ESMA TOPRAK ÇELEN

A STRUCTURAL EQUATION MODEL ON EFL TERTIARY LEVEL STUDENTS' ACADEMIC BUOYANCY, ACADEMIC RESILIENCE, RECONCEPTUALIZED L2 MOTIVATIONAL SELF SYSTEM, AND THEIR ACADEMIC ACHIEVEMENT

A MASTER'S THESIS

BY

ESMA TOPRAK ÇELEN

TEACHING ENGLISH AS A FOREIGN LANGUAGE

İHSAN DOĞRAMACI BILKENT UNIVERSITY

ANKARA

June 2020

2020

To the strong and empowering women in my life…

A Structural Equation Model on EFL Tertiary Level Students' Academic Buoyancy, Academic Resilience, Reconceptualized L2 Motivational Self System, and Their Academic Achievement

The Graduate School of Education

of

İhsan Doğramacı Bilkent University

by

Esma Toprak Çelen

In Partial Fulfilment of the Requirements for the Degree of

Master of Arts

in

Teaching English as a Foreign Language

Ankara

June 2020

İHSAN DOĞRAMACI BILKENT UNIVERSITY

GRADUATE SCHOOL OF EDUCATION

A Structural Equation Model on EFL Tertiary Level Students' Academic Buoyancy, Academic Resilience, Reconceptualized L2 Motivational Self System, and Their Academic Achievement

Esma Toprak Çelen

May 2020

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Asst. Prof. Dr. Hilal Peker (Supervisor)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Asst. Prof. Dr. İlker Kalender (Examining Committee Member)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Asst. Prof. Dr. İsmail Fırat Altay, Hacettepe University (Examining Committee Member)

Approval of the Graduate School of Education

Prof. Dr. Alipaşa Ayas (Director)

ABSTRACT

A Structural Equation Model on EFL Tertiary Level Students' Academic Buoyancy, Academic Resilience, Reconceptualized L2 Motivational Self System, and Their Academic Achievement

Esma TOPRAK ÇELEN

M.A. in Teaching English as a Foreign Language
Supervisor: Asst. Prof. Dr. Hilal Peker
June 2020

In this study, it was aimed to investigate the relationship among academic buoyancy, academic resilience, reconceptualized L2 motivational self system, and tertiary level students' academic achievement. The study was conducted at a public university in Ankara, Turkey. The data were derived from 436 tertiary level students receiving one-year intensive English education to start their studies in their departments. They were required to become proficient in English to gain the right to start their majors. The data were gathered through an adopted survey, and analyzed via SPSS v.25 and SmartPLS v.3.2.9. A new model was created to explain the relationships among the variables through Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings revealed significant relationships between the participants' academic buoyancy and their midterm average scores as well as between the feared L2 self and academic buoyancy. Also, participants' ideal L2 selves and English learning experiences were found to be strong predictors of their perseverance. Results were discussed and implications were provided in line with the current findings of the new model.

Keywords: Academic Buoyancy, Academic Resilience, Reconceptualized L2 Motivational Self System

ÖZET

İngilizceyi Yabancı Dil Olarak Öğrenen Yükseköğretim Düzeyindeki Öğrencilerin Akademik Engellerle Mücadele Gücü, Akademik Direnci, Yeniden Kavramsallaştırılmış İkinci Dil Motivasyonel Benlik Sistemi ve Akademik Başarısı Üzerine Bir Yapısal Eşitlik Modeli

Esma TOPRAK ÇELEN

Yüksek Lisans, Yabancı Dil Olarak İngilizce Öğretimi
Tez Yöneticisi: Dr. Öğr. Üyesi Hilal PEKER
June 2020

Bu çalışmanın amacı yükseköğretim düzeyindeki öğrencilerin akademik engellerle mücadele gücü, akademik direnci ve yeniden kavramsallaştırılmış ikinci dil motivasyonel benlik sistemi ve akademik başarıları arasındaki ilişkiyi yapısal eşitlik modeli ile incelemektir. Çalışma Ankara'da bulunan bir devlet üniversitesinde gerçekleştirilmiştir. Çalışmaya yükseköğretim düzeyinde İngilizce hazırlık eğitimi gören 436 öğrenci katılmıştır. Bu öğrenciler bölümlerinde eğitim almaya hak kazanmak için yoğunlaştırılmış bir senelik İngilizce eğitim programını başarıyla tamamlamak zorundadır. Çalışma için gereken veriler bir anket yardımıyla toplanmıştır ve verilerin analizinde SPSS v.25 ve SmartPLS v.3.2.9. kullanılmıştır. Değişkenler arasındaki ilişkiyi incelemek için PLS-SEM ile yapısal eşitlik modeli oluşturulmuştur. Sonuçlar öğrencilerin akademik engellerle mücadele gücü ile akademik başarıları ve korkulan dil öz benlikleri ile akademik engellerle mücadele gücü arasında belirgin bir ilişki göstermiştir. Katılımcıların ideal dil öz benlikleri, İngilizce öğrenme ortamları ile akademik zorluklar karşısında gösterdikleri azim arasında doğrudan bir ilişki saptanmıştır. Çalışmanın mevcut bulguları doğrultusunda sonuçlar tartışılmış ve çıkarımlarda bulunulmuştur.

Anahtar Kelimeler: Akademik direnç, akademik esneklik, tekrar kavramsallaştırılmış motivasyon benlik sistemi

ACKNOWLEDGEMENT

The journey of writing this thesis was a challenging one, yet it was also one of the most fruitful experiences of my life. There were a number of people who were always with me with their valuable support and encouragement. First and foremost, I would like to express my deepest gratitude to my thesis supervisor, Asst. Prof. Dr. Hilal Peker. With her constant support and genuine interest, she made this difficult and demanding process easier. I am deeply honoured to work with her.

I also owe many thanks to Asst. Prof. Dr. İlker Kalender and Asst. Prof. Dr. İsmail Fırat Altay who provided their invaluable comments and insights as committee members in my thesis defence. Their constructive feedback took this study one step further.

I also would like to thank Asst. Prof. Dr. Necmi Akşit, Asst. Prof. Dr. Tijen Akşit, Dr. Hande Işıl Mengü and Dr. Elif Kantarcıoğlu for sharing their precious expertise in the courses they offered. I would like to take the opportunity to thank Asst. Prof. Dr. Hilal Peker and Asst. Prof. Dr. İlker Kalender one more time for being great instructors. Their endless patience and valuable knowledge broadened my horizon.

I would like to specially thank Aliye Hale Bingöl, the former chairperson of the Department of Basic English, METU, for giving me the permission to attend the M.A. TEFL program and for her support in the data collection process. I also owe a lot to my colleagues and their students. Without their contribution in the data collection process, I would not be able to conduct this study.

I also thank my friends for supporting me during this challenging process. They were always there to listen to me whenever I needed. I want to thank all my classmates in the M.A. TEFL program as well for their sincere friendship and cooperativeness throughout this demanding process.

Last but not the least, my heart-felt gratitude goes to my family. My mother and my father provided endless support not only within this process but also throughout my life. Without them, it would be impossible for me to complete this thesis. I am thankful to my sister, Elif Toprak Sakız, for her valuable insights and guidance throughout this process. I am deeply grateful to my husband, Mustafa Çelen. He never gave up supporting me in each and every step of this process. My biggest thank goes to my little daughter, Derin. Her unconditional love and joy of life helped me to stay strong and keep going. I can never thank them enough.

Thank you all…

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1: INTRODUCTION

Introduction

Motivation has been a popular area of interest in the field of English language teaching since 1960s as it has been regarded as a prerequisite for success in language learning (Dörnyei, 2005). As Rajab, Far, and Etemadzadeh (2012) maintained, motivation can even make up for lack of ability to learn. Gardner is one of the first researchers investigating second language (L2) motivation. He defined motivation as "the extent to which the individual works or strives to learn the language" because s/he wants to learn the language well and enjoys learning the language (Gardner, 1985, p.10). Gardner's theory, which was shaped by social psychology, dated back to 1960s. Within a few decades, several other theories arose such as Goal Theories (Locke, 1968), Attribution Theory (Weiner, 1974), and Self-Determination Theory (Deci & Ryan, 1985) with the impact of cognitive revolution. Recently, having been influenced by the studies on the possible selves by Markus and Nurius (1986), Dörnyei (2005) made a contribution to the field of L2 motivation with 'L2 Motivational Self System' (L2MSS), which is composed of three constructs named as the Ideal L2 Self (IL2S), Ought-to L2 Self (OL2S) and English Learning Experiences (ELExp). Dörnyei's L2MSS was further investigated and reconceptualized by Peker (2016). In the reconceptualized L2 motivational self system (R-L2MSS), Feared L2 Self (FL2S) was added to the aforementioned constructs.

In addition to the constructs in L2MSS, there are also some other factors such as academic setbacks, academic adversities or challenges that affect students' academic achievement. These problems are closely related to how learners can develop further academically (Malmberg, Hall, & Martin, 2013). Martin and Marsh (2008) meticulously examined these academic adversities and setbacks, and they identified two frameworks: Academic Buoyancy and Academic Resilience. They described academic buoyancy as regular ups and downs that students may encounter in their academic lives such as low grades, exam anxiety, and/or meeting deadlines. Academic resilience, however, was defined as more than everyday hassles or setbacks. It refers to more severe academic adversities which are difficult to deal with such as learning disabilities.

As it seems that there is a relationship among students' motivation, their ability to deal with day-to-day and/or severe challenges and academic success, this study aims to examine the extent of this relationship by utilizing Reconceptualized L2 Motivational Self System (R-L2MSS), Academic Buoyancy, and Academic Resilience as major constructs.

Background of the Study

Among the factors affecting student motivation, some factors facilitate language learning, whereas the others may constitute potential blocks in language learning. For instance, Scarcella (2002) argued that, in order to be proficient in English, some factors such as acquiring advanced language skills, having proper native language literacy, receiving appropriate spoken and written input as well as proper instruction are necessary. In addition to these factors, motivation also plays a critical role in L2 achievement (Atay & Kurt, 2010; Ely, 1986; Gardner, 1992; Scarcella & Oxford, 1992). In the discussion of L2 motivation and L2 success,

Oxford and Shearin (1994) drew attention to involvement in L2 learning, which depends on the level of motivation. They argued that while active involvement brought about success, insufficient involvement led to inability to develop L2 proficiency.

Unlike the factors mentioned above, amotivation, lack of metacognitive skills, anxiety and receiving low grades are some of the elements affecting students' academic achievement. Therefore, in this study, the constructs in R-L2MSS, academic buoyancy and academic resilience will help examine the factors boosting or hindering L2 proficiency directly and indirectly.

Statement of the Problem

The link between motivation and L2 learning has been a topic of interest for many years among scholars (Dörnyei, 2009; Gardner, 1985; Gardner & Lambert, 1972; Ryan, 2006). Also, the factors affecting the ability to deal with academic difficulties drew the attention of many researchers such as Martin and Marsh (2008, 2009) and Cassidy (2016). The constructs and theories provided by researchers in the field of English language teaching may shed light upon the problems encountered while learning a second language and discover the factors enhancing L2 success. This study was implemented at an English-medium public university preparatory school in order to investigate this phenomenon because, in the chosen context, students have to learn English and improve their level of English in order to start their studies in their majors. Therefore, the one-year intense language program is of crucial importance for these students. They all receive standard education during the same period of time within the framework of the same curriculum. However, independent of their previous learning experiences and their language learning aptitude, some students seem to improve more quickly and better than the others.

The factors underlying this phenomenon are investigated in this study by utilizing the aforementioned constructs as well as the relationship within them.

Research Questions

The primary purpose of this quantitative correlational study is to investigate the relationship between academic buoyancy (measured with Academic Buoyancy Scale - ABS; Martin & Marsh, 2008), academic resilience (measured with Academic Resilience Scale - ARS-30; Cassidy, 2016) and R-L2MSS (Peker, 2016) of tertiary level students and their academic achievement. For this reason, the study aims to answer the following research questions:

1. Is there a statistically significant relationship between R-L2MSS, academic buoyancy, academic resilience of tertiary level students and their academic achievement?
2. Is there a statistically significant relationship between the participants' possible L2 selves and their ability to deal with academic setbacks?
3. Is there a statistically significant relationship between the participants' possible L2 selves, their English learning experiences and their perseverance?

Significance

As mentioned earlier, the relationship between motivation and success in L2 has been a topic of interest for many centuries; however, students' L2 performances have not been investigated in previous studies by taking into consideration such constructs as Academic Buoyancy Scale (ABS; Martin & Marsh, 2008), Academic Resilience Scale (ARS-30; Cassidy, 2016) and Reconceptualized L2 Motivational Self System (R-L2MSS; Peker, 2016). Moreover, as stated by Hofstede (2001), previously published studies on academic buoyancy were conducted mostly in individualistic societies such as Australia and the UK. Therefore, this study is

important as it was conducted in a collectivist culture (i.e., Turkey) because cultural factors play a significant role in students' motivation and their ability to struggle with setbacks and challenges in their academic studies. Also, R-L2MSS is a relatively novel concept and very few studies have been administered so far by using it as a construct to measure success in L2. For these reasons, the study will contribute to the field of English Language Teaching as a Foreign Language at tertiary level and provide some practical implications for practitioners.

Definition of Key Terms

Academic buoyancy: Academic buoyancy is the ability to tackle academic setbacks and challenges that are very commonly faced such as poor grades and exam anxiety (Martin & Marsh, 2008).

Academic resilience: Academic resilience is the capability to deal with severe adversities and it helps increase the chances of being successful academically (Cassidy, 2016).

The L2 motivational self system: The L2 motivational self system is an L2 motivational model, which consists of three constructs named as ideal L2 self, ought to L2 self and English learning experiences. The model aims to clarify the relationship between the possible selves and L2 motivation (Dörnyei, 2005, 2009).

The ideal L2 self: Ideal L2 self is the self that a person wants to become. It helps reduce the differences between what a person really is and what s/he wants to become (Dörnyei, 2009).

Ought-to L2 self: Ought-to L2 self is the self a person thinks that s/he should possess because the other people expect him/her to have these characteristics. It also includes performing certain actions to fulfill the expectations of the people around them (Dörnyei, 2009).

English learning experiences: English learning experiences refer to the immediate learning setting of the learners and the motivational impacts of it on learners (Dörnyei, 2005, 2009).

Feared L2 self: The feared L2 self is the possible self that a person desires to refrain from or tend to avoid (Dörnyei, 2009; Markus & Nurius; 1986; Peker, 2016; Uslu-Ok, 2013; Yowell, 2000).

Reconceptualized L2 motivational self system: Reconceptualized L2 motivational self system is the revised version of Dörnyei's L2MSS. A fourth construct, named the feared L2 self was added to the existing model to better understand L2 motivation (Peker, 2016). In addition, some of the ought-to L2 self items that include avoidance were found to be more appropriate for feared L2 self construct after the measurement model analyses were conducted (e.g., factor analysis).

Conclusion

In this chapter, the background of the study, statement of the problem, research questions and significance of the study were introduced. In the following chapter, more background information is given about language learning motivation and its historical evolution. Besides, the theoretical concepts that have been made use of in this study (i.e., R-L2MSS, academic buoyancy, academic resilience) are reviewed in detail and the results of the relevant empirical studies are provided.

CHAPTER 2: REVIEW OF LITERATURE

Introduction

This chapter reviews the relevant literature related to this research study on the relationship among academic buoyancy, academic resilience, R-L2MSS and participants' academic success. First, some background information on motivation and the historical evolution that it has gone through over the years in educational and psychological contexts are provided. Then, one of the main pillars of the study, which is R-L2MSS, is examined in detail through discussions on possible selves and L2MSS. Next, some related empirical data results from previous studies are provided. Finally, academic buoyancy and academic resilience are described, and then, empirical findings related to these constructs are presented.

Motivation

The word motivation was derived from a Latin verb *movere,* which meant to move. It is the motive that makes people take actions and do certain things for certain reasons. As stated by Gardner (1985), motivation is the driving force for human beings in all walks of life in different situations and in his socio-educational model, he defined the motivated individual as somebody who puts an effort to learn, desires to attain a goal and enjoys the process of learning.

Some other scholars also considered motivation as a crucial factor in the process of making a decision and they put emphasis on the impacts of it. Weiner (1982) assumed motivation as a factor which attributes to desirable or undesirable consequences. Deci and Ryan (1985) claimed that motivation, either volitional or external, determines what an individual is going to do and what s/he is to face with.

Likewise, Dörnyei and Otto (1998) considered motivation as a driving force and defined motivation as "the dynamically changing cumulative arousal in a person that initiates, directs, coordinates, amplifies, terminates, and evaluates the cognitive and motor processes whereby initial wishes and desires are selected, prioritised, operationalized and (successfully and unsuccessfully) acted out." (p. 64). According to Dörnyei and Ushioda (2011), motivation was the driving force what makes people take actions, make decisions, and spend their energy on certain things on purpose. They claimed that what people are determined to do and how long they will pursue that action is determined by motivation.

Different definitions made by different scholars all show that motivation is an either inner or outer drive to accomplish a task or refuse to do it, pursue a goal or choose not to take any actions. In the following section, history of motivation in language learning and its psychological foundations are briefly explained.

Historical Foundations of Motivation

To get a better understanding of the journey of motivation and the transformations that it has gone through, Dörnyei (2005), Dörnyei and Ushioda (2011), and Dörnyei and Ryan (2015) conducted deep analyses and identified three main phases of motivation. As stated by Dörnyei (2005), the history of L2 motivation studies are divided into three temporal categories which are named as follows: (1) The social psychological period (1959-1990), (2) The cognitive-situated period (during the 1990s), (3) The process-oriented period (the turn of the century).

The social psychological period involves the initial research studies on L2 motivation, which were mostly framed by Wallace Lambert, a social psychologist, and his student Robert Gardner. They concluded that motivation to learn a second language was controlled by the learners' attitudes and ideas about the language they

were learning and the community using the target language after finalizing their studies on the bilingual society in Canada. For this reason, L2 learning motivation was found to be distinct from learning motivation in general since acquiring a language entails adopting some ethnolinguistic features of the language as well (Gardner & Lambert, 1972). Gardner (1985) investigated the impacts of L2 motivation on language learning further, and he based his motivation theory on the robust relationship between motivation and orientation. He defined orientation as establishing specific objectives and having the ambition to reach them. According to Gardner (1985) the desire to achieve goals can be integrative and/or instrumental; that is, the motivation can be driven by inner and/or outer motives.

The social psychological period was followed by the Cognitive-Situated Period. This period was regulated by two trends of that time. Initially, the effects of behaviorism diminished while the impacts of cognitivism dominated the field. Also, the tendency to explore L2 motivation elaborately became widespread instead of viewing it from a macro perspective. The influence of these revolutionary trends paved the way for new theories such as Self-determination Theory (Deci & Ryan, 1985) and Attribution Theory (Weiner, 1982).

Afterwards, the Process-Oriented Period, inaugurated in the 1990s once the "dynamic aspect" of motivation and its "temporal variation" were recognized by scholars (Dörnyei, 2005, p. 83). Emergence of these two concepts brought about a new research area which was the motivational fluctuation over time and the elements altering the extent of motivation. That period was mostly shaped by the research studies conducted by Williams and Burden (1997), Ushioda (2001) and Dörnyei and Otto (1998).

According to Dörnyei and Ushioda (2011), the Process-Oriented Period turned into a new stage, called the Socio-Dynamic Period. This period was identified with the complexity of the L2 motivation, its active nature and social factors influencing the motivation. They claimed that Ushioda's (2009) *A person-in-context relational view of motivation*, Dörnyei's (2005) *L2 Motivational Self System* and Dörnyei's (2009) *Motivation from a complex dynamic systems perspective* are the new conceptual approaches that are identified with the Socio-Dynamic Period.

The L2 Motivational Self System (L2MSS)

Dörnyei (2005) argued that although the research on individual differences is primarily concerned with psychology, it is at the same time greatly important to educational studies. He supported his claim by referring to the fact that individual differences have been proven to be the most steady and dependable predictor in L2 learning success. He defined individual differences as "…anything that marks a person as a distinct and unique human being." (p. 3).

Individual differences have been studied since the end of the 19th century by a great number of scholars, starting from Galton and Binet. The main components of individual differences defined by different researchers varied to some extent, but mainly included personality, intelligence, attitudes, interests, motivation, values, and so on (Dörnyei, 2005). By looking from an educational perspective, Dörnyei (2005) primarily focused on 'personality', 'ability/aptitude' and 'motivation' in his studies on L2. He attributed greater importance to motivation by claiming that without motivation, learners cannot pursue their long-term intentions even though they have the necessary skills and he supported his claims by referring to Gardner and Lambert's (1972) views on aptitude and motivation.

As stated by Dörnyei (2005), two theoretical frameworks played a significant role in his studies while constructing the L2MSS. One of them was the concept of integrative motivation proposed by Gardner and Lambert (1972) and the other one was possible selves theory by Markus and Nurius (1986).

Although being greatly influenced by Gardner and Lambert's (1972) studies on L2 motivation, Dörnyei (2005) also criticized some of the aspects of the integrative motivation, which may come from the individual preferences to learn the language and the culture of the target language. He also claimed that Gardner and Lambert's (1972) definitions of 'integrativeness' and 'motivation' are ambiguous. He further added that the concept of integrativeness proposed by Gardner and Lambert (1972) was not effective and implemental anymore because integrativeness may not be applicable to foreign language learning contexts. Therefore, he suggested amending these concepts.

The second framework which influenced Dörnyei's concept of L2MSS was the 'self' framework in psychology by Markus and Nurius (1986). Many scholars in the field of psychology have discussed the image of the 'self' for many years (Cummings, 1979; Foote, 1951; Freud, 1925; Gergen, 1972; Levinson, 1978; Rogers, 1951). Foote (1951), for instance, claimed that motivation is built up by various identities embodied by the individual, which means that a person reflects his/her identity via his/her acts. Also, Gollwitzer and Wicklund (1985) introduced the notion of self-definitions, which refers to "conceptions of the self as having a readiness to engage in certain classes of behavior" (p. 956).

Working further on the concept of *self*, Markus and Nurius (1986) stated that "possible selves represent individuals' ideas of what they might become, what they would like to become, and what they are afraid of becoming, and thus provide a

conceptual link between cognition and motivation." (p. 954). In other words, they claimed that possible selves have a close connection to what we are now, what we were like in the past and what we are going to become future.

Within the influence of these two frameworks, Dörnyei (2005) proposed the L2 Motivational Self System. The foundations of the L2MSS originated from his studies on second language (L2) learning motivation in 2005. Making links to the L2 motivation studies by Noels (2003) and Ushioda (2001), Dörnyei (2005) conceptualized L2 learning. L2MSS has three pillars named "Ideal L2 Self" (IL2S), "Ought-to L2 Self" (OL2S) and "English Learning Experience" (ELExp).

Ideal L2 Self

As stated by Dörnyei (2005), the ideal L2 self can be linked with Noel's (2003) concept of integrative motivation and Ushioda's (2001) motivational facets, specifically the third cluster. The ideal L2 self plays an influential role to realize the goals in life and reduces the disparity between the ideal self and the actual self. For instance, if a person wishes to speak a second language, his/her the ideal L2 self motivates the person (Dörnyei, 2005). Similarly, if a person wants to take up a new hobby, such as learning how to play an instrument or starting to do a new type of sports, s/he is motivated by the ideal L2 self.

Ought-to L2 Self

Dörnyei (2005) declared that the ought-to L2 self resembles to Higgin's ought self and also Noel and Ushioda's ideas about extrinsic motivation, given in their taxonomies. The ought-to L2 self is linked to one's desire to have certain features due to external reasons, not because s/he wants to. A person's learning a second language just because it is an obligation in his/her workplace can be given as an example to the ought-to L2 self as a motivator. Likewise, if a student attends

classes regularly just because it is a requirement, then it means that s/he is driven by the ought-to L2 self.

English Learning Experiences

As stated by Dörnyei (2005), English learning experiences component is related to Noel's concept of intrinsic motivation and Ushioda's first cluster in her motivational facets. The construct of English learning experiences is about the "situation-related motives related to the immediate learning environment and experience" (p. 106). The influence of the teacher, the curriculum, the effects of peers or previous leaning experiences can be given as an example to the L2 Learning Experience (Dörnyei, 2009).

Reconceptualized L2 Motivational Self System

Having studied the functions of future time perspectives and possible selves in order to analyze the motivation to learn English among Turkish ESL learners, Uslu-Ok (2013) incorporated the feared self construct into L2MSS. Feared self is the possible self a person wants to refrain from or avoid to become (Dörnyei, 2009; Markus & Nurius, 1986; Yowell, 2000; Uslu-Ok, 2013). Following Uslu-Ok's study, Peker (2016) also confirmed that the feared self can be considered as a component of L2MSS as balancing ideal selves and feared selves may contribute to second language learning success. She conducted a more large-scaled research study investigating the relationship between bullying victimization, feared second language and second language identity by reconceptualizing the L2MSS.

Empirical findings of L2MSS

L2 motivation and L2 achievement along with the factors affecting them (i.e., anxiety, intended learning efforts, learning styles) have gained its popularity long ago. The relationships among these variables have been examined in a lot of studies.

For instance, Papi (2010) tested the L2MSS together with language learning anxiety and intended learning efforts in Iranian high school context with a high number of participants (*n* =1011). It was found that the IL2S and L2 learning experiences helped decrease the language learning anxiety while the OL2S fostered anxiety.

Kim and Kim (2014) investigated the relationship between L2 motivation and the IL2S together with some other constructs such as learning styles and achievement among 2682 Korean students. They found out that there was a strong correlation between IL2S and high proficiency level of elementary level students. It was also revealed that motivation and proficiency were highly correlated among high school students. The results demonstrated that the IL2S, L2 motivation and language proficiency were different constructs affecting one another to a great extent.

Islam, Lamb and Chambers (2013) conducted a research study using L2MSS as a theoretical construct to contribute to the validity of the framework, and also to identify the motivational factors in that specific Pakistani context with 1000 undergraduate students. They discovered that the individual stance towards learning English and the Ideal L2 self were the primary predictors of the participants' learning effort.

Roshandel, Ghonsooly, and Ghanizadeh (2018) examined the relationship between L2MSS and EFL learners' self-efficacy, that is, their beliefs about their potentials. The study was conducted with 210 EFL students at tertiary level in Iran. Among the ten different constructs (criterion measures, IL2S, OL2S, family impact, instrumentality-promotion, instrumentality-prevention, attitudes to L2 learning, interest in L2 culture, stance towards L2 culture, integrativeness) which were identified in the survey, criterion measures, attitudes towards learning L2,

instrumentality-promotion and the IL2S were found to be the most powerful predictors of the participants' self-efficacy.

Huang, Hsu and Chen (2015) investigated the effects of participants' possible selves on their learning a second (L2) and third language (L3) experiences in a Confucian-influenced society, where academic achievements are highly important and even seen as a requirement. In this regard, 1132 college students learning English as an L2, and learning French, German, Japanese or Korean as an L3 participated in the study. The researchers found out that the participants' desired self-images and their language learning atmosphere affected their learning performances more than their image of self in the future.

Rajab et al. (2012) aimed to explore the relationship between L2MSS, integrativeness, and the participants' intended efforts to learn English in an Iranian context. In this study, 308 freshman and senior students studying Teaching English as a Second Language participated in the study. Results revealed that the IL2S was the strongest predictor in second language acquisition and intended effort to learn L2.

Kong, Han, Kim, Park, Kim, and Park (2018) conducted a study with 1296 participants in a college in Korea and investigated the effects of L2MSS on the learners of frequently taught languages and less frequently taught languages. The results of the structural equation modeling analysis showed that the L2 learning aptitude was the most influential factor affecting the intended effort of the learners. It was followed by the IL2S. It was also found out that OL2S had less impact on L2 learning motivation than all the other factors.

Academic Buoyancy and Academic Resilience

Among all the factors affecting student' academic success, as it was also asserted by Collie, Martin, Malmberg, Hall and Ginns (2015), learners' social-emotional development is also a crucial one. The social-emotional development can be defined as the way individuals handle hardships and troubles in their daily lives and also in their academic lives. When the adversity they encounter in their academic life is a serious and a substantial challenge, it is referred as academic resilience (Martin & Marsh, 2009). Masten, Best, and Garmezy (1990) defined resilience as "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening situations" (p. 426). However, if the adversity is a type of commonly encountered challenge by learners in their academic lives, it is defined as academic buoyancy (Martin & Marsh, 2008).

Empirical findings on Academic Buoyancy and Academic Resilience

The concepts of buoyancy and resilience have long been a research topic of psychology; however, the history of academic buoyancy and academic resilience are rather new. Collie et al. (2015) conducted one of the most extensive studies in this area. They investigated if there was a direct or an indirect relationship between the academic buoyancy and student achievement. The study also aimed at investigating the additional factors having a substantial effect on this relationship. They scrutinized if a sense of control over the consequences of an act might function as a linking mechanism in the relationship between buoyancy and achievement via utilizing the attribution theory (Weiner, 2010) as a theoretical framework. The study was conducted in a secondary school context in Australia, and 2971 students participated in this two-phased empirical study. In the first phase, a cross-lagged design was implemented and it was revealed that the relation between buoyancy and

achievement was not a strong one. Adversely, the second phase of the study revealed that the linking role of control between these two variables enabled a sense of control, which led to the improvement of academic performance.

Martin, Ginns, Brackett, Malmberg, and Hall (2013) investigated the relationship between academic buoyancy and psychological risk. They exemplified the latter as a kind of academic anxiety, avoidance of failure, uncertain control, emotional changes, and/or neuroticism. They conducted the study in 21 high schools with 2971 students in Australia. A reciprocal relationship between academic buoyancy and psychological risk was identified at the end of the study. They envisaged that the findings would guide the practitioners and researchers aiming to help students with academic adversities.

Comerford, Batteson, and Tormey (2015) aimed at understanding the effects of academic buoyancy and its relationship with students' decisions whether to stay in school or drop out together with identifying certain characteristics of students in the Irish second level context. They developed the Student Buoyancy Instrument and collected data from 581 students. They found out that the more the students were buoyant, the less likely they were to leave school early. As an implication, it was assumed that the study could help identify students at risk and they could be given support by making use of meta-cognitive methods to decrease the drop-out rates.

Malmberg et al. (2013) delved into academic buoyancy in detail and investigated whether it was a subject-general or a subject-specific phenomenon. In other words, they investigated whether students' ability to deal with academic setbacks changed from one subject to another (i.e., English, mathematics, science and physical education) or it could be generalized. The study was conducted in three secondary schools in England and 260 students were involved in the study. The

results of the study were in accordance with the findings of the earlier research studies in which academic buoyancy emerged as a subject-general phenomenon.

In order to categorize a group of students in terms of their perceptions of social and academic support as well as academic adversity and buoyancy, Collie, Martin, Bottrell, Armstrong, Ungar, and Liebenberg (2017) conducted a study. In that person-centered analysis, they identified three groups and they labelled them as the thriver, supported struggler and at-risk struggler. The participants (n = 249) were young adults between the ages of 16 and 20 from Australia. The results showed that in terms of adaptive motivation outcomes, the clusters differed from one another to a large extent, whereas they remained similar when the maladaptive motivation outcomes were considered.

Conclusion

In this chapter, the history of L2MSS was reviewed in detail starting from the earliest motivation studies conducted by Gardner and Lambert (1972). Furthermore, the concepts of motivation, academic buoyancy and academic resilience were presented through the review of the relevant literature and by providing operational definitions made by different scholars in the field. Also, a variety of empirical studies on R-L2MSS, academic buoyancy, and academic resilience were provided. In the following chapter, the methodology of the current study is presented.

CHAPTER 3: METHODOLOGY

Introduction

This quantitative non-experimental correlational study was designed to investigate the relationship between academic buoyancy, academic resilience and R-L2MSS of tertiary level students and their academic achievement. For this reason, the following research questions were asked:

1. Is there a statistically significant relationship between R-L2MSS, academic buoyancy, academic resilience of tertiary level students and their academic achievement?
2. Is there a statistically significant relationship between the participants' possible L2 selves and their ability to deal with academic setbacks?
3. Is there a statistically significant relationship between the participants' possible L2 selves, their English learning experiences and their perseverance?

Research Design

This study was designed as quantitative non-experimental correlational research, which is also called "associational research" (Fraenkel, Wallen, & Hyun, 2011, p. 331). The aim of this study was to investigate the relationships among different variables (i.e., academic buoyancy, academic resilience, R-L2MSS, midterm averages of the participants). The variables in the study were not manipulated and the relationships among the constructs were examined via correlation coefficient. According to Fraenkel et al. (2011), one of the primary reasons to employ correlational research is to discover the relationships among different variables to display an important phenomena or human behaviours.

Another purpose of a correlational study is to make predictions. The current study primarily aimed to fulfil the latter. Furthermore, as correlational research helps to give an uninterrupted picture of the phenomenon we are researching, it brings about ecological validity because being unbiased is a crucial aspect of it (Field, 2009).

Setting and Participants

This study was conducted at the Department of Basic English (DBE) in one of the state universities in Turkey. Over 25.000 national and international students from 85 countries study at the university. Turkish students have to take the university entrance exam which is held by Center of Assessment, Selection and Placement (ÖSYM) to be admitted to study at this university. International students are required to take American College Testing (ACT) or Suite of Assessments (SAT); and take the minimum grade that the department they are to apply requires. The students need to pass the proficiency exam held by DBE with a minimum grade of 60 since the medium of instruction is English at the university. The newly-registered students take the exam upon registration, and if they pass the exam, they can automatically start their majors. If they cannot meet this requirement, they are enrolled in DBE as a must to complete the one-year intensive English language learning program. If students cannot complete the program successfully within two years, they are transferred to a Turkish medium university and study the equivalent major in that university. For this reason, their academic performance is an important factor in their success at DBE. That is the reason why students' midterm averages were utilized as an indicator of their academic achievement.

Tertiary level students at DBE in the university in the 2018-2019 Spring Semester was the target population of this study. They were chosen by using convenience sampling, which corresponds to participants available at a particular

place at a particular time, and the advantage of that kind of sampling is its convenience as the name suggests (Gall, Gall, & Borg, 2007). Fraenkel et al. (2011) stated that convenience sampling may be biased since the questionnaire is answered only by the participants who are available. It was acknowledged that the results of the study are not necessarily the representative of the whole population, and this limitation is acknowledged in the limitation section of Chapter 5.

The participants comprised of 436 students studying at DBE in the university in the 2018-2019 Spring Semester. Students from all different levels [Pre-Intermediate (*n* = 48), Lower-Intermediate (*n* = 89), Intermediate (*n* = 102), Upper-Intermediate (*n* = 67), Advanced (*n* = 77), Repeat (*n* = 53)] participated in the study. The participants were between the ages of 17 and 65 (mostly between 18-20). There was one student from Azerbaijan, and the rest were Turkish students. The numbers of female and male participants were 198 and 236, respectively.

Instrumentation

The data were gathered by distributing a survey consisting of three parts (See Turkish and English forms of the survey in Appendix A and Appendix B). The informed consent form was given in the first section to provide information about the survey to the participants. The second part was aimed at getting some demographic information on the students' proficiency level, gender, age, department, nationality, and the type of high school that they graduated from. The last part included two separate questionnaires consisting of 49 Likert scale items in total. It took about 15 minutes to complete the whole survey.

The instruments utilized in the survey were Reconceptualized L2 Motivational Self System Scale (R-L2MSS; Peker, 2016), Academic Buoyancy Scale (ABS; Martin & Marsh, 2008) and Academic Resilience Scale (ARS-30;

Cassidy, 2016). R-L2MSS (Peker, 2016) consists of four constructs, named as Ideal L2 Self (IL2S), Ought to L2 Self (OL2S), Feared L2 Self (FL2S) and English Learning Experiences (ELExp). Academic Buoyancy Scale (ABS; Martin & Marsh, 2008) has four items which belong to the same construct named as Academic Buoyancy. Academic Resilience Scale (ARS-30; Cassidy, 2016) has three constructs named as Perseverance (P), Negative Aspect and Emotional Response (Neg) and Reflecting and Adaptive Help Seeking (Ref). The items within each construct are provided in Appendix A (Turkish version) and Appendix B (English Version). Table 1 shows the constructs and the items numbers briefly.

Table 1

Constructs in the Survey and Item Numbers in Each Construct

Instruments	Name of the Constructs	Item Numbers / Indicators
R-L2MSS; Peker, 2016	IL2S	(Part 1) 1, 2, 3, 4, 5
	OL2S	(Part 1) 6, 7, 8, 9, 10
	FL2S	(Part 1) 11, 12, 13, 14, 15, 16
	ELExp	(Part 1) 17, 18, 19, 20, 21, 22
ABS; Martin & Marsh, 2008	AB	(Part 1) 23, 24, 25, 26
ARS-30; Cassidy, 2016	P	(Part 2) 1, 2, 4, 5, 6, 8, 10, 11, 23
	Ref	(Part 2) 12, 14, 15, 16, 27, 18, 19, 20, 22
	Neg	(Part 2) 3, 7, 9, 13, 21

Piloting the questionnaire

As the piloting of the study was necessary to understand the reliability of the items for the intended sample (Mackey & Gass, 2005), the survey was distributed online to two randomly chosen classes in the target setting after getting permission from the university ethics committee (Date: 27.03.2019, Committee Decision Number: 2019_03_27_01). The questionnaire consisted of 56 items at first.

After collecting data, the results were analysed by Statistical Package for Social Sciences (SPSS) v.25. First, the data were cleaned and the participants who did not complete the survey were excluded to get more accurate results. Then, the composite scores were calculated for each construct via SPSS v.25. According to George and Mallery (2003), an alpha level >0.90 means that the internal consistency is "Excellent", 0.80 – 0.89 means "Good", 0.70 – 0.79 means "Acceptable", 0.60 – 0.69 means "Questionable" and 0.50 – 0.59 means "Poor". Depending on the results of piloting data with 16 participants, the survey was revised and some changes were made, whereas some parts were kept the same. The Cronbach's alpha values of IL2S, OL2S, FL2S, English Learning Experiences, Academic Buoyancy and Reflecting and Adaptive Help Seeking constructs were found to be within the required range (see Table 2), so they were kept without making any changes.

Table 2

Reliability Statistics of Composite Scores in the Pilot Study

Constructs	Cronbach's Alpha	N of Items
Ideal L2 Self	.86	5
Ought-to L2 Self	.69	5
Feared L2 Self	.78	6
English Learning Experiences	.94	6

Table 2 (cont'd)

Reliability Statistics of Composite Scores in the Pilot Study

Constructs	Cronbach's Alpha	N of Items
Academic Buoyancy	.60	4
Reflecting and Adaptive Help Seeking	.85	9
Perseverance	.46	14
Negative Affect and Emotional Response	.59	7

However, several amendments were made in Perseverance and Negative Affect and Emotional Response constructs as their Cronbach's Alpha levels were in the poor range according to George and Mallery (2003) although the negatively worded items in these constructs were reverse-coded beforehand. Initially, there were 14 items in the Perseverance construct, but after the reliability analysis five items were excluded one by one starting from the item with the lowest total item correlation value (See Appendix C.1 for the excluded items in Perseverance construct). When the statistical analysis was run without these items, the Cronbach's alpha for the Perseverance construct increased from .46 to .84. The construct of Negative Affect and Emotional Response originally consisted of 7 items. After the reliability analysis, two items were excluded. After that, the Cronbach's Alpha value of the construct increased from .59 to .89 (See Appendix C.1 for the excluded items in Negative Affect Emotional Response construct).

Method of Data Collection

The data were collected in a class hour with the help of the instructors teaching in each class. The instructors either shared the link of the online form of the survey or distributed the paper form of it. For the online version of the questionnaire, Qualtrics (an online platform to create and conduct surveys and questionnaires) was utilized. In both paper version and online version, the students were provided with

the questionnaire in Turkish and English forms. As the original versions of the questionnaires were English, they were translated into Turkish by a translator. Later on, they were back-translated into English in order to make sure that the original version and the translated version were in line with each other. Then, both versions were checked by several TEFL experts for consistency. The students chose to answer the questionnaire in the language they preferred.

Method of Data Analysis

The data were analysed by using SPSS v.25 and PLS-SEM (Hair, Risher, Sarstedt, & Ringle, 2019). The initial analysis was conducted through SPSS and the Cronbach's alpha levels were calculated to check if they aligned with the results found through the pilot study. Also, the demographic information of the participants was assembled by using SPSS v.25. Afterwards, the data set was converted into comma separated values (.csv) format to make further analysis through PLS-SEM 3, which is a method of structural equation modelling estimating the relationships between the latent variables. The reason why structural equation modelling was utilized was that it enables creating complex path models in addition to revealing direct and indirect relationships among the latent variables (Hair et al., 2019). There were nine latent variables in the path model (i.e., IL2S, OL2S, FL2S, English Learning Experiences, Academic Buoyancy, Perseverance, Reflective and Adaptive Help Seeking, Negative Affect and Emotional Response, Midterm Averages). The path model showing the assumed relationships among these variables were provided in Figure 1.

While analyzing the data, the missing values were handled via mean replacement, which enables the alteration of the missing data with the mean of all the other points in the same column. This is the most recommended method of dealing

with missing values (Hair et al., 2019). Additionally, as PLS-SEM is a non-parametric test, it does not necessitate data normality. These two issues are touched upon in the data analysis section in a more detailed way.

CHAPTER 4: RESULTS

Introduction

In this chapter, first, the descriptive results of the data collected through SPSS v.25 are presented. The descriptive analysis of the study includes checking the data for normality and creating composite scores of the constructs for further analyses. This section is followed by detailed information on demographics (i.e., age, gender, proficiency level, country of origin, and some background information related to the participants). Afterwards, the PLS-SEM path analysis results obtained through SmartPLS v.3.2.9. are presented. The results of this analysis are presented first by examining the measurement model and then examining the structural model. Last, the findings relevant to each research question are presented.

Descriptive Analysis

Descriptive analysis of the survey included quantitative analysis of the constructs and demographic information of the participants. As mentioned earlier, the data were collected both using an online survey tool which is called Qualtrics and also the paper-based form of the same questionnaire. The number of participants who responded the online version of the survey and the paper form of it was 207 and 229, respectively. All the data were put together on SPSS. Before the initial analysis, the constructs were defined.

As a following step, the missing data were identified. As stated by Curtin, Presser, and Singer (2000), having a higher response rate is always an advantage, whereas a low response rate poses a risk for the usefulness of the study. However, as it is the case in all types of questionnaires, there were some missing data for various reasons.

Before starting the analysis, the missing data were specified as 999 on SPSS. As shown in Table 3, there were no missing data in Academic Buoyancy, Perseverance, and Negative Affect and Emotional Response constructs. In the other constructs (i.e., IL2S, OL2S, FL2S, English Learning Experiences, Reflective and Adaptive Help-Seeking), 3, 7, 1, 4, and 2 participants did not answer some of the items in these constructs, respectively. The response rate was quite high in the study when the percentage of missing data was compared with the total number of students. As the number of non-respondents is quite low considering the completed sections of the survey, the missing data were kept and included in the inferential statistics for the statistical power of the analysis (Field, 2009).

Table 3

Descriptive Results

Constructs	IL2S	OL2S	FL2S	ELExp	AB	P	Neg	Ref
Valid	433	429	435	432	436	436	436	434
Missing	3	7	1	4	0	0	0	2
Mean	1.95	2.77	3.81	2.74	2.41	2.13	2.38	2.35
Median	2.00	2.80	4.00	2.66	2.25	2.11	2.20	2.33
Std. Dev.	0.72	0.92	1.00	0.83	0.81	0.54	0.88	0.57
Skewness	0.75	0.11	-0.71	0.52	0.45	0.64	0.51	0.39
Kurtosis	0.79	-0.73	-0.28	0.26	0.25	1.5	-0.08	1.30

After the data were cleaned and organized, the first set of analyses were conducted to summarize the data quantitatively. For this purpose, first, the data normality was checked. As stated by Field (2009), the values of skewness and

kurtosis are 0 in a normal distribution, and when the value of them are below or above 0, then it means that there is a deviation from normal. Hahs-Vaughn and Lomax (2012) define skewness and kurtosis values within +/- 2.0 as relatively normal. As represented in Table 3, all the values fell within these ranges. Second, the Cronbach's alpha levels for each construct were calculated to check the internal reliability of the items after the items in the Negative Affect and Emotional Response were reverse coded as the statements were negatively worded. As stated by George and Mallery (2003), an alpha level of > 0.90 means that the internal consistency is "Excellent", 0.80 – 0.89 means "Good", 0.70 – 0.79 means "Acceptable", 0.60 – 0.69 means "Questionable" and 0.50 – 0.59 means "Poor". As shown in Table 4, the Cronbach alpha level of each construct was within either "Excellent", "Good", or "Acceptable" range.

Table 4

Cronbach's Alpha of Each Construct in the Current Study

Construct	Cronbach's Alpha	N of Items
IL2S	.88	5
OL2S	.76	5
FL2S	.91	6
ELExp	.85	6
AB	.81	4
P	.77	9
NEG	.84	5
REF	.76	9

Afterwards, the corrected-item total correlation of each item was checked. As stated by Field (2009), corrected-item total correlation is the correlation between the items and the total score. In order for a test to be reliable, each item should correlate with the total, and values below .3 show that there is a problem with the item. In the

current study, all the items were within the required range, except for Item 23 (P_9); however, the item was kept in the data as further analysis was to be conducted through PLS-SEM and the low-loading items were to be eliminated in that stage. Corrected item total correlations and item-by-item analysis results are given in Appendix C.2.

Demographics

The demographic information collected in the survey is presented in this section. The demographic data collected include the participants' gender, English proficiency levels, age, country, the type of high school they attended to, the total amount of years they have been learning English for and their midterm grades.

As shown in Table 5, the number of female participants constituted 45.4% (*n* = 198) of the respondents, whereas the male participants made up 54.1% (*n* = 236). Two students preferred not to specify their gender.

Table 5

Demographics / Gender Distribution

Gender	Frequency	Percent
Female	198	45.4
Male	236	54.1
Missing	2	0.5
Total	436	100

As for the English proficiency level, the participants were grouped into six levels. These levels were Pre-Intermediate (PIN), Lower-Intermediate (LIN), Intermediate (INT), Upper-Intermediate (UPP), Advanced (ADV) and Repeat (REP). The distribution of the participants among the groups was as follows: PIN (11.0%), LIN (20.4%), INT (23.4%), UPP (15.4%), ADV (17.7%) and REP (12.2%). This

shows that INT was the largest group with 102 respondents, and it is followed by LIN (*n = 89*), ADV (*n = 77*), UPP (*n = 67*), REP (*n = 53*) and PIN (*n = 48*) (see Table 6).

Table 6

Demographics / English Proficiency Levels

Level	Frequency	Percent
Pre-Intermediate (PIN)	48	11.0
Lower-Intermediate (LIN)	89	20.4
Intermediate (INT)	102	23.4
Upper-Intermediate (UPP)	67	15.4
Advanced (ADV)	77	17.7
Repeat (REP)	53	12.2
Total	436	100

The demographic data indicated that the participants' ages ranged from 17 to 60 (see Appendix C.3). Although the age range seemed quite wide, 87.2% of the participants were between the ages of 18-20. While most of the respondents were at this age range, the participants who were at the age of 17, 26, 28, 29, 65 and 60 constituted only 1.2% of the sample, which meant that there was only one participant at each age group. The percentage of the other age groups were 4.8% (age 21), 2.3% (age 22), 1.4% (age 23), 0.9% (age 24), 0.5% (age 27), 0.5% (age 38) and 0.5% (age 50).

In the demographics part, also, information about the participants' departments was gathered. There were minimum 2 maximum 22 students from each department. The distribution of the participants among the departments was provided in Appendix C.4. The participants' country of origin was also asked in the

demographic section, and it was found that among 430 participants, 429 of them were from Turkey, whereas 1 participant indicated that s/he was from Azerbaijan (see Table 7).

Table 7

Demographics / Country of Origin

Country	Frequency	Percent
Azerbaijan	1	0.2
Turkey	429	98.4
Missing	6	1.4
Total	436	100

The last two sections of the questionnaire inquired the number of years that the participants had been learning English for and the type of high school they attended. As given in Appendix C.5, most of the participants (n = 118) had been learning English for 10 years. As for the high school type, the majority of the respondents graduated from Anatolian High School (53.2%) and Science School (22.5%). A more detailed distribution among the six types of high schools was given in Appendix C.6.

Development of the Model via Partial Least Square Structural Equation Model (PLS-SEM) Analysis

PLS-SEM was applied for a deeper analysis of the data as it makes it possible to "estimate complex models with many constructs, indicator variables and structural paths without imposing distributional assumptions on the data" (Hair et al., 2019, p. 3). In other words, the PLS-SEM algorithm is designed in a way to estimate the path coefficients and other parameters of these dependent constructs. Through PLS-SEM, the relationship between the different constructs (IL2S, OL2S, FL2S, ELExp, AB, P,

Neg, and Ref and the participants' midterm averages) was investigated. In this section, the results of the analysis conducted by making use of PLS-SEM were provided.

While creating a structural model, the design of constructs and the paths between them play an important role. For this purpose, PLS-SEM utilizes path models, or diagrams, to visually demonstrate the relationship between constructs and their indicators. To show these causal relationships, single-headed arrows are drawn among the constructs. Path models consist of two models called structural model and measurement model. The former represents the relationship between constructs, whereas the latter refers to the representation of relationships between constructs and indicators of each construct (Hair, Hult, Ringle, & Sarstedt, 2017).

Following the instructions provided by Hair et al. (2017), a path model was designed to display the main constructs in the study as the first step. Afterwards, latent variables were added to the model and arrows were drawn from each construct to the indicators, which is called reflective measurement model by Hair et al. (2017). The arrows aimed to show the relationships between the constructs depending on the practical experiences and the literature review (see Figure 1 for the PLS-SEM initial path model).

In a path model, the construct on the left of the model was assumed to predict the constructs on the right. This independent variable, which is English Learning Experiences construct under the R-L2MSS in the current study, is called exogenous variable (Hair et al., 2017). In the model drawn, English Learning Experiences, the exogenous variable, was assumed to predict all the variables on the right of it (AB, P, Ref, Neg and participants' midterm averages) and also the other variables in the same construct (IL2S, OL2S and FL2S). These variables, which are dependent, are

referred as endogenous variables (Hair et al., 2017). To see the possible relationships, paths were drawn both within and also among the constructs. Figure 1 displays the relationships among the endogenous variables. All the constructs were assumed to predict the participants' midterm averages because finding out the relationship between these constructs and the midterm averages was the primary purpose of this study. The paths between the other constructs were also drawn deliberately to see if they have indirect total effect on the midterm averages as well as to see whether they have a relationship among and within themselves.

Missing Data

After designing the path model, that is creating the causal links, missing values have to be identified. If the missing data exceed 15% of any observation, they should be excluded and the casewise deletion option should be used. However, it is important that there should be enough observations at the end to analyse. The other option is mean replacement. It enables the replacement of the missing data with the mean of all the other points in the same column. Although this method reduces the variability in the relationships, it is the method recommended when the missing data constitutes less than 5% of the values in the relevant indicator (Hair et al., 2017). For this reason, in this data set, the missing data were identified and handled through mean replacement.

Data Distribution

PLS-SEM is a nonparametric statistical method; therefore, it does not necessitate the data to be distributed normally. Still, however, the data should not be far from normality. According to Hair et al. (2017), the ideal values for Skewness and Kurtosis range from -1 to +1. When the Skewness and Kurtosis values were checked in the data set, most of the indicators were found to be within the expected

range. Still, however, the skewness and kurtosis values of some items were slightly above +1 or below -1. As PLS-SEM does not require normality, the non-normality of a few items was not a critical issue in this data set. The skewness and kurtosis values of all the indicators were provided in Appendix D.1.

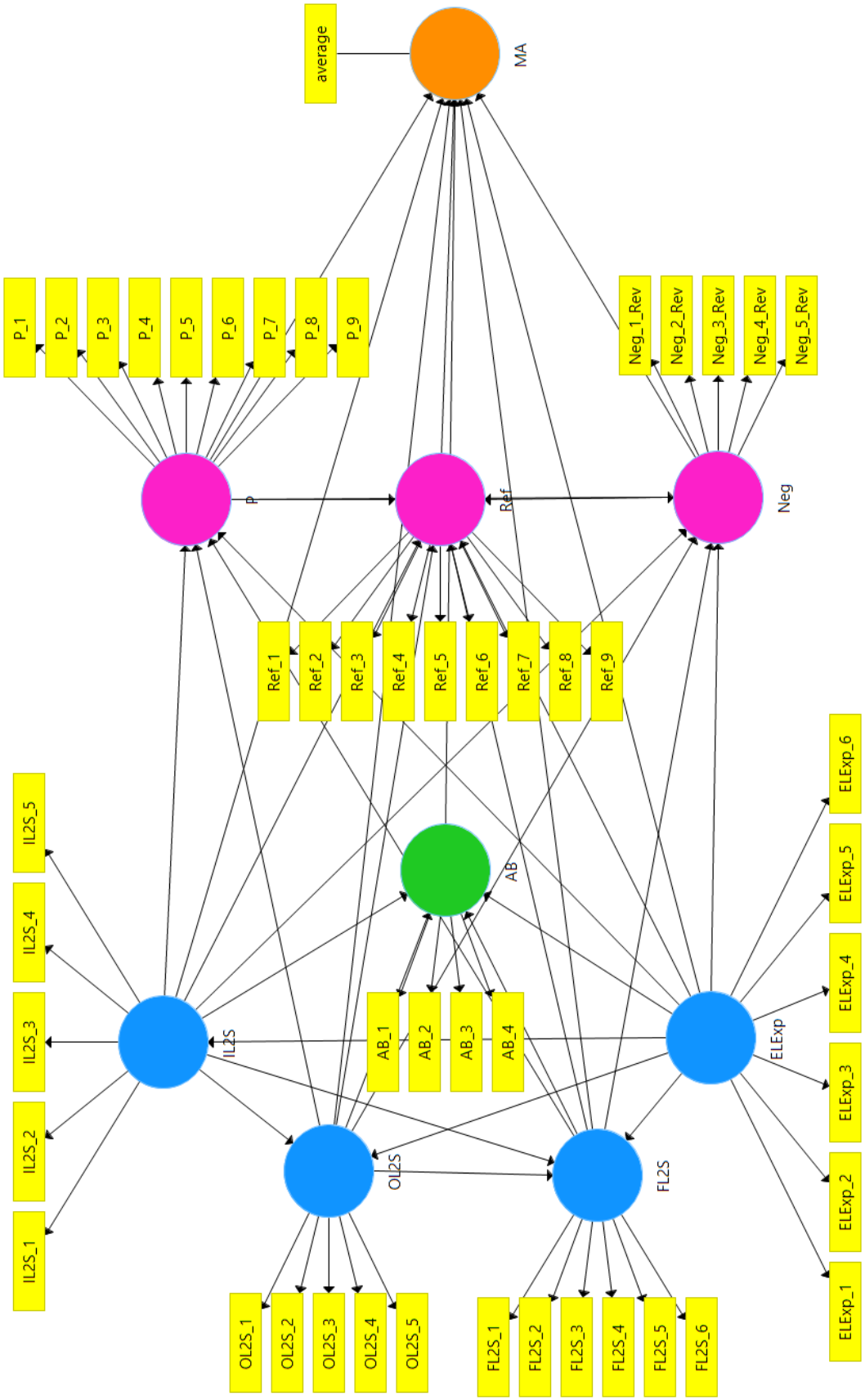

Figure 1. PLS-SEM initial path model with latent variables

Measurement Model Assessment

Latent Variables

Latent variables are the variables that are indirectly observed through other variables which are directly measured. The PLS-SEM algorithm calculates the relationships between the latent variables and provides scores between -1 and +1 for each and every relationship. The path coefficients which are closer to +1 display a positive relationship, whereas the estimated coefficients closer to -1 demonstrate a negative relationship (Hair et al., 2017). As shown in Table 8 below, there is a positive relationship between FL2S and the midterm averages as well as OL2S and the midterm averages. The participants seemed to be motivated by external factors. Consistent with this negative relationship, the midterm averages and all the other constructs which have positive connotations, such as IL2S, Academic Buoyancy, Perseverance, Reflective and Adaptive Help Seeking, had a negative relationship. The relationship among the latent variables demonstrated that having a higher inner motivation and the grades the participants received had a negative relationship. The only exception was Negative Affect and Emotional Response. Although it also had some negative connotations, such as FL2S and OL2S, it had a negative relationship with the midterm averages.

When the relationship between the constructs under R-L2MSS and Academic Buoyancy was considered, IL2S and English Learning Experiences had a positive relationship with Academic Buoyancy. However, FL2S and OL2S had a negative relationship with Academic Buoyancy. These relationships seemed consistent within each other as the constructs with positive connotations had a positive relationship, whereas the ones with negative connotations had a negative relationship with Academic Buoyancy.

Similarly, the relationships between the constructs under R-L2MSS and the constructs under ARS-30 displayed a consistent pattern. English Learning Experiences and IL2S had a positive relationship Perseverance, Reflective and Adaptive Help Seeking and Negative Affect and Emotional Response. However, FL2S and OL2S have a negative relationship with them. The only exception is the positive relationship between OL2S and Reflective and Adaptive Help Seeking.

Table 8

The Relationship Between the Latent Variables

Construct	AB	ELExp	FL2S	IL2S	MA	Neg	OL2S	P	Ref
AB	1.00	0.24	-0.39	0.29	-0.23	0.54	-0.14	0.54	0.36
ELExp	0.24	1.00	-0.06	0.30	-0.12	0.14	0.05	0.43	0.40
FL2S	-0.39	-0.06	1.00	-0.29	0.16	-0.57	0.42	-0.24	-0.01
IL2S	0.29	0.30	-0.29	1.00	-0.09	0.30	-0.07	0.43	0.31
MA	-0.23	-0.12	0.16	-0.09	1.00	-0.08	0.13	-0.11	-0.02
Neg	0.54	0.14	-0.57	0.30	-0.08	1.00	-0.33	0.46	0.26
OL2S	-0.14	0.05	0.42	-0.07	0.13	-0.33	1.00	-0.03	0.12
P	0.54	0.43	-0.24	0.43	-0.11	0.46	-0.03	1.00	0.74
Ref	0.36	0.40	-0.01	0.31	-0.02	0.26	0.12	0.74	1.00

Convergent Validity (AVE)

Convergent validity is defined as “the extent to which a measure correlates positively with alternative measures of the same construct” (Hair et al., 2017, p. 112). Therefore, each item (indicators) within the same construct should have a similar proportion of variance. In order to evaluate the results of this analysis, the Average Variance Extracted (AVE) scores need to be interpreted well. AVE is defined as “the grand mean value of the squared loadings of the indicators associated

with the construct." (Hair et al., 2017, p. 114). The AVE value of .50 or higher means the construct has the potential to explain the variance of its indicators to a great extent.

By considering the rules of thumb, the data were analysed, and it was found that all the AVE scores were within the expected ranges except for Perseverance and Reflecting and Adaptive Help Seeking constructs (see Table 9). With the AVE scores of .41 and .37, respectively, these two constructs enabled to explain the variance of its indicators to a limited extent. In the following stages of the analysis, by identifying the problematic items in these constructs and excluding them, the AVE scores of these constructs would be improved. Until then, they were kept without any changes so as not to reduce content validity.

Table 9

Initial Values of Composite Reliability and AVE Scores

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
AB	0.82	0.88	0.65
ELExp	0.85	0.89	0.58
FL2S	0.91	0.93	0.68
IL2S	0.89	0.92	0.69
MA	1.00	1.00	1.00
Neg	0.85	0.89	0.62
OL2S	0.77	0.84	0.52
P	0.80	0.85	0.41
Ref	0.78	0.83	0.37

Discriminant Validity

Discriminant validity is defined as "the extent to which a construct is truly distinct from other constructs by empirical standards" (Hair et al., 2017, p. 115). It demonstrates if the construct represents the phenomena in a unique way. One way of measuring discriminant validity is checking if the outer loadings of the indicators within each construct are greater than any of its cross-loadings on other constructs. As shown in Appendix D.2., P_9 (*.17*) was found to be a low-loading item on the path model as it did not have the highest outer loading value when compared with its cross-loadings.

Another way of measuring the discriminant validity is applying the Fornell-Larcker criterion. For this purpose, the square root of each construct's AVE should be checked, and if it is greater than its correlation with the other constructs, it means that the discriminant validity is established. Conversely, if it is lower, it means that it fails to discriminate between dissimilar constructs. Table 10 demonstrates that all the constructs, except for Perseverance and Reflective and Adaptive Help Seeking, are distinct from the other constructs in the model. On the contrary, the AVE of Perseverance (*.64*) is lower than that of Reflecting and Adaptive Help Seeking (*.74*). Although these two constructs seemed to fail to establish discriminant validity, the indicator loadings differed slightly. Therefore, HTMT test was conducted as a further inquiry, as explained in Table 10 below.

Table 10

Initial Fornell-Larcker Values

Constructs	AB	ELExp	FL2S	IL2S	MA	Neg	OL2S	P	Ref
AB	0.80								
ELExp	0.24	0.76							

Table 10 (cont'd)

Initial Fornell-Larcker Values

Constructs	AB	ELExp	FL2S	IL2S	MA	Neg	OL2S	P	Ref
FL2S	-0.39	-0.06	0.83						
IL2S	0.29	0.30	-0.29	0.83					
MA	-0.23	-0.12	0.16	-0.09	1.00				
Neg	0.54	0.14	-0.57	0.30	-0.08	0.79			
OL2S	-0.14	0.05	0.42	-0.07	0.13	-0.33	0.72		
P	0.54	0.43	-0.24	0.43	-0.11	0.46	-0.03	0.64	
Ref	0.36	0.40	-0.01	0.31	-0.02	0.26	0.12	0.74	0.61

Although cross-loadings and the Fornell-Larcker criterion are the two commonly used measures to assess discriminant validity, the former fails to identify lack of discriminant validity if the constructs correlate perfectly, whereas the latter performs inadequately if the indicator loadings differ slightly. As an alternative to these two approaches, Henseler, Ringle, and Sarstedt (2015) suggested the use of heterotrait-monotrait ratio (HTMT). It was defined as "the ratio of the between-trait correlations to the within-trait correlations" (Hair et al., 2017, p. 118). The threshold value proposed by Henseler et al. (2015) was .90, or .85 from a conservative point of view. In the present study, the HTMT ratios showed that the discriminant validity was barely established between Perseverance and Reflective and Adaptive Help Seeking, with the value of .90 (see Table 11). To conclude, the results were in line with each other in both tests.

Table 11

Initial HTMT Values

Constructs	AB	ELExp	FL2S	IL2S	MA	Neg	OL2S	P
AB								
ELExp	0.28							
FL2S	0.45	0.10						
IL2S	0.33	0.33	0.31					
MA	0.26	0.13	0.17	0.09				
Neg	0.65	0.15	0.65	0.33	0.08			
OL2S	0.17	0.14	0.48	0.18	0.16	0.37		
P	0.65	0.52	0.33	0.49	0.13	0.55	0.25	
Ref	0.47	0.47	0.22	0.34	0.11	0.36	0.31	0.90

Outer Loadings

Outer loadings are the possible relationships between the latent variable and its indicators in a reflective measurement model. The outer loadings value should be .708 or higher in order to consider it as statistically significant (Hair et al., 2019). If the standardized outer loadings are between .40 and .70, removal of the item can be considered only if excluding the item results in increase in the composite reliability. If the value of the outer loading is below .40, the item cannot be retained in the construct anymore (Hair et al., 2017). Therefore, these items need to be eliminated altogether.

In the initial analysis, the outer loadings of 14 items were found to be low (see Appendix D.3), which meant that they did not correlate properly with the items in the same construct. First, the items below the value of .40, P_9 *(.17),* Ref_7 *(.33),* Ref_9 *(.35),* were eliminated as suggested. Later on, the items between .40 and .70

were excluded one by one as long as the composite reliability continued to increase. OL2S_4 *(.44)*, Ref_3 *(.53)*, P_4 *(.58)*, P_1 *(.60)*, Ref_1 *(.60)*, P_2 *(.60)*, Ref_8 *(.63)*, P_8 *(.63)*, Ref_2 *(.65)*, ELExp_1 *(.67)*, and ELExp_5 *(.68)* were eliminated, respectively, starting from the item which had the lowest loading. Except for the initial PLS algorithm analysis, measurement model and outer loadings analysis were repeated 12 more times to improve the model. At the end of that process, the initial composite reliability and AVE scores of the constructs, from which the aforementioned items were removed, increased as shown in Table 12 below. Previously, the AVE score of Perseverance was .41. It increased to .64 after eliminating the items. Likewise, the AVE score of Reflective and Adaptive Help Seeking increased from .37 to .67.

Table 12

Composite Reliability and AVE Scores Before and After Removals

	Before Removing Items		After Removing Items	
Constructs	Composite Reliability	Average Variance Extracted (AVE)	Composite Reliability	Average Variance Extracted (AVE)
AB	0.88	0.65	0.88	0.65
ELExp	0.89	0.58	0.89	0.68
FL2S	0.93	0.68	0.93	0.68
IL2S	0.92	0.69	0.92	0.69
MA	1.00	1.00	1.00	1.00
Neg	0.89	0.62	0.89	0.62
OL2S	0.84	0.52	0.86	0.61
P	0.85	0.41	0.88	0.64
Ref	0.83	0.37	0.86	0.67

Summary of the Measurement Model Evaluation

Overall, the initial path model was improved through following a set of directions. First, the latent variables were analysed to see whether the relationship between variables was a negative or a positive one. Then, the AVE scores of each construct were checked, and it was found that the AVE score of Perseverance and Reflecting and Adaptive Help Seeking were lower than .50, which is the minimum value required. Afterwards, the low loading items in these constructs were identified. It was found that P_9 *(.17)* was a low loading item. Following this stage, Fornell-Larcker and HTMT analysis were conducted to ensure discriminant validity. It was found that discriminant validity was barely established in Perseverance and Reflecting and Adaptive Help Seeking constructs, with the threshold value of .90 suggested by Henseler et al. (2015). Next, the outer loadings were reviewed and items P_9 *(.17)*, Ref_7 *(.33)*, Ref_9 *(.35)* were eliminated as their outer loadings were below .40. Finally, the other low loading items within the range of .40 to .70 were eliminated one by one. In total, the outer loadings analysis was conducted 12 times after the initial one and the model improved. The final version of the path model is provided in Figure 2 and the summary of the reflective model is given in Table 13 below.

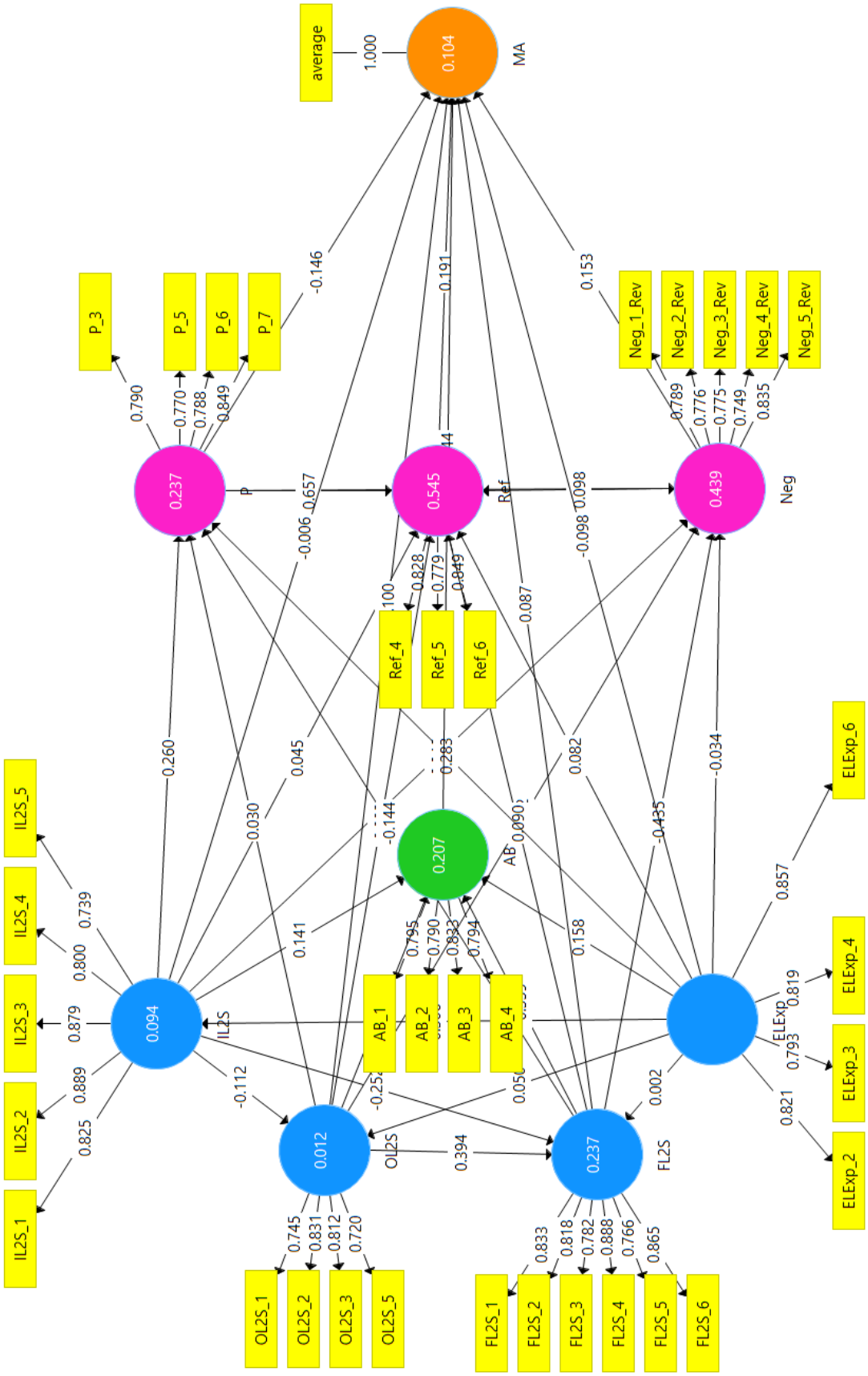

Figure 2. PLS-SEM path model after removing low outer loaded indicators

Table 13

Summary of the Reflective Measurement Model Results

Latent Variables	Indicators	Outer loadings >.70	Composite Reliability .60 - .90	AVE >.50	Discriminant Validity	
					Cross loadings	Fornell Larcker
AB	AB_1	0.80	0.88	0.65	Yes	Yes
	AB_2	0.79				
	AB_3	0.83				
	AB_4	0.79				
ELExp	ELExp_2	0.82	0.89	0.68	Yes	Yes
	ELExp_3	0.79				
	ELExp_4	0.82				
	ELExp_6	0.86				
FL2S	FL2S_1	0.83	0.93	0.68	Yes	Yes
	FL2S_2	0.82				
	FL2S_3	0.78				
	FL2S_4	0.89				
	FL2S_5	0.77				
	FL2S_6	0.87				
IL2S	IL2S_1	0.83	0.92	0.69	Yes	Yes
	IL2S_2	0.89				
	IL2S_3	0.88				
	IL2S_4	0.80				
	IL2S_5	0.74				
Neg	Neg_1_Rev	0.79	0.89	0.62	Yes	Yes
	Neg_2_Rev	0.78				
	Neg_3_Rev	0.77				
	Neg_4_Rev	0.75				
	Neg_5_Rev	0.84				

Table 13 (cont'd)

Summary of the Reflective Measurement Model Results

Latent Variables	Indicators	Outer loadings >.70	Composite Reliability .60 - .90	AVE >.50	Discriminant Validity	
					Cross loadings	Fornell Larcker
OL2S	OL2S_1	0.74	0.86	0.61	Yes	Yes
	OL2S_2	0.83				
	OL2S_3	0.81				
	OL2S_5	0.72				
P	P_3	0.79	0.88	0.64	Yes	No
	P_5	0.77				
	P_6	0.79				
	P_7	0.85				
Ref	Ref_4	0.83	0.86	0.67	Yes	No
	Ref_5	0.78				
	Ref_6	0.85				
MA	Midterm Average	1.00	1.00	1.00	Yes	Yes

Structural Model Assessment

As stated by Hair et al. (2017), assessment of the structural model findings helps us to check whether the model is capable of predicting one or more constructs. As the reliability and the validity of the model were confirmed in the previous step, the relationships between the constructs and the predictive capability of the path model were inquired in this step.

The procedures followed in assessing the structural model is given below:

Step 1: Assessing structural model collinearity issues (VIF).

Step 2: Assessing the significance and relevance of the structural model relationships through bootstrapping.

Step 3: Assessing the level of R^2.

Step 4: Assessing the f^2 effect size.

Collinearity Assessment (VIF)

The first step in the assessment of structural model is to examine collinearity. The purpose of collinearity assessment is "to make sure it does not bias the regression results" (Hair et al., 2019, p. 11). In this process, to calculate the VIF values, the latent variable scores of the predictor constructs are utilized. If the VIF value is above 5, it shows a possible collinearity issue among the predictor constructs. If it is between 3-5, some collinearity problems may occur. As stated by Hair et al. (2019), the VIF values, ideally, should be close to 3 or < 3. As shown in Appendix D. 4., most of the VIF values were within this ideal range, except for FL2S_4 *(3.47)*, FL2S_6 *(3.02)* and IL2S_2 *(3.01)*, which were slightly above 3. However, these three items were still within the acceptable ranges as they are close to 3. Therefore, it was concluded that the results were compatible with the regression results and there was no collinearity issue among the predictors.

Structural Model Path Coefficients

To calculate *t* statistics, the bootstrapping technique was used. In the initial path model, 11 nonsignificant and 22 significant paths were identified. The non-significant paths were removed one by one, and after each removal the path coefficients were assessed to find the significant paths by using 500 samples. In the final stage of bootstrapping, 3000 samples were used and 21 significant paths were identified. The significant paths were provided in Figure 3.

Coefficient of Determination (R^2)

As there was no problem with collinearity, the R^2 values of the endogenous constructs were examined as the following step. As stated by Hair et al. (2019), R^2

measures the variance among the constructs. It represents the explanatory power of the path model. According to Hair et al. (2017), the R^2 values should be between 0 and 1, and values closer to 1 show higher explanatory power, while the values closer to 0 show just the opposite. To exemplify, R^2 values of .75, .50 and .25 are considered as substantial, moderate and weak, respectively. As shown in Table 14, all the constructs demonstrate either a moderate or a weak explanatory power with a statically significant p value. The only exception is the OL2S with the R^2 value of .01 ($p > .05$). It has no significant explanatory power.

Table 14

R Square Values

Constructs	R Square
AB	0.21*
FL2S	0.24*
IL2S	0.09*
MA	0.1*
Neg	0.44*
OL2S	0.01
P	0.24*
Ref	0.54*

Note. * indicates $p < .001$

Effect Size *(f^2)*

When an exogenous variable is removed from the model, the effect it creates should also be calculated. This is called the f^2 effect size. As a rule of thumb, the f^2 values of .02, .15 and .35 show small, medium and large effect sizes, respectively (Hair et al., 2017). Accordingly, the removal effect of Academic Buoyancy on the participants' midterm averages was quite large with a value of .05 ($p < .05$). The removal effect of Reflective and Adaptive Help Seeking on the midterm averages was .02, which means that the removal effect is small according to the rule of thumb.

However, this removal effect was not statistically significant. The removal effects between midterm averages and the other constructs indicated no effect as the f^2 values were found to be smaller than .02.

The effect size of the constructs of R-LMSS on Academic Buoyancy was also inquired. The removal effect of FL2S on Academic Buoyancy was significant with a value of .13 ($p < .001$). However, the removal effect of English Learning Experiences ($f^2 = .03$) and IL2S ($f^2 = .02$) on Academic Buoyancy was small and their relationship with Academic Buoyancy was not statistically significant.

Furthermore, the effect size of the constructs of R-L2MSS and ARS-30 was examined. The removal effect of FL2S on Negative Affect and Emotional Response was .28 ($p < .001$). Thus, FL2S had a large effect on the R^2 of Negative Affect and Emotional Response. The removal effect of English Learning Experiences on Perseverance was .10 ($p < .01$), indicating a medium effect on the R^2 of Perseverance. Last, IL2S had a removal effect of .07 ($p < .05$) on Perseverance. Thus, IL2S had a small effect on the R^2 of Perseverance.

Table 15

Effect Size (f^2) Values

Constructs	AB	FL2S	IL2S	MA	Neg	P	Ref
AB				0.05*			
ELExp	0.03		0.10**	0.01		0.10**	0.01
FL2S	0.13***				0.28***	0.02	
IL2S	0.02	0.08**				0.07*	
Neg				0.01			
OL2S		0.02***		0.01	0.02		0.02
P				0.01	0.17***		0.89***
Ref				0.02			

Note. * indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$

Summary of the Structural Model Assessment

While assessing the structural model, first, collinearity issues were examined. It was found that all the items were within the acceptable ranges, except for FL2S_4 *(3.47),* FL2S_6 *(3.02)* and IL2S_2 *(3.01),* which were slightly above the threshold value. However, it can be stated that no serious collinearity problem occurred as the VIF values of these constructs were close to 3. Then, the non-significant paths were removed through bootstrapping one by one, and 21 significant paths were identified in the final bootstrapping with 3000 samples. Afterwards, the final R^2 values were examined to see the explanatory powers of the constructs. All the constructs were found to have a moderate or weak explanatory power except for OL2S (R^2 = .01). Finally, the removal effect between the constructs was analysed and some moderate and weak effects were observed. Figure 3 demonstrates the final model. All the data were summarized in Table 16. Path coefficients, total indirect effects, and total effects of the variables were also provided in the table. Total indirect effect is "the sum of all specific indirect effects in a multiple mediation model", whereas total effect is "the sum of the direct effect and the indirect effect between an exogenous and an endogenous latent variable in the path model" (Hair et al., 2017, p. 344).

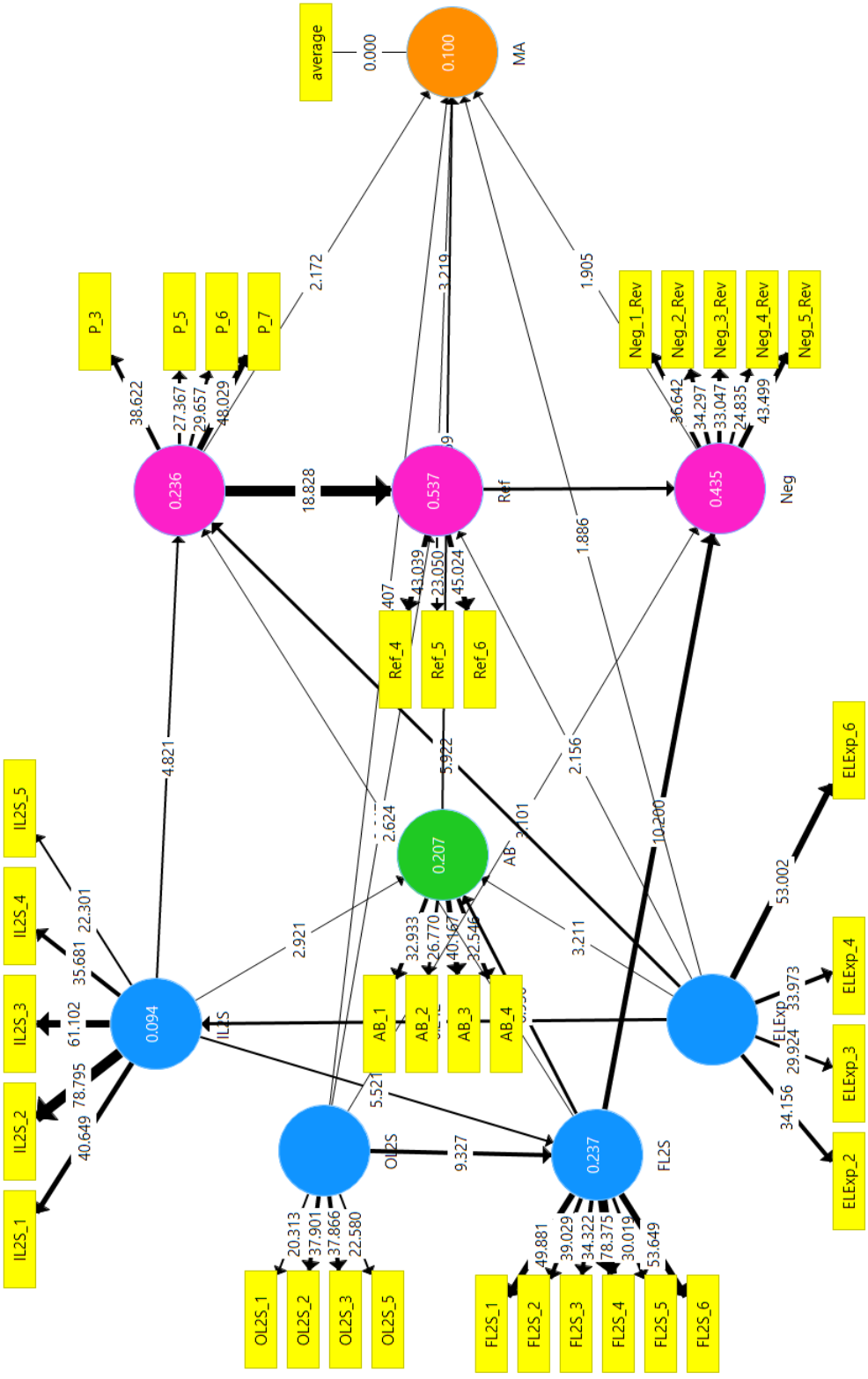

Figure 3. PLS-SEM final structural path model

Table 16

Summary of the Structural Model Results

Constructs	Paths	Path Coefficients	Total Indirect Effects	Total Effects	f^2	R^2
Ideal L2 Self	IL2S → AB	0.14**	0.08***	0.23***	0.02	0.09***
	IL2S → FL2S	-0.25***		-0.25***	0.08**	
	IL2S → P	0.26***	0.03*	0.29***	0.07*	
	IL2S →MA		-0.04	-0.04		
	IL2S → Neg		0.21***	0.21***		
	IL2S → Ref		0.20***	0.20***		
Ought to L2 Self	OL2S → FL2S	0.39***		0.39***	0.20***	
	OL2S → MA	0.12*	0.02	0.14**	0.01	
	OL2S → Neg	-0.13**	-0.19***	-0.32***	0.02	
	OL2S → Ref	0.09**	-0.04*	0.06	0.02	
	OL2S → AB		-0.13***	-0.13***		
	OL2S → P		-0.05*	-0.05*		
Feared L2 Self	FL2S → AB	-0.34***		-0.34***	0.13***	0.24***
	FL2S → Neg	-0.45***	-0.04*	-0.49***	0.28***	
	FL2S → P	-0.13**		-0.13**	0.02	
	FL2S → MA		0.03	0.03		
	FL2S → Ref		-0.09**	-0.09**		

Table 16 (cont'd)

Summary of the Structural Model Results

Constructs	Paths	Path Coefficients	Total Indirect Effects	Total Effects	f^2	R^2
English Learning Experiences	ELExp → AB	0.16***	0.07***	0.23***	0.03	
	ELExp → IL2S	0.31***		0.31***	0.10**	
	ELExp → MA	-0.10*	-0.03	-0.13*	0.01	
	ELExp → P	0.28***	0.09***	0.37***	0.10**	
	ELExp → Ref	0.09*	0.26***	0.35***	0.01	
	ELExp → FL2S		-0.08***	-0.08***		
	ELExp → Neg		0.15***	0.15***		
Academic Buoyancy	AB → MA	-0.26***		-0.26***	0.05***	0.21***
Perseverance	P → MA	-0.15*	0.18***	0.03	0.01	0.24***
	P → Neg	0.32***		0.32***	0.17***	
	P → Ref	0.69***		0.69***	0.89***	
Negative Affect and Emotional Response	Neg→ MA	0.12*		0.12*	0.01	0.44***
Reflecting and Adaptive Help Seeking	Ref → MA	0.20***		0.20***	0.02	0.54***

Note. * indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$

In the following section, the results of the analysis were presented per each research question one by one according to their order presented in the first and third chapters.

Is There a Statistically Significant Relationship Between R-L2MSS, Academic Buoyancy, Academic Resilience of Tertiary Level Students and Their Midterm Averages?

R-L2MSS and the Midterm Averages

First, the relationship between the R-L2MSS and the midterm averages was examined (see Figure 4 for the isolated path model of this relationship). Among the constructs of R-L2MSS, OL2S and English Learning Experiences were found to have a significant relationship with the participants' midterm averages. There was a significant relationship between OL2S and the midterm averages with a path coefficient of .12 ($p < .05$) and with a total effect of .14 ($p < .01$). There was also a significant relationship between English Learning Experiences and the midterm averages with a path coefficient of -.10 ($p < .05$) and with a total effect of -.13 ($p < .05$). However, the removal effects of OL2S *($f^2 = .01$)* and English Learning Experiences *($f^2 = .01$)* on the midterm averages were not statistically significant. That is, OL2S and English Learning Experiences had almost no effect on the R^2 of midterm averages.

As for the other two constructs of R-L2MSS (i.e. IL2S, FL2S), no significant direct path was identified with the participants' midterm averages. However, when the indirect specific effects were examined, IL2S was found to have a specific indirect effect on the midterm averages via different constructs as illustrated in Table 17. Similarly, FL2S had a specific indirect effect on the midterm averages with the value of .90 ($p < .001$) via Academic Buoyancy. As stated by Hair et al. (2017),

specific indirect effect describes “an indirect effect via one single mediator in a multiple mediation model” (p. 328).

Table 17

Specific Indirect Effect

Paths	Specific Indirect Effects
IL2S → P → Ref → MA	0,04*
IL2S → AB → MA	-0,04*
IL2S → FL2S → AB → MA	-0,02**
FL2S → AB → MA	0,09***

Note. * indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$

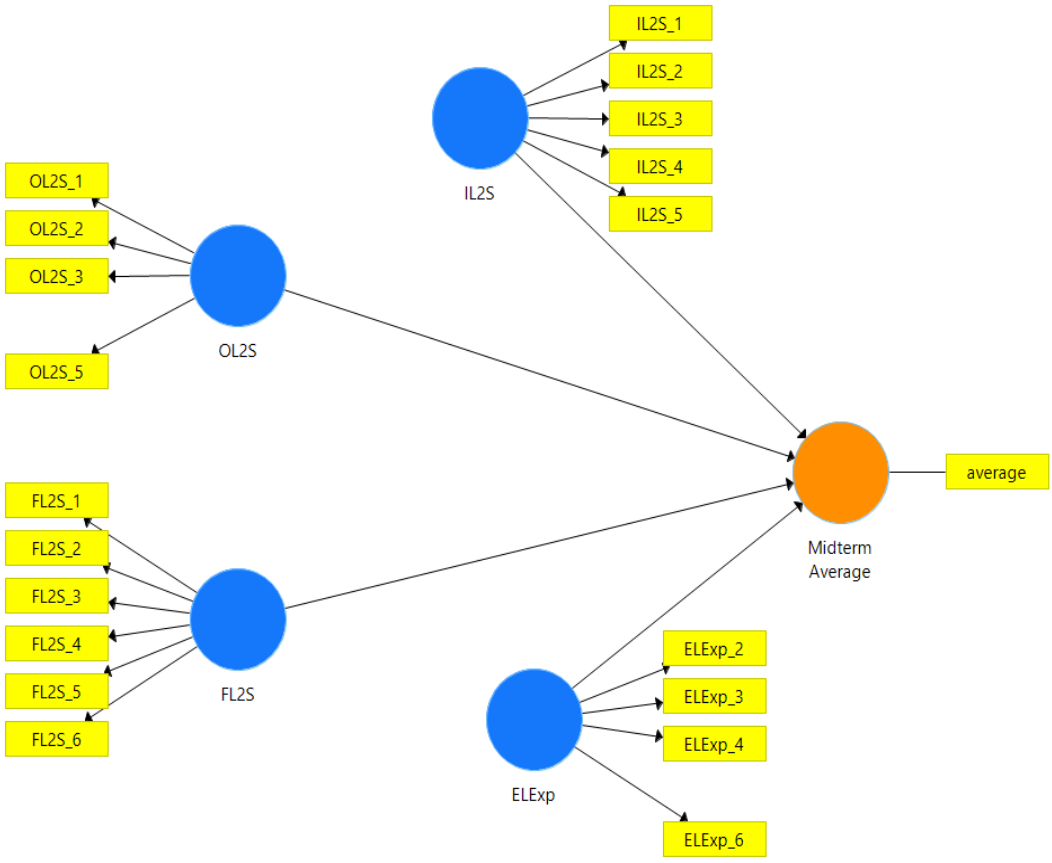

Figure 4. Isolated model of R-L2MSS and the midterm averages

Academic Buoyancy and the Midterm Averages

The relationship between Academic Buoyancy and the participants' midterm averages was examined (see Figure 5 for the isolated path model displaying this relationship). It was revealed that there was a statistically significant relationship between them with the path coefficient of -.26 ($p < .001$). The removal effect (f^2) of Academic Buoyancy on the midterm average was .05 ($p < .001$), indicating Academic Buoyancy had quite a large effect on the R^2 of the participants' midterm average. Among all the constructs, Academic Buoyancy construct had the strongest relationship with the midterm averages.

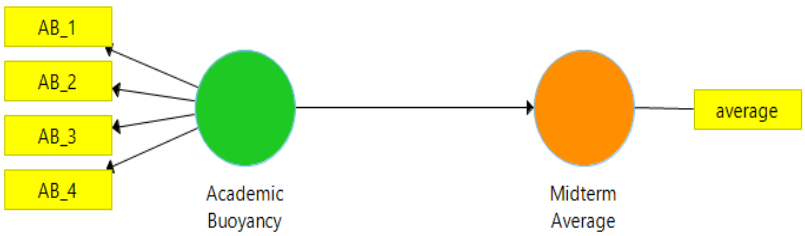

Figure 5. Isolated model of academic buoyancy and the midterm averages

Academic Resilience and the Midterm Averages

As mentioned before, academic resilience consists of three constructs: Perseverance, Reflecting and Adaptive Help Seeking, and Negative Affect and Emotional Response. There was a statistically significant relationship between Perseverance and the midterm average of the participants with a path coefficient of -.15 ($p < .05$), and with an indirect total effect of .18 ($p < .001$). The removal effect (f^2) of Perseverance on the midterm averages was .01 ($p > .05$), not indicating a significant effect of Perseverance on the R^2 of the midterm averages.

The relationship between Reflecting and Adaptive Help Seeking and the midterm averages was statistically significant with a path coefficient of .20 ($p < .001$). The removal effect (f^2) of Reflecting and Adaptive Help Seeking on the

midterm average was .02 ($p > .05$), indicating that it had no significant effect on the R^2 of the midterm averages.

The relationship between Negative Affect and Emotional Response and the midterm averages was statistically significant with a path coefficient of .12 ($p < .05$). The removal effect (f^2) of Negative Affect and Emotional Response on the midterm average was .01 ($p > .05$). This result indicated that it had no effect on the R^2 of the midterm averages. Figure 6 displays the isolated model of academic resilience and the midterm averages of the participants.

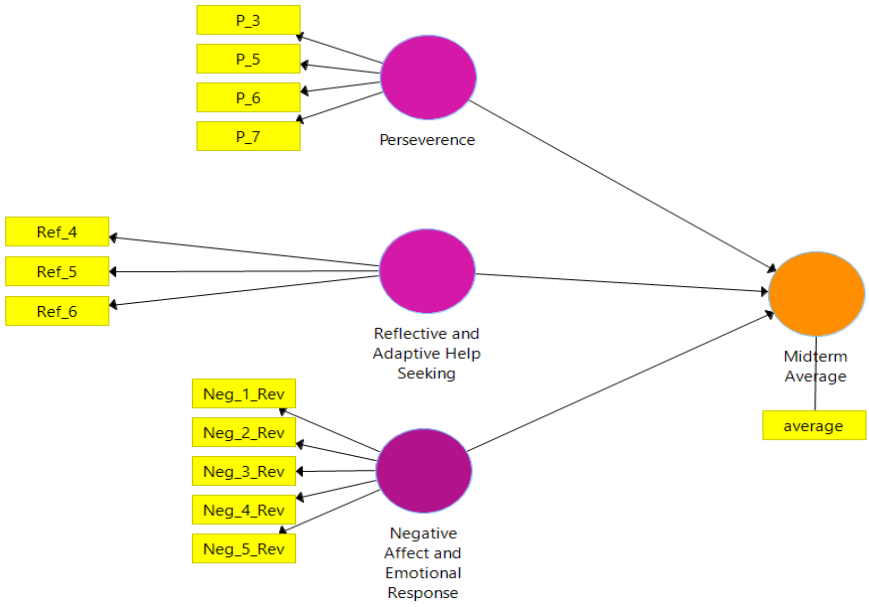

Figure 6. Isolated model of academic resilience and the midterm averages

Is There a Statistically Significant Relationship Between the Participants' Possible L2 Selves and Their Ability to Deal with Academic Setbacks?

IL2S, OL2S, and FL2S are the possible selves which can be measured through R-L2MSS scale (Peker, 2016). Among these L2 selves, FL2S was found to have the strongest relationship with the participants' ability to deal with academic setbacks, which was measured with ABS (Martin & Marsh, 2008). There was a

significant relationship between FL2S and Academic Buoyancy with a path coefficient of -.34 ($p < .001$). The removal effect (f^2) of FL2S on Academic Buoyancy of the participants was .13 ($p < .001$), indicating that FL2S had a large effect on the R^2 of Academic Buoyancy.

There was a significant relationship between IL2S and Academic Buoyancy, with a path coefficient of .14 ($p < .01$) and with a total effect of .23 ($p < .001$). However, with the removal effect of .02 ($p > .05$), IL2S had no effect on Academic Buoyancy.

Among the possible L2 selves, OL2S was found to have the weakest relationship with Academic Buoyancy with no significant path although it had a significant total effect on Academic Buoyancy with the value of .13 ($p < .001$). The isolated path model of R-L2MSS and academic buoyancy is demonstrated in Figure 7 below.

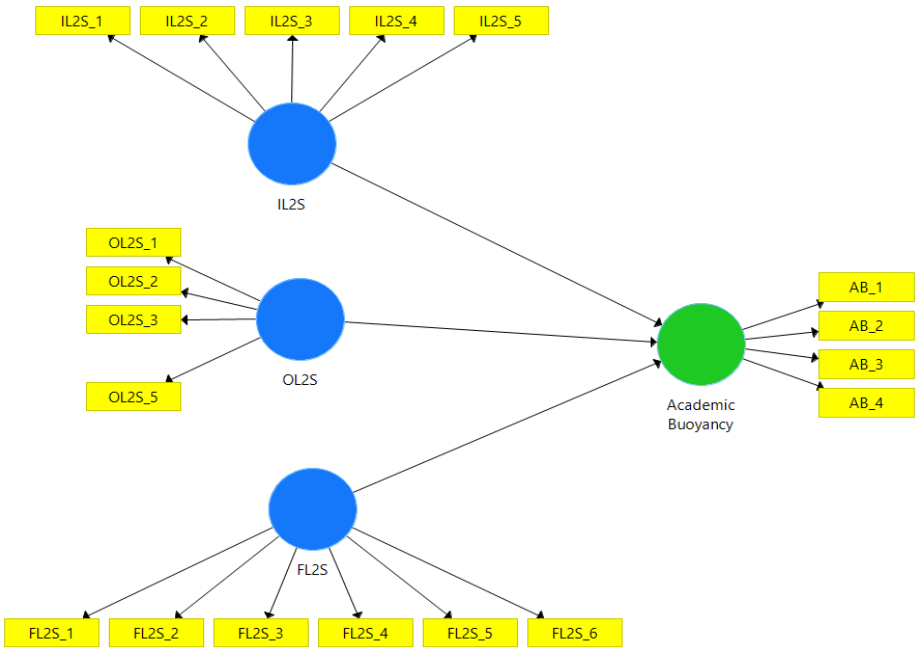

Figure 7. Isolated model of the possible L2 selves and academic buoyancy

Is There a Statistically Significant Relationship Between the Participants' Possible L2 Selves, Their English Learning Experiences and Their Perseverance?

Lastly, the relationship between possible L2 selves, English learning experiences and the participants' perseverance was examined. Figure 8 displays the isolated path model of this relationship. Among the three possible L2 selves, IL2S had the strongest relationship with Perseverance. There was a statistically significant relationship between IL2S and Perseverance with a path coefficient of .26 ($p < .001$) and with a total effect of .29 ($p < .001$). The removal effect of IL2S on Perseverance was .07 ($p < .05$). This indicates that IL2S had a small effect on the R^2 of Perseverance.

There was a significant relationship between OL2S and Perseverance with a total effect of -.05 ($p < .05$). There was also a significant relationship between FL2S and Perseverance with a path coefficient of -.13 ($p < .01$). However, neither OL2S nor FL2S had a significant removal effect on Perseverance.

There was also a significant relationship between the participants' English Learning Experiences and Perseverance with a path coefficient of .28 ($p < .001$), with a total indirect effect of .09 ($p < .001$) and with a total effect of .37 ($p < .001$). The removal effect of English Learning Experiences on Perseverance was .10 ($p < .01$), indicating a medium effect on the R^2 of Perseverance.

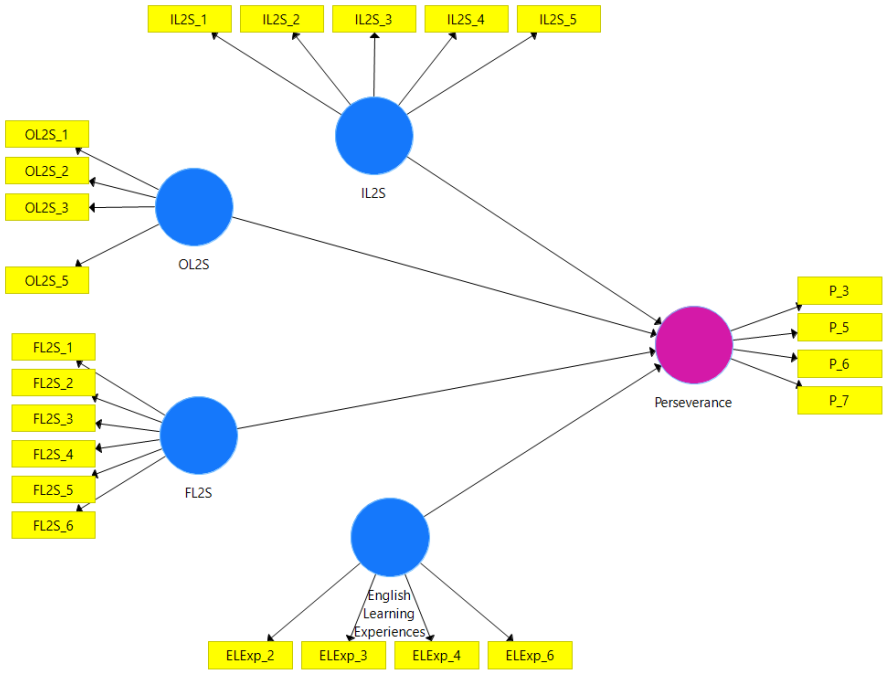

Figure 8. Isolated model of R-L2MSS and perseverance

CHAPTER 5: CONCLUSIONS

Introduction

This chapter starts with an overview of the study together with the research questions. It is followed by the discussion of major findings. Next, implications in terms of practice and further research are provided. Finally, limitations and suggestions for further research are discussed.

Overview of the study

The primary purpose of the present study was to examine the relationship between academic buoyancy, academic resilience, R-L2MSS and the academic achievement of tertiary level students at a state university in Ankara, Turkey. In addition to this, the study inquired the relationship between possible L2 selves and participants' academic buoyancy. Last, the relationship between R-L2MSS and perseverance of the participants was examined. For these reasons, the research questions below were asked in this study.

1. Is there a statistically significant relationship between R-L2MSS, academic buoyancy, academic resilience of tertiary level students and their academic achievement?
2. Is there a statistically significant relationship between the participants' possible L2 selves and their ability to deal with academic setbacks?
3. Is there a statistically significant relationship between the participants' possible L2 selves and their English learning experiences and their perseverance?

Discussion of Major Findings

The results obtained through the path model analysis were utilized to make some assumptions regarding the relationship among R-L2MSS, academic buoyancy, academic resilience, and the participants' midterm scores. These results are discussed in the order of the research questions posed earlier.

Academic Success, R-L2MSS, Academic Buoyancy, and Academic Resilience

Throughout the history, different languages prevailed among a variety of nations, and they became the language of science, technology, and literature. In today's world, this prevalent language is English. It has become a universal language after World War II, and now it is the lingua franca of the world. For that reason, a wide range of research has been conducted on the aspects of a good language learner, methods used in language instruction, and the materials enhancing language learning.

The factors affecting language learners' success in learning L2 is one of the popular research topics in this area. Although acquiring the native language does not require a special effort or instruction, it is not the case for L2. Research on what makes attaining proficiency in L2 easier has brought about many different observations. Researchers have made valuable interpretations with the help of research they have conducted, and they have contributed to the advancement of the field of English language teaching as a foreign language.

As Oxford and Lee (2008) stated, "no single ideal set of characteristics existed" for effective language learning (p. 306). Aptitude is one of the characteristics that leads to a higher achievement level in L2. That is, if a language learner has a special ability to learn different languages, then s/he can become proficient in L2 better than the ones who do not have the ability. Conversely, some researchers have focused on learner autonomy and use of metacognitive skills, which

do not require a special aptitude (Anderson, 2005; Chamot & O'Malley, 1990; Oxford, 1990). In other words, if language learners tend to use certain strategies and critical thinking skills properly, they can become better learners.

No matter how well learners use their metacognitive skills or how skilful they are in language learning, there are some other internal factors affecting success in language learning. Learners have to deal with some academic difficulties during that process. These difficulties include meeting deadlines, getting low grades, exam anxiety, and so on. Martin and Marsh (2008) referred these day-to-day challenges faced by learners as academic buoyancy. They argued that there is a relationship between academic buoyancy and students' academic success.

The relationship between academic buoyancy and academic performance was investigated further by Datu and Yang (2016), Malmberg et al. (2013), Martin, Yu, Ginns, and Papworth (2017), and they also found that students' ability to handle academic setbacks and the academic outcomes of their performances had a positive relationship. Miller, Connolly, and Maguire (2013) found out that learners' buoyancy and well-being were highly correlated with each other. No matter what their gender, age, and socio-economic status were, their ability to deal with setbacks affected their academic success.

Consistent with the previously conducted research results, in the current study, a significant relationship was found between academic buoyancy and the participants' midterm averages. As mentioned earlier, the participants (n = 436) were from a state university, which provides English-medium instruction, in Ankara, Turkey. Students at this university receive a one-year intensive English course to start their studies in their departments. If they fail in the proficiency exam at the end of the year, they are required to continue the second year of the same program. For

that reason, the participants are under constant academic stress. In order to be successful, they need to get high grades in the exams, meet the deadlines of the assignments and they must not exceed the absenteeism limit. All in all, the participants in the current study were required to deal with day-to-day academic challenges defined by Martin and Marsh (2008). Similar to the previously conducted studies, academic buoyancy was found to have played a significant role in the participants' midterm averages in the current study.

Another key factor playing an important role in students' L2 achievement is motivation. There are a vast number of studies investigating the relationship between motivation and L2 achievement. Dörnyei (2009) was one of the pioneers in the contemporary motivation studies integrating L2 motivational studies with possible selves theory (Markus & Nurius, 1986) in psychology. He identified a significant relationship between the L2 motivational selves (IL2S, OL2S), L2 learning environment and learners' intended learning efforts. Although not directly stating that the L2MSS and academic achievement have a direct relationship, he stated that the learners' intended learning efforts lead to better L2 achievement (Dörnyei, 2009).

Dörnyei's (2009) findings were approved by Taguchi, Magid, and Papi (2009). After Dörnyei's research study in Hungary with 13.000 participants, they conducted a similar research in Japan, China, and Iran with around 5000 participants. They found out that IL2S and intended learning efforts had a significant relationship. Dörnyei and Chan (2013) also found out a strong relationship between IL2S and intended learning efforts. There are some other research studies supporting the direct relationship between L2MSS, intended learning efforts and L2 achievement, as a consequence (Islam et al., 2013; Papi, 2010; Rajab et al., 2012).

However, when the relationship between L2MSS and student achievement was examined directly, the results changed to some extent. Kim and Kim (2011) found out that IL2S was one of the strong predictors of L2 motivation; however, it was not a predictor of the participants' course grades. Lamb (2012) found out that students' location of residence (i.e., living in a rural or an urban area), their parents' L2 background and the education of the parents were the strongest predictors of L2 achievement, rather than their IL2S or English learning experiences. Similarly, Yang and Kim (2011) conducted a wide spectrum research involving Chinese, Japanese, Korean, and Swedish L2 learners and found out that there was a significant relationship between IL2S and L2 motivation; however, there was no significant relationship between IL2S and academic performance. The studies conducted by Subekti (2018) in Indonesian context and Moskovsky, Racheva, Assulaimani, and Harkins (2016) in Saudi context supported the results of the earlier studies claiming there was a non-significant relationship between IL2S, OL2S, English learning experiences and academic success.

The findings of the current study were in line with the previous studies. No significant relationship was found between the participants' IL2S and their midterm averages. There was an indirect effect of IL2S on the midterm averages via other constructs. This may indicate that IL2S had a relationship with the students' intended learning efforts and affecting their midterm scores indirectly. Similar to the findings of Lamb (2012), English learning experiences were found to have a slight relationship with L2 achievement. Although it had a significant path to the midterm averages, it had no effect on the participants' midterm averages.

The results of the study indicated that OL2S had a significant relationship with the midterm average of the participants. However, similar to English learning

experiences, the removal effect of OL2S on the midterm averages was not significant. This result was consistent with what Dörnyei and Chan (2013) found in the study they conducted with Chinese students learning English and Mandarin. They found out that OL2S had a significant relationship with intended efforts to learn. However, it did not have a direct relationship with the actual course grades.

Although the relationship between OL2S and the midterm averages did not have a direct relationship, among the constructs of R-L2MSS, OL2S was found to have a stronger path coefficient and total effect on the midterm averages of the participants. This can be explained in two possible ways. From a narrower scope, the setting and timing of the questionnaire might explain why the participants' OL2S had a stronger relationship with their midterm scores. As mentioned earlier, the participants were obliged to take the English Proficiency Exam to start studying in their departments. This fact might have influenced their perception of learning a new language. They might have considered the requirements of the school as an external forcing factor, instead of internalizing them. From a wider scope, as Savaşkan (2016) asserted, in Turkey, the education system was one of the most influential factors affecting L2 achievement. As the students were mostly exam oriented due to external factors, they might have driven by their OL2S.

A feared self, an expected self and a hoped self were considered as future-directed selves, which affect the level of motivation (Markus & Nurius, 1986). However, FL2S is a rather new concept among L2 possible selves. Peker (2016) revised Dörnyei's L2MSS and included FL2S into the R-L2MSS as a new component by differentiating the items related to avoidance from the ones referring to outer forces. In the current study, FL2S had no significant relationship with the midterm average of participants.

As it is fairly a new concept in the field, not much research has been done regarding the relationship between FL2S and L2 achievement. In a study conducted by Magid and Chan (2011), FL2S was considered as an important factor offsetting IL2S to make goals more specific. In that study, the participants were supposed to write about their FL2S by describing what they were afraid of becoming if they experience failure while learning English. Although that study was about FL2S and motivation, it did not have any reference to L2 achievement. For that reason, the current study will shed light on the future studies to be conducted.

Students' ability to deal with severe academic challenges (i.e., academic resilience) can be considered as another important factor affecting academic achievement. Cassidy (2016) considered resilience as a factor affecting, or even flourishing, academic achievement. As also suggested by Fallon (2010), there was a positive relationship between academic resilience and academic achievement. Similarly, as Bartley, Schoon and Blane (2010) claimed, academic resilience was an asset that triggered the performance, achievement and well-being of a person.

However, some other studies revealed that the relationship between academic resilience and academic performance was weak or not significant. Mwangi, Ireri, Mwaniki, and Wambugu (2018) conducted a study with secondary school students. They found out that the type of school and gender played an important role regarding the relationship between academic resilience and academic achievement. That is, the relationship between these two constructs changed when the gender and type of school variables were changed. Therefore, it can be concluded that there was no relationship between academic resilience and academic achievement. Similarly, Sarwar, Inamullah, Khan, and Anwar (2010) found out that there was no link between resilience and academic achievement in a study they conducted in a

Pakistani secondary school context. Wasonga (2002) investigated the development of resilience and academic achievement along with some other factors (i.e. external assets and gender). It was found out that resilience is not a strong predictor of academic achievement and the effect of it was determined by some other factors such as gender.

As briefly outlined above, while there are some studies revealing a relationship between academic resilience and achievement, there are also some other studies showing no relationship between these two constructs. The results of the current study were in line with the previous findings. That is, ARS-30 (Perseverance, Reflecting and Adaptive Help Seeking, Negative Affect and Emotional Response) had a significant path to the participants' midterm averages. However, their removal effects on the R^2 of the midterm average were non-significant. It was concluded that although these constructs (Perseverance, Reflecting and Adaptive Help Seeking, Negative Affect and Emotional Response) had a medium or substantial explanatory power with the value of .24 ($p < .001$), .54 ($p < .001$), and .44 ($p < .001$), respectively, they were not strong predictors of the participants' midterm averages.

All in all, as the primary aim of the current study, the relationship between the midterm averages of the participants and three different constructs (R-L2MSS; Peker, 2016, ABS; Martin & Marsh, 2008, ARS-30; Cassidy, 2016) was examined. It was not surprising to observe that academic buoyancy had a stronger relationship with the participants' midterm averages as academic buoyancy is more concerned with low-level academic hurdles such as exam anxiety or low grades. As mentioned before, academic resilience is related to severe academic adversities; therefore, it may not directly affect academic achievement. As for R-L2MSS, although it can be a

strong predictor of student motivation, it has less power to explain the participants' academic success.

L2 Selves and Academic Buoyancy

Another purpose of the study was to examine the relationship between the participants' L2 selves (i.e., IL2S, OL2S, FL2S) and their academic buoyancy. The results revealed that there was a significant relationship between IL2S and the participants' academic buoyancy. Similarly, English learning experiences and participants' academic buoyancy had a significant path coefficient, while OL2S had a significant total effect on the academic buoyancy. However, none of these constructs had a significant removal effect on the participants' academic buoyancy. Interestingly, it was found that the participants' FL2S had a significant path to their academic buoyancy. That is, FL2S had a significant effect on the predictive power of the path model.

Finding out that the participants' FL2S and their academic buoyancy had a significant relationship was an unexpected result. As explained earlier, academic buoyancy is a positive trait that helps individuals to deal with difficult situations encountered in academic life. If a person is academically buoyant, then we can conclude that s/he can become more successful than others, and it was also approved by many studies including the current study. Therefore, it may be expected that a person has to be self-confident, decisive, and goal-oriented in order to be academically buoyant. However, the results indicated the opposite. The participants who were afraid of becoming unsuccessful turned out to be more buoyant. In other words, the participants' struggle to avoid failure enabled them to develop strategies to deal with academic setbacks. Therefore, at first sight, it might be assumed that FL2S served as mediator in the current study by balancing students' fear of failure

with their potential to overcome the problems. Still, however, it might not be a good idea to make unfounded claims on the role of FL2S on the participants, as further data would be necessary to make justifiable interpretations.

There have been very few studies investigating a phenomenon similar to the current one. For instance, Zhang, Dai, and Ardasheva (2020) conducted a study on motivation with 591 undergraduate EFL students attending an English Listening and Speaking class. One of the findings of the study was that L2 learning anxiety was a predictor of L2 achievement. L2 learning anxiety can be associated with FL2S in the current study because they are similar in that both are driven by negative feelings or ideas. As for the current study, the findings can be interpreted as somewhat contentious. On the one hand, the results revealed that these adverse feelings had the potential to boost the participants' ability to deal with academic difficulties, and in turn, they may lead to academic success. That is, the students who were driven by their FL2S might have dealt with the academic setbacks better. However, on the other hand, there is no further information about how those students react when they were unable to overcome these adversities. Whether FL2S acted as a facilitator or an impediment in the long run should be investigated further in order to make certain claims.

Another study in which FL2S of R-L2MSS was examined quantitatively for the first time was conducted by Peker (2016). She found out that the students who were bullied and victimized had higher FL2S. There is an alignment between Peker's (2016) study findings and the findings of the current study although the setting of the studies differs from each other. In both cases, FL2S triggered avoidance from unwanted consequences. These undesirable consequences were bullying and victimization in Peker's (2016) study, while these were failure, getting low grades, or

receiving negative feedback in the current study. No matter what those negative consequences were, FL2S may have made the participants in the current study feel the need to avoid these negative consequences.

Magid and Chan (2011) also examined the role of FL2S as a part of their study on the ways to enhance participants' vision of IL2S. For that purpose, they set up a couple of workshops. In one of them, by asking the participants to write about their feared selves and the ways to avoid that kind of person, they tried to balance the IL2S of the participants with their FL2S. Similar to Magid and Chan's (2011) study, the participants in the current study also tried to avoid their feared selves. Visualizing their FL2S might have helped them to set their goals more precisely. This situation might have given the way to develop strategies to avoid failure, and it indirectly might have helped the students to become more buoyant.

All in all, the current study indicated that the students who were afraid of failure were more buoyant academically. As there are almost no studies examining the relationship between L2 possible selves and academic buoyancy in the field yet, this study will serve as a reference for future studies.

L2 Selves, English Learning Environment and Perseverance

The last purpose of this study was to find out whether participants' possible L2 selves and their English learning experiences had a significant path to their perseverance. The perseverance construct included items that measure participants' reactions when they encountered an academic adversity (i.e., I would see the situation as temporary, I would work harder, I would try to think of new solutions). It was found out that IL2S and English learning experiences had a significant path to perseverance. The findings of the study were consistent with the relevant literature. For instance, Leondari and Gonida (2008) conducted a study to examine the

relationship between possible selves, students' self-awareness of their academic success, persistence, and academic achievement with 1162 participants at the ages of 15 and 16. They found out that students with academic-related possible selves displayed higher persistence when compared to the students who were driven by their hoped-for or feared possible selves. In line with the findings of the study conducted by Leondari and Gonida (2008), the current study also demonstrated a significant relationship between IL2S and perseverance. Also, both studies revealed that FL2S was not correlated with perseverance. In other words, if a participant's IL2S was a person who was good at dealing with problems despite difficulties, then this individual would have turned out to be more perseverant than others whose FL2S or OL2S were more dominant.

Also, Oysterman, Gant, and Ager (1995) investigated the relationship between possible selves and school persistence with an urban and minority group of African-American participants. They found out that achievement-related selves predicted school persistence in White and Black university students, whereas balance in possible selves was correlated with achievement in White university students. In middle school, balance in achievement-related possible selves predicted school persistence. Although named differently, achievement-related possible self and IL2S seem similar to each other in that both are achievement and goal-oriented. For this reason, the findings of both studies resemble each other, as both of them revealed a correlation between academic achievement, student persistence, and IL2S. It can be inferred that the achievement-oriented participants in the current study also excelled in tackling academic problems. In other words, they seemed to be good at figuring out and resolving the obstacles they confronted. In that sense, it would not be too far-

fetched to conclude that the relationship between IL2S and perseverance might bring about academic achievement correspondingly.

Newcombe and Newcombe (2001) implemented a longitudinal study with adult learners learning Welsh as a foreign language. The participants' motivation was associated with integrative motivation. That is, they had positive attitudes towards the target language and its culture. It was found out that the learners who tended to practice the target language at a regular basis during the course continued to use it even after completing the program. The results revealed a connection between the students' perseverance to use Welsh and their motivation. It can be inferred that the participants' IL2S speaks Welsh as a foreign language because there was no outer force such as a job requirement or passing a course to make them use the language actively. The learners were perseverant and ambitious to learn the target language just because they wanted to. From that perspective, the findings of Newcombe and Newcombe's (2001) study and the current one are consistent with each other because, in the current study, the participants who were driven by their IL2S were found to have established more robust perseverance. Those participants were found to be more determined and tenacious in the face of adversities since their IL2S was a person who made a continuous effort to attain his/her goals.

Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson, and Beechum (2012) reviewed the literature related to the role of developmental factors on the performance of students at school. They claimed that students' mindsets (i.e., the way they deal with failure and success) and perseverance were highly correlated with each other. Furthermore, they discussed the malleability of perseverance and stated that while a student might be perseverant and motivated in one context, s/he might be unmotivated and indifferent in another context. This argument showed parallelism

with the findings of the current study. As mentioned earlier, participants' English learning experiences and perseverance were associated with each other. In the current study, the participants' L2 learning environment enhanced their perseverance, so it can be concluded that in a different setting, the learning environment might hinder the degree of perseverance.

Similarly, Laursen (2015) reviewed the literature related to the role of grit, perseverance, and tenacity in the attainment of success. She asserted that these were the necessary characteristics that ensured success in both academic life and also in the following stages of life. She added that school was the place where students could develop collaboration and problem-solving skills as well as grit, perseverance, tenacity, and self-control. The conclusion drawn by Laursen (2015) aligned with what the current research found out. As mentioned earlier, the findings revealed that participants' English learning environment correlates with their perseverance. That is, the learning atmosphere played an important role in the development of perseverance.

The existing studies regarding the relationship between L2 possible selves and students' level of perseverance are limited. Although the results of these studies aligned with this current study, it is not possible to draw absolute conclusions due to the immense dissimilarities between the settings, instruments, and participant profiles. Still, however, it can be concluded that personality and current environment might play a significant role in participants' perceptions in the face of hardship. In other words, as the current study revealed, IL2S and L2 learning experiences had a positive relationship with the students' dedication to learn a language and their endurance throughout this journey. The findings may shed light on future studies,

especially the ones to be conducted to examine the phenomena with tertiary level students' learning a second language.

Implications for Practice

Students' transition to university life has always been a challenging process. As stated by Briggs, Clark, and Hall (2012) and Smith and Hopkins (2005), students may encounter some problems, and they may need to adapt to changes when they are adjusting to higher education. As the participants in the current study were in their first year at university, they were in a similar transition period as well. In addition to dealing with the adaptation hurdles, they were also required to meet the requirements of the preparatory school (i.e., getting ready for the proficiency exam, meeting deadlines, catching up with heavy workload). For this reason, this study provides valuable pedagogical implications for practice.

First, the results of the study revealed that there was a strong relationship between the learners' academic buoyancy and their L2 achievement. In order to enhance L2 learners' success, they can be guided or even trained to empower their buoyancy. Some workshops or seminars can be held to help students deal with the academic challenges they face in their first year at university. Thus, they can become more proficient in L2, as they will be able to put more effort and energy on their studies and invest in learning English.

Second, a significant relationship was found between FL2S and academic buoyancy. It seems that a negative feeling (i.e., fear) leads to positive outcomes. However, there is no evidence whether FL2S always brings about positive results. For that reason, what kind of feelings make the students feel feared should be identified by school counsellors. If these feelings are known, some awareness raising workshops can be organized to help students replace these negative feelings with

constructive ones. Students can be provided with some guidance to be aware of their fears and concerns so that they can consciously convert them into positive feelings.

Last, a strong relationship was identified between IL2S and students' perseverance as well English learning experiences and students' perseverance. The former relationship (i.e., IL2S and perseverance) may reveal what kind of thoughts or personal traits are necessary to develop perseverance in academic life. Identifying these thoughts or characteristics may help instructors and counsellors to guide students facing academic adversities. Some self-awareness workshops can be organized to help students discover their inner thoughts which have the potential to impede their perseverance. When they are aware of these negative feelings, they can discover ways to struggle with them. The latter relationship (i.e., English learning experiences and perseverance) might help to observe what kind of learning experiences or what kind of learning atmosphere might enrich learner perseverance. With the help of these observations, the learning experiences which block student perseverance can also be identified. Having a deep insight on the phenomenon might help the instructors and school administrations organize and manage the learning environment in a more flourishing way to enhance student perseverance. When the negative factors leading low perseverance are removed from the atmosphere, students can become more perseverant.

Implications for Further Research

The current study can contribute further to the field if the following amendments are made. First, replicating the study in several different settings with different participant groups may either solidify the relationship between the constructs (i.e., academic buoyancy, academic resilience, R-L2MSS, L2 success)

better or different results may be obtained with different participants. Thus, it may be possible to generalize the results more.

Second, the study design can be turned into mixed-method design so that the results of the questionnaire can be supported via qualitative data such as class observations, semi-structured interviews, or focus groups. This would enable the researcher to triangulate the quantitative data. In addition, data triangulation can increase the credibility of the data.

Finally, the independent variables such as participants' gender, age, and level of L2 proficiency can be compared with each other while analysing the data. Doing this would make it easier to see whether the participants' degree of motivation, buoyancy and resilience depend on their individual characteristics.

Limitations

The study will shed light on the future studies as well as helping instructors in the field to promote their students' success in L2. However, as it is the case in almost all research studies, the current study has several limitations. First, the data were collected only through a questionnaire. In the questionnaire, a couple of different instruments whose validity and reliability were proven were made use of. Although the comprehensive questionnaire enabled to collect some valuable data, integrating some qualitative data collection techniques would have enriched the data collected. For example, some semi-structured interviews could have been carried out with voluntary participants in order to gain further insights.

Second, the nature of the research design required collecting all the data at a time. When the data were collected, it was almost the end of the Spring Semester. The participants were mostly anxious due to the upcoming proficiency exam. Therefore, the results demonstrated how motivated, buoyant or resilient they were at

that time only, not throughout the whole year. For this reason, a longitudinal study might have provided a better understanding and a more elaborate view of the phenomena.

Third, the generalizability of the data was limited. The data were collected at a preparatory school of a public university where the medium of instruction is English. In order to generalize the findings to a greater extent, the data could have been collected in some other universities where the medium of instruction is English and attending the preparatory school is obligatory. Also, making use of convenience sampling might have led to generalizability of the data to a limited extent as convenience sampling cannot be considered as a representative for the whole population. Finally, the data collected were self-reported, so it should be acknowledged that the findings might have been biased.

Conclusion

This quantitative cross-sectional study examined the relationship between R-L2MSS, academic buoyancy, academic resilience of the participants and their midterm average as well the relationship between R-L2MSS and participants' buoyancy and perseverance. The findings revealed that academic buoyancy predicts L2 achievement, whereas FL2S predicts academic buoyancy. Also, the participants' IL2S and their English learning environment have a connection with their level of perseverance. In addition to having results consistent with earlier studies, this study also provides valuable findings to the field of English language teaching as a foreign language.

REFERENCES

Anderson, N. J. (2005). L2 learning strategies. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 757-771). Mahwah, NJ: Lawrence Erlbaum Associates.

Atay, D., & Kurt, G. (2010). The socio-educational model of second language acquisition: The Turkish context. *Procedia Social and Behavioural Sciences, 2*, 3088-3093.

Bartley, M., Schoon, M. R., & Blane, M. (2010). Resilience as an asset for healthy development. In A. Morgan, M. Davies, & E. Ziglio (Eds.), *Health assets in a global context* (pp. 101-115), New York, NY: Springer.

Briggs, A. R. J., Clark, J., & Hall, I. (2012). Building bridges: Understanding student transition to university. *Quality in Higher Education, 18*(1), 3-21.

Cassidy, S. (2016). The academic resilience scale (ARS-30): A new multidimensional construct measure. *Frontiers in Psychology, 7,* 1-11.

Collie, R. J., Martin, A. J., Bottrell, D., Armstrong, D., Ungar, M., & Liebenberg, L. (2017). Social support, academic adversity and academic buoyancy: A person-centered analysis and implications for academic outcomes. *Educational Psychology, 37*(5), 550-564.

Collie, R. J., Martin, A. J., Malmberg, L. E., Hall, J., & Ginns, P. (2015). Academic buoyancy, student achievement, and the linking role of control: A cross-lagged analysis of high school students. *British Journal of Psychology, 85,* 113-130.

Comerford, J., Batteson, T., & Tormey, R. (2015). Academic buoyancy in second level schools: Insights from Ireland. *Procedia – Social and Behavioral Sciences, 197*, 98-103.

Cummings, N. A. (1979). Turning bread into stones: Our modern anti-miracle. *American Psychologist, 34,* 1119-1129.

Curtin, R., Presser, S., & Singer, E. (2000). The effects of response rate changes on the index of consumer sentiment. *Public Opinion Quarterly, 64,* 413-428.

Datu, J. A. D., & Yang, W. (2016). Psychometric validity and gender invariance of the academic buoyancy scale in the Philippines: A construct validation approach. *Journal of Psychoeducational Assessment, 36*(3), 278-283.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.

Dörnyei, Z., & Chan, L. (2013). Motivation and vision: An analysis of future L2 images, sensory styles, and imagery capacity across two target languages. *Language Learning, 63*(3), 437-462.

Dörnyei, Z. (2005). *The psychology of the language teacher: Individual differences in second language acquisition*. Mahwah, NJ: Lawrence Erblaum Associates Publishers.

Dörnyei, Z. (2009). The L2 motivational self system. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation. language identity and the L2 self* (pp. 9-42). Bristol, UK: Multilingual Matters.

Dörnyei, Z., & Otto, I. (1998). Motivation in action: A process model of L2 motivation. *Working Papers in Applied Linguistics, 4,* 43-69.

Dörnyei, Z., & Ryan, D. (2015). *The psychology of the language learner revisited*. New York, NY: Routledge.

Dörnyei, Z., & Ushioda, E. (2011). *Teaching and researching motivation.* Harlow, UK: Pearson Education Limited.

Ely, C. M. (1986). Language learning motivation: A descriptive and causal analysis. *The Modern Language Journal, 70*, 28-35.

Fallon, C. M. (2010). *School factors that promote academic resilience in urban Latino high school students.* (Unpublished doctoral dissertation). Retrieved from Chicago Loyola University https://ecommons.luc.edu/luc_diss/122

Farrington, C., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T., Johnson, D., & Beechum, N. (2012). *Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance: A critical literature review*. Chicago, IL: University of Chicago Consortium on Chicago Research.

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Washington, DC: Sage.

Foote, N. N. (1951). Identification as the basis for a theory of motivation. *American Sociological Review, 16,* 14-21.

Fraenkel, J. R., Wallen, N., & Hyun, H. (2011). *How to design and evaluate research in education* (8th ed.). New York, NY: McGraw-Hill.

Freud, S. (1925). *Collected papers.* London, UK: Hogarth Press.

Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston, MA: Allyn & Bacon.

Gardner, R. C. (1985). *The psychology and second language learning: The role of attitudes and motivation.* London, UK: Edward Arnold Publishers.

Gardner, R. C. (1992). Second language learning in adults: Correlates of proficiency. *Applied Language Learning, 2*, 1-28.

Gardner, R. C., & Lambert, W. E. (1972). *Attitudes and motivation in second language learning.* Rowley, MA: Newbury House Publishers.

George, D., & Mallery, P. (2003*). SPSS for Windows step by step: A simple guide and reference* (4th ed.). Boston, MA: Allyn & Bacon.

Gergen, K. J. (1972). Multiple identity: The healthy, happy human being wears many masks. *Psychology Today, 5,* 31-35.

Gollwitzer, P. M., & Wicklund, R. A. (1985). The pursuit of self-defining goals. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 61-85). New York, NY: Springer-Verlag.

Hahs-Vaughn, D. L., & Lomax, R. G. (2012). *Statistical concepts: A first course.* New York, NY: Routledge.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Los Angeles, LA: Sage

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review, 31*(1), 2-24.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of Academic Marketing Sciences, 43,* 115-135.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, CA: Sage.

Huang, H. T., Hsu, C. C, & Chen, S.W. (2015). Identification with social role obligations, possible selves, and L2 motivation in foreign language learning. *System, 51,* 28-38.

Islam, M., Lamb, M., & Chambers, G. (2013). The L2 motivational self-system and national interest: A Pakistani perspective. *System, 41*, 231-244.

Kim, T. Y., & Kim, Y. K. (2014). A structural model for perceptual learning styles, the ideal L2 self, motivated behavior, and English proficiency. *System, 46,* 14-27.

Kim, Y. K., & Kim, T. Y. (2011). The effect of Korean secondary school students' perceptual learning styles and ideal L2 self on motivated L2 behavior and English proficiency. *Korean Journal of English Language and Linguistics, 11*, 21-42.

Kong, J. H., Han, J. E., Kim, S., Park, H., Kim, Y. S., & Park, H. (2018). L2 motivational self system, international posture and competitiveness of Korean CTL and LCTL college learners: A structural equation modeling approach. *System, 72,* 178-189.

Lamb, M. (2012). A self system perspective of young adolescents' motivation to learn English in urban and rural setting. *Language Learning, 62*(4), 997-1023.

Laursen, E. K. (2015). The power of grit, perseverance, and tenacity. *Reclaiming Children and Youth, 23*(4), 19-24.

Leondari, A., & Gonida, E. N. (2008). Adolescents' possible selves, achievement goal orientations, and academic achievement. *Hellenic Journal of Psychology, 5,* 179-198.

Levinson, D. J. (1978). *The season of a man's life.* New York: McGraw-Hill.

Locke, E. A. (1968). Toward a theory of task motivation and incentives. *Organizational Behaviour and Human Performance, 3,* 157-189.

Mackey, A., & Gass, S. (2005). *Second language research: Methodology and design* (2nd ed.). New York, NY: Routledge.

Magid, M., & Chan, L. (2011). Motivating English learners by helping them visualize their ideal L2 self: Lessons from two motivational programmes. *Innovation in Language Learning and Teaching, 6*(2), 1-13.

Malmberg, L-E., Hall, J., & Martin, A. J. (2013). Academic buoyancy in secondary school: Exploring patterns of convergence in English, mathematics, science, and physical education. *Learning and Individual Differences, 23*, 262-266.

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*(9), 954-969.

Martin, A. J., & Marsh, H. W. (2008). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology, 46*, 53-58.

Martin, A. J., & Marsh, H. W. (2009). Academic resilience and academic buoyancy: multidimensional and hierarchical conceptual framing of causes, correlates and cognate constructs. *Oxford Review of Education, 35*(3), 353-370.

Martin, A. J., Ginns, P., Brackett, M. A., Malberg, L. E., & Hall, J. (2013). Academic buoyancy and psychological risk: Exploring reciprocal relationships. *Learning and Individual Differences, 27,* 128-133.

Martin, A. J., Yu, K., Ginns, P., & Papworth, B. (2017). Young people's academic buoyancy and adaptability: A cross-sectional comparison of China with North America and the United Kingdom. *Educational Psychology, 37,* 930-946.

Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology, 2,* 425-444.

Miller, S., Connolly, P., & Maguire, L. K. (2013). Wellbeing, academic buoyancy and educational achievement in primary school students. *International Journal of Educational Research, 62,* 239-248.

Moskovsky, C., Racheva, S., Assulaimani, T., & Harkins, J. (2016). The L2 motivational self system and L2 achievement: A study of Saudi EFL learners. *The Modern Language Journal, 100*(3), 641-654.

Mwangi, C. N., Ireri, A. M., Mwaniki, E. W., & Wambugu, S. K. (2018). Relationship among type of school, academic resilience and academic achievement among secondary school students in Kiambu county, Kenya. *International Journal of Social Sciences, 3*(3), 1092-1107.

Newcombe, L. P., & Newcombe, R. G. (2001). Adult language learning: The effect of background, motivation and practice on perseverance. *International Journal of Bilingual Education and Bilingualism, 4*(5), 332-354.

Noels, K. A. (2003). Learning Spanish as a second language: Learners' orientations and perceptions of their teachers' communication style. In Z. Dörnyei (Ed.), *Attitudes, orientations, and motivations in language learning* (pp. 97-136). Oxford, UK: Blackwell.

O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition.* Cambridge, UK: Cambridge University Press.

Oxford, R. (1990). *Language learning strategies: What every teacher should know.* Boston, MA: Heinle & Heinle.

Oxford, R. L., & Lee, K. R. (2008). The learners' landscape and journey: A summary. In C. Griffiths (Ed.), *Lessons from good language learners* (pp. 306-317). Cambridge, UK: Cambridge University Press.

Oxford, R., & Shearin, J. (1994). Language learning motivation: Expanding the theoretical framework. *The Modern Language Journal, 78*, 12-28.

Oysterman, D., Gant, L., & Ager, J. (1995). A socially contextualized model of African American identity: Possible selves and school persistence. *Journal of Personality and Social Psychology, 69*(6), 1216-1232.

Papi, M. (2010). The L2 motivational self-system, L2 anxiety, and motivated behavior: A structural equation modelling approach. *System, 38*, 467-479.

Peker, H. (2016). *Bullying victimization, feared second language self, and second language identity: Reconceptualizing the second language motivational self-system* (Unpublished doctoral dissertation). Retrieved from University of Central Florida https://stars.library.ucf.edu/etd/5083

Rajab, A., Far, H. R., & Etemadzadeh, A. (2012). The relationship between L2 motivational self-system and L2 learning among TESL students in Iran. *Procedia – Social and Behavioral Sciences, 66,* 419-424.

Rogers, C. (1951). *Client-centered therapy: Its current practice, implications, and theory.* Boston, MA: Houghton Mifflin.

Roshandel, J., Ghoonsooly, B., & Ghanizadeh, A. (2018). L2 motivational self-system and self-efficacy: A quantitative survey-based study. *International Journal of Instruction, 11*(1), 329-344.

Ryan, S. (2006). Language learning motivation within the context of globalization: An L2 self within an imagined global community. *Critical Inquiry in Language Studies: An International Journal, 3*(1), 23-45.

Sarwar, M., Inamullah, H., Khan, N., & Anwar, N. (2010). Resilience and academic achievement of male and female secondary level students in Pakistan. *Journal of College Teaching and Learning, 7*(8), 19-24.

Savaşkan, İ. (2016). Turkey's place in the rankings of the English proficiency index. *Journal of Teacher Education and Educators, 5*(2), 192-208.

Scarcella, R. (2002). Some key factors affecting English learners' development of advanced literacy. In M. J Schleppegrell & M. C. Cecilia (Eds.), *Developing advanced literacy in first and second languages: Meaning with power* (pp. 209-226). Mahwah, NJ: Lawrence Erlbaum Associates.

Scarcella, R., & Oxford, R. (1992). *The tapestry of language learning: The individual in the communicative classroom*. Boston, MA: Heinle & Heinle.

Smith, K., & Hopkins, C. (2005). Great expectations: Sixth-formers' perceptions of teaching and learning in degree-level English. *Arts and Humanities in Higher Education, 4*(3), 304-318.

Subekti, A. S. (2018). L2 motivational self system and L2 achievement: A study of Indonesian EAP learners. *Indonesian Journal of Applied Linguistics, 8*(1), 57-67.

Taguchi, T., Magid, M., & Papi, M. (2009). In Z. Dörnyei & E. Ushioda (Eds.), *L2 motivation, language identity and the L2 self* (pp. 66-97). Bristol: Multilingual Matters.

Ushioda, E. (2001). Language learning at university: Exploring the role of motivational thinking. In Z. Dörnyei & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 91-124). Honolulu, HI: University of Hawaii Press.

Ushioda, E. (2009). A person-in-context relational view of emergent motivation, self and identity. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 215-228). Bristol: Multilingual Matters.

Uslu-Ok, D. (2013). *The future in the lives of Turkish international sojourners studying in America: The role of future time perspectives and possible selves in explaining motivation to learn English* (Unpublished doctoral dissertation). Retrieved from The University of Texas at Austin https://repositories.lib.utexas.edu/bitstream/handle/2152/21163/usluok-dissertation-2013.pdf?sequence=1

Wasonga, T. (2002). Gender effects on perceptions of external assets, development of resilience and academic achievement: Perpetuation theory approach. *Gender Issues, 20*(4), 43-54.

Weiner, B. (1974). *Achievement motivation and attribution theory.* Morristown, NJ: General Learning Press.

Weiner, B. (1982). An attributional theory of achievement motivation and emotion. *Psychological Review, 97*, 548-573.

Weiner, B. (2010). The development of an attribution-based theory of motivation: A history of ideas. *Educational Psychologist, 45*(1), 28-36.

Williams, M., & Burden, R. L. (1997). *Psychology of language teachers: A constructivist approach*. Cambridge: Cambridge University Press.

Yang, J. S., & Kim, T. Y. (2011). The L2 motivational self system and perceptual learning styles of Chinese, Japanese, Korean, and Swedish students. *English Teaching, 66*, 141-162.

Yowell, C. M. (2000). Possible-selves and future orientation: Examining hopes and fears of Latino boys and girls. *Journal of Early Adolescence, 20,* 245-280.

Zhang, X., Dai, S., & Ardasheva, Y. (2020). Contributions of (de)motivation, engagement, and anxiety to English listening and speaking. *Learning and Individual Differences, 79,* 1-13.

APPENDICES

APPENDIX A

The Survey (Turkish version)

Değerli Katılımcı,

Bu çalışma dil öğrenme motivasyonunun, motivasyonu etkileyen kişisel ve sosyal faktörlerin ve akademik zorluklarla başa çıkma yetisinin, dil başarısı ile olan ilişkisini incelemeye yöneliktir. Gönüllü katılımınız ve cevaplarınız çalışmamın sonuçları için çok önemlidir. Veriler, 49 soruluk bir anket aracılığıyla toplanacaktır. İsim kullanılmayacaktır. Anketteki sorular yalnızca görüşlerinizi almak için olup, soruların doğru veya yanlış cevapları bulunmamaktadır. Çalışmaya katılımınız yaklaşık olarak 15 dakikanızı alacaktır.

Lütfen aşağıdaki bilgileri okuyunuz.

1. Çalışmaya katılabilmek için en az 18 yaşında olmam gerektiğini biliyorum.
2. Çalışma ile ilgili yukarıda verilen bilgilendirmeyi okudum ve anladım.
3. İstediğim zaman çalışmadan çekilebileceğimi ve bunun benim için hiçbir zarar teşkil etmediğini biliyorum.
4. Çalışmadan çekilmemin kendimle ilgili akademik değerlendirmeleri veya üniversite ile olan ilişkimi olumsuz yönde etkilemeyeceğini biliyorum.
5. Verdiğim tüm yanıtların ve sağladığım tüm bilgilerin kesinlikle gizli kalacağını ve sadece araştırma amaçlı kullanılacağını biliyorum.
6. Bu çalışmanın Bilkent Üniversitesi Etik Kurulu tarafından incelendiğini ve etik açıdan sorun teşkil etmediğine dair onay aldığını biliyorum.
7. Çalışmaya katılmayı kabul ediyorum.

İmza: _____

Katılımınız ve değerli katkılarınız için teşekkür ederim. Sorularınız veya iletmek istediğiniz görüşleriniz olursa lütfen benimle (esma.toprak@bilkent.edu.tr) ya da danışmanımla (hilal.peker@bilkent.edu.tr) iletişime geçiniz.

Saygılarımla,

Esma TOPRAK ÇELEN

Eğitim Bilimleri Enstitüsü

Bilkent Üniversitesi, Ankara

Şu an bulunduğunuz kuru işaretleyiniz:

○ Pre-Intermediate (1)

○ Intermediate (3)

○ Advanced (5)

○ Lower-Intermediate (2)

○ Upper-Intermediate (4)

○ Repeat (6)

Midterm 4 notunuz: _____

Midterm 5 notunuz: _____

Yaş: _____

Cinsiyet:

○ Kadın (1)

○ Erkek (2)

Bölüm: _____

Ülke:

Türkiye (1)

Diğer (2) (Lütfen belirtiniz: _____)

Kaç yıldır İngilizce öğreniyorsunuz? _____

Lise okul tipi:

○ Anadolu Lisesi (1)

○ Mesleki ve Teknik Anadolu Lisesi (3)

○ Kolej (5)

○ Fen Lisesi (2)

○ Sosyal Bilimler Lisesi (4)

○ Diğer (6)

Lütfen aşağıdaki ifadeleri okuduktan sonra, bu ifadeye ne ölçüde katıldığınızı gösteren uygun kutucuğu işaretleyiniz.

(1) Kesinlikle katılmıyorum
(2) Katılmıyorum
(3) Emin değilim
(4) Katılıyorum
(5) Kesinlikle katılıyorum

	(1)	**(2)**	**(3)**	**(4)**	**(5)**
1. Gelecekteki kariyerimi her düşündüğümde, kendimi İngilizce konuşurken hayal edebiliyorum.	○	○	○	○	○
2. Kendimi başka ülkelerden arkadaşlar veya meslektaşlar ile İngilizce konuşurken hayal edebiliyorum.	○	○	○	○	○
3. Kendimi anadili İngilizce olan kişilerle etkin bir şekilde İngilizce konuşurken hayal edebiliyorum.	○	○	○	○	○
4. Kendimi, İngilizceyi anadilimmiş gibi konuşurken hayal edebiliyorum.	○	○	○	○	○
5. Kendimi akıcı bir İngilizce ile e-postalar veya mektuplar yazarken hayal edebiliyorum.	○	○	○	○	○
6. İngilizce öğrenmek gereklidir, çünkü etrafımdaki insanların benim İngilizce öğrenmeme yönelik beklentileri bulunmaktadır.	○	○	○	○	○
7. İngilizce öğrenmek önemlidir, çünkü saygı duyduğum insanlar benim İngilizce öğrenmem gerektiğini düşünmektedirler.	○	○	○	○	○
8. İngilizce öğrenmezsem başka insanları hayal kırıklığına uğratırım.	○	○	○	○	○
9. İngilizce öğrenmek benim için önemlidir, çünkü eğitimli bir kişinin İngilizce konuşabiliyor olması gerekmektedir.	○	○	○	○	○

10. İngilizce öğrenmek benim için önemlidir, çünkü İngilizce bilirsem diğer insanlar bana daha fazla saygı duyacaktır.	○	○	○	○	○
11. Kısıtlı İngilizce bilgim dolayısıyla sınıfta beni aşağılamalarından veya benimle alay etmelerinden korkuyorum.	○	○	○	○	○
12. Daha önce birisi İngilizce bilgimle alay ettiği için İngilizceyi doğru kullanamamaktan korkuyorum.	○	○	○	○	○
13. Başka insanlar tarafından İngilizce seviyemle ilgili eleştirilmek veya rahatsız edilmek istemediğim için İngilizcemi geliştirmem gerekiyor.	○	○	○	○	○
14. İngilizceyi düzgün konuşmazsam insanların benimle alay edebileceğinden endişe ediyorum.	○	○	○	○	○
15. Instagram, Whatsapp veya diğer sosyal medya araçlarında İngilizce kullanmaktan kaçınıyorum çünkü bir dilbilgisi hatası yaparsam insanların benimle dalga geçeceğinden endişe ediyorum.	○	○	○	○	○
16. Hatalarımı alaycı veya aşağılayıcı bir şekilde düzeltenler olur diye İngilizce yazmaktan veya konuşmaktan korkuyorum.	○	○	○	○	○
17. İngilizce derslerimin atmosferini seviyorum.	○	○	○	○	○
18. İngilizce öğrenmeyi gerçekten çok ilgi çekici buluyorum.	○	○	○	○	○
19. İngilizce pratik yaparken zamanın daha hızlı geçtiğini düşünüyorum.	○	○	○	○	○
20. İngilizce derslerini veya İngilizce pratik yapabileceğim herhangi bir vakti hep hevesle beklerim.	○	○	○	○	○

21. Daha fazla İngilizce dersimin olmasını veya daha fazla İngilizceye maruz kalmayı isterim.	○	○	○	○	○
22. İngilizce öğrenmekten ve pratik yapmaktan (konuşma, yazma veya dili kullanma) gerçekten çok hoşlanıyorum.	○	○	○	○	○
23. Akademik aksaklıklarla (Örneğin, kötü not veya çalışmalarımla ilgili olumsuz dönüt) başa çıkma konusunda iyiyim.	○	○	○	○	○
24. Ders çalışma stresinin, içinden çıkamayacağım bir hale gelmesine izin vermem.	○	○	○	○	○
25. Okulla ilgili görevlerin/işlerin sebep olduğu baskıyla başa çıkma konusunda iyi olduğumu düşünüyorum.	○	○	○	○	○
26. Aldığım kötü bir notun kendime güvenimi etkilemesine izin vermem.	○	○	○	○	○

Lütfen, kalan soruları aşağıda verilen senaryoyu okuduktan sonra cevaplandırınız.

Girdiğiniz ara sınavdan (Midterm) düşük bir not aldınız. Daha önceki iki sınavdan (bir quiz ve önceki Midterm) aldığınız notlar da beklediğinizden düşük gelmiştir. Bir an önce hazırlığı geçip bölümünüzde okumak ve aynı zamanda ailenizi hayal kırıklığına uğratmamak için aldığınız notları önemsiyorsunuz. Dersin öğretim elemanından aldığınız dönüt (feedback) de sizin için oldukça önemli. Öğretim elemanından aldığınız dönüt hem geliştirmeniz gereken noktalara dikkat çekiyor hem de performansınızı nasıl geliştirmeniz gerektiğine yönelik öneriler içeriyor.

(1) Kesinlikle katılmıyorum
(2) Katılmıyorum
(3) Emin değilim
(4) Katılıyorum
(5) Kesinlikle katılıyorum

	(1)	**(2)**	**(3)**	**(4)**	**(5)**
1. Bu dönütü çalışmalarımı düzeltmek için kullanırım.	○	○	○	○	○
2. Bu durumu kendimi motive etmek için kullanırım.	○	○	○	○	○
3. Üniversitede başarılı olma şansımın düşük olduğunu düşünmeye başlarım.	○	○	○	○	○
4. Olumsuz düşüncelerden kurtulmak için elimden gelenin en iyisini yaparım.	○	○	○	○	○
5. Bu durumun geçici olduğunu düşünürüm.	○	○	○	○	○
6. Daha çok çalışırım.	○	○	○	○	○
7. Muhtemelen depresif olurum.	○	○	○	○	○
8. Çözümler üretmeye çalışırım.	○	○	○	○	○
9. Çok fazla hayal kırıklığına uğrarım.	○	○	○	○	○

10. Daha yüksek notlar almak için denemeye devam ederim.	○	○	○	○	○
11. Uzun vadeli hedeflerimde ve hırsımda değişiklik olmaz.	○	○	○	○	○
12. Geçmişteki başarılarımı kendimi motive etmek için kullanırım.	○	○	○	○	○
13. Gelecekte istediğim mesleği yapma ihtimalimin düşük olduğunu düşünürüm.	○	○	○	○	○
14. Çabalarımı ve başarılarımı gözlemlemeye ve değerlendirmeye başlarım.	○	○	○	○	○
15. Öğretim elemanından yardım isterim.	○	○	○	○	○
16. Kendimi cesaretlendiririm.	○	○	○	○	○
17. Ders çalışmak için farklı yollar denerim.	○	○	○	○	○
18. Başarılı olmak için kendi hedeflerimi belirlerim.	○	○	○	○	○
19. Ailem ve arkadaşlarımdan beni yüreklendirmelerini beklerim.	○	○	○	○	○
20. Daha iyi çalışmak için güçlü olduğum ve yetersiz olduğum yönlerim üzerine kafa yorarım.	○	○	○	○	○
21. Her şeyin bittiğini ve kötüye gittiğini düşünürüm.	○	○	○	○	○
22. Performansıma göre kendime ödüller ve cezalar belirlerim.	○	○	○	○	○
23. Notlarımı düzeltebildiğimi çevremdekilere göstermeyi dört gözle beklerim.	○	○	○	○	○

Katılımınız için teşekkürler.

APPENDIX B

The Survey (English version)

Dear participant,

This study seeks to explore the relationship between language learning motivation; the personal and social factors affecting your motivation; your ability to deal with academic setbacks and language proficiency level. Your voluntary participation is of crucial importance for the study.

The data will be collected through a survey consisting of 49 items. No names will be used. The questions in this survey are simply about your opinions, and there are no right or wrong answers. Participation in this survey will require approximately 15 minutes.

Please read the information below:

1. I am over 18.
2. I have read and understood the information about this study.
3. I understand that I can withdraw from the study without any consequences at anytime.
4. I understand that withdrawing from the study will not give affect the evaluation of my academic studies or my relationship with the school negatively in any way.
5. I understand that the researcher guarantees that all the responses and the information that I provide will be strictly confidential and not shared with others in ways that my individual responses could be identified.
6. I understand that this project has been reviewed by and received ethical clearance through Bilkent University Research Ethics Committee.

I agree to participate in this study.

Signature:

_____

Thank you very much in advance for your invaluable time and cooperation. If you have any questions or concerns about this study at any time, contact the principal investigator, Esma TOPRAK ÇELEN at esma.toprak@bilkent.edu.tr, and her supervisor, Assistant Professor Dr. Hilal PEKER at hilal.peker@bilkent.edu.tr.

Best regards,

Esma Toprak Çelen

Graduate School of Education

Bilkent University, Ankara

Level:

- ○ Pre-Intermediate (1)
- ○ Lower-Intermediate (2)
- ○ Intermediate (3)
- ○ Upper-Intermediate (4)
- ○ Advanced (5)
- ○ Repeat (6)

Midterm 4 grade: _____

Midterm 5 grade: _____

Age: _____

Gender:

- ○ Female (1)
- ○ Male (2)

Department: _____

Country of origin:

Turkey (1)

Other (2) (Please, specify: _____)

For how many years have you been learning English?

_____

High school type:

- ○ Anatolian High School (1)
- ○ Science High School (2)
- ○ Vocational High School (3)
- ○ Social Sciences High School (4)
- ○ Private school (5)
- ○ Other (6)

Read the statements below and darken the circle which best reflects your idea for each item.

(1) Strongly disagree

(2) Disagree

(3) Not sure

(4) Agree

(5) Strongly agree

	(1)	(2)	(3)	(4)	(5)
1. Whenever I think of my future career, I imagine myself using English.	○	○	○	○	○
2. I can imagine myself speaking English with international friends or colleagues.	○	○	○	○	○
3. I can imagine myself using English effectively for communicating with the native speakers.	○	○	○	○	○
4. I can imagine myself speaking English as if I were a native speaker of English.	○	○	○	○	○
5. I can imagine myself writing emails/letters fluently in English.	○	○	○	○	○
6. Learning English is necessary because people surrounding me expect me to do so.	○	○	○	○	○
7. Learning English is important because the people I respect think that I should do it.	○	○	○	○	○
8. If I fail to learn English, I'll be letting other people down.	○	○	○	○	○
9. Studying English is important to me because an educated person is supposed to be able to speak English.	○	○	○	○	○

10. Studying English is important to me because other people will respect me more if I know English.	○	○	○	○	○
11. I am afraid of being humiliated due to my limited use of English in the classroom.	○	○	○	○	○
12. I am afraid of not using English accurately because somebody teased me about my English before.	○	○	○	○	
13. I have to improve my English because I do not want to be criticized or harassed by others about my English level.	○	○	○	○	○
14. I worry that people might pick on me if I can't speak English properly.	○	○	○	○	○
15. I am worried that people will make fun of me on Instagram, Facebook and/or other social media profiles if I make some grammatical mistakes on my posts.	○	○	○	○	○
16. I am afraid of writing or speaking in English because I fear that I will be corrected in a teasing/humiliating way.	○	○	○	○	○
17. I like the atmosphere of my English classes.	○	○	○	○	○
18. I find learning English really interesting.	○	○	○	○	○
19. I think time passes faster while practicing (speaking, writing or using) English.	○	○	○	○	○
20. I always look forward to English classes or any time that I can practice English.	○	○	○	○	○
21. I would like to have more English lessons or to be exposed to English more.	○	○	○	○	○

22. I really enjoy learning and practicing (writing, speaking, or using) English.	○	○	○	○	○
23. I'm good at dealing with setbacks (e.g., bad mark, negative feedback on my work)	○	○	○	○	○
24. I don't let study stress get on top of me.	○	○	○	○	○
25. I think I'm good at dealing with school pressures.	○	○	○	○	○
26. I don't let a bad mark affect my confidence.	○	○	○	○	○

Answer the following questions after reading the scenario given below.

You have received a grade for a midterm and it is a 'fail'. The grades you received for two other recent exams (e.g., a quiz and the previous midterm) were also poorer than you would expect. You care about your grades because you want to start studying in your department as soon as possible and you don't want to disappoint your family. The feedback you received from the instructor for your performance is quite important. The feedback emphasizes your weaknesses, but it also includes ways to improve your performance.

(1) Strongly disagree
(2) Disagree
(3) Not sure
(4) Agree
(5) Strongly agree

	(1)	(2)	(3)	(4)	(5)
1. I would use the feedback to improve my work.	○	○	○	○	○
2. I would use the situation to motivate myself.	○	○	○	○	○
3. I would begin to think my chances of success at university were poor.	○	○	○	○	○
4. I would do my best to stop thinking negative thought.	○	○	○	○	○
5. I would consider this situation as temporary.	○	○	○	○	○
6. I would work harder.	○	○	○	○	○
7. I would probably get depressed.	○	○	○	○	○
8. I would try to think of new solutions.	○	○	○	○	○
9. I would be very disappointed.	○	○	○	○	○
10. I would keep trying to receive higher grades.	○	○	○	○	○

11. I would not change my long-term goals and ambitions.	○	○	○	○	○
12. I would use my past successes to help motivate myself.	○	○	○	○	○
13. I would begin to think my chances of getting the job I want were poor.	○	○	○	○	○
14. I would start to monitor and evaluate my achievements and effort.	○	○	○	○	○
15. I would ask for help from my instructors.	○	○	○	○	○
16. I would give myself encouragement.	○	○	○	○	○
17. I would try different ways to study.	○	○	○	○	○
18. I would set my own goals for achievement.	○	○	○	○	○
19. I would look for encouragement from my family and friends.	○	○	○	○	○
20. I would try to think more about my strengths and weaknesses to help me work better.	○	○	○	○	○
21. I would feel like everything was destroyed and was going wrong.	○	○	○	○	○
22. I would start to impose rewards and punishments on myself depending on my performance.	○	○	○	○	○
23. I would look forward to showing that I can improve my grades.	○	○	○	○	○

Thank you for your participation.

APPENDIX C

SPSS Tables

C.1. Items excluded after the piloting
Items excluded from the "Perseverance" construct

a. I would not accept the tutor's feedback
b. I would just give up.
c. I would change my career plans.
d. I would see the situation as a challenge.
e. I would blame the tutor.

Items excluded from the "Negative Affect and Emotional Response" construct

f. I would probably get annoyed.
g. I would stop myself from panicking.

C.2. Corrected Item Total Statistics for each construct

IDEAL L2 SELF CHRONBACH ANALYSIS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
1.Whenever I think of my future career, I imagine myself using English.	7.87	8.49	.70	.56	.86
2.I can imagine myself speaking English with international friends or colleagues.	8.04	8.74	.78	.67	.85
3.I can imagine myself using English effectively for communicating with the native speakers.	7.85	8.29	.79	.65	.84
4.I can imagine myself speaking English as if I were a native speaker of English.	7.35	8.01	.72	.54	.86
5.I can imagine myself writing emails/letters fluently in English.	7.87	9.27	.62	.39	.88

OUGHT TO L2 SELF CHRONBACH ANALYSIS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
6.Learning English is necessary because people surrounding me expect me to do so.	11.25	13.31	.60	.48	.71
7.Learning English is important because the people I respect think that I should do it.	11.02	12.80	.71	.56	.67
8.If I fail to learn English, I'll be letting other people down.	10.30	14.48	.54	.33	.74
9.Studying English is important to me because an educated person is supposed to be able to speak English.	12.10	17.11	.36	.17	.79
10.Studying English is important to me because other people will respect me more if I know English.	10.75	14.37	.54	.33	.74

FEARED L2 SELF CRONBACH ANALYSIS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
11.I am afraid of being humiliated due to my limited use of English in the classroom.	18.97	25.46	.75	.59	.89
12.I am afraid of not using English accurately because somebody teased me about my English before.	18.87	26.16	.74	.57	.89
13.I have to improve my English because I do not want to be criticized or harassed by others about my English level.	19.53	25.13	.69	.55	.90
14.I worry that people might pick on me if I can't speak English properly.	19.18	24.98	.83	.71	.88
15. I am worried that people will make fun of me on Instagram, Whatsapp, Facebook and/or other social media profiles if I make some grammatical mistakes on my posts.	18.91	26.48	.66	.52	.90
16.I am afraid of writing or speaking in English because I fear that I will be corrected in a teasing/humiliating way.	18.93	25.51	.79	.67	.88

ENGLISH LEARNING EXPERIENCES CRONBACH ANALYSIS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
17.I like the atmosphere of my English classes.	13.88	18.96	.51	.28	.85
18.I find learning English really interesting.	14.03	17.38	.68	.49	.82
19.I think time passes faster while practicing (speaking, writing or using) English.	13.53	17.09	.68	.48	.82
20.I always look forward to English classes or any time that I can practice English.	13.27	17.51	.71	.52	.81
21.I would like to have more English lessons or to be exposed to English more.	13.50	17.48	.57	.35	.84
22.I really enjoy learning and practicing (writing, speaking, or using) English.	13.96	17.76	.69	.50	.82

ACADEMIC BUOYANCY CRONBACH ANALYSIS	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
23.I'm good at dealing with setbacks (e.g., bad mark, negative feedback on my work)	7.23	6.37	.61	.38	.78
24.I don't let study stress get on top of me.	7.21	6.15	.63	.45	.77
25.I think I'm good at dealing with school pressures.	7.27	6.38	.69	.50	.75
26.I don't let a bad mark affect my confidence.	7.23	5.99	.61	.39	.78

ACADEMIC RESILIENCE CRONBACH ANALYSIS

FACTOR 1: PERSEVERENCE	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
1. I would use the feedback to improve my work.	17.35	19.35	.51	.35	.74
2. I would use the situation to motivate myself.	16.92	18.54	.54	.35	.74
4. I would do myself to stop thinking negative thoughts.	16.97	17.97	.59	.47	.73
5. I would see the situation as temporary (i.e. something that would not last forever)	16.96	19.67	.41	.29	.76

6. I would work harder.	17.09	18.08	.61	.46	.73
8. I would try to think of new solutions.	17.18	19.41	.59	.41	.74
10. I would keep trying.	17.23	18.76	.69	.53	.72
11. I would not change my long-term goals and ambitions.	16.95	19.41	.34	.18	.77
23. I would look forward to showing that I can improve my grades.	16.42	20.46	.12	.07	.82

FACTOR 2: REFLECTING AND ADAPTIVE HELP-SEEKING	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
12. I would use my past successes to help motivate myself.	19.00	20.98	.45	.27	.74
14. I would start to monitor and evaluate my achievements and effort.	19.04	22.04	.46	.30	.74
15. I would ask for help from my instructors.	18.59	21.23	.42	.21	.74
16. I would give myself encouragement.	19.04	21.57	.52	.42	.73
17. I would try different ways to study.	18.99	20.70	.61	.42	.71
18. I would set my own goals for achievement.	19.21	21.29	.59	.45	.72
19. I would look for encouragement from my family and friends.	18.38	20.94	.32	.18	.76
20. I would try to think more about my strengths and weaknesses to help me work better.	19.13	22.00	.46	.28	.73
22. I would start to impose rewards and punishments on myself depending on my performance.	17.87	21.19	.31	.15	.76

FACTOR 3: NEGATIVE AFFECT AND EMOTIONAL RESPONSE	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
3. I would begin to think my chances of success at university were poor.	14.48	13.29	.64	.41	.82
7. I would probably get depressed.	14.80	12.30	.67	.48	.81

9. I would be very disappointed.	14.72	12.72	.68	.48	.81
13. I would begin to think my chances of getting the job I want were poor.	14.18	13.51	.58	.38	.83
21. I would feel like everything was destroyed and was going wrong.	14.14	12.90	.70	.50	.80

C.3. Age Distribution

Age	Frequency	Percent
17	1	.2
18	115	26.4
19	169	38.8
20	96	22.0
21	21	4.8
22	10	2.3
23	6	1.4
24	4	.9
26	1	.2
27	2	.5
28	1	.2
29	1	.2
38	2	.5
50	2	.5
54	1	.2
60	1	.2
Missing	3	.7
Total	436	100

C.4. Departments

Departments	Frequency	Percent
1. Department of Computer Engineering	17	3.9
2. Department of Computer Education and Instructional Technology	2	.5
3. Department of Biological Sciences	10	2.3
4. Department of Environmental Engineering	10	2.3
5. Department of Electrical and Electronics Engineering	17	3.9
6. Department of Industrial Engineering	17	3.9
7. Department of Industrial Design	6	1.4
8. Department of Philosophy	7	1.6
9. Department of Science Education	4	.9
10. Department of Physics	10	2.3
11. Department of Physics Education	5	1.1
12. Department of Food Engineering	17	3.9
13. Department of Aerospace Engineering	8	1.8
14. Department of Foreign Language Education	9	2.1
15. Department of Civil Engineering	22	5.0
16. Department of Statistics	6	1.4
17. Department of Business Administration	14	3.2
18. Department of Geological Engineering	12	2.8
19. Department of Chemistry	12	2.8
20. Department of Chemical Engineering	20	4.6
21. Department of Chemistry Education	3	.7
22. Department of Mining Engineering	16	3.7
23. Department of Mechanical Engineering	23	5.3
24. Department of Mathematics	12	2.8
25. Department of Mathematics and Science Education	15	3.4
26. Department of Metallurgical and Materials Engineering	10	2.3
27. Department of Architecture	10	2.3

28. Department of Molecular Biology and Genetics	10	2.3
29. Department of Elementary and Early Childhood Education	9	2.1
30. Department of Petroleum and Natural Gas Engineering	9	2.1
31. Department of Psychology	11	2.5
32. Department of Political Science and Public Administration	18	4.1
33. Department of Sociology	13	3.0
34. Department of City and Regional Planning	15	3.4
35. Department of History	11	2.5
36. Department of International Relations	9	2.1
37. Other	15	3.4
Missing	2	.5
TOTAL	436	100.0

C.5. The number of years the participants have been learning English

The number of years they have been learning English	Frequency	Percent
1	34	7.8
10	118	27.1
11	26	6.0
12	26	6.0
13	18	4.1
14	12	2.8
15	4	.9
16	2	.5
18	1	.2
2	23	5.3
25	1	.2
3	4	.9
4	6	1.4

5	9	2.1
6	8	1.8
7	11	2.5
8	47	10.8
9	76	17.4
Missing	10	2.3
Total	436	100

C.6. High School Type

High School Type	Frequency	Percent
Anatolian High School	232	53.2
Science School	98	22.5
Vocational School	8	1.8
Social Sciences High School	8	1.8
Private High School	40	9.2
Other	48	11.0
Missing	2	.5
Total	436	100.0

APPENDIX D

PLS-SEM Tables

D.1. Data Normality

Indicators	Mean	Median	Standard Deviation	Excess Kurtosis	Skewness
AB_1	2.42	2.00	099	0.08	0.58
AB_2	2.43	2.00	1.03	-0.05	0.59
AB_3	2.38	2.00	0.92	0.23	0.61
AB_4	2.42	2.00	1.08	-0.52	0.41
ELExp_1	2.56	2.00	1.05	0.05	0.70
ELExp_2	2.42	2.00	1.09	-0.19	0.62
ELExp_3	2.91	3.00	1.13	-0.63	0.13
ELExp_4	3.17	3.00	1.04	-0.48	0.05
ELExp_5	2.94	3.00	1.21	-0.89	0.17
ELExp_6	2.48	2.00	1.02	0.07	0.65
FL2S_1	3.91	4.00	1.23	-0.02	-0.99
FL2S_2	4.01	4.00	1.15	0.01	-1.01
FL2S_3	3.35	4.00	1.34	-1.23	-0.25
FL2S_4	3.70	4.00	1.18	-0.68	-0.59
FL2S_5	3.97	4.00	1.21	-0.01	-1.02
FL2S_6	3.95	4.00	1.17	-0.18	-0.92
IL2S_1	1.87	2.00	0.90	0.82	0.95
IL2S_2	1.71	2.00	0.78	1.55	1.12
IL2S_3	1.89	2.00	0.87	0.24	0.78
IL2S_4	2.40	2.00	0.98	-0.33	0.28
IL2S_5	1.88	2.00	0.81	1.06	0.91
Neg_1_Rev	2.40	2.00	1.08	-0.42	0.50
Neg_2_Rev	2.72	3.00	1.21	-0.98	0.16
Neg_3_Rev	2.64	3.00	1.14	-0.73	0.28
Neg_4_Rev	2.10	2.00	1.10	0.12	0.89
Neg_5_Rev	2.06	2.00	1.07	0.28	0.98
OL2S_1	2.61	2.00	1.38	-1.21	0.35

OL2S_2	2.85	3.00	1.33	-1.21	0.14
OL2S_3	3.57	4.00	1.27	-0.88	-0.53
OL2S_4	1.75	1.00	1.05	1.69	1.52
OL2S_5	3.10	3.00	1.29	-1.14	-0.04
P_1	1.79	2.00	0.79	2.58	1.25
P_2	2.21	2.00	0.89	0.24	0.53
P_3	2.17	2.00	0.92	0.55	0.77
P_4	2.18	2.00	0.85	0.79	0.73
P_5	2.04	2.00	0.89	0.89	0.87
P_6	1.96	2.00	0.68	1.07	0.66
P_7	1.90	2.00	0.70	1.81	0.82
P_8	2.18	2.00	1.02	0.31	0.80
P_9	2.72	2.00	1.26	-0.99	0.34
Ref_1	2.16	2.00	1.02	0.88	1.05
Ref_2	2.11	2.00	0.81	1.70	0.94
Ref_3	2.57	2.00	1.01	-0.32	0.38
Ref_4	2.11	2.00	0.82	0.82	0.69
Ref_5	2.18	2.00	0.87	0.45	0.69
Ref_6	1.95	2.00	0.79	1.74	1.01
Ref_7	2.77	3.00	1.26	-1.01	0.24
Ref_8	2.04	2.00	0.83	1.74	1.02
Ref_9	3.29	3.00	1.23	-1.03	-0.14

D.2. Initial Cross Loadings Analysis

Indicators	AB	ELExp	FL2S	IL2S	MA	Neg	OL2S	P	Ref
AB_1	**0.79**	0.20	-0.28	0.23	-0.26	0.36	-0.09	0.43	0.27
AB_2	**0.79**	0.16	-0.29	0.20	-0.19	0.43	-0.09	0.42	0.28
AB_3	**0.83**	0.24	-0.29	0.27	-0.18	0.42	-0.10	0.47	0.35
AB_4	**0.79**	0.16	-0.39	0.22	-0.11	0.51	-0.15	0.41	0.26
ELExp_1	0.21	**0.67**	-0.08	0.18	-0.06	0.15	0.04	0.35	0.30

ELExp_2	0.18	**0.80**	-0.06	0.29	-0.16	0.05	0.00	0.34	0.29
ELExp_3	0.15	**0.77**	0.03	0.18	-0.03	0.06	0.07	0.30	0.30
ELExp_4	0.18	**0.80**	-0.07	0.22	-0.04	0.10	0.06	0.29	0.27
ELExp_5	0.11	**0.68**	0.04	0.18	-0.08	0.05	0.09	0.27	0.26
ELExp_6	0.22	**0.82**	-0.11	0.30	-0.15	0.18	-0.02	0.38	0.38
FL2S_1	-0.32	-0.06	**0.83**	-0.30	0.13	-0.50	0.35	-0.24	-0.02
FL2S_2	-0.30	-0.06	**0.82**	-0.22	0.13	-0.44	0.30	-0.15	0.04
FL2S_3	-0.27	0.00	**0.78**	-0.18	0.10	-0.41	0.46	-0.14	0.03
FL2S_4	-0.35	-0.06	**0.89**	-0.27	0.10	-0.51	0.35	-0.21	-0.01
FL2S_5	-0.32	-0.01	**0.77**	-0.18	0.19	-0.46	0.31	-0.19	-0.01
FL2S_6	-0.36	-0.10	**0.87**	-0.27	0.14	-0.52	0.30	-0.23	-0.05
IL2S_1	0.21	0.31	-0.19	**0.83**	-0.11	0.18	-0.04	0.38	0.28
IL2S_2	0.26	0.32	-0.27	**0.89**	-0.08	0.31	-0.08	0.42	0.31
IL2S_3	0.28	0.21	-0.32	**0.88**	-0.09	0.29	-0.11	0.36	0.24
IL2S_4	0.15	0.21	-0.21	**0.80**	-0.05	0.20	-0.02	0.26	0.17
IL2S_5	0.27	0.19	-0.19	**0.74**	-0.04	0.22	0.00	0.32	0.26
Neg_1_Rev	0.41	0.14	-0.52	0.26	-0.08	**0.79**	-0.31	0.38	0.20
Neg_2_Rev	0.49	0.09	-0.44	0.14	-0.06	**0.78**	-0.22	0.30	0.13
Neg_3_Rev	0.40	0.07	-0.44	0.20	-0.02	**0.77**	-0.22	0.26	0.12
Neg_4_Rev	0.34	0.07	-0.41	0.28	-0.09	**0.75**	-0.24	0.36	0.22
Neg_5_Rev	0.46	0.14	-0.44	0.26	-0.05	**0.84**	-0.28	0.47	0.31
OL2S_1	-0.07	0.09	0.27	-0.04	0.14	-0.19	**0.75**	0.02	0.11
OL2S_2	-0.06	0.04	0.27	-0.07	0.16	-0.19	**0.83**	-0.02	0.12
OL2S_3	-0.18	-0.07	0.39	-0.16	0.13	-0.34	**0.79**	-0.11	0.02

OL2S_4	0.06	0.11	0.15	0.24	-0.06	-0.08	**0.44**	0.17	0.26
OL2S_5	-0.12	0.08	0.34	0.00	0.03	-0.28	**0.73**	-0.03	0.09
P_1	0.16	0.26	-0.02	0.20	-0.09	0.07	0.06	**0.60**	0.43
P_2	0.35	0.28	-0.08	0.25	-0.02	0.25	0.02	**0.65**	0.47
P_3	0.54	0.34	-0.29	0.32	-0.08	0.52	-0.10	**0.77**	0.56
P_4	0.45	0.26	-0.32	0.35	-0.04	0.47	-0.14	**0.58**	0.29
P_5	0.28	0.33	-0.11	0.24	-0.13	0.19	0.04	**0.73**	0.59
P_6	0.41	0.22	-0.18	0.33	-0.09	0.32	-0.04	**0.74**	0.61
P_7	0.37	0.36	-0.13	0.33	-0.13	0.30	0.02	**0.81**	0.65
P_8	0.34	0.27	-0.19	0.29	-0.05	0.34	-0.11	**0.51**	0.30
P_9	-0.03	0.15	**0.30**	0.03	0.04	-0.15	**0.31**	**0.17**	**0.29**
Ref_1	0.30	0.27	-0.04	0.20	-0.10	0.26	0.02	0.44	**0.60**
Ref_2	0.19	0.25	0.03	0.19	-0.06	0.11	0.10	0.47	**0.65**
Ref_3	0.09	0.29	0.12	0.10	0.07	0.01	0.14	0.40	**0.53**
Ref_4	0.44	0.31	-0.18	0.28	-0.02	0.41	-0.03	0.64	**0.73**
Ref_5	0.21	0.26	0.04	0.19	0.05	0.09	0.14	0.47	**0.73**
Ref_6	0.34	0.30	-0.07	0.29	-0.03	0.25	0.10	0.62	**0.78**
Ref_7	-0.19	0.10	0.27	-0.01	0.04	-0.26	0.24	0.09	**0.32**
Ref_8	0.21	0.21	-0.04	0.22	-0.06	0.17	-0.02	0.46	**0.63**
Ref_9	0.05	0.12	0.18	0.05	0.12	-0.05	0.22	0.16	**0.35**
MA	-0.23	-0.12	0.16	-0.09	1.00	-0.08	0.13	-0.11	-0.02

D.3. Initial Outer Loadings

Indicators	AB	ELExp	FL2S	IL2S	MA	Neg	OL2S	P	Ref
AB_1	0.79								
AB_2	0.79								
AB_3	0.83								
AB_4	0.79								
ELExp_1		**0.67**							
ELExp_2		0.80							
ELExp_3		0.77							
ELExp_4		0.80							
ELExp_5		**0.68**							
ELExp_6		0.82							
FL2S_1			0.83						
FL2S_2			0.82						
FL2S_3			0.78						
FL2S_4			0.89						
FL2S_5			0.77						
FL2S_6			0.87						
IL2S_1				0.83					
IL2S_2				0.89					
IL2S_3				0.88					
IL2S_4				0.80					
IL2S_5				0.74					
Neg_1_Rev						0.79			
Neg_2_Rev						0.78			
Neg_3_Rev						0.77			
Neg_4_Rev						0.75			
Neg_5_Rev						0.84			
OL2S_1							0.75		
OL2S_2							0.83		
OL2S_3							0.79		
OL2S_4							**0.44**		
OL2S_5							0.73		
P_1								**0.60**	
P_2								**0.65**	
P_3								0.77	
P_4								**0.58**	
P_5								0.73	
P_6								0.74	
P_7								0.81	
P_8								**0.51**	
P_9								**0.17**	
Ref_1									**0.60**

Ref_2		**0.65**
Ref_3		**0.53**
Ref_4		0.73
Ref_5		0.73
Ref_6		0.78
Ref_7		**0.32**
Ref_8		**0.63**
Ref_9		**0.35**
MA	1.00	

D.4. Collinearity Statistics (VIF)

Indicators	VIF values
AB_1	1.62
AB_2	1.80
AB_3	1.99
AB_4	1.65
ELExp_2	1.80
ELExp_3	1.85
ELExp_4	1.98
ELExp_6	1.89
FL2S_1	2.41
FL2S_2	2.33
FL2S_3	2.20
FL2S_4	**3.47**
FL2S_5	2.07
FL2S_6	**3.02**
IL2S_1	2.26
IL2S_2	**3.01**
IL2S_3	2.83
IL2S_4	2.15
IL2S_5	1.65
Neg_1_Rev	1.69
Neg_2_Rev	1.93
Neg_3_Rev	1.90
Neg_4_Rev	1.62

Neg_5_Rev	2.00
OL2S_1	1.87
OL2S_2	2.27
OL2S_3	1.48
OL2S_5	1.36
P_3	1.53
P_5	1.65
P_6	1.64
P_7	2.00
Ref_4	1.49
Ref_5	1.48
Ref_6	1.61
MA	1.00