reliability during data analysis" (p. 160).

Since this study modifies validated questionnaires, the first step of the study was to determine the

validity of the survey with a validity pilot test. Then the required revisions are applied to

reestablish the validity of the survey and become ready for distribution among participants.

According to the VIA character website, the average internal consistency reliability of the

VIA character survey is 0.79 (very good), and initial validity coefficients are between .39 and .50

(Via Institute On Character, 2017). Pintrich et al. (1993) investigated the reliability and validity

of MSLQ, and they found the Cronbach alpha above 0.70 (very good). Also, the predictive

validity of MSLQ was investigated and showed a high correlation ($0.05 < r < 0.32$) between

learning strategies and academic performance.

Plan for Reporting Findings

After analyzing data with IBM SPSS version 27, the results are reported as tables,

figures, and descriptions in Chapters 4; and these findings are discussed in Chapter 5. It is

predicted that there is a positive correlation between each of the main variables introduced in this

study.

Chapter 4: Findings

This chapter analyzes and examines the findings from the data collected through an online survey about factors affecting the academic performance of international students in the United States. Each of the research hypotheses is investigated separately to examine the correlations determined in the study's hypothesis. For the first three hypotheses, because of the non-normal distribution of data, Spearman's correlation was used. For the last hypothesis, multiple regression was used to reveal the linear relationship between demographic variables and academic performance.

Before presenting the data analysis results for each research hypothesis, the participants' demographics in this research project are described in detail. Also, the descriptive statistics for each of the scales are presented in the following section.

Description of Sample and Scales

As discussed in Chapter 3, the recruitment for this survey research project was conducted electronically through a convenience sample of the researcher's and the researcher's colleagues' professional and social networks shown via e-mail and the social networking website of LinkedIn. Data were collected anonymously via the Qualtrics website from October 2020 until January 2021. A total of 126 potential participants clicked through to the Qualtrics survey. Of those potential participants, 85 met the inclusion criteria and completed the survey questions.

Table 2 shows the frequency of demographic variables. Of the total of 85 participants, 43 were male, and 42 were female. The participants' ages were between 18-24 (41.2%) and 35-44 (9.4%) years, as depicted in Table 2. The participants' race was White (47.1%), Asian (28.2%), Black (10.6%), and Other (14.1%). Participants are currently enrolled in Bachelor's (47.1%),

Master's (42.4%), or Doctoral (10.6%) programs in the United States. This variable is defined as the educational level in this study (see Table 2).

Table 2

Frequency of Demographic Variables

Variable	Categories	Frequency	Percentage
Gender	Male	43	50.6
	Female	42	49.4
Age	18-24	35	41.2
	25-34	28	32.9
	45-54	14	16.5
	35-44	8	9.4
Race	White	40	47.1
	Asian	24	28.2
	Other	12	14.1
	Black	9	10.6
Educational Level	Bachelor's Degree	40	47.1
	Master's Degree	36	42.4
	Doctoral Degree	9	10.6

Table 3 shows descriptive statistics and the Cronbach's Alpha for the scales used in this study. All the scales have an alpha coefficient of more than 0.70 and therefore have acceptable internal consistency (Creswell & Creswell, 2018). Also, the normal distribution of scores was tested, and as Table 3 shows, all the scales have negative skewness. Thus, to test the study's hypothesis, Spearman's correlation coefficient is utilized to investigate the correlation between variables.

Table 3

Mean, Standard Deviation, and Cronbach's Alpha of Scales

Scale	*M*	*SD*	α	Skewness	Kurtosis
Love of Learning	19.46	3.97	0.79	-0.63	-0.57
Self-regulation	17.38	4.32	0.77	-0.05	-0.71
Perseverance	19.87	3.95	0.87	-0.71	0.19
Social Intelligence	18.55	3.96	0.84	-0.56	0.14
Learning Strategies	109.80	17.98	0.95	-0.53	0.14
Academic Performance	26.69	3.18	0.86	-1.00	0.68

Hypothesis 1: Correlation Between Character Strengths and Learning Strategies

As proposed in Chapter 3, the hypotheses of the research states as the null and alternative hypotheses:

- H0: None of the four VIA character strengths scores (social intelligence, love of learning, self-regulation, and perseverance) is related to the learning strategies (MSLQ) total score.

- H1: At least one of the four VIA character strengths (social intelligence, love of learning, self-regulation, and perseverance) scores is related to the learning strategies (MSLQ) total score.

As Table 4 shows, all the four VIA character strengths scores (social intelligence, love of learning, self-regulation, and perseverance) have a significant ($p < .01$) correlation with learning strategies (MSLQ). Thus, the null hypothesis is rejected.

Table 4

Spearman's Correlation of Educational Character Strengths and Learning Strategies

Variable	1	2	3	4	5
1. Social Intelligence	-				
2. Love of Learning	0.58**	-			
3. Self-regulation	0.56**	0.48**	-		
4. Perseverance	0.60**	0.61**	0.61**	-	
5. Learning Strategies	0.50**	0.56**	0.46**	0.58**	-

**p < .01

Hypothesis 2: Correlation Between Learning Strategies and Academic Performance

The null and alternative hypotheses for the second RQ of the study are formulated as follows:

- H0: MSLQ total score is not related to academic performance.
- H1: MSLQ total score is related to academic performance.

As Table 5 shows, there is a significant (*p* < .01) correlation between learning strategies and academic performance.

Table 5

Spearman's Correlation of Learning Strategies (MSLQ) and Academic Performance

Variables	1	2
1. Learning Strategies	-	
2. Academic Performance	0.57**	

**p < .01

Hypothesis 3: Correlation Between Character Strengths and Academic Performance

The third hypothesis of the study investigates the correlation between VIA character strengths scores (social intelligence, love of learning, self-regulation, and perseverance) and academic performance. The null and alternative hypotheses are formulated as below:

- H0: None of the four VIA character strengths (social intelligence, love of learning, self-regulation, and perseverance) scores are related to the academic performance score.

- H1: At least one of the four VIA character strengths (social intelligence, love of learning, self-regulation, and perseverance) scores is related to academic performance.

As Table 6 displays, there is a significant correlation ($p < .01$) between character strengths and academic performance. The last row of the table shows Spearman's correlation coefficients between VIA character strengths (social intelligence, love of learning, self-regulation, and perseverance) scores and academic performance. Thus, the null hypothesis is rejected.

Table 6

Spearman's Correlation of Educational Character Strengths and Academic Performance

Variable	1	2	3	4	5
1. Social Intelligence	-				
2. Love of Learning	0.58**	-			
3. Self-regulation	0.56**	0.48**	-		
4. Perseverance	0.60**	0.61**	0.61**	-	
5. Academic Performance	0.42**	0.48**	0.38**	0.57**	-

**$p < .01$

Hypothesis 4: Linear Regression for Predicting Academic Performance

The last hypothesis of the study investigates the linear regression among the main variables of the study. The null and alternative hypotheses are formulated as below:

- H0: The linear combination of educational character strengths, learning strategies, and demographic characteristics is not related to academic performance.

- H1: The linear combination of educational character strength, learning strategies, and demographic characteristics are related to academic performance.

This linear model's outcome variable is academic performance, and the predictors are age, gender, race, education level, educational character strength, and learning strategies. The independent variables of the model are derived from the demographic questions (see Appendix C). Educational character strength is calculated by aggregating four VIA character scores: social intelligence, love of learning, self-regulation, and perseverance.

The linear model is formulated in Equation 2:

$$Academic\ Performance = b_0 + b_1 Age + b_2 Gender + b_3 Race + b_4 Edu\ Level +$$
$$b_5 Lear\ Strg + b_6 Edu\ Chr\ Str + \varepsilon_i \tag{2}$$

Table 7 shows the results of multiple regression analysis conducted in SPSS. The multiple regression model shows the linear coefficient of learning strategies is significant at $p < 0.05$, and the coefficient of educational character strengths is significant at $p < 0.01$. None of the demographic variables have a significant coefficient at $p < 0.05$. Thus, the null hypothesis is retained.

Table 7

Multiple Regression Analysis for Predicting Academic Performance

Variable	*B*	β	*SE*	*p*
Constant	11.67		2.56	0.00
Age	-0.51	-0.18	0.34	0.14
Gender	1.01	0.16	0.62	0.10
Race	0.13	0.05	0.26	0.62
Educational Level	0.58	0.12	0.49	0.24
Learning Strategies	0.04	0.25	0.02	0.03
Educational Character Strengths	0.11	0.47	0.03	0.00

Chapter 5: Discussion

The final chapter of this dissertation discusses the findings from this survey study on international students' academic performance in the USA. The significance of the findings and the implication of these findings for educational settings in the United States are discussed. The chapter ends with suggestions for future research that can enhance our understanding of international students' academic performance in the United States.

Summary of the Study

As described in Chapter 1, international students in the United States encounter various psychological and social problems affecting academic performance. For instance, lack of knowledge or ability to make connections with educational resources, teachers, leaders, and peers (He & Hutson, 2018); lack of self-efficacy in utilizing appropriate learning strategies (Bandura, 1997; Pajares, 2008; Pintrich et al., 1991); social anxiety (Jackson et al., 2013); and cultural barriers (In, 2016). Studies based on Positive Psychology showed how people could overcome these challenges with appropriate practices (Csikszentmihalyi, 1991; Duckworth, 2016; Dweck, 2012; Peterson & Seligman, 2004; Ryan & Deci, 2017; Seligman et al., 2009; Seligman et al., 2004; Silvia, 2006). Thus, this study tried to disclose the relationships between these psychoeducational constructs.

The purpose of this quantitative study was to explore the relationship between the four character strengths variables (social intelligence, love of learning, self-regulation, and perseverance) derived from Peterson and Seligman's (2004) character strengths and learning strategies (MSLQ) derived from Pintrich et al. (1991). This research tried to determine if there is any relationship between educational character strengths, learning strategies, and academic

performance of international students in the U.S. The following research questions guided this study.

1. Is there any relationship between the educational character strengths (social intelligence, love of learning, self-regulation, and perseverance) of international students and the learning strategies they utilize?

2. Is there any relationship between the learning strategies utilized by international students and their academic performance?

3. Is there any relationship between the educational character strengths (social intelligence, love of learning, self-regulation, and perseverance) of international students in the U.S. and their academic performance?

4. Is there any relationship between academic performance, educational character strengths, and learning strategies when accounting for demographic factors?

    Based on suggested research questions, four hypotheses were formulated:

*   H1: There is a positive relationship between educational character strengths and academic performance.

*   H2: There is a positive relationship between educational character strengths and learning strategies.

*   H3: There is a positive relationship between learning strategies and academic performance.

*   H4: There is a linear relationship between academic performance, learning strategies, and educational character strengths accounting for demographic factors.

The researcher created a survey on Qualtrics that included four main sections to address each research question. The first section of the survey was about the demographic characteristics

of participants. The second section asked questions to reveal educational character strengths by four variables derived from the VIA character strengths survey developed by Peterson and Seligman (2004). According to the MSLQ, the third section of the survey determined learning strategies designed by Pintrich et al. (1991). For academic performance, in the last section of the survey, self-report questions were used.

This study explored the relationships between three main variables, the educational character strengths, learning strategies, and academic performances of international students with various demographic backgrounds. This research hypothesized that educational character strengths, learning strategies, and academic performance were positively correlated. The correlational analysis between each pair of variables showed relationships between variables of the study. The investigation of the multiple linear regression of academic performance as an outcome and the educational character strength and learning strategies as predictors showed the linear model for the study.

Key Findings

The results of the research described in Chapter 3 can be defined as four significant findings. Each of the findings is discussed in more detail to understand the statistical results from the previous chapter. The first finding reveals the relationship between educational character strength and learning strategies. The second finding discusses the relationship between learning strategies and academic performance. The third finding discusses the association between educational character strengths and academic performance.

Finding 1: Relationship Between Educational Character Strengths and Learning Strategies

As described in Chapter 3, each of the four variables of educational character strengths has a significant, positive correlation with learning strategies. Thus, international students who

scored higher in educational character strengths scored higher in learning strategies. Each of these associations is discussed in this section.

Love of Learning and Learning Strategies. The correlational analysis shows a significant positive correlation between love of learning and learning strategies. Thus, international students who scored higher in the love of learning scored higher in the learning strategies. In other words, they utilize more complex strategies to achieve their academic goals. This correlation can be explained by intrinsic motivation. The literature indicates that students who value lifelong learning have high levels of intrinsic motivation. These students can regulate their learning, set goals, plan, organize, and evaluate their learning (Zimmerman, 2008). Thus, students who had more intrinsic motivation had more love of learning, and because of their desire to regulate their learning, they scored higher in learning strategies.

Furthermore, other scholars explained psychological concepts such as interest and enjoyment similar to the love of learning (Silvia, 2006). Students' enjoyment and interest are among the most relevant positive emotions in learning. Students who enjoy and are interested in learning explore new possibilities in their academic environment. While students are more interested in doing complex tasks, they enjoy doing simple tasks. They also seek new situations and diverse experiences to tackle the challenges they face in the future. Thus, learning skills to perform complex tasks such as reading, writing, and completing academic assignments is correlated with positive emotion of interest.

Positive emotions also can enhance students' cognitive and social capabilities (Cohn & Fredrickson, 2012; Rowe et al., 2015). Regarding cognitive enhancement, "positive emotions (e.g., joy, interest, appreciation) function in the short term to *broaden* one's attention and quell heightened bodily reactivity to *build* one's cognitive, social, psychological, and physical

resources over the long term" (Cohn & Fredrickson, 2012, p. 169). Additionally, positive emotions enhanced a range of cognitive and social functions, including memory, concentration, and communication, while negative emotions obstructed this process (Rowe et al., 2015). Thus, happy students and those students with higher levels of interest in their academic subjects are more likely to utilize learning strategies more efficiently than un-happy students. Therefore, positive emotions such as enjoyment, happiness, and interest are significant facilitators of learning.

Self-regulation and Learning Strategies. According to this study, there is a positive correlation between self-regulation and learning strategies. Utilizing learning strategies demands students to regulate their academic activities appropriately. Thus, international students who scored higher in self-regulation scored higher in learning strategies. This finding is consistent with positive psychology research that shows students who work in a supportive environment and have autonomy in learning perform better than students without independence (Ryan & Deci, 2017). Thus, students' self-regulation plays a vital role in their use of learning strategies and, consequently, their academic performance.

This finding is consistent with other studies that concluded that students with a higher level of self-regulation regulate their learning through goal setting, planning, organizing, and evaluation (Schunk, 2012; Zimmerman, 2008). Students who set goals for their academic activities and evaluate their progress according to standards are self-regulated. They can plan their actions to achieve their goals with effort.

This positive correlation between self-regulation and learning strategies can be explained by initiating learning strategies in previous research (Barak et al., 2016). Especially for distance learners who suffer from a lack of social interactions, it is vital to regulate learning appropriately.

For instance, self-regulated learners in an online program can initiate cognitive and metacognitive strategies. They can also utilize elaborative strategies and make connections between what they learned and their real academic lives.

Self-regulation is an essential factor in utilizing appropriate learning strategies. For example, Wilson and Narayan (2016) evaluated the impact of self-efficacy on self-regulated learning strategies. They conducted mixed-method research in a college in the United States and found students who scored higher in self-efficacy used more complicated learning strategies. Especially in today's world of online giants, international students must utilize self-regulated learning strategies. Kizilcec et al. (2017) conducted a study in a MOOC to find the correlation between students' self-regulated learning strategies and academic performance. Their research shows that goal setting, strategic planning, self-evaluation, elaboration, and help-seeking are learning strategies that enhance students' academic performance in MOOC learning environments.

Perseverance and Learning Strategies. The positive correlation between perseverance and learning strategies is another finding of this research. Other scholars similarly found a positive correlation between perseverance and learning strategies (Mason, 2018; Muenks et al., 2017; Shi, 2018; Wolters & Hussain, 2015). These studies disclosed that students with perseverance, conscientiousness, and self-control used effective learning strategies. This finding can be explained by the degree to which students value their academic tasks and commit to their goals. Thus, they persevere despite difficulties and challenges, and they are hard workers.

As hypothesized in this study, perseverance is associated with learning strategies. This association is observable among students who persist in difficult academic tasks. These persistent students utilize appropriate learning strategies such as organization, time management,

planning, and goal setting. They are familiar with these metacognitive skills; thus, they persist despite challenges, and they can achieve their goals in planned academic tasks. In particular, international students need to have more persistence in their academic assignments, so they should know how to set goals, commit to their academic plans, and persist to achieve their goals.

Social Intelligence and Learning Strategies. According to this research, there is a significant, positive correlation between social intelligence and learning strategies. Socially intelligent students make meaningful relationships with professors, administrators, and peers. Thus they use appropriate learning strategies to achieve their academic goals. Previous research also shows the importance of social intelligence in educational achievement (Bandura, 1997; Schmieder-Ramirez & Mallette, 2007; Schunk, 2012).

For instance, help-seeking is an essential factor that some students use to regulate their learning and enhance their academic performance (Hofer et al., 1998; Pajares, 2008; Schunk & Zimmerman, 1998). Additionally, recent research by Karabenick and Gonida (2018) demonstrates the importance of help-seeking in self-regulated learning. It shows one of the most critical factors in the help-seeking behavior of students is their social intelligence.

Finding 2: Relationship Between Learning Strategies and Academic Performance

The correlational analysis conducted for this research's second hypothesis revealed a significant, positive correlation between learning strategies and academic performance. In other words, international students who scored higher in learning strategies scored higher in academic performance. This finding is consistent with recent studies investigating the effectiveness of learning strategies among international students (Bruso & Stefaniak, 2016; Kickert et al., 2019; Shi, 2018). Additionally, Isik et al. (2018) conducted quantitative research and found students who use in-depth learning strategies can achieve their goals effectively.

International students who participate in online learning use different learning strategies; for instance, Manganello et al. (2019) explored self-regulated learning strategies among engineering students in an online web-based environment. He argues that web-based technologies can help students to foster their self-regulated learning.

Collaboration is another important facet of learning strategies, and research shows students who utilize collaborative learning strategies have better academic performance than students in traditional settings (Alt, 2015). When students participate in communities of practice, they have higher levels of motivation to continue their academic careers (Masika & Jones, 2016).

Finding 3: Relationship Between Educational Character Strengths and Academic Performance

Love of Learning and Academic Performance. This finding indicates a significant, positive correlation between love of learning and academic performance consistent with other studies (Bruso & Stefaniak, 2016; Isik et al., 2018; Liao et al., 2012). For instance, Isik et al. (2018) found a positive correlation between international students' intrinsic motivation and academic performance. The intrinsic motivation of students is measured as the love of learning in this study.

Self-regulation and Academic Performance. According to this finding, there is a significant, positive correlation between self-regulation and academic performance. This finding is consistent with recent research that found a positive correlation between these two variables (Liu & Lin, 2016; Poyrazli & Isaiah, 2018; Shi, 2018). For instance, international students who utilized metacognitive strategies could enhance their GPA (Poyrazli & Isaiah, 2018). These strategies comprised various self-regulatory methods such as planning, goal setting, and time

management in learning. Also, they realized students who used these strategies were more successful in their academic tasks than those who did not.

Furthermore, the relationship between self-regulation and academic performance was investigated as students' autonomy through setting mastery goals (Ryan & Deci, 2017; Sommet & Elliot, 2017). These findings are consistent with this research and show students who set mastery goals have self-regulation, and thus, they can improve their skills in different areas. For instance, international students in the U.S. who set master goals to improve their foreign language skills should earn better results in their academic endeavors. Also, these students use more complicated learning strategies and engage in deep learning when they have more control over their learning process (Knowles et al., 2015; Ryan & Deci, 2017; Sommet & Elliot, 2017). According to this research, self-regulation is an essential factor in learning; thus, international students who scored higher in self-regulation scored higher in academic performance.

Another study conducted by Poitras and Lajoie (2017) shows the utility of SRL in social science studies. They explained how students in a history course could utilize SRL to define their academic goals, plan their education, and regulate their cognitive strategies to achieve better educational goals. Also, Bruso and Stefaniak (2016) conducted quantitative research using the MSLQ questionnaire to reveal the relationship between self-regulated learning and academic performance. They found the GPA of students who utilize self-regulation is higher than those who do not use self-regulated learning.

Post-secondary educators utilize a variety of self-regulatory models to enhance the academic performance of their students. For instance, assigning research projects for graduate students relies on students' self-regulation (McCarthy, 2015). In particular, action research helps postgraduate students develop self-regulation in learning and become autonomous learners. They

can conduct research projects, determine their academic goals, and research with more self-efficacy. They acquire related competencies to do research independently, plan their research projects, self-regulate their learning through research, and ultimately become self-regulated learners.

Perseverance and Academic Performance. The findings of this research revealed a significant, positive correlation between perseverance and academic performance. This finding is consistent with previous research that concluded students with more perseverance acquire a higher GPA than students with less stamina (Mamiseishvili, 2012). Likewise, perseverance is a strong predictor for a high GPA among international students in the United States. These students can regulate their learning, adapt to the culture, and improve their academic performance with high grit levels. In a study of European countries, Bernardo et al. (2019) investigated the impact of learning strategies and self-regulated learning on students' perseverance. Students who used self-regulated learning strategies persisted more than other students in their academic careers. They set goals and continued to achieve them. In general, students' perseverance is an essential factor in their academic performance. Students with higher grit are more likely than other students to graduate from post-secondary institutions (Duckworth, 2016).

Furthermore, studies emphasized the supportive social environment that affects international students' perseverance (Huisman et al., 2017; Lee & Durksen, 2018; Poyrazli & Isaiah, 2018). International students in a supportive social environment are more likely to persist in achieving their academic goals than students who study in a social environment that is not supportive. For instance, the supportive relationship between faculty members and international students positively affects their perseverance. On the other hand, faculty members who do not

care about international students' psychological needs negatively impact students' tenacity. In these cases, international students will leave the academic program and return to their homeland rather than completing their program. Thus, post-secondary educators must be trained to create meaningful relationships with international students to enhance their perseverance.

Social Intelligence and Academic Performance. This study also found a significant, positive correlation between social intelligence and academic performance as previous research found that students with higher levels of social intelligence can develop meaningful relationships with their peers, professors, and educational leaders (Schunk, 2012; Seligman et al., 2009; Vygotsky & Cole, 1978). Therefore, they can achieve their academic goals with higher levels of motivation. They have better academic performance, and they can utilize their social context better than other students. Especially this psychological construct is vital for international students because they are from a different culture, and they need more energy to invest in developing their social networks in the United States (Jackson et al., 2013; Liu & Lin, 2016; Slantcheva-Durst & Knaggs, 2019).

This finding is consistent with Gardner's (2011) multiple intelligence model that emphasized the role of interpersonal intelligence in people's everyday lives, which helps people recognize the feelings, moods, and emotional states of other people around a person. This ability allows students to make meaningful relationships with their peers, professors, educators, and educational leaders in an academic context.

Recent studies also found international students who make meaningful relationships with the social environment can continue learning process until they achieve appropriate results (In, 2016). For instance, help-seeking was recognized as an essential factor that helps international students enhance their academic performance (Hofer et al., 1998; Pajares, 2008; Schunk &

Zimmerman, 1998). Additionally, Karabenick and Gonida (2018) demonstrate the importance of help-seeking in self-regulated learning.

Finding 4: Multiple Linear Regression

Although this research's findings do not support the predictivity of demographic variables, they support the predictivity of educational character strengths and learning strategies. As discussed before, there are significant positive correlations between each of the character strengths and academic performance, also between learning strategies and academic performance. Additionally, according to the multiple regression analysis results depicted in Chapter 4, both educational character strengths and learning strategies predict academic performance. Thus, international students who utilize appropriate learning strategies, and develop their character strengths, have applicable academic performance.

Implications for Practice and Scholarship

At the beginning of this study, the problem statement showed variations in international students' experience at universities in the United States. For some, the experience is highly positive; for others, it is beset with various psychological problems caused by arrival in a foreign country and studying in likely different and unknown contexts. These have been shown to affect international students' academic performance. The problems identified include the lack of knowledge or ability to make connections with educational resources, teachers, leaders, and peers (He & Hutson, 2018); lack of self-efficacy in utilizing appropriate learning strategies (Bandura, 1997); social anxiety (Jackson et al., 2013); and cultural barriers (In, 2016) are among the problems observed by researchers. The findings of this study have implications for both practice and scholarship. Concerning the former, they enable educators and educational leaders to prioritize strategies to enhance or develop individual characteristics or any combinations based

on the circumstances of international students as they present themselves. Additionally, these findings could be relevant in the context of learning strategies and the strong correlation that has been shown between learning strategies and academic performance. The study's findings have implications for the design and implementation of support strategies and resources that influence learning strategies to enhance international students' academic performance.

From a scholarship perspective, the findings can be contextualized in the theoretical framework, which showed the relationship between educational character strength, learning strategies, and academic performance. As measured in the context of this study, educational character strengths revealed a strong positive correlation with academic performance, as did the relationship between learning strategies and academic achievement. In the context of the relationship between educational character strengths and learning strategies, love of learning and social intelligence showed strong correlational positive links, and self-regulation and perseverance showed positive correlations. The implications for scholarship in this area are related to the potential for further differentiation of the characteristics and learning strategies and the methodologies employed to investigate them. Moreover, the theoretical framework that underpins the study presented here has implications for scholarship regarding its further adaptation to include measures beyond the ones tested in this study.

Although this study investigated international students' educational character strengths and learning strategies in the United States, these characteristics seem to be important for all students worldwide. Thus, students can utilize the findings of this research to develop the required attributes for having appropriate academic performance.

Study Limitations

The sample was recruited using the researcher's LinkedIn connections of nearly 1,000 individuals. The sample size was determined in line with the survey's goal of reaching statistical viability, requiring 85 respondents. The sampling strategy was successful since the overall sample was achieved. There are some limitations with the sampling strategy that should be highlighted here. A potential bias was built into the sampling strategy because the overall population was limited to the researcher's network connections. It could be argued that a sample not aligned to the researcher, or indeed captured through a professional networking medium such as LinkedIn, may be more representative. This limitation is based on the self-selective nature of membership to LinkedIn, which presupposes a range of positively disposed characteristics to learning and achieving. Given the sample's composition and its origin through the researcher's LinkedIn network, the findings' generalizability may be limited as the sample does not represent the broader population *per se* but only itself (Cohen et al., 2007).

A further limitation could be the quantitative analysis based on the sample, as described above and in Chapter 3, given the variables involved and the interest of this study to determine how international students' characteristics affect the learning strategies they choose and how it affects their academic performance. The analysis did not show and did not establish causality between the different factors and the chosen learning strategies.

Another limitation could be said to be the study design as a quantitative study. While this research design did achieve what it planned to achieve, to determine how individual characteristics of international students affect the learning strategies they choose and how it affects their academic performance, a mixed method approach would have enabled qualitative data such as structured or semi-structured questionnaire data to be utilized to incorporate the lived experience of the international students at American universities.

Finally, the ongoing pandemic and the severe restrictions about travel or studying may have resulted in the sample being impacted further. Moreover, the implications of COVID-19 and its focus on individuals' lives could have affected the quality and trustworthiness of the data.

Recommendations for Practice and Future Research

Recommendations are differentiated for practice from the perspective of universities and colleges, and future research, beginning with the latter. Based on the limitations of the study, as detailed above, causality between the different characteristics in the findings could be recommended as the focus of future investigations. This causal relationship could be addressed through the conduct of either longitudinal or experimental studies. Investigating changes in students' decisions made on learning strategies could show causal relationships between the individual characteristics of international students and how they affect the learning strategies they choose and the correlation with the academic achievements. Moreover, a future investigation could adopt a sampling strategy that would result in a greater potential for generalizability, such as a random sampling. While this would present significant logistical challenges in realizing a relevant sampling strategy, such an investigation would be of interest to the broader discourse in this area.

A further recommendation for future research could be either longitudinal or experimental designs to investigate the causal relationship between individual characteristics of international students affect the learning strategies they choose and how it affects their academic performance. Doing so would allow for the correlations that have been shown by this study to be built on for developmental purposes.

Given the limitations of the sample utilized in this study from a generalizability perspective, the addition of a qualitative dimension for a similarly constructed sample may

provide fertile ground for future research. The inclusion of data describing the lived experience of a small number of the participants may provide a more in-depth picture of what the statistically shown correlations mean to the experience of individuals. Thus, further, contribute to the wider canon of knowledge in this field and develop educational opportunities for international students in the United States.

From a practice perspective, this study presents an opportunity for educational leaders to embed the findings and tailor the opportunities and experiences of international students accordingly. The results relating to the correlation between social intelligence, for example, and academic performance, strengthens the need for non-curricular opportunities for international students to be provided and recruited successfully to enable international students to participate and thus draw the benefits for their academic achievements. The findings, as shown above, revealed a significant, positive correlation between perseverance and academic performance. This significant correlation implies several potential outcomes for practice. It means that resources within higher education institutions can be directed at strengthening perseverance, as this has shown to be in existence to a statistically significant degree in the international students of the sample, and on ensuring that the students' social intelligence is developed further through the development of meaningful socialization strategies between faculty members, for example, fellow students and international students. Moreover, due to the significant, positive correlation between perseverance and academic performance, international students could act as mentors and role models for non-international students where perseverance has led to the adoption of successful learning strategies and academic success. This implication, in turn, may have further positive implications for the international students' academic achievements, as it strengthens their social networks and activities.

International students who experience barriers to academic success due to various psychological and social problems might quit following their academic goals in the United States. Lack of knowledge or ability to make connections with educational resources, teachers, leaders, and peers (He & Hutson, 2018); lack of self-efficacy in utilizing appropriate learning strategies (Bandura, 1997); social anxiety (Jackson et al., 2013); and cultural barriers (In, 2016) are among the problems observed by researchers. Having identified the correlations of the four key characteristics, the subsequent choices of learning strategies, and the impact on academic achievement could provide educators which powerful tools in terms of designing educational programs, resources, and access to them, to enhance the academic success of international students and the wider student population at universities and colleges in the United States.

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APPENDIX A

Recruitment Letter

Dear [Name],

My name is Hadi Rajabbeigi, and I am a doctoral student at the Graduate School of Education and Psychology at Pepperdine University. I am conducting a research examining factors affecting international students' academic performance in the United States, and I am looking for international students (non-USA citizens) currently enrolled in a college or university in the United States who volunteer to participate in my study. The study is an online survey that evaluates the character strengths, learning strategies, and academic performance of international students. The survey is anticipated to take no more than 30 minutes, and it is online through the Qualtrics platform. And the identity of participants will remain anonymous during and after the study.

If you are interested in participating in my study, or you know any international students who like to participate, please feel free to share my contact information:

Email: █████████████████████

LinkedIn: ██████████████████████████

Phone: ████████████

Thank you for your support,

Hadi Rajabbeigi

Pepperdine University

Graduate School of Education and Psychology

Doctoral Student

APPENDIX B

Invitation Letter

Dear [Name],

My name is Hadi Rajabbeigi, and I am a doctoral student at the Graduate School of Education and Psychology at Pepperdine University. I am conducting a research study examining factors affecting international students' academic performance in the United States, and you are invited to participate in the study. If you agree, you are invited to participate in an online survey that evaluates your character strengths, learning strategies, and academic performance. The survey is anticipated to take no more than 30 minutes online through the Qualtrics platform. Participation in this study is voluntary. Your identity as a participant will remain anonymous during and after the study.

If you have questions or would like to participate, please contact me at

Email: ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮

LinkedIn: ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮

Phone: ▮▮▮▮▮▮

Best regards,

Hadi Rajabbeigi

Pepperdine University

Graduate School of Education and Psychology

Doctoral Student

APPENDIX C

Questionnaire

Demographic Background

1) How old are you?

2) What gender do you have?

3) What is your country of origin?

4) Please indicate your race.

5) What is the highest degree or level of education you have completed?

6) What educational level you are currently attending in the United States?

Educational Character Strength [1]

Social Intelligence

7) I know how to handle myself in different social situations.

8) No matter what the situation, I am able to fit in.

9) I have the ability to make other people feel interesting.

10) I am good at sensing what other people are feeling.

11) I always know what to say to make people feel good.

Love of Learning

12) I am thrilled when I learn something new.

13) I am a true life-long learner.

---

[1] Items of educational character strength are adapted from "The Values In Action (VIA) classification of character strengths" by M. E. P. Seligman, N. Park, and C. Peterson, 2004, *Ricerche di Psicologia, 27*(1), pp. 63–78. Copyright (2016) by PsycINFO Database Record. Adapted with permission.

14) I read all of the time.

15) I read a huge variety of books.

16) I love to read nonfiction books for fun.

Self-regulation

17) I have no trouble eating healthy foods.

18) Even when candy or cookies are under my nose, I never overeat.

19) I am a highly disciplined person.

20) I never want things that are bad for me in the long run, even if they make me feel good in the short run.

21) I can always stay on a diet.

Perseverance

22) I never quit a task before it is done.

23) I always finish what I start.

24) I finish things despite obstacles in the way.

25) I do not give up.

26) I stick with whatever I decide to do.

Learning Strategies[2]

27) When I study the readings for courses, I outline the material to help me organize my thoughts.

---

[2] Items of learning strategies are adapted from Pintrich, P. R., & De Groot, E. V. (1990). Motivated Strategies for Learning Questionnaire [Database record]. Copyright (2019) by PsycTESTS Database Record. Adapted with permission.

28) When studying for courses, I try to explain the material to a classmate or friend.

29) I study in a place where I can concentrate on my course work.

30) When reading for courses, I make up questions to help focus my reading.

31) When I study for classes, I practice saying the material to myself over and over.

32) Even if I have trouble learning the material in the class, I try to do the work on my own, without help from anyone.

33) When I become confused about something I'm reading, I go back and try to figure it out.

34) When I study for courses, I go through the readings and my class notes and try to find the most important ideas.

35) I make good use of my study time.

36) I try to work with other students to complete class assignments.

37) When a theory, interpretation, or conclusion is presented in a class or in the readings, I try to decide if there is good supporting evidence.

38) I make simple charts, diagrams, or tables to help me organize course material.

39) When studying for my academic courses, I set aside time to discuss course material with a group of students from the class.

40) When I study for a class, I pull together information from different sources, such as lectures, readings, and discussions.

41) Before I study new course material thoroughly, I skim it to see how it is organized.

42) I ask myself questions to make sure I understand the material I have been studying.

43) I ask the instructor to clarify concepts I don't understand well.

44) I memorize key words to remind me of important concepts.

45) I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying.

46) I try to relate ideas in an academic subject to those in other courses.

47) When reading for a class, I try to relate the material to what I already know.

48) I try to play around with ideas of my own related to what I am learning.

49) When I study for a course, I write brief summaries of the main ideas from the readings and my class notes.

50) I try to understand the material in the class by making connections between the readings and the concepts from the lectures.

51) I make lists of important items for a course and memorize the lists.

52) I try to identify students whom I can ask for help if necessary.

53) When I study for a class, I set goals for myself in order to direct my activities in each study period.

54) I try to apply ideas from course readings in other class activities such as lecture and discussion.

Academic Performance

55) Your overall GPA is about: (1 = "*0.00 – 0.40*" , 2 = "*0.50 – 1.40*" , 3 = "*1.50 – 2.40*" , 4 = "*2.50 – 3.40*" , 5 = "*3.50 – 4.00*")

56) Which of the following shows your academic performance in comparison with the class average? (1 = *Far Below Average* …   5 = *Far Above Average*)

57) Usually, how do you perform in your exams, quizzes, and other class assessments? (1 = *Poor* …   5 = *Excellent*)

58) Which one shows your most repeated grade in courses? (1 = *F* … 5 = *A*)

59) How do you perform in your class assignments? (1 = *Extremely Bad* … 5 = *Extremely Good*)

60) When your classmates evaluate your assignment, usually the result is: (1 = *Poor* … 5 =

Excellent)

APPENDIX D

CITI Certificate

CITI PROGRAM

Completion Date 29-Oct-2017
Expiration Date 28-Oct-2022
Record ID 21678981

This is to certify that:

Hadi Rajabbeigi

Has completed the following CITI Program course:

GSEP Education Division (Curriculum Group)
GSEP Education Division - Social-Behavioral-Educational (SBE) (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Pepperdine University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w2db1b6d6-2d08-48e8-b175-eead4dc89ef5-21678981

APPENDIX E

Informed Consent

IRB Number # 20-09-1437

Study Title:

Factors Affecting Academic Performance of International Students in the United States

Invitation

Dear [name],

My name is Hadi Rajabbeigi. I am conducting a study on the academic performance of international students in the United States. If you are an international student in the United States with19 years of age or older, you may participate in this research.

What is the reason for doing this research study?

This is a research project that focuses on factors affecting the academic performance of international students in the United States. In order to participate, you must be an international student in the United States with 19 years of age or older.

What will be done during this research study?

Participation in this study will require approximately 30 minutes. You will be asked to answer standardized survey questions about your demographic background, educational character strength, learning strategies, and academic performance. Participation will take place online through the Qualtrics platform.

What are the possible risks of being in this research study?

The risk is no more than minimal risk. The risks involved are the imposition on the subject's time, coercion from other students, possible boredom, fatigue, and feeling uncomfortable with certain questions.

What are the possible benefits to you?

There is no direct benefit to the participants, and there are no potential benefits for participants as a result of participating in this study. The results of the research might help educational institutions in the United States to enhance their relationships with international students and facilitate their learning. Furthermore, the study might provide a framework for instructors to help international students in the United States to flourish and enhance their academic performance.

How will information about you be protected?

All information obtained in this study is anonymous unless disclosure is required by law. What you say and how you answer the questions in this survey cannot be connected to you. The results of this research study may be used in reports, presentations, and publications, but the researchers will not identify you. In order to maintain the confidentiality of your records, the researcher will obtain anonymous information from Qualtrics by disabling any tracking of IP or email addresses. After data analysis, the researcher will use the results in chapters 4 and 5 of the dissertation without any identifiable information. Then, he will remove all data from the laptop and will store on a thumb drive, and will lock data into a file cabinet for 5 years.

What are your rights as a research subject?

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study.

For study related questions, please contact the investigator:

Hadi Rajabbeigi (PI)

- Email: hadi.rajabbeigi@pepperdine.edu

For questions concerning your rights or complaints about the research contact the Institutional Review Board (IRB):

- Phone: 1(310)568-2305
- Email: gpsirb@pepperdine.edu

What will happen if you decide not to be in this research study or decide to stop participating once you start?

You can decide not to be in this research study, or you can stop being in this research study ("withdraw') at any time before, during, or after the research begins for any reason. Deciding not to be in this research study or deciding to withdraw will not affect your relationship with the investigator or with Pepperdine University.

You will not lose any benefits to which you are entitled.

You are voluntarily making a decision whether or not to participate in this research study. By clicking on the I Agree button below, your consent to participate is implied. You should print a copy of this page for your records.

I agree		I do not agree

APPENDIX F

IRB Approval Notice

PEPPERDINE

Pepperdine University
24255 Pacific Coast Highway
Malibu, CA 90263
TEL: 310-506-4000

NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: November 05, 2020

Protocol Investigator Name: Hadi Rajabbeigi

Protocol #: 20-09-1437

Project Title: Factors Affecting Academic Performance of International Students in the United States

School: Graduate School of Education and Psychology

Dear Hadi Rajabbeigi:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

cc: Mrs. Katy Carr, Assistant Provost for Research

APPENDIX G

Author's Note

As an international student in the United States, I encountered many of the challenges

mentioned in this study. For instance, I had difficulties communicating with my classmates and

professors because of the language and cultural differences. Also, I had problems performing my

doctoral program assignments; especially the writing assignments were a big challenge for me.

But I utilized appropriate learning strategies and persevered to achieve my academic goals. I

made meaningful relationships with people around me at the Pepperdine University, and I used

available resources such as the library, writing center, and faculty members to improve my

learning.

This study showed me the importance of character strengths in learning. For instance,

self-regulation is an essential factor that helped me regulate my behavior for better academic

performance. Also, I developed a *love of learning* to become interested in scholarly activities,

and I utilized my *social intelligence* to communicate with other students, faculty, and educational

leaders at Pepperdine University. One of my challenges was writing a literature review for this

dissertation. Still, I could overcome this challenge by goal setting, time management, and social

support from the writing center and faculty. Also, I became familiar with research methods in

educational settings and utilized these concepts to complete this study.

Learning is a collaborative process that takes place in the community. It was a valuable

experience for me to attend a doctoral program in the United States. I could communicate with

people with different cultural backgrounds, and I could learn to conduct research independently.

Also, I had this opportunity to go abroad and visit other countries such as China, United Arab

Emirates, and Turkey. Now I am ready to continue my academic career with *perseverance*, self-regulation, love of learning, and social intelligence.

Finally, I appreciate support and instructions from faculty and staff at Pepperdine University, who provided a flourishing environment for me to complete this doctoral journey. They encouraged me and gave me constructive feedback to conduct research and become familiar with new concepts in different academic fields. Also, I appreciate my family members who supported me with their hearts.