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A CORRELATIONAL STUDY: PERSONALITY TYPES AND FOREIGN LANGUAGE ACQUISITION IN UNDERGRADUATE STUDENTS

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A CORRELATIONAL STUDY: PERSONALITY TYPES AND FOREIGN LANGUAGE
ACQUISITION IN UNDERGRADUATE STUDENTS

By

FRANK CAPELLAN

A doctoral dissertation submitted to the
College of Education
in partial fulfillment of the requirements
for the degree of Doctor of Education
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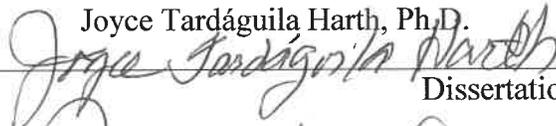
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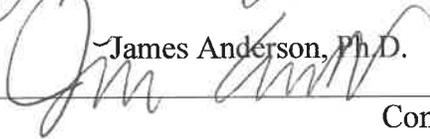
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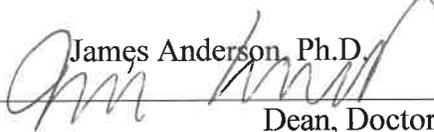
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Dean, Doctor of Education

DEDICATION

For Otilia, with everlasting love

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ABSTRACT

The purpose of this study was to investigate the relationship between personality types and second language acquisition. The study addressed a problem that is inadequately investigated in foreign language acquisition research; specifically, personality traits as predictors of language learning in college students studying Spanish as a foreign language. The researcher conducted one sample *t*-tests to assess statistically significant differences between mean personality type score and the test value, as well as, a multiple linear regression analysis. A convenient sample of college students ($n=52$) completed the Neris Personality Type Indicator at the beginning of the course, and took several examinations throughout the semester. Personality traits were correlated with examination grades. The results of the analysis indicated that personality types were not related to second language acquisition. The results of the multiple linear regression analysis were not significant, $F(5,46) = 0.39$, $p = .85$, $R^2 = .04$, indicating that the model consisting of the personality types contributed to 4% of the variance in test grade. Because the model was not statistically significant, the researcher did not evaluate the individual predictors.

Keywords: college Spanish; personality type; second language acquisition; adult learners.

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I. INTRODUCTION

The acquisition of a foreign language is a process that can be affected by several factors, one of which is the learner's personality. Individual difference variable such as personality can be used to explain not only variance in academic performance, but also the processes by which personality influences learning outcomes. Gass and Selinker (1994), theorized that personality factors significantly influence the degree of success that individuals achieve in acquiring a second language. The theory is based on the assumption that some features of the learner's personality could encourage, or inhibit second language learning (Gass & Selinker, 1994; Cook, 1996).

Over the years, research in personality traits has gained much popularity thanks in part to the recognition that personality predicts behavior, and academic outcomes (Bouchard & McGue, 2002). Cross-cultural studies of personality, for instance, have provided cumulative evidence that personality factors are universal and replicable, meaning that they can be found in all societies, and cultures (McCrae & Costa, 1997). Moreover, and since no significant differences in traits, and trait structures have been found in some cultures, researchers have concluded that traits are not generated by the specificity of a culture; but rather, traits are generally attributed to biological bases, and psychological consequences of the shared human experience of living in society (McCrae & Costa, 1997).

Subsequently, there has been much controversy on how many factors affect the development of personality. Eysenck (1964), as well as, Tellegen, (1982) contended that there

were only three factors that influence the development of personality. Costa & McCrae (1992), attested to five, while Comrey (1970) to eight, and finally Cattell, Eber, & Tatsuoka, (1970) to 16. The number of higher order traits, and their hierarchical structure is also disputable. Eysenck's traditional three factor theories, which became a point of reference for many researchers, included Neuroticism, Psychoticism and Extraversion. The factor of Psychoticism connected with aggressiveness, and hostility is the most controversial one. Tellegen's three factor model replaced Extraversion with Positive Emotionality, Neuroticism with Negative Emotionality, and the factor of Constraint.

Educational researchers Costa & McCrae, (1992); nonetheless, agree that the best representation of human personality is provided by the Five Factor Model. According to this model, there are five basic dimensions of personality: Openness to Experience, Conscientiousness, Introversion-Extraversion, Agreeableness, and Neuroticism. Each of these five factors represents the shared variance among a set of more specific traits.

This dissertation was a report of a non-experimental correlational study between personality traits, and language acquisition in college students studying Spanish as a foreign language. The study was based primarily on the notion that personality factors have an effect on foreign language achievement. The following factors were investigated:

Extroversion/Introversion, Intuitive/Observant, Thinking/Feeling, Judging/Prospecting, and Assertive/Turbulent. The results obtained in the correlation matrix were subject to one sample *t*-tests, and a multiple regression analysis in an effort to answer the question, as to what extent personality factors have a predictive effect on college students studying elementary Spanish as a

second/ foreign language. Furthermore, the study investigated the personality factors that had the strongest effect on foreign language achievement.

The first chapter of this dissertation introduces the background of the study, stipulates the problem of the study, describes its significance, and presents an overview of the methodology used. Further, this chapter concludes by noting the limitations, and delimitations of the study, as well as, defining some key terms used.

Background of the Study

One of the primary objectives in foreign language learning settings is to raise awareness about students' personal differences, the possible effects on the learning process and subsequently, on learning outcomes. Furthermore, due to the numerous learner variables that appear to limit the process of language learning in adult students, the emphasis on the individual differences among learners proves to be relevant in modern language instruction and its associated learning environments. This study analyzed the role of personality variables in college students studying Spanish as a foreign language.

Personality makes a difference in how adult students learn, and what they learn. Thus, it becomes an important construct in language learning along with linguistic, affective, situational, motivational, and demographic factors, among others (Wenden, 2002; Lundell & Sandgren, M.; Brown, 2013; McCaulley & Natter, 1980; Blair, 1982).

Learners' individual differences which may include personality, intelligence, aptitude, and motivation have become important features for the success of learning a second or a third

language. Studies in individual differences; however, have failed to produce consistent research results (Oxford, 1992; Lalonde & Gardner, 1984; Skehan, 1989; Ackerman & Heggestad, 1997). Every student possesses a unique diverse personality type. In conjunction, and within the context of language, several personality characteristics have been proposed as likely to affect second language acquisition in adult college students (Lightbrown & Spada, 2006; Robinson & Ellis, 2008).

Statement of the Problem

Early discussions of possible personality characteristics of successful second language learners tended to differentiate mainly between two types, the introverted and the extroverted (Dunkel, 1947; Kawczynski, 1951; Valette, 1964). These studies implied measurement of sociability; however, they have not provided consistent results regarding the role of sociability towards learning a foreign language (Chastain, 2006; Naiman, Frolich, Stern & Todesco, 1978; Swain & Burnaby, 1976). Researchers Gardner, R.C, & Lambert, W.E., (1972) suggested a possible connection between language aptitude, motivation, attitudes and achievement in the acquisition of a foreign language; however, other studies focusing on personality variables have generally produced equivocal results (Chastain, 2006).

According to Guiora & Acton (1979), affective variables receiving the majority of attention have been empathy, anxiety, creativity, field dependence/independence, deliberateness and emotionality. Such variables have been included in studies investigating a number of

personality measures, but relationships for the same variables are not consistent from study to study. Based on previous research, there is still little reason to conclude that personality variables are directly correlated to the acquisition of foreign languages (Scovel, 1978; Chastain, 2006; Hansen & Stanfield, 1981; Oskarsson, 1975).

This study explored a problem that is not addressed often in second language acquisition studies, that is, personality traits as predictors of foreign language achievement in college students studying Spanish as a foreign language (Dornyei, 2009; Abrahamsson & Hyltenstam, 2008; Arnold, 1999).

Significance of the Study

This study measured the correlation among psychological variables as critical components toward learning elementary Spanish as a second language at university level. Its significance is highlighted by the limited relevant literature related to L2 subject proficiency and personality within the target language. Previous studies have demonstrated conflicting evidence regarding the role of personality in the acquisition of a second/ foreign language. Whereas several studies have brought to light some correlation between the acquisition of a second language and affective variables, including those using the Myers Briggs Type Indicator (MBTI); studies that have focused primarily on the possible relationships between personality characteristics and L2 subject proficiency have shown mixed results (Arnold, 1999; Dörnyei, 2009).

An understanding of how these affective variables correlate with subject proficiency could prove beneficial within the field of L2. Because of the diversity found in most L2 classrooms, communication during early stages of education can prove difficult; thus, the importance of recognizing individual differences in the field of foreign language academic settings (Dörnyei, 2006).

Studies indicate that individual differences significantly influence the acquisition of foreign language, as well as, thinking and behavior. Other affective characteristics that influence language learning in adult students are language learning anxiety, experience with the first language, culture, transfer, attitude, social interaction, and personality type among others. Researchers, thus, confirm the relationship between the disparity in language learning outcomes, and the learner affective characteristics (Dörnyei, 2006; Goebel, 2007).

Most college students enrolled in Spanish courses are students who have acquired their primary language skills in a language other than Spanish. In addition to language learning, college students are asked to merge their cultures, backgrounds, and experiences with those of their new language learning environment in order to achieve academic success (Olson, 2014). It is suggested that in an effort to facilitate the acquisition of a foreign language, it is of utmost importance to understand the needs, and the individuality of each learner. Other factors influencing language acquisition are pedagogy, instructor characteristics, experiences, the length of time immersed in the target language, cultural influences, and literacy in the first language (Merriam & Bierema, 2014; Olson & Land, 2007). Studies have also confirmed the importance

of personality on language development in adult learners; hence, this study might help college instructors single out potential challenges early on in the classroom and, if necessary, provide further attention to college students in L2 classrooms.

Lastly, it should be noted that if the native language spoken at home by the learner appears to serve as a key dominant variable, then the groundwork for future studies could be established. Although the study may be more along the lines of linguistics, and not education research, it might provide further insights into the nature of language as it pertains to L2 pedagogy.

Overview of the Methodology

The objective of this correlational non-experimental study was to examine the level of personality factors in undergraduate college students studying Spanish as a foreign language. The study analyzed whether personality variables were predictors of foreign language aptitude. For the purpose of this study, the proposed hypothesis projected that personality traits were linked to the acquisition of a second language. Personality factors explained some variance in foreign language aptitude. Since the relationship between foreign language achievement in adult learners, and personality traits is poorly investigated, great caution was exercised when interpreting the results.

A convenient sample of $n:52$ college students was selected from a Christian university in Lakeland, Florida enrolled in a sixteen-week elementary Spanish course during the Fall semester, 2016 on a three-credit basis. A total number of $n:52$ students from various classes

participated in the study. The participants were college students whose ages varied from 18 to 35. The study investigated the possible relationship between personality types, and foreign language acquisition in undergraduate level college students.

The Neris Personality Type Indicator was used to measure the role of personality factors in language learning. This free personality questionnaire is based on Carl Jung's and Katharine Cook Briggs' theory of personality. Katharine Cook Briggs noticed Jung's theory in the 1920s, and later co-authored one of the most respected and validated personality indicators used by the social researcher community today, the Myers Briggs Type Indicator (MBTI). Together with her daughter, Isabel Briggs Myers, they developed a convenient way to describe the order of each person's Jungian preferences, hence, how the four-letter acronyms were born.

According to the authors, there are four possible pairs of personality types- Introversion (I) or Extraversion; Intuition (N) or Sensing (S); Thinking (T) or Feeling (F), and Judging (J) or Perceiving (P), (Briggs Myers, I.; McCaulley, M. H. & Natter, 1980; Costa & Piedmont, 2003; Quenk, N.L. & Hammer, A.L., 1998). The Myers' personality type theory has demonstrated good psychometric properties in terms of both reliability and validity. However, instead of trying to create 4 type personality constructs, and fit people within them, the Neris Personality Type Model outlines a number of traits that measure people's preferences using detailed scales. The scales look at each individual's score; but does not categorize them.

This approach instead, makes the instrument much easier to reliably measure correlations between personality traits and other characteristics (e.g., interests, intelligence as processes, preferences, knowledge, perception, attitudes), hence why trait-based approaches dominate psychometric research (Personality Types, 2011). Further, the percentage measures shown after completing the test indicate the categories that each individual fall under, including how strong their preferences are (Personality Types, 2011).

According to researchers Costa & Piedmont (2003), and Pervin (1989), the Five Factors model is perhaps even more useful in research, and learning than it currently is for psychological procedures. Lastly, the model uses the acronym format introduced by Myers-Briggs due to its simplicity and convenience; nevertheless, the model redefined several Jungian traits and introduced an additional one, simplifying the model and bringing it closer to the latest development, namely the dimensions of personality called the Big Five personality traits (Personality Types, 2011). The Five Factors include Extroversion/Introversion, Intuitive/ Observant, Thinking/ Feeling, Judging/ Prospective, and Assertive/Turbulent (Ewen, 1998). Data was collected from the Neris Personality Type Indicator website via students' university emails.

Another instrument used in the study was A Likert-Scale Survey. The scale was used, and developed to collect demographic data (age, gender, ethnicity, native language, major, career goal, reason for studying Spanish, and prior experience with the target language).

Four Spanish tests were administered to measure language proficiency throughout the semester, as well as, a final presentation at the end of the Fall, 2016 (reading, writing, speaking,

and listening). The subjects for this non-experimental study of 18-to-35-year-old students were college students from a Christian university in Lakeland, FL. Survey and achievement were coded using student's ID number in order to match tests accurately. All completed instruments, and surveys were collected at the end of the session. Final grades of all student participants were obtained from the instructor at the end of the semester.

Purpose Statement

Language theorists Krashen (1981), and Rivers (1964), attempted to relate personality to attitudinal variables involved in the acquisition of foreign languages. Both Krashen (1981), and Rivers (1964), suggested that personality factors could be connected to academic performance. Krashen proposed, for example, that an individual who has an analytical orientation could perform better in conscious learning, and should demonstrate a more favorable attitude towards acquiring a foreign language than those without such an orientation. Further, they hypothesized that personality traits related to self-confidence (i.e., lack of anxiety, outgoing personality, self-esteem) might correlate to second language learning. Clement (1980), also assumed a similar position, suggesting that self-confidence will be important in multicultural settings where contact with members of other racial groups is possible.

The purpose of this study was to investigate the correlation between personality, and second language acquisition of college students studying elementary Spanish as a foreign language. Specifically, this study investigated whether any relationship existed between

personality, and language achievement. Additionally, the study investigated personality traits as predictors for language learning in adult university students.

Research Questions

The study investigated the following research questions:

1. What are the predominant personality traits found in college students studying Spanish as a foreign language in a Christian university?
2. Do personality types predict language learning in college students studying Spanish as a foreign language?

Quantitative Research Hypothesis (es)

Researchers who have integrated psychological variables into their research designs have done it primarily to identify the personality traits that could be connected to great success in foreign language acquisition. Nevertheless, studies have shown a poor correlation between personality traits, and linguistic measures in foreign language. This phenomenon is due to multiple reasons. One, the nature of the dependent variable, namely the wide variety of measures of achievement in the target language, and two, the difficulty of separating the independent variable from instructional and situational variables (Dewaele, 2012; Dewaele, & Li Wei, 2011; Merriam & Bierema, 2014; Olson & Land, 2007).

In other words, any given personality trait might have an effect in a particular situation where students have to perform a specific task; but that effect may disappear in another situation or another task. Furthermore, even when significant relationships have been properly identified between psychological variables, and language achievement, the effect sizes are continuously small (MacIntyre, Clément & Noels, 2007).

Considering the amount of research done on personality and foreign language achievement, it is rather surprising that the findings have been relatively unsatisfactory. The reason being is probably connected to both theoretical, and methodological reasons. Second language acquisition can be affected by several factors, one of which is the learner's personality. Studies suggest that personality characteristics could be intricately correlated with cognitive abilities and second language acquisition, suggesting a possible relationship between personality types, and language learning (Rolfhus & Ackerman, 1999; Dornyei, 2009; Chamorro-Premuzic, T., & Furnham, A. 2003). This study explored an issue that has not been addressed often in second language acquisition studies, that is, personality predictors of foreign language aptitude in university students studying Spanish as a second language (Robinson & Ellis, 2008; Dornyei, 2009; Abrahamsson & Hyltenstam, 2008; Arnold, 1999).

Limitations and Delimitations

Limitations: There were several limitations involved in this study. First, language proficiency was limited to test scores written, and evaluated by the instructor teaching the Spanish course.

Second, the sample gathered for the study was limited to one Christian university. Third, the Neris Personality Type Indicator represented only the facets for measuring personality traits; while this instrument presented no problems, it failed to address student culturally significant issues which could directly influence personality.

Delimitations: It was difficult to generalize the findings in this study because of the small population. Further, the study was limited to one semester. Due to the small sample size, the findings may not be transferrable to other adult L2 learning settings.

Definition of Key Words

Language Acquisition: a human trait, the innate process by which humans attain the capacity to perceive and comprehend language, as well as, to produce, use words, and sentences to communicate. It also refers to L1(Friederici, 2011).

Language Learning: the ability to communicate in a second/ foreign language; within this context, it includes: language learning for specialists, and non- specialists or service languages, languages for instruction (including the teaching of the language/s in university settings to non-native speakers), and language learning for social purposes (Freidin, 2013; Chomsky, 1975).

L1: in the tradition of our field, the term L1 is used to refer to either a first language, or native language of the learner.

L2: in the tradition of our field, the term L2 is used to refer to either a second or a foreign language.

Personality: it refers to relatively stable, and enduring features that distinguish individual from other people (Wright, D. & Taylor, A., 1970). According to Child (1968), personality characteristics are unchanging internal factors that make a person's behavior consistent from one situation to another. Further, personality is an integral part of an individual, it is psychological, and is constructed of smaller units called characteristics- the combination of these characteristics creates a unique psychological signature (Peterson, 1992).

Personality Factors: a feature or a quality that is assumed to distinguish one person from another.

II. REVIEW OF LITERATURE

As discussed in Chapter 1, the importance of individual differences in the field of second language acquisition has been recognized in a significant body of research (Dörnyei, 2006). The studies indicate that individual differences significantly influence the acquisition of a foreign language, as well as, thinking and behavior. Other affective characteristics that influence language learning in adult students are language learning anxiety, experience with the first language, culture, language transfer, attitude, social interaction, and personality type among others. Researchers, thus, confirm the relationship between the disparity in language learning outcomes and the learner affective characteristics (Dörnyei, 2006; Goebel, 2007).

Most college students enrolled in Spanish courses are students who have acquired their primary language skills in a language other than Spanish. In addition to language acquisition, college students are asked to merge their cultures, backgrounds, and experiences with those of their new language learning environment in order to achieve academic success (Olson, 2014).

Studies indicate that in an effort to facilitate foreign language acquisition, it is of utmost importance to understand the needs, and individuality of each learner. Other factors influencing language acquisition are pedagogy, instructor characteristics, experiences, the length of time immersed in the target language, cultural influences, and literacy in the first language, among others (Merriam & Bierema, 2014; Olson & Land, 2007).

Iverson & Hazan (2005), agree that the window of opportunity to learn multiple spoken languages narrows after childhood. Furthermore, the lack of mastery of the language increases the likelihood of academic failure (Patricia & Consuelo, 1996).

Researchers have also found that adult learners have greater difficulties acquiring a second language primarily because of age, and not necessarily due to brain plasticity (Sousa 2011). According to Sousa (2011), acquiring advanced language skills becomes a challenging task once the learner passes the age of puberty, or the age of 11. Thus, the younger the learner, the easier it is for them to learn a second language. Based on this theory, researchers hypothesize that the complexities of acquiring an advanced language skill reside within the brain's ability to create the appropriate neuronal connections at an early age (Brown (2007; Lidzba, K., Winkler, S., & Krageloh-Mann, I., 2013).

Studies indicate that the “brain's connections are primed for language acquisition through the age of 6” (Sousa, 2011, p. 191). Furthermore, the capacity of the brain to learn multiple spoken languages “begins to deteriorate by the end of the first year” (Hodara, 2012, p. 5). Similarly, Brown (2007) attests that abstract thinking occurs during puberty, hence, emphasizing puberty or the age of 11 as a critical stage to consider the effect of acquiring a second language.

In regards to adult learners and language acquisition, the success of acquiring a foreign language is not only affected by cognitive factors; but also by affective variables. Among those external influences, anxiety, experiences, transfer, age, attitude, and personality among others are of great importance (Shaozhong, 2001; Kirby & Hurford, 2002; Sousa, 2011; Powell, n.d.; Chastain, 2006; Ackerman, 1996).

Language Learning Anxiety

Anxiety is an emotion that affects language learning. Language anxiety refers to fear, or apprehension that occurs when the learner is expected to communicate in a foreign language course. Generally, anxiety is associated with the feelings of uneasiness, self-doubt, worriedness, and/or fear that the student feels under certain circumstances. Language research indicates that a threatening classroom environment does not promote language acquisition, hence, factors such as emphasis on competition between students in the classroom before they are ready can cause anxiety (Han, 2015; Alrabai, 2014).

Since language anxiety is embedded within sociocultural contexts, researchers such as Horwitz (2010), confirms that language anxiety is a complex mental process, a multifaceted self-perception that challenges the learner's self-concept as a competent communicator, leading to hesitation, self-consciousness, fear, and panic. Horwitz (2010), also argues that anxiety is due to the learner's communication attempts being evaluated according to unknown linguistic, and socio-cultural standards.

Furthermore, anxiety is linked directly to performance within the target language. According to language researchers, language anxiety could be connected to all aspects of the language learning process. Language anxiety is often experienced by college students in combination with their inability to adequately express themselves within the target language. This type of anxiety ranks high among factors influencing language learning, regardless of whether the setting is formal or informal (Williams, 1991; Hu, L., & Wang, N., 2014).

Foreign language anxiety normally shows up in testing situations. Oftentimes, students report that they know the material taught in class, however, they forget it during a test or an oral examination. The problem can also be isolated in persistent careless errors in spelling or syntax. If the student realizes he/she is making avoidable errors during a test or an oral exam, anxiety and errors may intensify (Kirby & Hurford, 2002; Horwitz, E. K., Horwitz, M. B., & Cope, 1986; Horwitz, E. K., 2010).

Since performance evaluation is an ongoing feature of most foreign language courses, test anxiety is also relevant to a discussion of foreign language anxiety. Researchers refer to test anxiety as a type of performance anxiety stemming from fear of failure. Subsequently, anxiety can have profound effects on many aspects of foreign language acquisition (Dewaele, J., 2010; Onem, E., 2010).

Adult students who suffer from language anxiety tend to display a wide range of negative attitudes towards the target language. For instance, many students who experience anxiety in foreign language courses prefer to sit in the back of the classroom in order to avoid the instructor, and any class activity related to the target language. Furthermore, they oftentimes skip classes, procrastinate, and even fail to complete homework assignments (Macintyre, 1995; Eysenck, n.d.; Dakowska, 2013).

In the same manner, adult students who experience language anxiety appear to display symptoms such as having difficulties understanding words (misrepresentation of sounds), fail to produce intonation, refuse to speak when called upon, avoid interaction with other students, cannot follow simple tasks, and evade speaking in class by all means necessary. In addition,

anxiety manifests itself when students avoid communicating simple messages within the target language, display lack of self-confidence, freeze up in role play activities, and cannot remember previously learned grammar or vocabulary in evaluative situations (Han, 2015; Randall, 2007; Baus, C., & Costa, A., 2016).

Adult students can also experience anxiety during reading tasks. For example, they may be able to interpret words; nonetheless, cannot make sense of the script. In addition, the level of anxiety students experience can influence their ability to acquire specific language skills.

Language researchers propose that language learning anxiety can affect any of the four language learning skills: speaking, listening, reading, and writing (Akamatsu, N., 2003; Koda, K., 2007; Horwitz, 2001).

Another area of interest is communication apprehension; more specifically language speaking anxiety. Students who suffer from communication apprehension are likely to avoid situations they consider anxiety provoking (Horwitz, 2000; Young, D. J., 1990).

Since foreign language anxiety concerns performance evaluation within academic and social context, researchers agree on the importance of drawing parallels between it and other related performance anxieties such as communication apprehension, test anxiety, and fear of a negative evaluation. In a general sense, communication apprehension is a type of nervousness characterized by fear of communicating with people (Salehi, M., & Marefat, F., 2014).

Difficulty in speaking in groups, in public or even learning a spoken word are all indicators of communication apprehension (Paradowski, M. B., Dmowska, K., & Czasak, D., 2015).

Communication apprehension or other similar reactions play an important role in foreign language anxiety. Researchers attest that students who typically have trouble speaking in groups are likely to experience even greater difficulty speaking in a foreign language class where they are constantly being monitored. Furthermore, foreign language courses require students to communicate via a medium in which only limited facility is possessed (Cheng, Y., 2002; Phillips, L., n.d.).

Studies in language acquisition have found two types of language communication apprehension: trait communication apprehension, and state communication apprehension (McCroskey, J. C., & Beatty, M. J., 1984). Language trait communication apprehension is experienced in situations where oral communication may occur, whereas state communication apprehension is specific to a particular oral communication situation. Language speaking anxiety is similar to state communication apprehension in that language speaking anxiety is not experienced in all situations, and only occurs in circumstances where the learner must speak using the target language (Szyszka, 2011; Young, D. J., 1990; Karatas, H., Alci, B., Bademcioglu, M., & Ergin, A., 2016).

In regards to college students learning a foreign language, researchers argue that students in language learning settings experience elevated levels of speaking anxiety, mainly when required to speak in front of a group of students (Tran, T. T., Baldauf, R. B., & Moni, K., 2012). Speaking anxiety is also seen as fear of being misunderstood (Cheng, Y., Horwitz, E. K., & Schallert, D. L., 1999).

Additionally, studies have shown that oral classroom activities are the most anxiety provoking in foreign language courses (Matsuda & Gobel, 2004). Nevertheless, language researchers have found that different types of oral activities can produce different levels of anxiety. According to Gardner, R. C., Tremblay, P. F., & Masgoret, A., (1997), and Furnborough (2005), students experience higher levels of fear, and stress when required to complete activities in front of the class, as oppose to students required to complete classroom activities in small groups. One possible explanation could be due to the level of comfort students experience in peer-to-peer interactions.

Church (1997) points out that the context in which the learning takes place governs what a text communicates to its readers. As a result, the student's interaction with a text and the meanings it conveys are personal, and unique to the individual. The concept of interaction results in direct knowledge transfer.

In addition, interactions among peers define the role of social interaction in knowledge construction (Pontecordo, 1993). These interactions can either be exemplified in different theoretical perspectives such as motivational and sociolinguistics, or according to whether subjects are studied in experimental and/or in real educational settings. Researchers have found that deep, and meaningful learning produces higher academic outcomes as long as peer-to-peer interaction is at a high level (Maslow, Rogers, & Frankl, n.d.; Bayyurt, 2013; Chickering & Gamson, 1996; Smemoe & Haslam, 2012; Miyazoe & Anderson, 2010, p. 94).

Student interaction is of particular interest to researchers due to its constancy with a high level of academic achievement, higher order of thinking, inter-group relations, grammar

accuracy achievement, and a range of affective variables, such as motivation and love for education. Studies suggest that college students studying a foreign language need to be given plenty of opportunities to have extended interactions with peers of varying proficiency levels, and who can help them use the language structures appropriately, as well as, abundant personalized feedback. Purposeful grouping is also important since adult students learn best when they are in heterogeneous classrooms (Assia, B., & Said, K., 2014; Grant & Graham, 2014).

Studies in sociolinguistics suggest that interaction among peers can help students acquire “new skills, and advance their potential more quickly through the support of a mediated interaction with a proficient individual” (Lund, 2003, p. 61). Student interaction also promotes positive interdependence, equal participation, collaborative skills, individual accountability, and simultaneous interaction (Wilkinson, 2016).

In the same manner, while other scholars disagree with the research about classroom communication by implying that real learning can only occur between instructors and students, studies also show, that student interaction may actually be more important for educational success than instructor-student interaction (Hertz-Lazarowitz, Baird, & Webb, 1984; Assia, B., & Said, K., 2014).

Additionally, student interaction includes communication among classmates for the purpose of completing a course related activity, and informal discourse about class subject matter. Furthermore, studies also show that students learn best through extended discussion with their classmates instead of student-instructor interaction. Researchers also confirm that

constructive student interaction is more effective than traditional teaching in terms of students' academic achievements (Creasey, G., Jarvis, P., & Gadke, D., 2009; Wilkinson, 2016; Furnborough, 2005).

In regards to adult learners and language anxiety, studies also show that students can experience higher levels of anxiety when asked to demonstrate language speaking skills as compared to language listening skills (Vandergrift, 2007; Arnold, 2000).

In terms of language anxiety and listening skills, researchers have also found that high levels of listening anxiety can obstruct listening comprehension. One possible explanation may be that listening skills are comprised of two significant variables: decoding and comprehension. Decoding is the process of coding sounds into expressive language units; while comprehension is commonly defined as the construction of meaning using both the decoded language, and the learner's prior knowledge (Kilic, M., & Uckun, B., 2012; Valizadeh, M. R., & Alavinia, P., 2013).

Language researchers have noted that language learners' approach to reading tasks differentiate from listening tasks. These variances can make a difference in how receptive the language learner may be towards understanding the information presented. It is also argued that a distinct difference exists between reading, and listening language skills; that is, language learners may simply examine a text to determine the main idea in reading; whereas, texts are unavailable during conversations (Lund, R. J., 1991; Mills, Pajares, & Herron, 2006; Chamot, A. U., & Kupper, L., 1989).

Although students may seem to have an advantage with reading tasks in comparison to listening skills, adult language learners may also experience anxiety when they are engaged in language reading processes. Language experts confirm that students studying Spanish as a foreign language experience anxiety when reading in the target language, hence, negatively impacting their reading comprehension scores. Moreover, researchers argue that language reading anxiety occurs due to students' unfamiliarity with the writings or writing systems of the target language, thus their lack of knowledge of the context within the text (Lundell & Sandgren, 2013; Seller, 2000; Marcos & Garau, 2009).

Researchers have found associations between foreign language classroom anxiety, and foreign language writing anxiety. Foreign language classroom anxiety differs from anxiety experienced by the learner's writing in the native language (Cheng, Horwitz, & Schallert, 1999; Weissberg, 2006).

Additionally, general writing anxiety differs from academic anxiety in that writing anxiety is unique to written communication which is negatively associated with the quality of the written message. A possible explanation as to why students experience such a high level of foreign language writing anxiety relates to self-efficacy regarding the learner's writing abilities specific to the target language (Raofi, Tan & Chan, 2012; Torres & Turner, 2016).

Adult learners may also experience elevated levels of language writing anxiety due to language skills consisting of several parts such as grammar, discourse, sociolinguistic, and strategic competence. Strategic competence reflects itself in the learners' writing assignments when written to a specific audience in mind, while grammatical competence presents itself by the

correct use of grammar, vocabulary, and punctuation, etc., (Cheng, Horwitz & Schallert, 1999; Schoonen, Gelderen, Hulstijn, Simis, Snellings & Stevenson, 2006; Cheng, 2002; Harklau, 2002).

Experience with the First Language

Another affective variable in learning a foreign language is the learner's experience (s) with the first language. The learner's experience with the first language has as much influence on learning a second language as does learning anxiety. According to Iverson & Hazan, (2005) second language acquisition becomes difficult because experiences with the first language misrepresent perception. The brain perceives the new language experience through the lens of the native language, and that distorts the way adult learners see foreign languages.

Language acquisition is a term used by linguist researchers to explain the process by which humans acquire the capacity to perceive, and comprehend language, as well as, to produce and use words to communicate. The human brain's capacity to successfully use language requires a range of tools that include phonology, morphology, syntax, semantics, and a broad vocabulary (Arnon, 2011; Tarp & Miyares, 2013; Gómez, 2011).

Though learning a second language after puberty becomes problematic, second language acquisition does not appear to be difficult because of changes in neural plasticity, hence, the difficulties adult students have learning a second language has nothing to do with the brain plasticity involved in language perception (Sousa, 2011; Foster-Cohen, S., 2010). It is suggested, then, that adult learners are sensitive to patterns in language which enables the

acquisition process. An example of this gradual pattern learning is morphology acquisition.

According to Brown (1973), morphology acquisition refers to the unit of grammar dedicated to the study of the forms of words, primarily through the use of the morpheme construct.

Morpheme is a unit of meaning, and it does not necessarily relate to the word count, or syllable count of an utterance. Eisenbeiss (2010), confirms that morphemes are the smallest grammatical units in language that alter words. The following is an example of how morphemes are counted in words: happy is one word that has two syllables (ha-ppy), and because it covers only one unit of meaning is therefore, one morpheme. However, if another unit of meaning is added, such as un-, to turn happy into unhappy, the learner will still perceive one word; but three syllables (un-ha-ppy), and two morphemes (un and happy).

In linguistic terms, morphology distinguishes itself from syntax, in that syntax refers to the branch of grammar devoted to the study of rules governing the combination of words to form sentences. When acquiring morphemes, young learners for example, move to more complex expression of their meanings, adding grammatical morphemes. This process of analyzing form and assigning meaning is a prerequisite for the acquisition of morphology (Clahsen, H., Felser, C., Neubauer, K., Sato, M., & Silva, R., 2010).

Linguistic researchers have found a consistent order in the acquisition of first language structures by young learners, which has drawn interest from second language learning experts. Extensive effort has been devoted to testing the hypothesis which emphasizes that first, and second language acquisition may follow similar patterns. This however, has not been recognized perhaps because second language learners' cognition, and affective states are further developed.

The two may share neurological bases; nonetheless, no statistical evidence supports this hypothesis (Kasper, G.; Rose, K. R., 2002; Ellis, R., 1994; Eubank, 1998).

Morpheme order studies, question whether there is a natural order to second language acquisition like that of native language acquisition. The interest in an ordinary order is furthered by the acknowledgement of linguistics' theories which state that students find themselves in a dynamic state of language between first and second language acquisition (Porter, 1977; Bernhardt, E. B., & Krashen, S. D., 1989; Briscoe, Scarcella, & Krashen, 1982).

The order of morpheme acquisition conceptualizes that there is a specific order in which language learners acquire the grammatical features of their first language. This idea is based on the observation that young learners acquire their first language in a fixed order, regardless of the specific grammatical structure of the language they learn. Researchers attest that this phenomenon is true for first language learners; however, order of acquisition for second language learners is not as consistent. There is no clear consensus as to why the order differs for second language learners, though present research suggests this variability may stem from first language cognitive interferences (Lampert & Lampert, 2013; Crystal, 1974; Pienemann, 2002).

Studies suggest that most second language acquisition learners begin the process with a silent period where the learners begin to process pieces of the language they hear. This is a period of language inquisitiveness in which the learner ignores some of the mysterious inputs of the new language. Nevertheless, research has shown that many quiet learners participate in private speech, also called self-talk (White, 1988; Murakami & Alexopoulou, 2015).

It is of utmost importance to recognize, then, that while appearing silent they are rehearsing important lexical phrases. Some learners, nonetheless, have no silent period and go directly into patterned speech. This speech is then used to achieve basic communication within the newly acquired language, thus showing few departures from detached words strung together, leading to more fluid phrases (Luk, & Shirai, 2009; Scovel, 2000; Lampert, & Lampert, 2013).

According to Nelson (2012), the capability of neural connections could be linked to learning representation, and personality traits (perception, attention, etc.). Nelson's connectionist model revealed that a neural system that is structurally unresponsive to the subjective difference between the form, and the meaning of a word is able to vigorously recognize that difference in response to task demands. This difference, once constructed, is "available as data for higher-level learning, where it can then be durably instantiated in a cortical memory network" (Nelson, 2012, p. 23).

As the brain starts maturing, adult learners lose this plastic ability to pick up new languages; however, given the right environment and stimulus, the human brain has the potential to acquire the skills necessary to speak multiple languages (Yusa, N., Koizumi, M., Kim, J., Kimura, N., Uchida, S., Yokoyama, S., Hagiwara, H., 2011; Sousa, 2011).

Although, the acquisition of language, sound, and the meaning of words occurs across multiple language systems when the brain is actively creating phonemic sound, and syntactic networks; there is no clear consensus by applied linguistics as to whether foreign language acquisition is innate or learned (Tomasello, 2010; Yusa, N., Koizumi, M., Kim, J., Kimura, N., Uchida, S., Yokoyama, S., Hagiwara, H., 2011).

Second language acquisition theories hypothesize that adults have two independent systems for developing abilities in second languages- 1) subconscious language acquisition, and 2) conscious language learning. These two systems are interrelated in a fixed way. In addition, research indicates that subconscious acquisition appears to be far more important (Krashen, 1981).

Though it may be difficult to determine without invasive procedures what parts of the brain become most active for language acquisition, language researchers propose that there may be a grammar center where language is primarily processed in the left lateral premotor cortex. Moreover, these studies proposed that first language, as well as, second-language acquisition may be represented differently within the cortex (Perlovsky & Sakai, 2014; Kinno, Muragaki, Hori, Maruyama, Kawamura & Sakai, 2009).

Per several linguists, neurocognitive research has confirmed many standards of language learning, such as cognitive, affective, and psychomotor domains. The human brain seeks patterns in its searching for meaning, retention, and past experiences with the first language which in turn continuously affects new learning. Furthermore, the brain's working memory has a limited capacity, hence, rehearsal is crucial for retention. A noteworthy consideration is to understand that practice alone does not make perfect, since each “human brain is unique” (Sousa, 2006, p. 274; Yamamoto & Sakai, 2016; Ohta, Fukui, & Sakai, 2013).

Though the human brain’s capacity to learn multiple languages is limited, language experts believe that the human brain has the ability to understand an infinite number of sentences based on a syntactic principle called recursion (Gervain, 2013; Koster, 2010).

Researchers believe that the human brain has three recursive mechanisms that allow individuals to form simple sentences indeterminately (Cadierno & Gascón, 2013; Cadierno, 2012). These three mechanisms are relativization, complementation and organization. Additionally, there are two main guiding principles in first language acquisition, which are, speech perception always precedes speech development, and the gradually evolving system by which the student learns a language (Freidin, 2013). Linguist researchers, however, argue that language knowledge emerges from abstract thinking, hence, language is acquired through sensory experience.

Studies have also shown that the ability to learn multiple languages later in life becomes more difficult with age; nonetheless, the adult brain can be retrained to pick up foreign sounds more easily according to Iverson (2005). This finding reported at the University of College London Centre for Human Communication, builds on an important new construct that the difficulties adult students have with learning languages later in life are not biological (Iverson, 2005).

Linguist scientists once thought that the adult brain could not be retrained to distinguish between sounds once the learner reached adulthood; nevertheless, based on Iverson's latest study adults can retune their brains to hear these differences again. Researchers now believe that the difficulties are caused by experiences with the first language, which "teaches the learner to ignore certain sounds in an effort to give full attention to the sounds that matter most to the native language" (Iverson & Hazan, 2005, para. 7; Grey & Hell, 2017).

Studies conducted at UCL's Department of Phonetics and Linguistics, examined whether it is possible to retune how the brain processes speech sounds, and found that adult students learning a foreign language can reorganize their brains' cells to acquire new sounds. The study tested 63 native Japanese speakers in Japan, and London who complete a 10-session training course. In the Japanese training study, for instance, the participants improved the recognition of l's and r's by an average of 18% points. The researchers projected that at the end of the training, the student participants would be able to get this correct 78% of the time, hence, supporting the assessment that the brain can be retuned (Iverson & Hazan, 2005). In addition, before the pre- and post- tests, the subjects were given a number of perceptual tests to evaluate their perception of acoustic cues.

Furthermore, similar tests were carried out in London on Sinhalese, and German student participants who had lived in the United Kingdom (UK) for several years. Henceforth, supporting the evaluation that the brain can be retuned (Iverson & Hazan, 2005). Language specialists confirmed that learning a foreign language as an adult does not appear to be difficult because of change in neural plasticity. Rather, language learning becomes difficult due to the experience with the first language that "warps perception". Learners of foreign language (s) see things through the lens of their native language, and that 'warps' the way they see foreign languages (Iverson & Hazan, 2005, p. 3).

Language researchers attest that "it is very difficult to undo this learning", that is, adult students change their perception on language during childhood in a way that the brain becomes specialized to the speech sounds of the first language (Iverson & Hazan, 2005, p. 3). This

specialization can conflict with the brain's ability to learn to distinguish sounds in other languages. However, through training, language researchers believe we can essentially change the "perceptual warping" to make second language learning much easier (Iverson & Hazan, 2005, p. 4).

Sensitive Period in Language Acquisition

There are multiple factors that influence sources of age differences in language acquisition. Among those factors, biological, cognitive, affective, and environmental factors are of great importance. Biological factors revolve around the question whether the adult brain is fundamentally different from the child brain. Cognitive factors draw its theory on the ability of the human brain to formulate abstract hypotheses. Affective factors are seen as emotional mental states necessary for acquisition, and lastly, the differences in the language environments for young learners, and adults as a source of difference towards learning a foreign language (Patkowski, 1980; Norrman, G., & Bylund, E., 2015).

Researchers hypothesize that the development of specialization of functions in the left, and right hemispheres of the brain starts during childhood, and is finalized at puberty. In adult learners for example, the left side of the brain involves language functions such as loss of speech caused by brain damage, as it occurs far more frequently from the left sided lesions than from the right-side lesions of the brain. Furthermore, research shows that loss of speech results when the left hemisphere is temporarily anesthetized; however, the same cannot be said for both

hemispheres. Researchers noticed that when the right hemisphere is anesthetized this generally does not happen (Clark, E. V., n.d.; Lee, D., & Schachter, J., 1997; Norrman & Bylund, 2015).

Studies suggests that the potential for language functions happens in both sides of the brains for both young learners, as well as, adult participants. However, he also noticed that the right hemisphere occasionally causes speech deficits in children, while it rarely occurs in adults. (Lenneberg, 1971; Salus, M. W., Salus, P. H., Lenneberg, E. H., & Lenneberg, E., 1978; Lenneberg, 2016).

Theoretically speaking, the adult's cognitive dominance should make adult students better learners than children at acquiring a foreign language. Nevertheless, researchers have noted that the adult learner's cognitive system is only suited for the complex task of second language learning, and not for the unconscious automatic learning skills found in young students. This is due to the adult's cognitive maturity, since it allows them to deal with the abstract nature of language better than children. Cognitive differences between children, and adults can explain some of the learning differences between children, and adult learners (Allwright, D., & Hanks, J., 2009; Slabakova, R., 2013).

Another variable that might emphasize the differences in language acquisition between children, and adults is the affective factor of the learner. According to Reiterer (2010), the onset of formal operations leads to affective differences between young learners, and adults. The ability to think abstractly leads adults to conceptualize their own thoughts, and to see mental constructions as objects, as well as, reasoning about them. In other words, young people who have passed through formal operations gain a greater ability to imagine what other people are

thinking about (Yeung, H. H., Chen, K. H., & Werker, J. F., 2013). Since the adult learner is a self-conscious individual, it is also presumed that young students are less able to identify, and achieve the open mental state necessary for language acquisition to take place (Young, 2013).

Finally, the differences in language environment also dictate the acquisition process of language between young students, and adult learners. Usually, children receive more concrete input that facilitates language acquisition; however, adult students are typically more exposed to conversation on topics whose referents are not obvious from a non-linguistic approach. Thus, older students may be better at managing conversations (Swingley, 2012; Robison, R. E., & Singleton, D., 2002).

Language acquisition researchers believe there is no clear understanding on the role that age plays when the amount of language input is really small. However, theoretically speaking it could be argued that if children, and adults learn through fundamentally different mechanisms, and that in particular children learn primarily in an implicit way, then small “amounts of a foreign language at a younger age will not be enough to trigger the formation of a phonological system” (Bley-Vroman, 2009, p. 59); and while age does not measure the ability to learn a second language quickly, and fluently in a situation of minimal input; age however, does seem to play a “non-negligible role in improving second language acquisition” (Larson-Hall, 2008, p. 58).

First Language Acquisition

In general terms, language acquisition has always been studied from the standpoint of developmental psychology, as well as, neuroscience. Both fields of study attempt to

understand language parallel to the learner's brain development. Though the theory of language acquisition is not new, and based on the Critical Period Hypothesis (CPH); researchers in the field of language development, and language achievement have recently found that there is a critical period of language acquisition where the developing brain has the ability to learn multiple languages (Lidzba, Winkler & Krageloh, 2013; Sousa, 2006; Friederici, 2011).

The Critical Period Hypothesis states that the first five years of life constitutes the time during which language develops. Nonetheless, after puberty language acquisition becomes more difficult, and eventually not as successful. Researchers argue that young learners early in life develop far better language skills than adults (Jackson & Birdsong, 2000; Abello, 2008; Vanhove, 2013).

Second Language Acquisition

Second language acquisition is a complex process dependent on multiple factors, such as cognitive development, and affective variables including age. Age is an important feature that can influence second language acquisition. Furthermore, the age of the learner has a strong influence on the level of native language acquisition, hence, contributing to additional meanings in the learning process (Sousa, 2011; Robison & Singleton, 2002; Scovel, Singleton & Lengyel, 1997).

Research shows that age has an enormous influence on language learning. Linguists, psychologists, as well as, pedagogues have struggled for many years to answer the question as to whether it is possible for adult learners to reach native like language proficiency when learning a foreign language after puberty (Curtain, 2009; Robison & Singleton, 2002).

In order to provide an answer, researchers have to consider the learner's cognitive maturity, and their experience of the general language system. Through the experience of their native language, not only can adult learners achieve more valuable learning conditions than young learners, but they can easily acquire grammatical rules, and syntactic phenomena. Language learning, therefore, is a cumulative process that allows adult students to build on already existing knowledge (Harris, 2009; Kayes, 2002; Knowles, 1989).

Second language acquisition refers in part to the scientific discipline dedicated to studying the process by which adults learn foreign languages. Though the field of second language acquisition is a sub-discipline of applied linguistics; it also attains research attention from other significant disciplines, such as developmental psychology, as well as, neuroscience, and education. The dominant theme in second language learning research is that of interlanguage (Montrul, 2014; Myles, 2005; Major, n.d.).

Interlanguage refers to the process of idiolect, that is, the learners' experiences with a foreign language, and who has not yet developed proficiency within the target language. Additionally, the language that learners use is not simply the result of differences between the language the learner already knows, and the language they are learning; but rather, interlanguage is a complete language system with its own methodical rules (Jackson & Birdsong, 2000; Abello, 2008).

Research indicates that the learner's interlanguage keeps some features of the first language such as writing, and speaking rules. These two characteristics of an interlanguage result in a system's unique linguistic organization. A learner's interlanguage is based on the

experiences with the second language; however, it can stop developing in any of its developmental stages. The interlanguage rules can be shaped by several factors, including transfer, learning strategies, communication strategies, and lastly overgeneralization of second language patterns (Fei & Li-Qin, 2016; Vanhove, 2013; Singleton & Muñoz, n.d.).

Language researchers believe that there is a dormant psychological framework within the human brain that is activated when the learner attempts to learn a foreign language. Furthermore, researchers have noted that adult learners produce sounds different from those of native speakers who attempt to produce meaning in second language acquisition. This suggests the occurrence of a separate linguistic system; however, the same system is not entirely understood when the same learner performs focused tasks, such as oral drills in a controlled environment as that of a classroom (Skehan, 2008; Bley-Vroman, 2009).

Researchers have also noted that the order in which the adult learner acquires features of the new language remains constant; regardless of whether the learner had language instruction. Nevertheless, languages that the learners already know may have a significant influence on the process of learning a new language. This influence is known as language transfer (Shahjahan, 2013; Du, 2010; Angelis, 2005).

Language Transfer

The role of first language experience, and its relationship to second language proficiency is an important subject in the field of second language acquisition. Language researchers confirm that an affective variable that can greatly influence the learning of a second or third language in adult learners is transfer. In terms of first language structure, transfer refers to what

the learners carry over from the native language that could potentially have a negative or positive effect on the acquisition of a foreign language. Transfer can be positive or negative depending on the similarity, or differences of language features (Shaozhong, 2001; Sousa, 2011).

In general terms, research studies support the view that transfer appears primarily at the early stages of language development, and decreases as the learners' proficiency increases. Nonetheless, studies have also shown inconsistencies across distinctive tasks among adult learners, hence, accentuating the complexity of transfer as a process of second language acquisition, and its interaction with second language proficiency (Shaozhong, 2001; Bley-Vroman, 2009; Gass, 1988; Chastain, 2006).

Positive transfer happens when there is harmony or similarity between the first and second language. In such a situation, acquisition would take place with little or no difficulty. Negative transfer, on the other hand, happens when there is some sort of disagreement between the first, and second language. In this case, acquisition of the second language would be more difficult, and would take longer because of the “novelty, hence difficulty” of the second language structure (Powell, n.d., p. 2).

Though learning a second language is a challenging task, positive transfer can simplify the process of language acquisition. Furthermore, similarity can be used to facilitate positive transfer. Lapo (2008) asserts that distinguishing similarities, and differences is a crucial step in regards to establishing connections between the languages.

The objective of searching for the points of differences, and similarities is essentially to find the points where the students would make the errors that the native speakers commit when

they learn a second language “phonologically, lexically, syntactically, morphologically, semantically, and pragmatically” (Shaghi, 2015, p. 7).

Learners of second language acquisition use their native language for cognitive activities and understanding. Larson (2008), denotes that the cognitive processes involved in learning a different alphabetic language are similar to the processes involved in acquiring the mother language. Additionally, studies have shown a relation between language and thought (Astington, J. W., & Jenkins, J. M., 1999). These studies suggest that cross-linguistic differences in structure sometimes reflect differences in thinking. Dalarna (2004) confirms that while more proficient speakers are influenced by some morphological features, such as phonetics, low proficient second language acquisition learners are more swayed in all features including morphology, syntax, phonetics, and phonology.

Although the way in which children learn to speak is not perfectly understood, most explanations involve both the observation that children copy what they hear, and the implication that human beings have a natural aptitude for understanding the complexity of languages (Kirby, & Hurford, 2002). Children learn the sounds, and vocabulary of their native language through imitation; however, grammar is rarely taught to them. Since they can rapidly acquire the ability to speak grammatically correct, this approach to language development supports the theory of Chomsky (1969), among other researchers. The theory states that children learn the language rules of a language because all intelligible languages are founded on a deep structure of universal grammatical rules that belongs uniquely to the innate capacity of the human brain. Based on this

theory, adult students learning a foreign language come across some of the same stages as do children learning their native language.

Language acquisition, then, is very similar to the process children use in acquiring first and second languages. It requires meaningful interactions in the target language's natural communication, in which speakers are concerned not with the form of their utterances; but with the messages they are conveying and understanding (Sanders, 2008; Long, 2008; Nobuyoshi & Ellis, 1993).

Though adult language is intricately complex, psychology theories explain language as a sequence of arbitrary symbols which are combined in an orderly fashion (Nelson, K., 2000). These symbols convey meanings, and follow conventions. In terms of learning and innateness, multiple theories depict that all humans have the ability to pronounce words; hence, genetics must be involved in language development. The environment also plays a crucial role in language acquisition; thus, heredity and the environment are intractably connected in language development (Winke, 2007; Ellis, 2014; Brown, 2009).

Multiple studies hypothesized that there is a fairly steady order of structures in language acquisition, that is, clear similarities across acquirers as to which structures tend to be acquired early, and which tend to be acquired late. According to researchers, acquirers do not need to posit conscious awareness of the rules they possess, and may self-correct only on the basis of need for grammaticality (Bialystok, 1997; Jiang & Hu, 2015; Brown & Cliffs, 1988; Spada, 2008).

Noteworthy characteristics related to language are correction, and the affective factors of the learners. Error correction, and explicit teaching of rules are not relevant to language acquisition; nonetheless, native speakers can modify their utterances addressed to acquirers to help them understand. These modifications are thought to help the acquisition process (Krashen, 1981; Polio, 2012).

Conscious language learning is thought to be facilitated by error correction, and the presentation of explicit rules. Research suggests that error correction helps the learner come to the precise mental representation of the linguistic generalization (Hulstijn & Schmidt, 1984). Nonetheless, whether such feedback significantly affects the degree of language acquisition remains debatable. No invariant order of learning is claimed, even though studies implicitly confirm that adult learners proceed from simple to complex, a structure that may not represent the acquisition sequence (Truscott, 1998; Truscott, 2015; Ellis, 1995).

Student Attitude Towards Learning a Foreign Language

For several years, scholars have attempted to identify additional factors that may influence language achievement in college students enrolled in foreign language courses. Among those affective factors, the student's attitude towards learning a foreign language has captured their attention (Carroll & Sapon 1959; Pimsleur, Mosberg, & Morrison, 1962; Wen, 2011). Language researchers have found a strong relationship between attitude toward members of the second language community, and achievement in the study of that language.

Attitude is one of the key influences for success in the acquisition of a second language. College students' attitude is crucial for the performance, and learning of the target language. Researchers argue that attitude towards learning besides opinions, and perceptions have an obvious impact on students' behaviors and consequently on their performance. Students who show a positive attitude about second language acquisition have a tendency to be more positive towards language learning (Montano & Kasprzyk 2008; Gardner, 1985; Martinez, 2013; Saracalolu, n.d.).

Although past research studies have failed to yield consistently positive correlations between student motivation, and achievement in foreign language courses, research clearly indicates that student attitudes do have a decisive effect on learning; hence, attitude cannot be separated from the learning process. Attitude is an element that greatly influences language performance. Success in a target language relies not only on intelligence, but also on the learner's attitude concerning the yet acquired language. This means that learning a language should be handled primarily as a social, and psychological phenomenon rather than just academic (Chastain, 2006; Visser, 2008; Reid, 2003; Tella, 2010; Zeinivand, Azizifar & Gowhary, 2015).

In addition to the intellectual viewpoint, the nature of language learning has psychological and social aspects, and depends predominantly on the learners' motivation, and attitude to learn the target language (Padwick, 2010). The ability of the students to master a foreign language is not only influenced by the mental competence or even language skills, but rather, on the students' perceptions towards the target language itself (Gardner, 1972).

Certain aspects of language attitude involve the learning process, as well as, the acquisition of the language; hence, acquisition leads to a set of representations. This in turn suggests, that language use is the processing of these representations. Accordingly, the learning process is viewed as a positive change in the individual's personality (Kara, 2009).

The concept of attitude can be measured in terms of emotional, behavioral, and cognitive factors. The behavioral aspect of attitude concerns itself primarily with the way students behave, and react in particular situations. Furthermore, the successful learning improves the students' ability to identify themselves with the native speakers of that language (Bell, 2005).

The aspect of cognitive attitude involves the views of the language learners about the knowledge that they receive, and their understanding in the process of learning the target language. The cognitive attitude can be classified into multiple steps that involves connecting the previous knowledge, and the new one, creating new familiarity, trying new information, and applying the new knowledge in many situations (Bialystok & Frohlich, 1978). However, after reviewing the literature, other studies posited that verbal intelligence, and motivation are the two most important variables in foreign language acquisition. This conclusion was supported to some extent by the research of Pimsleur in 1964.

Another important affective factor beneficial to college students, is to provide them with applicable background knowledge about the topic to be discussed in class by activating their existing knowledge on the topic since learning is continually rooted on experiences (Walqui & Heritage, n.d, p. 1). This teaching technique increases students' interests and allows them to

fully focus on the instructional goals, rather than making them feel overwhelmed with too much new information (Gutiérrez & Rogoff, 2003).

Researchers assert that learning is an ongoing emotional process. The learning process is affected by different emotional factors such as instruction, students' classrooms, emotional activities, and interactions where students express whether they like or dislike the current surrounding situations; hence, why inner feelings and emotions of language acquisition influence their perceptions towards the target language (Feng & Chen, 2009; Sturgeon, 2015; Keller, 1987; Andrade, 2006).

A study conducted at Tokai Gakuen University found that of 515 students, 347 students (67%) said they do not like learning a second language (Tsuda, 2003). Furthermore, Sains Universiti led a recent study on students' attitudes towards language acquisition in terms of behavioral, cognitive, and emotional aspects. The sample size consisted of a total of 180 participants in three study years from three specializations of Basic Sciences, Life Sciences, and Social Sciences. The overall mean score was 2.6167 (SD= 0.59177). This result reveals that the participants had a negative attitude towards second language acquisition (Abidin, Mohammadi, & Alzwari, 2012).

Additionally, the study found that a positive attitude towards learning a foreign language was consistent with higher grades (Abidin, Mohammadi, & Alzwari, 2012). The study conducted by Abidin, Mohammadi, & Alzwari (2012), which investigated the correlation mentioned above included 173 university students enrolled in foreign language classes. The students completed a survey which consisted of 27 Likert-type statements addressing issues in

language learning such as interest in languages, family influence, differences in language ability based on gender, language learning motivation, expenditure of effort, and the role of the instructor. The results of this study support the correlation between students' attitude, and higher grades in foreign language courses. The results also indicate that pedagogy is a significant factor in relation to students' attitude towards learning a foreign language. The study also showed that "creative teaching methods reduced the students' fear of class participation, and the overall learning process" (Sutarso, 1996, p. 8; Paige, *et. al.*, n.d.).

LANGUAGE ACQUISITION THEORIES

Nativist, Behaviorist, Cognitive and Social Interactionist

In a broader sense, numerous theories and approaches have developed over the years to study, and analyze the process of language acquisition in adult learners. Four main schools of thought, which provide theoretical paradigms in guiding the course of language acquisition are the school of nativist, behaviorist, cognitive, and social interactionist.

Nativist leading researchers theorize that language learning happens naturally, without formal instruction. This innate capacity for language, called the Language Acquisition Device, "prepares the learner to make sense of language and to discover its structure" (Anderson, Goode, Graci, Rothwell, & Sleight, 2012, para. 2). According to Montessori, young learners develop language as a result of "unstructured creation" (Guttek, 2011, p. 403).

Behaviorists, on the other hand, see language acquisition as an unconscious, automatic process. They theorize that language acquisition is a stimulus-response conditioning method that

requires the learner to give the precise response to a given stimulus with instant response to the student (Lemetyinen, 2012, para. 4). Among other researchers, Chomsky contested the behaviorist theory. Chomsky argued that children will never acquire the tools needed for processing an infinite number of sentences if the language acquisition mechanism was dependent on language input alone (Chastain, 2006).

The main stages towards the acquisition of a foreign language are understanding, drill, and application. Behaviorist theory deals with the first two stages, but not the third. At the college level, students are expected to be able to answer critical thinking questions. They are also expected to practice phonology and drilling so the stimulus-response method may take effect (Anderson, Goode, Graci, Rothwell, & Sleight, 2012).

Proponents of behaviorism argued that second language learning may be learned through a form of operant conditioning. Operant conditioning or instrumental conditioning is a type of learning where (a) the strength of a behavior is modified by the behavior's consequences, such as reward or punishment, and (b) the behavior is controlled by antecedents known as discriminative stimuli which signal those consequences. According to researchers, an antecedent is a stimulus that prompts an organism to perform a learned behavior (Yin, Henry H., Sean B. Ostlund, and Bernard W. Balleine, 2008; Lavezzi, H. N., & Zahm, D. S., 2011).

Some scholars argue against the idea of language acquisition through operant conditioning, since young learners repeatedly ignore language corrections from adults (Henton, W. W., 1978; Murphy, E. S., & Lupfer, G. J., 2014). In its place, young learners naturally follow a pattern of using an irregular form of a word correctly; making errors later on, and ultimately

returning to the proper use of the word. Scholars also argue that if language were exclusively acquired through behavioral conditioning, young learners would not likely learn the proper use of a word, hence, unexpectedly using the word incorrectly (Lightfoot, 2010; Yu & Ballard, 2007).

One of the major arguments in understanding language acquisition is the capacity of the brain to pick up words from a linguistic input. In terms of linguistics, input refers to all words, context, and any forms of language the learner is exposed to relative to acquiring proficiency in the target language (Kennison, 2007; Swingley, 2012).

In reference to relational theory, and the environment some language researchers suggest that young learners acquire language simply by interacting with the environment. This conceptual framework emphasizes the importance of influencing psychological events, such as thoughts, feelings, and behaviors by simply focusing on manipulability of variables within their contexts. However, empirical studies suggest that young learners develop language skills via a system of inherent reinforcements, though, challenging the view that language acquisition is based upon innate, language-specific cognitive capacities (Luciano, 2013; Hayes, Barnes-Holmes, Roche, 2001).

Cognitive theory views second language acquisition as a conscious process of thinking. Research has found that the linguistic, and cognitive learning of foreign languages in young learners are similar to first language processes. Because of this similarity, educators can better teach adult second language learners simply by being aware of the language learning process. In

addition, “adult learner students can utilize the first language to facilitate their second language acquisition” (Brown, 2007, p. 73).

Social interactionist’s theory is based on the fundamental concept that language is developed through social interaction (s). Their theory states that “environmental influences contribute to the process of learning”. They suggest that learners could acquire new skills and advance their potential more quickly through the support of a mediated interaction with a proficient individual (Lund, 2003, p. 61).

Since the acquisition of language, sound, and the meaning of words occur across multiple language systems, we could conclude that the success of second language learning in adult students lies not only on cognitive factors; but also on the affective factors of the learners. Among those affective factors, personality type is of great importance (Bransford, Brown, & Cocking, 2000; Sharp, 2008; Asmali, 2014).

Personality Type Theory

The study of personality dates back to Hippocrates. He developed a personality theory known as the four humors. His theory of four humors further developed into, and what eventually became to be accepted as the four temperaments. Nevertheless, it was not until 1884 when Sir Francis Galton made the first major inquiry into a hypothesis where he noticed that by sampling languages, it was possible to derive a comprehensive taxonomy of human personality

traits. Sir Francis's hypothesis became known as the lexical hypothesis (Robinson, D., Gabriel, N., & Katchan, 1994; Dewaele, J., 2012).

In addition, personality also adheres to the pattern of thoughts, social adjustments, feelings, and behaviors consistently shown over time, thus strongly influencing an individual's expectations, values, self-perceptions, and attitudes. The main theories of personality include dispositional (trait) perspective, psychodynamic, humanistic, behaviorist, biological, as well as, social learning perspective (Jensen, M., 2015; Kamarulzaman, W., 2012).

Though personality is understood in general terms, it has yet to be defined to scientific satisfaction. However, at the heart of higher education exists the need to understand the individual needs of adult students. Only in this way, can instructors provide exactly the benefits of their instructional design. An understanding of personality, and learning style is therefore imperative in the process since student's needs continually change, and become ever more challenging to the realm of higher education (Jackson, D. O., 2016; Dewaele, J., 2012).

A student's personality is an important construct of language achievement, hence, affecting how they learn foreign languages, (Eysenck, H., 1981). According to Allport, (1963) personality refers to the dynamic organization within the distinctiveness of those psychophysical systems that determine an individual's characteristic behavior, and thought process.

This definition suggests the uniqueness of the student's individuality; thus, adopting an idiographic view. The idiographic view, according to researchers assumes that each person has a unique psychological structure, and that some traits are influenced by only one person. The nomothetic view, however, emphasizes comparability among people. This approach sees

individual traits as having the same psychological meaning in everyone. Worth noting; this viewpoint tends to use self-report personality questions, and factor analysis (Ariani, D. W., 2015; Nicholson, I., n.d.).

An early approach to personality was the idea that personality was genetic, an innate attribute of human beings. Sigmund Freud's psychodynamic theory of personality, for instance, suggests that there is a correlation between innate instincts, and parental influences. Freud's theory proposes that personality development depends on the interplay of instinct, and the environment during the first five years of life (McCrae, R. R., Costa, P. T., Ostendorf, F., Angleitner, A., Hrebicková, M., Avia, M. D., Smith, P. B., 2000).

Researchers confirm that individuals are born with certain predispositions that may cause them to behave in a certain way. In addition, research studies attest that individual behaviors, personality types, and personality traits, thereof could cluster; hence, the end results would be an individual unique personality type (Nias, D., 2001; Brand, C., 1984).

It must also be noted that, early theorists experimented with the idea that learners could be classified into different personality types with their unique personality traits. Hence, signifying that while certain individuals are predisposed to certain dominant characteristics such as honesty, compassion, and aggressiveness, others tend to display certain personality traits as being more important, and influential in their lives such as ambition, power seeking, competitiveness, modesty, attentiveness, and sensitivity, among others (Allport, 1963; Shrouf, P. E., & Fiske, D. W., 1981; Matthews, G., n.d.).

In the same manner, adult students have different learning styles and tend to function on perceived information in a multitude of ways. Furthermore, adult learners seem to achieve understanding at different rates. The match or mismatch between the way that instructors teach, and the way that students learn has important ramifications for both, the students' overall satisfaction, as well as, academic achievement (Marcela, 2015). Adult students whose learning styles, and personality types match that of the teaching styles, and personality of the instructor tend to have higher academic achievement, retain information for longer periods of time, apply the newly acquired knowledge more effectively, and even have a more positive attitude towards the course in general (Ariani, 2015). Even though students cannot change their preferred learning style to match the teaching style of the instructor, they can still take steps to actively increase their ability to excel in college level courses (Marcela, 2015; Nicholson, I., n.d.).

Over the years, several personality types with their respective traits have been identified in an effort to recognize the needs of effective communication between adult learners, and educators. In addition, researchers fascinated with the complexity of the numerous human facets have been driven to study personality, including the idea of personality types and personality traits (Albert, E., Abrams, N.M., & Abrams, L.D., 2009). A theoretical sample is briefly outlined in Table 1

Table 1 General example of student personality type.

Extravert (E)	Introvert (I)
Sensing (S)	Intuitive (N)
Thinking (T)	Feeling (F)
Perceiving (P)	Judging (J)

Studies show that extraverted students tend to focus on the outer world of people, hence becoming energized by interacting with others. They love to talk, participate in classroom activities, and socialize with people. They prefer action, thus can become impatient with slow, monotonous activities and complex procedures. They learn best by talking, and physically engaging the environment they are in (Briley, D. A., & Tucker-Drob, E. M., 2014; Albert, E., Abrams, N.M., & Abrams, L.D., 2009).

In regards to classroom expectations, extraverted students work best in classrooms that allow time for discussion, talking and/or working in groups. However, as they are pulled into social life, they may find it difficult to settle down, read, or concentrate on homework assignments (Molinuevo, 2013; Mccrae, R. R., Costa, P. T., Ostendorf, F., Angleitner, A., Hrebícková, M., Avia, M. D., Smith, P. B., 2000).

Classroom activities such as reading, writing, and conducting research could become challenging tasks since these activities are deemed as solitary endeavors. Nevertheless, extroverted students can accomplish higher academic achievement when studying with a friend. Furthermore, they excel with learning activities that have tangible results, and that involve interactions with other people (Pornsakulvanich, V., Dumrongsiri, N., Sajampun, P., 2012; Pashler, H., McDaniel, M., Rohrer, D.G., & Bjork, R., 2008).

Introverted students on the other hand, are energized by the inner world of reflection, thought, and observation. They channel their attention inwards, and receive energy from reflective thoughts, memories and feelings. They can be sociable; nevertheless, introverted

learners need space, and time alone to collect themselves. Introverted students seek to understand the world, and prefer to figure out things before they can talk about them (Davis, 2006; Sharp, 2008).

Introverted students learn best through quiet, mental reflection. Their attention naturally flows inward to their own thoughts, ideas and impressions. In regards to classroom activities, introverted types tend to appreciate reading, lectures, written, and research tasks over verbalized work. Also, they tend to be self-sufficient, and prefer to work independently (Sadeghi, 2012; Sharp, 2008).

Since the introverted types need time for internal processing, they could encounter difficulties with professors who speak too quickly, and do not allow time for mental processing. Furthermore, introverted learners are often uncomfortable in discussion groups, and may hesitate to speak in class. However, they excel when working independently, internalize their own thoughts through listening, observing, reading, writing, and independently conducting research. Furthermore, the introverted type needs plenty of time to finish their work. They also feel more comfortable if they are not required to speak in class, but are allowed to voluntarily contribute (Molinuevo, 2013; Albert, E., Abrams, N.M., & Abrams, L.D., 2009).

Research suggests that introverted students for example, tend to take longer to acquire a foreign language due to personality. It has also been noted that introverted types tend to be more hesitant to make mistakes. Extroverted students, on the other hand, are more likely to try out their newly learned vocabulary; therefore, to ensure that both personality types succeed, it is of utmost importance to create a learning environment where the learner understands that mistakes

are part of the learning process, and speaking is more important than being perfect (Miller, A., 1991).

Adult students with the sensing personality type rely heavily on their senses to process information (Davis, 2006). They have the tendency to take in information that is real, and tangible. Also, they are very observant, and agree with practical realities rather than ambiguity. They are inclined to focus on details; hence ignoring the big picture, as well as, overlooking general meanings and implications. Furthermore, they are doers, rather than thinkers (Davis, 2006; Sharp, 2008).

The sensing type prefers concrete facts, organization, and structure. They are good at memorization, and are comparatively conventional. They tend to be more comfortable using skills they already possessed; rather than learning new ones. Furthermore, they can easily become frustrated, and impatient with complicated situations. In regards to the classroom, the sensing types are oriented towards the present, and tend to understand ideas and theories through practical applications. Sensing students prefer outlines, clear guidelines, and specifics. They also enjoy hands on activities, and prefer instructors that make clear what is expected of them (Miller, A., 1991; Davis, 2006).

Intuitive learners seek out patterns among gathered facts. They trust their intuition, and focus on conceptual information. They tend to ignore details, attempt to grasp patterns, and are attuned to seeing new possibilities. Their focus is oftentimes on the future, and would rather to think than do. This type of learner, according to researchers, needs to know the theory before deciding on whether the facts are important (Davis, 2006).

The intuitive learners tend to focus on the overall concepts, rather than on the details and practicality of the matter. They are fast learners, creative, innovative and very energetic; however, they rely more on intuition than observation. Their primary sensory of learning is based on tasks that appeal to their intellectual interests, general concepts, and imagination (Sharp, 2008; Sepehri, Z., Rakhshani, F., Keshavarz, K., & Kiani, Z., 2013).

Since intuitive students generally act on their instincts, often, the tendency is not to give full attention to the instructor's voice, or even read a test question in its entirety, hence, occasionally missing key information. However, once they understand the concept, they find continuous repetition boring. They also seem to anticipate the instructor's pattern of speech, which sometimes results in not paying attention to what is being said (Caspi, T.A., Chajut, E., Saporta, K., & Beyth-Marom, R., 2006).

Studies confirm that the ideal classroom environment provides intuitive students with opportunities to be creative, and to find ways to solve problems. They not only need a variety of choices in the ways they work out the assignments; but also, they prefer a classroom environment with plenty of opportunities for self-instruction, both individually and with a group (Davis, 2006; Miller, A., 1991; Ariani, 2013).

The thinking type learner, according to researchers looks at the logical consequences of a choice or action, and makes decisions based on analysis, logic, and reason. They follow logic, and conventional wisdom rather than emotions. At times, they may appear uncaring about the feelings of other people (Sadeghi, 2012; Jensen, 2015).

In the classroom, the thinking types are driven by logical analysis to understand the school material. They rely on personal experiences to connect logical principle, and analyze problems to bring logical order out of confusion. They are task oriented learners, and strive to get a sense of mastery over the material taught in class. The thinking type students, however, face numerous difficulties if the instructor does not present the material in a logical order (Ariani, 2015).

Thinking students understand best when material is presented in a logical, precise, orderly fashion. Nonetheless, when dealing with the abstract, the learner needs to have the logic behind the material explained. Furthermore, researchers confirm that this type of student enjoys both, instructor and student feedback that shows them specific, objective achievements (Miller, A., 1991; Blicke, 1996).

College students with the feeling personality type tend to make decisions based not only on what is important to them, but also to others. They become energized by appreciating and caring for others. Their decisions are based on the basis of feelings, likes and dislikes. The feeling type values kindness, and harmony; however, they find it difficult to say no to people or disagree with others. Furthermore, this type of student pursues a personal connection in classroom material, as well as, ideas and concepts related to personal experiences (Sharp, 2008; Veresová, 2015).

In regards to classroom activities, they learn best by helping others, and responding to the needs of their fellow students. The feeling type do best in areas of study important to them. At the same time, classroom instruction could become very difficult if the subjects being taught do

not relate to people or relationships. Research suggests that they need to develop a personal rapport with the instructor, receive feedback, and encouragement. They may have difficulty with educators who appear impersonal or detached. They need specific, positive feedback with corrective instructions. In addition, they perform best with instructors who show appreciation for their hard work (Sadeghi, 2012; Jensen, 2015; Sepehri, Z., Rakhshani, F., Keshavarz, K., & Kiani, Z., 2013).

College learners with the judging type personality prefer to live in a planned, well managed, regulated, orderly way. They tend to be structured, and well organized. They focus on completing classroom tasks in a timely manner, and are only interested in knowing the fundamentals. They also do well with formalized instruction, and direct classroom activities (Bandura, 2001; Mayer, J. D., & Korogodsky, M., 2011; Klimstra, T., 2012).

They not only meet deadlines promptly, but also prefer to work on only one subject at a time. They dislike surprises; however, thrive on order. They need to know what they are accountable for, and by what standards they will be graded. They treat class assignments with utmost respect. Judging type students thrive with structure, consistency, and clear instructions. Furthermore, they expect the instructor to develop a clear, detailed outline with specific grading procedures, as well as, to follow their outlines, and return graded assignments in a timely manner (Sepehri, Z., Rakhshani, F., Keshavarz, K., & Kiani, Z., 2013; Miller, 2010).

Lastly, the perceiving personality type student tends to be spontaneous, and unlike the judging type, they do not like to be boxed in by deadlines. They postpone action, and prefer to gather more information before making a decision; they also prefer to stay open to new

experiences and last-minute options. Furthermore, they tend to multitask, and remain flexible when plans are disrupted (Kamarulzaman, 2012; Matthews, G., Deary, I. J., & Whiteman, M. C., 2003).

Though perceiving type learners enjoy multitasking, oftentimes they find it difficult to complete classroom activities. They often work in flexible ways, followed by impulses. Behaviorists attest that they respond to classroom tasks best when surges of impulsive energy come to them. Their biggest issue is procrastination. Nonetheless, they tend to thrive on spontaneity. Research suggests that perceiving students prefer to have choices in respect to classroom assignments, as they function best when they understand the reasons behind the assignments (Matthews, G., Deary, I. J., & Whiteman, M. C., 2003).

Personality can make a difference in how adult students learn, and what they learn. Thus, it becomes an important construct in language learning along with linguistics, affective, motivational, and demographic factors. As with many constructs, there is a two-way relationship between personality, and foreign language learning. This means that personality can influence foreign language acquisition, and second or third language learning can also influence personality development (Busato, V. V., Prins, F. J., Elshout, J. J., & Hamaker, C., 1998; Carrell P. L., Prince, M. S., & Astika, G. G., 1996).

In the same manner, the construct attempts to draw a conceptual framework for understanding the relationship between non-cognitive, and cognitive individual differences. According Wenden (2002), and McCaulley (1980), personality traits play an important role in the development of knowledge since personality traits guide the individual's choice, and level of

persistence to engage in intellectually stimulating activities. Accordingly, the previous infers that individual differences in personality may influence academic performance. Other studies have also noticed that non-intellectual factors such as personality traits, and learning styles are significantly connected to academic performance (Premuzic, 2002; Ayha, 2015; Furham, Premuzic, & McDougall, 2003; Chamorro-Premuzic, T., & Furnham, A., 2003).

Even though many studies have been conducted to determine personality types as a cohesive indicator to determine academic success in college students learning a foreign language, much of the research associated with personality types, and foreign language acquisition are not congruent (Hodara, 2012; Brown, 2007). Rolfhus & Ackerman, (1999) suggested that individual difference variables such as personality types, intelligence, situational factors, and occupational interests can be used to explain not only variance in academic performance, but also the processes by which personality traits influence academic outcomes.

Personality Traits Theory

Trait theories of personality imply that personality is biologically based, whereas state theories emphasize the role of nurture, and environmental influences. Research studies indicate that people are a mixture of numerous traits; rather than a mere classification. For instance, a learner may be rotund, and melancholic, or simply rotund and happy by nature. By the same token, an individual can be thin but submissive and/or dominant, organized, unorganized, imaginative, practical, etc., some individuals may even have the same characteristics, such as

identical twins; yet they may not have some other characteristics in common (Kamarulzaman, 2012; Komarraju, M., Karau, S. J., Schmeck, R. R., & Avdic, A., 2011).

This approach suggests that behavior is determined by relatively stable traits which are the fundamental units unique to every individual. Personality traits predispose people to behave in certain ways, regardless of the situation. Thus, over time traits ought to remain consistent across situations; nevertheless, traits may vary between individuals (Hashim, 2014; Friederici, A. D., 2011; Jessee, 2006).

According to Allport (1963), traits are permanent characteristics and predispositions that determine how individuals perceive, think, and behave in a variety of situations. Hence, personality can be seen as a cluster of attributes or characteristics that remain the same over the years. Some traits; nonetheless, are common to everyone such as intelligence, and linguistics among others, while other traits could be seen as unique to certain individuals. An example of individuality are artistic abilities, sense of humor, and sport skills among others.

Based on Allport's rationale (1963), what makes people different from one another, is the degree and intensity of importance, or otherwise the cardinal, and dominant traits within their personality makeup. For example, not all people have the same sense of humor, or the same level of sarcasm, nor do they have the same intensity of compassion and/or concern for others that could be seen as unique to certain individuals (Hashim, 2014; Sadeghi, 2012; Jessee, 2006).

Based on the results, and responses of factor analyses on personality questionnaires, Eysenck (n.d.), identified three dimensions of personality which include extraversion, neuroticism and psychoticism. Eysenck used a technique called factor analysis. This technique

reduces behavior to a number of factors which can be grouped together under separate headings, termed dimensions. According to Eysenck, the two dimensions of neuroticism (stable vs. unstable) and introversion-extroversion combine to form a variety of personality characteristics (Furnham, 1999).

Cattell (1965), on the other hand disagreed with Eysenck's view on personality. Cattell argued that it was necessary to look at a much larger number of traits in order to get a complete picture of a person's personality. While Eysenck based his theory on the responses of a single group of participants, Cattell collected data from a range of people through three different sources of data. Based on the idea of trait theory, researcher Cattell, (1945) developed a technique called factor analysis to accurately measure people's personalities. Cattell's approach became pivotal to personality tests such as that of Briggs Myers Type Indicator (MBTI) that are still in used today.

Factor analysis is understood as a correlational procedure able to identify, and group together related variables. Cattell reduced the number of variables to sixteen basic traits known today as the 16 Factors Personality Questionnaire. Years later, behaviorist Hans Eysenck also developed a model similar to Cattell's 16 factor analysis. After many years of research, Eysenck (1985) concluded that every human's personality trait can be broken into four distinct categories- extraversion/ introversion, and emotional stability/ instability. A major strength of Eysenck's model was his quantifiable approach to personality traits, along with human behavior (Caspi, 2006; Matthews, G., n.d.).

Personality is usually broken into multiple mechanisms termed the Big Five. The Big Five theory refers to personality traits known as openness to experience, conscientiousness, extroversion/ introversion, agreeableness, and neuroticism/or emotionality (Briley & Tucker D., 2014; De Feyter, T., Caers, R., Vigna, C., & Berings, D.,2012; Carlson, N., 2010).

Personality can be determined through a variety of tests, such as the Briggs Myers Type Indicator (MBTI), the Minnesota Multiphasic Personality Inventory (MMPI-2), and Eysenck's Personality Questionnaire (EPQ-R), among others (Morizot, J., n.d.; Aleksandrowicz, 2009).

For our intended purpose, this research study utilizes the Big Five factor model of personality traits in an effort to accurately measure adult learners' personality types. The Big Five factor model of personality type builds on the works of Raymond Cattell, and Hans Eysenck. Table 2 shows the five personality trait categories, based on Goldberg's five-dimension personality model.

Table 2

The Big Five Factor Model of Personality
Extrovert/ Introvert
Intuitive/ Observant
Thinking/ Feeling
Judging/ Prospecting
Assertive/ Turbulent

Note: all personality types are measured using this model.

Openness to experience suggests individual tendencies to be imaginative, independent, and interested in diversity, as supposed to be practical, conforming, and interested in monotonousness. Conscientiousness refers to the predisposition of being organized, careful, and

disciplined vs. disorganized, careless, and impulsive (Komarraju, M., Karau, S. J., Schmeck, R. R., & Avdic, A., 2011; Caspi, 2006).

Extraversion denotes the tendency to be sociable, fun-loving, and affectionate, contrary to retiring, somber, and reserved. Agreeableness proposes the tendency to be softhearted, helpful, and trusting vs. suspicious, ruthless, and uncooperative. Lastly, Neuroticism refers to the tendency to be insecure, anxious, and self-absorbed vs. calm, secure, and self-satisfied. In general terms, these components are relatively stable, and about half of the variance appears to be attributable to people's genetics rather than resulting from the environment (Santrock, 2008; Krauskopf and Saunders, 2004; Albert, 2009).

Personality and Language Achievement

Every learner, regardless of age, perceives the language learning process differently and individually. In respects to language achievement, there are two aspects which make a difference in the language learning process: the effects of personality, and of age. Personality traits can influence this process significantly since different learners perceive language acquisition differently due to self-perception that challenges the learner's self-concept as a competent communicator. In regards to language acquisition, several researchers have observed that from birth until the age of six months, infants can discriminate the phonetic contrasts of all languages (Yeung, Chen & Werker, 2013; Kuhl, Williams, Lacerda, Stevens & Lindblom, 1992).

Language researchers believe that such an ability to discriminate the phonetic contrasts of all languages allows infants to acquire the language utilized at home. Hence, the infant's ability

to discriminate between the phonetic contrast of all languages decreases. The reduced phonemic sensitivity enables children to build phonemic categories, recognizing language patterns, and sound combinations specific only to the language they are acquiring; nonetheless, the brain's ability to perceive phonemes specific to spoken languages begins to deteriorate by the end of the first year (Kuhl, Stevens, Hayashi, Deguchi, Kiritani & Iverson, 2006; Sousa, 2011; Chastain, 2006; So & Best, 2010).

Though many researchers have overlooked numerous studies conducted on age limitation in second language learning; still, there are other researchers, such as Singleton (2004) who showed that older learners are equally successful in acquiring a second language. Singleton's work shows that adult learners are able to reach the same level or even higher levels of language proficiency as young learners do. Singleton stated that the language ability of some learners improved over time. His research studies refer to Ervin Tripp which occurred in 1974.

According to Singleton, Ervin Tripp managed 31 young English speaking children who had been exposed to French for a period of nine months. The results of Tripp's research showed that the "older students outperformed the younger learners in every field of the learning process" (Singleton, 2006, p.184).

Tripp also conducted another study using Dutch student participants who started learning English as a second language after the age of twelve. The study showed that these learners were able to gain native-like accent (Singleton, 2004); nevertheless, these were isolated cases. Furthermore, Singleton added that young learners can reach far more language skills than those who started learning the second language after puberty.

Furthermore, longitudinal studies have also examined this subject and found positive results in both short, as well as, long term second language acquisition among young learners, and adult students. They concluded that adults, and older children alike go through stages of morphological, and syntactic development quicker than young students; however, early start in second language learning typically yields higher language proficiency over time (Ionin, 2013; Nikolov, 2009; Birdsong, 2006).

Understanding the personality of adult students, plays an important role not only in effective teaching, but also in the learning process of acquiring a foreign language. In practical terms, understanding the effect of personality relative to adult learners is indispensable in creating a positive learning atmosphere (Mayer & Korogodsky, 2011; Spence, 2008).

Language acquisition theories suggest that personality factors significantly influence the degree of success to which adult learners acquire a foreign language. This assumption is based on certain features of the learner's personality that may encourage or prevent second language learning. Furthermore, language researchers attest that personality traits enhance some facets of language learning, while obstructing others (Gass, 2013; Cook, 1993; Larsen-Freeman, n.d.; Gregg, 2010).

In addition, being mindful that different students perceive the language learning process differently is vitally important if the instructor is to plan classroom activities tailored to the learner's needs. Furthermore, knowing the adult learner's personality type helps create ideal grounds for developing appropriate lesson plans tailored to particular groups of students (Robinson, Gabriel & Katchan, 1994; Zhang, 2004).

In conclusion, research studies confirm the effect of personality on the way in which adult learners approach learning a second language, as well as, how they react under different learning environments. Personality traits are unchanging, and constant in ways that individuals essentially are the same person throughout their lives, regardless whether they are in a role of authority, affiliate, or obedience, among others (Yeung, Chen & Werker, 2013; Gregg, 2010; Gass, 2013).

In the last few decades, many studies have investigated the relationship between learning styles, the learner's personality, and performance in academic settings (Ariani, 2015; Marcela, 2015); hence, attesting the importance of individuality. Each individual differs in specific human characteristics such as aptitude, attitude, motivation, decision-making, and learning preferences. Personality plays an important role in student's academic performance since it affects the students' academic achievement (Jensen, 2015). Moreover, researchers have found a correlation between personality, learning styles, and academic success. Thus, the personality type of a learner will influence the learning preference of that learner, which in turn will affect learning performance (Gass, 2013; Ariani, 2015).

Summary

Research concerning L2 subject proficiency, and extroversion/introversion in regards to secondary variables such as age, gender, native language, attitude, experience, and classroom environment is sparse. Thus, while an abundance of literature examines academic performance with respect to a plethora of psychological traits, an inadequate amount of literature addresses already-discussed L2 issues. This study examines the relationships between personality and L2 proficiency, in regard to the abovementioned secondary variables such as reading, writing, listening and speaking skills. Thus, this study seeks to address the research questions, and to introduce new ideas to broaden the scope of L2 literature.

III. METHODOLOGY

Past research suggests a possible relation between personality variables, and the acquisition of a foreign or a second language; however, such research have generally yielded equivocal results. The present study examined personality traits as predictors of language acquisition. Specifically, this chapter explains the methods used in completing the study, giving importance to the analysis, and the instruments used to collect data.

General Perspective

This study investigated the relationship between specific personality variables as contained in the Neris Personality Type Indicator (Introversion/Extroversion, Intuitive/Observant, Thinking/Feeling, Judging/Prospecting, Assertive/Turbulent), and language achievement. For the intended purpose of this study, success was defined on the basis of a relative compendium, as determined by the final grade in the Spanish course. Subsequently, these grades were divided accordingly- high achievement (A's, 90-100), and (B's, 80-89), median achievement (C's, 70-79), and low achievement (D's, 60-69 unacceptable credit), (F's, 0-59 no credit).

In regards to personality traits, current linguistic, as well as, psychological theories point to an advantage for students whose affective measures lean toward an extroverted personality (Dewaele, J.; 2012). Other studies, however, indicate that introverted learners may possess an

advantage with respect to gaining knowledge, and second language acquisition in particular. Founded on the basic notion of extroversion/introversion, psychologists, as well as, educational researchers such as Skehan, 1989, p.101, Dornyei, 2009; Chamorro-Premuzic, T., & Furnham, A. 2003, among others, theorize that introvert students have higher academic achievement than extroverts.

As previously mentioned, this study investigated the relationship between personality variables, and foreign language acquisition. Specifically, the study examined the predominant personality traits found in college students studying Spanish as a foreign language in a Christian university, and the relationship between personality types and second language acquisition.

In particular, this study placed emphasis on the importance of personality traits as predictors for language achievement in college students studying elementary Spanish as a foreign language. Further, this study integrated psychological variables into the research design in order to identify the personality traits linked to academic achievement towards the acquisition of a foreign language. Results of the analysis of the individual predictors are presented in Table 4.

The study analyzed the Five Factors in a Christian liberal arts university students studying Spanish as a foreign language that included Introversion/Extroversion, Intuitive/Observant, Thinking/Feeling, Judging/Prospecting, and Assertive/Turbulent as traits predicting aptitude of foreign language in higher education (Costa & Piedmont, 2003; Pervin, 1989; Personality Types, 2011; McCaulley, M. H. & Natter, F. 1980; Quenk, N.L. & Hammer, A.L., 1998).

Research Context

The study took place at a private Christian university located in Lakeland. The university is a liberal arts Christ-centered private institution of higher learnings operated in the state of Florida. The overall total student population stand at over 5, 000 at the time this study was conducted. The research project was carried out with the cooperation, and assistance of the Education Department at the university.

In advance, the researcher made the necessary arrangements with the participating instructor regarding time, data collection, and place of testing. The student participants were informed given the previous information several days before the administration of a test and again on the day before the test. The tests were administered in the students' regular language classroom. The students' regular instructor administered every single test given to the subjects. A total of four written tests, including a make-up session, and a final project presentation were required to complete the assessment.

Research Subjects

The study utilized a sample of convenience ($n=52$). The subjects were enrolled in a sixteen-week elementary Spanish course during the Fall semester on a three-credit basis at a private Christian liberal arts university in Lakeland, Florida. The university students ($n = 52$;

female: 43, 65.5%; male: 9, 34.5%) participated voluntarily, and gave consent for data collection. The student participants ranged in age from 18 to 35 years.

Once data was collected, demographic data such as age, gender, ethnicity, years of undergraduate education, native language, prior experience with the target language, and GPA distribution tables were constructed. For the intended purpose of this study, the ethnic breakdown of the students' sample was approximately 6 % Black or African American, 83 % Caucasian, and 11 % Hispanic or Latino.

The subjects selected for this study were native speakers of English who were studying college elementary Spanish. A foreign language course was a graduation requirement. None of the participants were taking classes in English as a second language. All student participants completed a language background questionnaire (Appendix E). Native speakers of English were identified by the use of a language background questionnaire. Students who were of Hispanic descent, bilingual in Spanish and English, and/or bicultural Hispanics were excluded as participants to ensure that the sample consisted of proficient native speakers of English.

The study involved subjects in three of the elementary language sections at the institution. One faculty member offering instruction in elementary level courses in the foreign language department of the university participated in the study. Instruction in all of these sections aimed at developing relative proficiency in the four basic language skills: speaking, listening, writing, and reading. The textbook employed in conjunction with these courses tended to be of the cognitive type. Meaning, the elementary university Spanish

course placed slightly more emphasis on grammatical, and syntactical issues rather than on the development of more active communicative skills. At this level of instruction; however, this is not uncommon. In all of the various language sections, cultural considerations were stressed.

Instruments Used in Data Collection

Following the guidelines provided by the Christian university Institutional Review Board (IRB), the researcher developed a consent form to provide each research participant with information concerning the purpose of the study, description, procedures, and confidentiality; thus, names were replaced with numeric codes in the research design for use in cross reference, and correlations of variables such as language achievement, personality traits, and affective variables. This form described the research participant's rights, as well as, time required to complete the survey, personality questionnaire, and contact information for the researcher and the committee chair.

The consent form was read to participating students by the researcher. Every student participating in the research study also completed a 4 points Likert-Scale Survey questionnaire of 0 (Strongly Disagree) to 3 (Strongly Agree), as well as, yes/no, and non-applicable responses. For the purpose of accuracy, the neutral answer was eliminated. The survey was then utilized in the content validity exercise. The initial instrument contained 18 items designed to collect demographic data such as age, gender, ethnicity, native language,

reason for studying Spanish, and prior experience with the target language, among others. Further, the purpose of this instrument was to acquire background information on the student participants which may be omitted or misleading in academic records.

Students enrolled in college elementary Spanish assisted in the distribution of the Likert Scale Survey. This experience not only enabled the students to become familiar with the data being collected, but it also gave them the opportunity to administer such a scale.

In addition, the researcher was present when such a scale was provided to the participants. After the subjects had taken the Likert Scale Survey, the student participants were instructed how to answer the Neris Personality Type Indicator, as well as, the length of time needed to answer such a personality questionnaire. This instrument contained 60 items designed to collect subjects' personality characteristics. They were instructed to answer each question as honestly as possible, even if they did not like the questions being asked. Further, the subjects were instructed to stay, as far away as, possible from neutral answers and then send the test results to the instructor and/ or the researcher via the university email.

Following collection of the informed consent form, and the student information questionnaire, students took the Neris Personality Type Indicator at their own time, and on a separate occasion. At this point, data collection started with regard to subject proficiency by means of exams, and final project scores as determined and recorded by L2 instructor in the four subject areas of reading, writing, speaking, and listening.

Research indicates that extroversion/introversion aspects of personality, as related to academic success and sociability represent one of the most reliable indicators of emotional

health (Robinson, D., Gabriel, N., & Katchan, 1994; Dewaele, J., 2012; Jensen, M., 2015; Kamarulzaman, W., 2012).

According to Morris (1979), numerous studies present evidence suggesting that when self-report personality inventories (such as the Neris Personality Type Indicator included in this study) accurately reflect the varieties of interpersonal behavior; the personality component then stands out as a reliable measure for testing, and labeling affective tendencies. The use of the National Spanish Examination was eliminated since it appeared to be at a proficiency level beyond the ability of college students taking elementary Spanish as a second language.

The Neris Personality Type Indicator was used to measure the role of personality factors in language learning. The selection of the Neris Personality Type Indicator takes into consideration key components that has shown exceptional reliability when used in academic contexts. Further, it takes a relatively short amount of time to complete; its agree-disagree answer format is relatively uncomplicated. Lastly, it avoids cross-cultural bias through questions which could confuse and/or mislead the participants; thus, skew measurement of extroversion and introversion, among other psychological variables.

This free personality test is based on Carl Jung's and Katharine Cook Briggs' theory of personality. Katharine Cook Briggs noticed Jung's theory in the 1920s, and later co-authored one of the most respected and validated personality indicators used by the social researcher community today- the Myers Briggs Type Indicator (MBTI). Briggs developed her own type theory before learning of Jung's writings. Together, and with her daughter Isabel Briggs Myers,

they developed a convenient way to describe the order of each person's Jungian preferences; hence, how the four-letter acronyms were born.

According to the authors, there are four possible pairs of personality traits- Introversion (I) or Extraversion; Intuition (N) or Sensing (S); Thinking (T) or Feeling (F), and Judging (J) or Perceiving (P), (Costa & Piedmont, 2003; Briggs Myers, I., McCaulley, Quenk, N.L. & Hammer, A.L., 1998). The Myers' personality type theory has demonstrated good psychometric properties in terms of both reliability and validity. However, instead of trying to create 4 type personality constructs, and fit people within them, the Neris Personality Type Indicator model outlines several traits that measure people's preferences using detailed scales. The scales look at each individual's score; but does not categorize them. The previous approach makes it easier for the instrument to measure associations between personality traits in a reliable manner (Personality Types, 2011).

According to Costa & Piedmont (2003), and Pervin (1989), the Five Factor Model is perhaps the most useful tool in research for psychological procedures. To this end, factor analysis serves as a useful bridge between the more clinical representations, and the learning behavioral theories.

Lastly, the model uses the acronym format introduced by Myers-Briggs due to its simplicity and convenience; nevertheless, the model redefined several Jungian traits and introduced an additional one, simplifying the Five Factor Model and bringing it closer to the latest developments, namely the dimensions of personality called the Big Five personality traits (Personality Types, 2011). The Five Factor include Extroversion-Introversion, Neuroticism,

Agreeableness, Conscientiousness, and Openness to Experience, as traits predicting results of aptitude tests (Ewen, 1998).

Furthermore, unlike the Myers-Briggs model, the Neris Personality Type Indicator does not incorporate cognitive functions such as Extraverted Thinking or Introverted Sensing, instead, it combines five independent scales to achieve high test accuracy while also retaining the ability to define, and describe distinct personality types (Personality Types, 2011). Data was collected from the Neris Personality Type Indicator' website via subjects' university emails.

In regards to language aptitude, four Spanish language skill tests, and a final presentation exam were used to measure language proficiency at the end of the Fall semester. Survey, personality test, and achievement data were coded in order to match tests accurately. All completed instruments, and surveys were collected at the end of the Fall semester. Final grades of all student participants were obtained from the instructor at the end of the semester.

Procedures

The researcher used a quantitative research design, and survey methodology to collect data. The participants were college students who offered to volunteer to meet with the researcher during their Spanish class periods. Permission to conduct this study was obtained from the IRB committee of the university. With the guidance, and approval of the IRB committee, the instructor, and the student participants of the three elementary Spanish courses received a copy of a letter stating the intent of the study (Appendix B).

A total of 55 students volunteered to participate in the study, of which three were removed from the study. All student participants returned signed permission slips. From the group of 55 volunteer participants, English-Spanish bilingualism, native Spanish speakers, and heritage language speakers of Spanish were controlled. This was determined by two measures/ factors: registration in a Spanish course as a second or foreign language, and information gathered from the Likert Scale Questionnaire. The participants were all native speakers of English.

At the time of testing for each of the groups participating, subjects were given an explanation of the purpose, and objectives of the study, (See Appendix B). At the same time, the participants were requested to read, and to sign if they were willing to participate in the study. The form was written in accordance with standard procedures, and had received prior academic, and legal approval from the university. Although it was made clear to the subjects that they could withdraw at any time without penalty, they were also encouraged to continue for the duration of the study.

Further, the participants were given the Likert Scale Survey, and were instructed through each item of the student information questionnaire, allowing the participants the necessary time to complete the survey, and asked any questions they had about the study, as well as, the instruments used to collect data including the Neris Personality Type Questionnaire. The student participants were informed about the significance of the study, defining relevant terms such as introversion/ extroversion, and answered all questions.

The researcher ensured that the participants had a complete understanding of each question and the vocabulary utilized therein. Subjects were encouraged to ask as many questions as necessary pertaining to the study, and instruments used.

The following steps were taken succeeding data collection in order to complete the research phase of the study: 1. After obtaining the signed Informed Consent Forms, the researcher requested access to participating students' demographic data via a Likert Scale Questionnaire; 2. Once access was granted, the researcher clustered students' information and quantified the data for analysis. The participants' information included age, gender, ethnicity, native language spoken at home, as well as, data relevant to previous interaction with the target language; 3. The researcher examined students' information questionnaire, and made certain every subject's responses validated the information been requested; 4. The researcher consulted with the coordinating instructor about each subject's proficiency measurement, and established a normalized quantitative evaluating criteria for all placement scores; 5. The researcher evaluated the Neris Personality Type Questionnaire to produce numeric scores representing Introversion/ Extroversion, Intuitive/Observant, Thinking/Feeling, Judging/Prospecting, and Assertive/Turbulent as traits predicting aptitude of foreign language in higher education for every participating subject; 6. Each variable was quantified according to guidelines suitable for data collection, and analysis. For instance, students' age was clustered, and assigned a number, e.g. 0 = 18-25 years. Similarly, subjects' ethnicity was clustered, and coded a number for each grouping, e.g. 0= American Indian or Alaska Native, 1= Asian, 2= Black or African American, 3= Native Hawaiian or,

another Pacific Islander, 4= Caucasian, and 5= Hispanic or Latino. In the same manner, native language spoken at home was clustered, and coded a number for each grouping, e.g. 1= English, 2= Spanish. See Appendix E for a list of all of the variables quantified.

Data Analysis

In order to answer the research questions of this study, descriptive statistics (means, standard deviation, frequencies, and percentages) were used to characterize the participants' perceived levels of personality traits and L2. See Table 1 for a list of all of the variables quantified. Independent-sample *t*-tests, and one-way analysis of variance (ANOVA) were used to determine the predominant personality trait in university subjects enrolled in the target language. The results of the analyses are presented in Table 5. A multiple regression analysis was conducted to assess the predictive power of personality variables regarding L2. Results of the analysis of the individual predictors are presented in Table 6.

The measure for Spanish proficiency was obtained by the participants' final Spanish average in the form of percentages. Spanish reading comprehension was scored as a percentage; however, due to unforeseen circumstances, Spanish oral proficiency could not be established. There were no experimental or control groups.

Academic performance was collected from the university. Personality data were collected from the Neris Personality Type Indicator via subjects' university emails. Demographic data were collected from a Likert Scale Survey. Academic performance was

measured by overall exam marks based on four 20 minutes reading, and writing examination sessions, as well as, a final project presentation at the end of the semester (on a 1-100% scale, where 90%-100% were considered high achievement, 80%-89%, median achievement, 70%-79%, low achievement, 60%-69%, unacceptable credit, and 0%-59% no credit. Examinations were chosen by the course instructor. Furthermore, academic performance in all Spanish course units was assessed via short written examinations, multiple choice, fill in the blank, and short answers. Examinations marked an arithmetic mean of 89.04 ($SD = 6.75$).

Personality factors were used to explain some variance in foreign language aptitude. The study indicated that personality traits such as Extrovert/ Introvert, Prospecting/ Judging, and Assertive/ Turbulent do not affect academic outcomes, whereas Observing/ Intuitive and Thinking/ Feeling showed statistical significance for the acquisition of a foreign language. Additionally, and since studies on the relationship between foreign language achievement in adult learners, and personality variables had been abandoned by researchers; great caution was exercised when interpreting the results.

Summary of the Methodology

This chapter detailed the methodology used to develop, and administer a survey instrument, as well as, the procedure for taking the Neris Personality Type Indicator. The following chapter presents the results obtained with those methods.

IV. RESULTS

The purpose of the current study was to assess the relationship between personality types and foreign language acquisition of college students studying Spanish as a foreign language.

The research questions guiding this study were:

1. What are the predominant personality traits found in college students studying Spanish as a foreign language in a Christian university?
2. Do personality types predict language learning in college students studying Spanish as a foreign language?

The results of the data analysis are included in this chapter. Descriptive statistics are presented for learning style, students' grade, and experience in a Spanish language class.

Findings from the data analysis organized by research question are detailed. A summary of the findings is included.

Descriptive Statistics

The researcher calculated means and standard deviations for learning styles, and grades for students in the sample. Means, standard deviations, and sample size for learning styles, and grade are presented in Table 3. Of the personality types, Observing/Intuitive had the highest mean score ($M = 56.56$, $SD = 17.25$). The Thinking/Feeling had the lowest mean in the sample ($M = 33.06$, $SD = 14.55$). The mean test grade was 89.04 ($SD = 6.75$). Of the personality types, Assertive/Turbulent learning style indicates that students' scores were mostly clustered between the 25 to 49 range. Thinking/Feeling data ranged mostly from 1 to 47. Extrovert/Introvert score frequencies were more widely distributed, varying in range from 5 to 84, with most scores clustered from 5 to 44 and 55 to 84. The most frequent scores for Observing/Intuitive were 21,

56, and 58. Prospecting/Judging score frequencies varied; however, the most frequently observed scores were 37, 62, and 73. Test grades ranged 77 to 100, with one response score outside this range of 65.

Table 3

Mean, Standard Deviation, and Sample Size for Learning Styles and Grade

Variable	<i>M</i>	<i>SD</i>	<i>n</i>
Assertive/ Turbulent	46.79	19.30	52
Thinking/ Feeling	33.06	14.55	52
Extrovert/ Introvert	47.15	26.95	52
Observing/ Intuitive	56.56	17.25	52
Prospecting/ Judging	52.56	21.74	52
Quiz Grade	89.04	6.75	52

Frequencies and percentages for students' reported experiences in a Spanish language class are presented in Table 4. Participants were asked to respond to items related to their experience in their Spanish language class. The results showed 71.2% of the participants enjoyed learning Spanish as a foreign language ($n = 37$). Participant responses were varied regarding what the experience of taking Spanish as a foreign language was like. The results indicated 40.4% of the participants experience was pleasant ($n = 21$).

Table 4

Frequencies and Percentages for Experience in a Spanish Language Class

Variable	<i>N</i>	<i>%</i>
Do you enjoy learning Spanish as a foreign language?		
Yes	37	71.2
No	15	28.8
What has been your experience like taking Spanish as a foreign language?		
Unpleasant	2	3.8
Slightly pleasant	11	21.2
Somewhat pleasant	18	34.6
Pleasant	21	40.4

Findings from the Data Analysis

To address research question one the researcher conducted one sample *t*-tests. To address research question two, the researcher conducted a multiple linear regression.

RQ1: What are the predominant personality traits found in college students studying Spanish as a foreign language in a Christian university?

The researcher conducted five one sample *t*-tests to address the research question. The researcher conducted these analyses to assess statistically significant differences between mean personality type score from the test value (50). The range of scores on the output indicated that the score for personality types ranged from 0 to 100. A test value of 50 was selected because it was the midpoint between 0 and 100. Further, personality type for individuals was not indicated. The output provided scores for each personality type; but did not provide frequencies and percentages for personality type. The results of the analyses are presented in Table 5.

The results indicated that there was no statistical significance for Extrovert/Introvert, Prospecting/Judging, and Assertive/Turbulent. The results; however, indicated that there was statistical significance for Observing/Intuitive ($t(51) = 2.74, p = .008$), and Thinking/Feeling ($t(51) = -8.39, p < .001$). The mean Observing/Intuitive score ($M = 56.56, SD = 17.25$) was higher than the test value. The mean Thinking/Feeling score ($M = 33.06, SD = 14.55$) was lower than the test value.

Table 5

Results of the One Sample t-tests for Personality Type Score

	<i>t</i>	<i>df</i>	<i>p</i>	Mean Diff	95% C.I. for Diff	
					Lower	Upper
Extrovert/ Introvert	-0.76	51	.450	-2.85	-10.35	4.66
Observing/ Intuitive	2.74	51	.008	6.56	1.76	11.36
Thinking/ Feeling	-8.39	51	< .001	-16.94	-20.99	-12.89
Prospecting/ Judging	0.85	51	.400	2.56	-3.49	8.61
Assertive/ Turbulent	-1.20	51	.236	-3.21	-8.59	2.16

RQ2: Do personality types predict language learning in college students studying Spanish as a foreign language?

The researcher conducted one multiple linear regression to assess if personality type is related to language learning in college students studying Spanish. The results of the analysis are presented in Table 6. Language learning was operationalized as test grade in the Spanish course. The researcher conducted the regression analysis to assess the influence of the overall model on test grade. The researcher then assessed the influence of the individual predictors (i.e., personality types) on test grade.

The results of the multiple linear regression analysis were not significant, $F(5,46) = 0.39$, $p = .85$, $R^2 = .04$, indicating that the model consisting of the personality types contributed to 4% of the variance in test grade. Because the model was not statistically significant, the researcher determined that the personality types did not have a statistically significant relationship with test grade. Because the model was not statistically significant, the researcher did not evaluate the individual predictors.

Table 6

Results of the Analysis of the Individual Predictors

Predictor	β	SE	B	t	p
Extrovert Introvert	.001	.042	.005	.029	.977
Observing Intuitive	-.045	.064	-.116	-.714	.479
Thinking Feeling	.055	.071	.118	.769	.446
Prospecting Judging	.016	.053	.053	.311	.757
Assertive Turbulent	.011	.052	.032	.215	.831

Note. $F(5,46) = 0.39, p = .85, R^2 = .04$.

Summary

The purpose of this study was to investigate the relationship between personality traits and language learning among college students in a Spanish course. Previous research intended to study this relationship have assessed poor correlation between personality traits, and language learning because of the variety of measures that can be used to operationalize the dependent variable (i.e., language learning) and the difficulty in separating the independent variable from confounding variables (e.g., instructional and situational variables; Dewaele, 2012; Dewaele, & Li Wei, 2011; Merriam & Bierema, 2014; Olson & Land, 2007).

Data was collected from 52 student participants enrolled in a Spanish language course at a Christian university located in Lakeland, FL. The research questions guiding this study were:

1. What are the predominant personality traits found in college students studying Spanish as a foreign language in a Christian university?
2. Do personality types predict language learning in college students studying Spanish as a foreign language?

For research question one the researcher conducted five one sample *t*-tests to assess statistically significant differences between mean personality type score, and the test value (50). The results indicated that the mean Observing/Intuitive score was higher than the test value, and the mean Thinking/Feeling score was lower than the test value. The researcher did not assess statistically significant differences for the remaining personality types. For research question two the researcher conducted a multiple linear regression analysis. The results of the analysis indicated that the personality types were not related to language learning. Chapter 5 presents a discussion of the findings, limitations, and recommendations.

V. DISCUSSION

As previously explained, the purpose of this quantitative, non-experimental study was to assess the relationship between personality types and foreign language acquisition of college students studying Spanish as a foreign language. The study primarily used a quantitative perspective in an effort to identify the predominant personality traits found in college students studying Spanish as a foreign language, and whether personality types and language acquisition correlated.

This study explored a problem that is not frequently addressed in second language acquisition studies, that is, personality types as predictors of foreign language achievement in college students studying Spanish as a foreign language (Abrahamsson & Hyltenstam, 2008; Arnold, 1999; Dornyei, 2009). Within the current study, the researcher utilized a sample of convenience ($n=52$), focusing on participants who were enrolled in academic, 16-week, face-to-face Spanish courses taught in the Fall, 2016 semester at a Christian university in Lakeland, Florida. The results of the data analysis are included in this chapter. Descriptive statistics are presented for learning style, test grade, and experience in a Spanish language class. Findings from the data analysis organized by research question are detailed. A summary of the findings is included. Within this chapter, the researcher summarizes the findings of the study, presents the conclusions from the analyses of the data, and discusses the implications, limitations, and recommendations for future research.

The theoretical framework underlying the current investigation is influenced by the works of theorists Krashen (1981), and Rivers (1964). Both Krashen (1981), and Rivers (1964), suggested that personality factors could be connected to academic performance. For example, Krashen (1981) proposed that an individual who has an analytical orientation could perform better in conscious learning, and should demonstrate a more favorable attitude towards acquiring a foreign language than those without such an orientation. Further, they hypothesized that personality traits related to self-confidence (i.e., lack of anxiety, outgoing personality, self-esteem) might correlate to second language learning. Clement (1980), also assumed a similar position, suggesting that self-confidence will be important in multicultural settings where contact with members of other racial groups is possible.

Findings and Discussion

For this study, the independent variable was personality, and the dependent variable was language proficiency. Demographic variables included, but were not limited to age, gender, native language, reason for studying Spanish as a foreign language, and any prior experience with the target language. The two research questions investigated in this research study follow.

RQ1. What are the predominant personality traits found in college students studying Spanish as a foreign language in a Christian university?

The researcher conducted five one sample *t*-tests to address the research question. In regard to the predominant personality traits found in college students studying Spanish as a

foreign language in a Christian university, it was found that there was no statistical significance for Extrovert/Introvert, Prospecting/Judging, and Assertive/Turbulent. However, the researcher found that there was statistical significance for Observing/Intuitive and Thinking/Feeling. Therefore, the researcher determined that Observing/Intuitive and Thinking/Feeling were the predominant personality traits found in college students studying Spanish as a foreign language in a Christian university, while Extrovert/Introvert, Prospecting/Judging, and Assertive/Turbulent were not the predominant traits.

There have been many controversies regarding the use of individual difference personality variables to assess students' success in academic settings (Gottfredson, 2003). Chamorro and Furnham (2005) demonstrated ample evidence that measures of aptitude are effective predictors of academic performance across educational settings. Furthermore, students' individual personalities can be influential in accumulating and processing knowledge, which, in turn, predicts how they would score in academic settings (Barratt, 1995; Barrick & Mount, 1996; Blickle, 1996). According to Chamorro and Furnham (2005), there could be a significant relationship between personality and university students' aptitudes. Chamorro and Furnham (2005) noted that scores predicted academic success in 6 to 12-year-old student participants ($r = .60$), 13 to 18-year-old secondary school students ($r = .50$), and for 19 to 22-year-old college students ($r = .40$). However, the predictive power of cognitive ability test scores declined as education proceeded from primary to tertiary education as the student participants advanced in educational achievement (Furnham, 2009). According to Chamorro and Furnham (2003),

personality is intricately related to aptitude. The study by Chamorro and Furnham (2003), further showed that personality accounted for approximately 15% of the variance in grades.

RQ2. Do personality types predict language learning in college students studying Spanish as a foreign language?

The researcher conducted one multiple linear regression to assess if personality type is related to language learning in college students studying Spanish. Language learning was implemented as test grade in the Spanish course. The researcher conducted the regression analysis to assess the influence of the overall model on participants' grade. The researcher then assessed the influence of the individual predictors (i.e., personality types) on test grade. The results of the multiple linear regression analysis were not significant, indicating that the model consisting of the personality types contributed to 4% of the variance in test grade. Because the model was not statistically significant, the researcher determined that the personality types did not have a statistically significant relationship with test grade. Due to the model's lack of statistical significance, the researcher did not evaluate the individual predictors.

Early discussions of possible personality characteristics of successful second language learners have a tendency to differentiate mainly between two types: the introverted and the extroverted (Dunkel, 1947; Kawczynski, 1951; Valette, 1964). The studies by Dunkel (1947), Kawczynski (1951) and Valette (1964) implied measurement of sociability; however, they did not provide consistent results regarding the role of sociability towards learning a foreign language (Chastain, 2006; Naiman, Frolich, Stern, & Todesco, 1978; Swain & Burnaby, 1976).

Conversely, Gardner and Lambert (1972) demonstrated a connection between language aptitude, motivation, attitudes, and achievement in the acquisition of a foreign language, and although personality traits have also been hypothesized as possible predictors of language acquisition, past research has produced equivocal results.

Studies that have focused predominantly on personality variables have generally produced mixed results. According to Guiora and Acton (1979), the affective variables that received the majority of attention included empathy, anxiety, creativity, field dependence/independence, deliberateness, and emotionality. Such variables have been included in studies investigating a number of personality measures; nonetheless, correlations for the same variables are not consistent from study to study. Based on previous research, there is still little reason to conclude that personality variables are directly correlated to the acquisition of foreign languages (Scovel, 1978; Chastain, 2006; Hansen & Stanfield, 1981; Oskarsson, 1975). The prevailing theory is that the use of prior knowledge about language facilitates the learning, and acquisition of a foreign language (Ellis, 1985; Freeman & Freeman, 1992; Keller-Cohen, 1979; Ravem, 1980; Rivers, 1983). It can take as long as 6 years to become academically proficient in a second language (Collier, 1987; Cummins, 1984; McLaughlin, 87; McLaughlin, 1992).

Theories on second language acquisition indicate that the window of opportunity to learn multiple spoken languages narrows after childhood (Iverson & Hazan, 2005). Furthermore, the lack of mastery of the language increases the likelihood of academic failure (Patricia & Consuelo, 1996). Researchers have also found that adult learners have greater difficulties

acquiring a second language primarily because of age, and not necessarily due to brain plasticity (Sousa 2011). According to Sousa (2011), acquiring advanced language skills becomes a challenging task once the learner passes the age of puberty, or the age of 11. Thus, the younger the learner, the easier it is for them to learn a second language. Based on this theory, researchers hypothesize that the complexities of acquiring an advanced language skill reside within the brain's ability to create the appropriate neuronal connections at an early age (Brown, 2007; Lidzba, Winkler, & Krageloh-Mann, 2013).

Studies further indicate that the “brain's connections are primed for language acquisition through the age of 6” (Sousa, 2011, p. 191). In addition, the capacity of the brain to learn multiple spoken languages “begins to deteriorate by the end of the first year” (Hodara, 2012, p. 5). Similarly, Brown (2007) attested that abstract thinking occurs during puberty, hence, emphasizing puberty or the age of 11 as a critical stage to consider the effect of acquiring a second language. In regard to adult learners and language acquisition, the success of acquiring a foreign language is not only affected by cognitive factors, but also by affective variables. Among those external influences, anxiety, experiences, transfer, age, attitude, and personality among others are of great importance (Ackerman, 1996; Chastain, 2006; Kirby & Hurford, 2002; Shaozhong, 2001; Sousa, 2011).

Implications

The accepted theory that a correlation between personality and L2 subject proficiency exists was not confirmed by the results gathered in this study. Hence, the hypothesis that

personality predicts language learning in adult college students studying elementary Spanish as a second/ foreign language was rejected. A significant theoretical implication of this research resides within the observation that, and while generally extroverts have higher reading, speaking, and listening proficiency scores, writing levels tend to be higher for introverts. Further, the conservative theory supported by much of the literature concerning the relationship between personality and L2 proficiency appears to be contradicted by the data in this study. Moreover, theories that support the notion that extroverts perform at a higher level academically than introverts for whatever reason ought to be examined more closely. In addition, theories that contradict the perception that introverts could, in certain conditions, outperform extroverts also deserve to be considered. From a practical perspective, instructors of foreign languages ought to consider the dominant personality traits of their students, and their psychological disposition to learn, as well as, to communicate in a foreign language when applying various teaching methods, classroom techniques, and strategies. In addition, this approach is also important when assessing students' performance; hence, language teachers should adopt strategies, techniques, and approaches in their practical teaching to address students' individual differences.

Limitations

There were several limitations involved in this study. First, and while precautions were taken to ensure that the tests used to evaluate the student participants included in this study were consistent, language proficiency was measured by using test scores written and evaluated by the instructor teaching the Spanish course. The second limitation consisted of sample size and setting. The sample gathered for this study was limited to one Christian university. It was

difficult to generalize the findings in this study because of the small population. Due to the small number of participants, the findings may not be transferrable to other adult L2 learning settings.

An additional limitation was that the Neris Personality Type Indicator represented only the facets for measuring personality traits. While this instrument presented no problems, it fails to address students' culturally significant issues which could directly influence personality. A more personal evaluation of student behavior in the classroom used alongside the Neris Personality Type Indicator, might perhaps more accurately measure personality traits. The personality questionnaire used in this study was also considered a limitation due to the fact that it was a self-reported inventory. In some cases, participants might not want to reveal personal areas of their personality. In other cases, even though the survey of this study depended on voluntary participation, participants might not have paid attention to the questions due to time restriction. The final limitation is that the study did not include differences in gender. Males and females might show different structures of personality traits or different relationships between their personality and second language learning.

Recommendations for Future Research

The following recommendations are suggested for further research relating personality and academic success in the study of a second language as a result of the findings of this study. The first recommendation is to continue conducting research which addresses the topic of the present study in order to enhance and strengthen the present findings. Additionally, researchers should focus their attention on use of a Spanish standardized test to help bolster the results.

Furthermore, future researchers should explore reading and writing comprehension of a second language with a larger sample size. A larger population would allow for the generalizability of the findings, which would have the potential to make an impact on second language instruction and methodology. An additional recommendation is that researchers use more than one personality test and that researchers investigate the motivational factors of the participants. Oxford (1992) confirmed that paths to language learning motivation are often ignored. Therefore, new motivational variables should not be restricted. The element of motivation is an important component of language acquisition. Furthermore, future researchers should include grade point average or success in prior endeavors. An assessment of the personality of the instructors should also be included in future research. The use of a self-administered intelligence test might have yielded more discriminating data. The measurement of L2 proficiency could be extended to the listening and speaking skills. Essentially, language proficiency involves four skills: listening, speaking, reading, and writing. Nonetheless, L2 Spanish proficiency in this study focused on writing and reading ability as a measurement of proficiency.

The researcher has confidence in that the results, and conclusions of this and similar studies will enable educators to gain new and defined insights into the role that students' personality, along with other learning variables, plays in the acquisition of a second language.

Summary

The purpose of this study was to investigate the relationship between personality traits and language learning among college students in a Spanish course. More specifically, the researcher sought to investigate personality characteristics, or traits, which appear to define successful learners of Spanish as a foreign language at the university level.

Previous research intended to study this relationship have assessed poor correlations between personality trait, and language learning because of the variety of measures that can be used to operationalize the dependent variable (i.e., language learning) and the difficulty in separating the independent variable from confounding variables (e.g., instructional and situational variables; Dewaele, 2012; Dewaele & Li Wei, 2011; Merriam & Bierema, 2014; Olson & Land, 2007). Data was collected from 52 student participants enrolled in a Spanish language course at a Christian university located in Lakeland, Florida.

The results indicated that the mean Observing/Intuitive score was higher than the test value, and the mean Thinking/Feeling score was lower than the test value. The researcher did not assess statistically significant differences for the remaining personality types. Additionally, it was found that the results of the analysis indicated that the personality types were not related to language learning. Further, the analysis of this study indicated that the relationship between L1 and L2 is of utmost important in the acquisition of a foreign language. The results of the participants' grade scores show that the mean scores of the current sample grades ranged from 77 to 100, with one response score outside this range of 65. The mean participants' grade was 89.04

($SD = 6.75$). Based on Vygotsky (1987), success in one language reinforces the success in another, hence, these high percentages in L2 suggest high reading and writing proficiencies in L1.

Additionally, this infers that being knowledgeable of a native language allowed the participants to use that knowledge in acquiring a second language. Ravem (1980) attested that, a second language learner does not have to learn necessarily a language; the learner already possesses this knowledge, and can then further use it in the acquisition of another language. Though the participants were not tested for oral proficiency, the reverse of Cummins' (1984) interdependence theory was found for reading comprehension. High test scores seem to support Cummins' (1984) findings of basic interpersonal communicative skills, and cognitive/academic language proficiency.

For the purpose of this study, the reading comprehension from the test scores showed a high level of proficiency. The results are reverse of Cummins' (1984) basic interpersonal communicative skills and cognitive/academic language proficiency. For nonnative speakers of English studying in an English-speaking educational system, Cummins (1984) found that the students were able to speak and understand language at a high level of fluency. The need to speak and understand English in order to communicate was paramount in the success of academic achievement. The learners developed basic interpersonal communicative skills; however, the ability to succeed in the educational system was hindered due to the academic language and reduced contextualization of subject material in academic textbooks. Hence, the students lacked proficiency in cognitive/academic language.

Since the participants in this study were studying Spanish as a second language, but were not fully immersed in the target language, the primary approach of instruction was grammatical in nature. The student participants were taught Spanish in an academic setting, not a communicative one. The process for acquiring the second language resulted in reverse proficiencies. The participants acquired cognitive/academic language proficiency, nonetheless, high test scores, which are academic in nature suggest poor basic interpersonal communicative skills.

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APPENDICES

Appendix A

IRB Approval

	Southeastern University IRB-E IRB Application for Exempt Human Subjects Research	Institutional Review Board 1000 Longfellow Blvd. Lakeland, FL 33801 863.667.5097 pbleblanc@seu.edu
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<p>This Section is for Office Use Only</p> <p>SEU IRB Protocol No. _____</p> <p>Exempt under 45 CFR §46.101(b) <input type="checkbox"/> (1) <input type="checkbox"/> (2) <input type="checkbox"/> (3) <input type="checkbox"/> (4) <input type="checkbox"/> (5) <input type="checkbox"/> (6)</p> <p><input type="checkbox"/> Not Approved for Exempt</p> <p>Reviewed by: _____</p>

All forms must be completed, signed by the RPI, and submitted by as a single-sided hard copy.

NO STAPLES PLEASE!

Version 1

<p>Project Title: A Correlational Study: Personality Types and Foreign Language Acquisition in Undergraduate Students.</p>
--

1.1 Responsible Project Investigator. The RPI must be a non-visiting member of Southeastern University faculty or staff who will serve as project supervisor at Southeastern University. Students, interns, post-doctoral researchers, and visiting faculty from other campuses may not serve as RPI, but should be listed as investigators, if applicable.

Last Name: Harth	First Name: Joyce	Academic Degrees: Ph.D.
Dept: College of Education	Office Address:	Employee ID#:
Street Address: 1000 Longfellow Blvd.	City: Lakeland, FL	Zip Code: 33801
Phone: 863-667-5170	Fax:	E-mail jtharth@seu.edu
Southeastern Univ. Affiliation (please mark one): non-visiting member of <input checked="" type="checkbox"/> Faculty <input type="checkbox"/> Staff		

1.2 Investigators. Please list: All investigators who are different from the RPI, including those from other institutions. Include all persons who will be directly responsible for the project's design or implementation, the consent process, data collection, data analysis, or follow-up.

X Copy of Human Subjects Training Certificates attached for RPI and all investigators.

Last Name: Capellan	First Name: Frank	Academic Degrees: M.A.
Dept. or Unit: College of Education	Office Address:	Student/Employee ID #:
Street Address: 1000 Longfellow Blvd.	City: Lakeland, FL	Zip Code: 33801
Phone: 407-375-7695	Fax:	E-Mail: fcapellan@seu.edu
Southeastern Univ. Affiliation: (please mark one) <input type="checkbox"/> Faculty <input type="checkbox"/> Staff <input checked="" type="checkbox"/> Student <input type="checkbox"/> Visiting Scholar <input type="checkbox"/> Non SEU Affiliate		

X Check here and attach a list of Additional Investigators, if applicable.

Dr. James Anderson, Ph.D.

Dr. Paty Coronado, Ph.D.

1.3 Review the 6 categories of exemption listed below carefully and indicate the category or categories that apply to your research. (Note: Exemptions do NOT apply for prisoners, or for research that specifically targets persons who are cognitively impaired or persons who are economically or educationally disadvantaged.) RESEARCH INVOLVING MORE THAN MINIMAL RISK IS NOT EXEMPT and certain minimal risk projects might not be exempted if, in the opinion of the reviewing

body, the research contains procedures that should be periodically re-reviewed. The following exemption categories are from Title 45, Part 46 of the Code of Federal Regulations for the Protection of Human Subjects (§45 CFR 46).

X Title 45 Code of Federal Regulations §46.101(b)(1) exempts research conducted in established or commonly accepted educational settings, involving normal educational practices, such as

- a. research on regular and special education instructional strategies, or
- b. Research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- c. Other

X Title 45 Code of Federal Regulations §46.101(b)(2) exempts research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior, UNLESS

- d. information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; *AND*
- e. any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Exemption 2 does NOT apply to the following types of research involving children: surveys, interviews, and observations of public behavior when the investigator is a participant in the activities being observed.

Title 45 Code of Federal Regulations §46.101(b)(3) exempts research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, IF:

- a. human subjects are elected or appointed public officials or candidates for public office; *OR*
- b. federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

Title 45 Code of Federal Regulations §46.101(b)(4) exempts research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, IF these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

- Title 45 Code of Federal Regulations §46.101(b)(5) exempts research and demonstration projects that are conducted by or subject to the approval of department or agency heads, and that are designed to study, evaluate, or otherwise examine
 - a. public benefit or service programs;
 - b. procedures for obtaining benefits or services under those programs;
 - c. possible changes in or alternatives to those programs or procedures; or
 - d. possible changes in methods or levels of payment for benefits or services under those programs.

Exemption 5 CANNOT be made if prior review is specifically required by statute, or if the Secretary of HHS determines that a research or demonstration project presents a danger to the physical, mental, or emotional well-being of a participant or subject of the research or demonstration project.

- Title 45 Code of Federal Regulations §46.101(b)(6) exempts taste and food quality evaluation and consumer acceptance studies,
 - a. if wholesome foods *without* additives are consumed; or
 - b. if a food is consumed that contains a food ingredient *at or below the level and for a use found to be safe*, or agricultural chemical or environmental contaminant *at or below the level found to be safe* by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the US Department of Agriculture.

If the proposed research does not qualify in any of these categories, you MUST complete the full IRB 1 form.

1. Research Summary. In layman's language, please summarize the objectives and significance of the research. Include the procedures you will use to collect data.

The study seeks to investigate the role of personality variables in college students studying Spanish as a foreign language, and whether personality traits/ characteristics and language learning correlate. This research addresses a problem that is inadequately investigated in second language acquisition studies, that is, personality predictors of foreign language aptitude. The target groups of 18-to-35-year-old participants will be college students from a Christian university in Lakeland, FL.

The NERIS Personality Type Indicator will be used to measure personality types. Data will be collected from the Neris Personality Type Indicator website via students' emails. A Likert Scale Survey will be used to collect demographic data (age, gender, ethnicity, native language, major, career goal, reason for studying Spanish, and prior experience with the target language). Spanish proficiency tests will be used to measure language proficiency at

the end of the Fall semester. All completed instruments and surveys will be collected at the end of each session. Exam grades of all student participants will be obtained from the professor teaching the class at the end of the semester. The student investigator is a doctoral candidate at the university under study.

Please check here and attach additional Research Summary information, if applicable.

2. Participants. Describe who will participate in this research and how these persons will be recruited.

A sample of convenience of approximately 100+ college students will be selected from a Christian university in Lakeland, Florida enrolled in a sixteen-week Spanish course during the Fall semester on a three-credit basis. The participants will be college students whose ages may vary from 18 to 35.

Please check here and attach additional Consent Process information, if applicable.

1. Data Collection and Retention. Please explain how confidentiality will be maintained during and after data collection. If appropriate, address confidentiality of data collected via e-mail, web interfaces, computer servers and other networked information. Note: all human subjects research data must be preserved, either digitally or in hard copy, by the RPI for a period of 5 years. The student investigator is a doctoral candidate at the university under study. He will gather data from normal reports that the researcher will have access to via the instructor teaching the course (s). Survey and achievement data from the target groups will be coded using student ID numbers in order to match tests accurately. Once the matches are made, the results will be shared as grouped data so that no individual student's responses are identifiable. Digital copies of the data will be housed in the student investigator's password-protected laptop computer, and in a password-protected folder on his computer for a period of 5 years after the completion of the study. The RPI will receive a copy of the password protected digital data to store on her password protected computer in a password-protected folder. After 5 years, the folders will be deleted.

Please check here and attach additional Data Collection information, if applicable.

5a. Consent Process. Describe when and where voluntary consent will be obtained, how often, by whom, and from whom. Attach copies of all consent forms (as well as assent forms for those under age 18 if any).

Voluntary consent from the adult students will be verbally gathered prior to the beginning of the study. In addition, a hard copy of the consent script will be provided to the participants. Furthermore, the college of education will receive copies of written consent to conduct research and to report research in grouped format.

5b. Indicate how informed consent will be obtained.

Written informed consent (include copy) with a document signed by

adult subjects parent(s) or guardian(s) adolescents aged 8-17 years

Online informed consent (include copy) with a document that can be printed by

adult subjects parent(s) or guardian(s) adolescents aged 8-17 years

Passive informed consent (include copy) with a written document given to (but not signed by)

adult subjects parent(s) or guardian(s) adolescents aged 8-17 years

X Oral informed consent (include copy) using a script that is read to

X adult subjects parent(s) or guardian(s) adolescents aged 8-17 years

Mark one: A hard copy of the consent script X will be will not be provided to the participant.

Please check here and attach additional Consent Process information, if applicable.

1. Dissemination of Results. What is (are) the proposed form(s) of dissemination (e.g., journal article, thesis, academic paper, conference presentation, sharing within the industry or profession, etc.)?

The results of this study will be included in the student investigator's dissertation and in ProQuest, Selected Works, and Fire Scholar. None of the results will point to a specific school under study, and all results will be reported in aggregated form so that no individual student is identifiable.

- Please check here and attach additional Dissemination of Results information, if applicable.

2. Individually identifiable information. Will any individually identifiable information, including images of subjects, be published, shared, or otherwise disseminated? Please mark the appropriate box below.

Yes

X No

Note: If yes, subjects must provide explicit consent or assent for such dissemination. Provide appropriate options on the relevant consent documents.

2. Funding Information.

Is your research funded or is there a pending funding decision? Yes, X No

If “yes”, please indicate the funding agency here:

Please submit a copy of the funding proposal.

3. Expected Completion Date: August 30, 2017

Investigator Assurances

- I certify that the project described above, to the best of my knowledge, qualifies as an exempt study. I agree that any changes to the project will be submitted to the International Review Board for review prior to implementation. I realize that changes may alter the exempt status of this project.
- I certify that the RPI and all investigators have completed the tutorial on working with human subjects [located at <http://phrp.nihtraining.com/users/login.php> and copies of the certificates of completion are attached to this protocol.
- The equipment, facilities, and procedures to be used in this research meet recognized standards for safety.
- No change will be made to the human subjects’ protocol or consent form(s) until approved by the SEU IRB.
- Legally effective informed consent or assent will be obtained from human subjects as required.
- Adverse events, serious adverse events, and new information that may affect the risk-benefit assessment for this research will be reported to the SEU IRB Chair as prescribed on the IRB’s

Adverse Events Form [located on MySEU and MyFire]. Serious adverse events will be reported within 24 hours.

- I am familiar with the SEU policies outlined on the IRB website, and I will adhere to the policies and procedures explained therein.
- Student and guest investigators on this project are knowledgeable about the regulations and policies governing this research.
- For the RPI: If I become unavailable, as when on sabbatical or other leave, including vacation, I will arrange for an alternate faculty sponsor to assume responsibility during my absence. I will advise the SEU IRB by letter of such arrangements.
- I further certify that the proposed research has not yet been done, is not currently underway, and will not begin until IRB approval has been obtained.
- The original signature of the RPI is required before this application may be processed (scanned signatures are acceptable).


Responsible Project Investigator

10/14/16
Date

Frank Capellan
Investigator

10/14/2016
Date

Appendix B

Voluntary Consent for Face-to-Face Survey:

Dear participant,

By participating in this survey, you certify that you are 18 years of age or older, and you consent to participate. Your participation in this study is entirely voluntary. Please read the information below and ask questions about anything you do not understand, before deciding whether or not to participate. Please be aware that you are free to decide not to participate or withdraw at any time.

Please respond truthfully to all items. The results of individual responses will be kept confidential, and will only be used for reporting grouped results in the doctorate dissertation committee.

Please don't hesitate to contact Frank Capellan, (doctoral candidate) directly via email at fcapellan@seu.edu and/or Dr. Joyce Harth (RPI) at jtharth@seu.edu, should you have any question (s) and/or concern (s) related to this study.

The purpose of this study is to determine the role of personality variables in college students studying Spanish as a foreign language; to evaluate grades and language achievement after successful completion of the course.

In order to participate, please answer the subsequent questions using the following Likert Scale:

Thank you!

Appendix C

Neris Personality Type Indicator:

You find it difficult to introduce yourself to other people.

Agree

Disagree

You often get so lost in thoughts that you ignore or forget your surroundings.

Agree

Disagree

You try to respond to your e-mails as soon as possible and cannot stand a messy inbox.

Agree

Disagree

You find it easy to stay relaxed and focused even when there is some pressure.

Agree

Disagree

You do not usually initiate conversations.

Agree

Disagree

You rarely do something just out of sheer curiosity.

Agree

Disagree

You feel superior to other people.

Agree

Disagree

Being organized is more important to you than being adaptable.

Agree

Disagree

You are usually highly motivated and energetic.

Agree

Disagree

Winning a debate matters less to you than making sure no one gets upset.

Agree

Disagree

You often feel as if you have to justify yourself to other people.

Agree

Disagree

Your home and work environments are quite tidy.

Agree

Disagree

You do not mind being at the center of attention.

Agree

Disagree

You consider yourself more practical than creative.

Agree

Disagree

People can rarely upset you.

Agree

Disagree

Your travel plans are usually well thought out.

Agree

Disagree

It is often difficult for you to relate to other people's feelings.

Agree

Disagree

Your mood can change very quickly.

Agree

Disagree

In a discussion, truth should be more important than people's sensitivities.

Agree

Disagree

You rarely worry about how your actions affect other people.

Agree

Disagree

Your work style is closer to random energy spikes than to a methodical and organized approach.

Agree

Disagree

You are often envious of others.

Agree

Disagree

An interesting book or a video game is often better than a social event.

Agree

Disagree

Being able to develop a plan and stick to it is the most important part of every project.

Agree

Disagree

You rarely get carried away by fantasies and ideas.

Agree

Disagree

You often find yourself lost in thought when you are walking in nature.

Agree

Disagree

If someone does not respond to your e-mail quickly, you start worrying if you said something wrong.

Agree

Disagree

As a parent, you would rather see your child grow up kind than smart.

Agree

Disagree

You do not let other people influence your actions.

Agree

Disagree

Your dreams tend to focus on the real world and its events.

Agree

Disagree

It does not take you much time to start getting involved in social activities at your new workplace.

You often contemplate the reasons for human existence.

Agree

Disagree

Logic is usually more important than heart when it comes to making important decisions.

Agree

Disagree

Keeping your options open is more important than having a to-do list.

Agree

Disagree

If your friend is sad about something, you are more likely to offer emotional support than suggest ways to deal with the problem.

Agree

Disagree

You rarely feel insecure.

Agree

Disagree

You have no difficulties coming up with a personal timetable and sticking to it.

Agree

Disagree

Being right is more important than being cooperative when it comes to teamwork.

Agree

Disagree

You think that everyone's views should be respected regardless of whether they are supported by facts or not.

Agree

Disagree

You feel more energetic after spending time with a group of people.

Agree

Disagree

You frequently misplace your things.

Agree

Disagree

You see yourself as very emotionally stable.

Agree

Disagree

Your mind is always buzzing with unexplored ideas and plans.

Agree

Disagree

You would not call yourself a dreamer.

Agree

Disagree

You usually find it difficult to relax when talking in front of many people.

Agree

Disagree

Generally speaking, you rely more on your experience than your imagination.

Agree

Disagree

You worry too much about what other people think.

Agree

Appendix D

Neris Personality Type Table

This table shows all possible types/traits along with their roles and strategies:

Analysts	Confident Individualism	INTJ-A , INTP-A
	People Mastery	ENTJ-A , ENTP-A
	Constant Improvement	INTJ-T , INTP-T
	Social Engagement	ENTJ-T , ENTP-T
Diplomats	Confident Individualism	INFJ-A , INFP-A
	People Mastery	ENFJ-A , ENFP-A
	Constant Improvement	INFJ-T , INFP-T
	Social Engagement	ENFJ-T , ENFP-T
Sentinels	Confident Individualism	ISTJ-A , ISFJ-A
	People Mastery	ESTJ-A , ESFJ-A
	Constant Improvement	ISTJ-T , ISFJ-T
	Social Engagement	ESTJ-T , ESFJ-T
Explorers	Confident Individualism	ISTP-A , ISFP-A
	People Mastery	ESTP-A , ESFP-A
	Constant Improvement	ISTP-T , ISFP-T
	Social Engagement	ESTP-T , ESFP-T

Appendix E

LIKERT SCALE SURVEY

Foreign Language Acquisition in Higher Education:

Name: _____

Code: _____

page 1

**1. How many years of undergraduate education have you completed so far?
(select one)**

- 0. 0
- 1. 1
- 2. 2
- 3. 3
- 4. 4
- 5. > 4

2. What is your age? (select one)

- 0. 18-25
- 1. 26-30
- 2. 31-35
- 3. 36-40
- 4. 41-45
- 5. 46-50

6. 51-55

7. 56-60

8. >60

3. What is your gender? (Select one option)

1. Male

0. Female

4. What is your ethnicity? (select one)

0. American Indian or Alaska Native

1. Asian

2. Black or African American

3. Native Hawaiian or Other Pacific Islander

4. Caucasian

5. Hispanic or Latino

6. Prefer not to answer

5. Do you speak another language at home other than English? (select one)

1. Yes

0. No

6. What was your native language spoken at home growing up? (Select one option)

- 2. Spanish
- 1. English
- 0. Other (Please specify) _____

7. Prior to taking college elementary Spanish, have you had any prior experience (s) with the Spanish language? (Select one option)

- 1. Yes
- 0. No

8. Please mark what best describes your undergraduate grade point average (GPA). (select one)

- 4. 3.75-4.0
- 3. 3.25-3.74
- 2. 2.75-3.24
- 1. 2.25-2.74
- 0. < 1.75

9. Taking Spanish as a foreign language will broaden my cultural background. (Select one option)

- 3. Strongly Agree
- 2. Agree
- 1. Disagree
- 0. Strongly Disagree

10. Taking Spanish as a language course fulfills a college graduation requirement.
(Select one option)

- 3. Strongly Agree
- 2. Agree
- 1. Disagree
- 0. Strongly Disagree

**11. Please indicate the significance of learning Spanish as a foreign language:
Being able to communicate with people from a different culture.**

(Select one option)

- 3. Essential
- 2. Very Important
- 1. Important
- 0. Not Important

12. Learning another language. (Select one option)

- 3. Essential
- 2. Very Important
- 1. Important
- 0. Not Important

13. Since you started college, how often do you engage with people from different cultures?

(Select one option)

- 2. Regularly
- 1. Occasionally
- 0. Never

14. Have your professor (s) used any of the following teaching methods?

(Select all that applies: not $\sqrt{=}$ 0; $\sqrt{=}$ 1 for all)

- Class Discussions
- Lecturing
- Community Activities
- Project Presentations
- Cooperative Learning (small groups)
- All of the Above

15. Do you enjoy learning Spanish as a foreign language? (Select one option)

- 1. Yes
- 0. No

16. What has been your experience like taking Spanish as a foreign language? (Select one option)

- 3. Pleasant
- 2. Somewhat Pleasant
- 1. Slightly Pleasant
- 0. Unpleasant

17. Would you take a foreign language course at your college/university if it were not required for graduation? (Select one option)

- 1. Yes
- 0. No

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18. Please tell us your reason (s) for studying Spanish as a second, third or fourth language. (Select all that applies)

- 5. Ministry
- 4. My Parents Speak Spanish

- 3. Graduation Requirement
- 2. Curiosity
- 1. Learning Another Language is Important to Me
- 0. Other