

THE ROLE OF ACHIEVEMENT MOTIVATION ON
THE INTERLANGUAGE FOSSILIZATION OF
MIDDLE-AGED ENGLISH-AS-A-SECOND-LANGUAGE LEARNERS

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ABSTRACT

Second language acquisition (SLA) is seldom entirely successful with adult learners. It has been suggested that all second language (L2) learners, in the process of mastering a target language (TL), develop a linguistic system that is self-contained and different from both the learner's native language and the TL. This system is referred to as 'interlanguage' (IL). In the process of SLA, IL evolves into an ever-closer approximation of the TL, and ideally, a learner's IL should continue to advance until it becomes equivalent to the TL. However, it has been observed that somewhere in the L2 learning process, IL may reach one or more plateaus during which the development of the IL is delayed or arrested. A permanent cessation of progress toward the TL is referred to as 'fossilization'. Researchers in SLA agree that motivation is one of the key factors influencing language-learning success and studies suggest that some language learning motivation may be related to the need for achievement. The purpose of this research was to establish if adult ESL learners are aware of fossilization and, to examine if motivation, and more specifically achievement motivation, is a factor in IL fossilization.

The participants in this study consisted of 15 ESL learners in Puerto Rico who had at least eight years of formal ESL training. The instrument used to gather information included a questionnaire to obtain demographical and qualifying data, an 'English Language Proficiency Evaluation' to determine levels of IL fossilization, a 'Measure of Achievement Motivation' to ascertain achievement motive, and individual and group interviews in order to ascertain perception(s) regarding the role of motivation on fossilization and perceptions regarding the barriers to achieving TL competency.

The research demonstrated that there is a moderate to strong positive relationship between IL fossilization and achievement motivation, i.e., high achievement motive is correlated to TL competency and descending levels of achievement motive are correlated to ascending levels of IL fossilization. The findings have significant implications for both ESL learning and instruction, and suggest that not all IL fossilization may be permanent.

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LIST OF ACRONYMS

AM.....	Achievement Motive
CA.....	Contrastive Analysis
CAELA.....	Center for Adult English Language Acquisition
EA.....	Error Analysis
ECM.....	Exceptional Case Marking
ELPE.....	‘English Language Proficiency Evaluation’
ESL.....	English-as-a-second-language
H0.....	Null Hypothesis
IL.....	Interlanguage
L1.....	Native Language

L2.....Second Language
MAM.....‘Measure of Achievement Motivation’
MEP.....Multiple Effects Principle
NCLE.....National Center for ESL Literacy Education
REBT.....Rational Emotive Behavior Therapy
SLA.....Second Language Acquisition
SPM.....Syllable Per Minute
TAT.....Thematic Apperception Test
TOEFL.....‘Test of English as a Foreign Language’
TOEFL (CBT).....‘Test of English as a Foreign Language’ (Computer-Based Test)
TL.....Target Language
UG.....Universal Grammar

DEDICATION

This thesis is dedicated to my family
who lovingly supported me through to its completion.

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CHAPTER I: INTRODUCTION

The Center for Adult English Language Acquisition (CAELA), which is funded by the U.S. Department of Education, Office of Vocational and Adult Education, and which replaces the National Center for ESL Literacy Education (NCLE), reports:

Adult English as a second language (ESL)... is the fastest growing area of adult education. Although much is known about best practices in adult ESL, there are still unanswered questions about the adult English language learner, program design, teacher preparation, instruction, and assessment. The answers to these questions are critical, not only to improve the effectiveness of adult ESL programs, but also to improve the lives of adult ESL learners (Center for Applied Linguistics, 2005, n.p.).

Second language acquisition (SLA), a relatively new field, is studied primarily by applied linguists. It is fundamentally concerned with how a language, other than a first or native language (L1), is learned. Second language (L2) learners proceed through some of the same stages as do children learning L1 (Brown, 1994). However, adult learners rarely become as fluent in L2 as in their L1 (Selinker, 1972). Opinion is sharply divided between those researchers who claim that successful acquisition of L2 is impossible after puberty which they see as the cessation phase for optimal L2 acquisition (Krashen, Scarcella, & Long, 1982; Cook, 2001; Ellis, 1994; Harley, 1986;), and those researchers who advocate that adult language learners can achieve native-like competency in L2 with the aid of effective teaching methods regardless of the learner's age and L1 interference (Ekstrand, 1978; Singleton, 2004; Bongaerts, 1999). Notwithstanding the latter, it is a well-known fact that the acquisition of L2 is seldom completely successful with adult learners, and the majority of adult learners do not attain native-like competency in L2. Adult L2 acquisition, therefore, has been, (and continues to be), intensely debated in the

absence of a significant representation of native-like achievers. For example, Scovel (1988) maintains that no adult ever achieves native-like competency in L2. Some researchers maintain that successful attainment of L2 is extremely rare. “The acquisition of L2 is clearly somehow different from that of L1; adult second language learners rarely (if ever) achieve the same competence that children do learning their first language and, conversely, children never experience the degree of difficulty that L2 learners do” (Archibald, 2000, p. 1). Lyons (1996) is more to the point: “What cannot be disputed is the fact that relatively few adult second language learners ever reach the stage at which their performance in the second language is indistinguishable: lexically, grammatically and phonologically – from that of native speakers” (p. 28). In SLA research, it has become manifestly apparent that only a few adult learners overcome ‘areas of stability’ and achieve advanced L2 proficiency (Nakuma, 1998; Nickel, 1998; Seliger, 1978; Selinker, 1972; Selinker & Lakshamanan, 1992; Todeva, 1992; Tollefson & Firn, 1983).

Most researchers in SLA, however, agree that motivation is one of the key influences on language learning success. Motivation in L2 learners is seen as twofold: 1) extrinsic / instrumental (career-oriented) and/or 2) intrinsic / integrative (cultural-merging). Research has been conducted on language learning motivation, and concepts from various fields have been included to expand the theory of language learning motivation (Gardner, 1985; Ely, 1986; Ramage, 1990; Dornyei, 1990; Bacon & Finnemann, 1990; Skehan, 1991; Gardner, & MacIntyre, 1991; Crookes, & Schmidt, 1991; Gardner, Day, & MacIntyre, 1992; Oxford, & Sherrin, 1994; Gardner & Tremblay, 1995; Gardner, Tremblay, & Masgoret, 1997). Much of this research has suggested that some language learning motivation may be related to the need for achievement.

It has been suggested that all L2 learners, in the process of mastering a target language (TL), develop a linguistic system that is self-contained and different from both the learner's L1 and the TL (Nemser, 1971). This linguistic system has been variously called interlanguage (IL) (Selinker, 1972), approximative system (Nemser, 1971), idiosyncratic dialects or transitional dialects (Corder, 1971), etc.

According to Corder (1981), this temporary and changing grammatical system, IL, that is constructed by the learner, approximates the grammatical system of the TL. In the process of L2 acquisition, IL continually evolves into an ever-closer approximation of the TL, and ideally, a learner's IL should continue to advance gradually until it becomes equivalent, or nearly equivalent, to the TL. However, it has been observed that somewhere in the L2 learning process, such an IL may reach one or more temporary restricting phases during which the development of the IL appears to be detained (Nemser, 1971; Selinker, 1972; Schumann, 1975). A permanent cessation of progress toward the TL has been referred to as fossilization (Selinker, 1972). This linguistic phenomenon, IL fossilization, occurs when progress in the acquisition of L2 is arrested, despite all reasonable attempts at learning (Selinker, 1972). Fossilization includes those items, rules, and sub-systems that L2 learners tend to retain in their IL while in the process of acquiring a particular TL, i.e., fossilization encompasses those aspects of IL that become entrenched and permanent, and that will only be eliminated with considerable effort, for the majority of L2 learners, regardless of explanation and/or instruction (Omaggio, 2001). Moreover, as noted above, it has also been noticed that adult L2 learners' IL systems, in particular, have a tendency, or propensity, to become stagnated or solidified (Nemser, 1971; Selinker, 1972, Selinker & Lamendella, 1980.),

i.e., the language learners make no further progress in IL development toward the TL, and become permanently fossilized, in spite of the amount of exposure to the L2.

Selinker (1972) suggests that the most important distinguishing factor related to L2 acquisition is the phenomenon of fossilization. His very explanation that “fossilizable linguistic phenomena are linguistic items, rules, and subsystems which speakers of a particular native language will tend to keep in their interlanguage relative to a particular target language, no matter what the age of the learner or amount of explanation or instruction he receives in the target language” (Selinker, 1972, p. 215) and his hypotheses on IL fossilization are fascinating in that they contradict our basic understanding of the human capacity to learn. Is L2 the most difficult phenomenon for humans to master in this vast universe? Why is there such a discrepancy? How is it that some learners can overcome IL fossilization, even if they only constitute “a mere 5%” (Selinker, 1972, p. 212), while the majority of L2 learners cannot, ‘no matter what the age or amount of explanation or instruction’? Or is it perhaps not that they cannot overcome fossilization, but that they will not? Does complacency set in after L2 learners begin to communicate, as far as they are concerned, effectively enough, in the TL, and as a result does motivation to achieve native-like competence diminish?

This concept of fossilization in SLA research is so intrinsically related to IL that Selinker (1972) considers it to be a fundamental phenomenon of all SLA and not just to adult learners. Fossilization has received such wide recognition that it has been entered in the Random House Dictionary of the English Language (1987). Selinker’s concept of fossilization is similar to that of Tarone (1976), Nemser (1971), and Sridhar (1980), all of whom attempted to explore the causes of fossilization in L2 learners’ IL.

Fossilization has attracted considerable interest among researchers and has engendered significant differences of opinion. The term, borrowed from the field of paleontology, and actually a misnomer, is effective because it conjures up an image of dinosaurs being enclosed in residue and becoming a set of hardened remains encased in sediment. The metaphor, as used in SLA literature, is appropriate because it refers to earlier language forms that become encased in a learner's IL and that, theoretically, cannot be changed by special attention or practice of the TL. Despite debate over the degree of permanence, fossilization is generally accepted as a fact of life in the process of SLA.

Much has been written about fossilization and many researchers have attempted to explain it (Adjemian, 1976; Corder, 1971, 1978; De Prada Creo, 1990; Nakuma, 1998; Selinker, 1972; Nemser, 1971; Schumann, 1976, 1978a, 1978b, 1990). Others have attempted to discover: 1) why fossilization occurs (Adjemian, 1976, Naiman, et al., 1996; Schumann, 1976, 1978a, 1978b, 1990; Seliger, 1978; Stern, 1975; Virgil & Oller, 1976); 2) the precipitating conditions (Schumann, 1976, 1978a, 1978b, 1990; Virgil & Oller, 1976); 3) what kind of linguistic material is likely to be fossilized (Selinker & Lakshamanan 1992; Todeva, 1992); and 4) what type of learners are more prone to fossilize (Adjemian, 1976; Scovel, 1969, 1978, 1988, 2000; Selinker, Swain & Dumas, 1975; Virgil & Oller, 1976).

However, there has been almost no investigation by SLA theorists regarding the possibilities of preventing or overcoming fossilization, and little explanation related to those adult L2 learners who do overcome one or more 'areas of stability' in IL, i.e., those learners whose IL does not fossilize in the early stages of the SLA process, and who do

reach a high level of proficiency in the L2 (Acton, 1984; Birdsong, 1992; Bongaerts, et al., 1997; Ioup, Boustagui, El Tigi, & Mosell, 1994; Selinker, 1972).

One factor that has obvious relevance to fossilization is motivation and various studies have been conducted regarding motivation to learning L2 (Gardner, 1988; Gardner & Smythe, 1975; Schumann, 1976, 1978a, 1978b), and the relationship of fossilization to the learner's communicative needs (Corder, 1978; Nickel, 1998; Ushioda, 1993). Arguments have particularly emerged regarding adult learners' general lack of empathy with TL native speakers and culture. According to Guiora et al. (1972), adults do not have the motivation to change their accent and to acquire native-like pronunciation. Unlike children, who are generally more open to TL culture, adults have more rigid language ego boundaries. It is hypothesized that adults may therefore be inclined to establishing their cultural and ethnic identity, and this they do by maintaining their stereotypical accent (Guiora et al., 1972). Notwithstanding this, there is a lack of needed research, particularly regarding achievement motivation, especially in view of the fact that fossilization can be considered the most distinctive characteristic of adult SLA. To date, fossilization continues to remain something of a mystery in SLA.

1.1 Statement of the Problem

The problem, in general, deals with the question: 'Does achievement motivation affect the IL fossilization of a middle-aged ESL learner population in the Commonwealth of Puerto Rico who have had at least eight years of formal exposure to the TL?' A thorough review and critique of the existing related literature and research will be presented as a backdrop to this study, which will be guided by the following questions:

1. Are middle-aged ESL learners aware of their IL fossilization?
2. Is there a relationship between middle-aged ESL learners' competence (or perceived competence) and achievement motivation?
3. What factors do middle-aged ESL learners view as barriers to their achievement of TL competency?

1.2 Definition of Terms

Competency. In this study, competency is a broad term used to describe the totality of an L2 learner's TL ability, i.e., the underlying language system believed to exist as inferred from the L2 learner's performance in the TL (TEFL, n.d.). Competence refers to all of the forms of knowledge that L2 learners must have in order to communicate effectively.

English-as-a-Second-Language. Adult ESL, or English-as-a-second-language, is the term used to describe English language instruction for adults who are nonnative speakers of English.

First language. L1, i.e., native language, mother tongue, etc., is the language a person learns first. Correspondingly, the person is called a native speaker of the language. Usually a child learns the basics of his/her first language in the family. Adequate skills in L1 are essential for additional learning, as L1 is considered to be the principle foundation for the development of thinking / reasoning. Incomplete L1 skills often make learning other languages difficult. L1 therefore has a central role in education.

Fossilization. The relatively permanent incorporation of incorrect linguistic features, rules, or subsystems (phonological, morphological, syntactic, lexical, socio-cultural, or psycholinguistic in nature) which speakers of a given L1 tend to preserve in their IL prior to achieving competence in a particular TL. It should be noted that SLA researchers make a distinction between 1) fossilization as product, or end result, and, 2) fossilization as process. Fossilization as product is viewed in terms of the L2 grammar containing non-target-like or deviant forms. Fossilization as a process is viewed in terms of the mechanisms that effect a delay in SLA. In this research, fossilization is viewed as a process.

Interlanguage. The developing, or transitional, second-language proficiency of a L2 learner, i.e., a language system that has a structurally intermediate status between the L1 and TL. It must be noted, however, that it is not an imperfect version of the TL but a natural language system with its own slowly evolving but consistent set of rules.

Middle-aged. A period that begins between thirty-five and forty and ends between sixty and sixty-five years of age, i.e., the ages around, or older than, the middle of the average lifespan of human beings. In developed societies, people are generally considered to be middle-aged between the ages of about 40-60.

Motivation. The most typical use of this extremely important, but definitionally elusive, term is to regard it as an intervening process or an internal state of an individual that impels or drives him/her to action. Motivation is the process of: 1) arousing or initiating behavior, 2) sustaining an activity in progress, and, 3) channeling activity into a given direction. Within this very wide conception, the psychology of motivation is

concerned with any laws and theories that take behavior as a dependent variable.

Therefore, any explanation of an action, by definition, is a motivational explanation.

Motivation, (Achievement). In this study, motivation is defined in terms of the concept 'achievement motive' as proposed by David McClelland, et al. (1953) and John Atkinson (1953, 1981), which denotes that learners have the freedom to succeed and fail and try again in the quest of obtaining constantly developing goals and challenges. According to Weiner (1980, p. 179): "[achievement motivation] is, an individual's choice among achievement-related activities, and how hard one works at achievement tasks, is thought to be determined by one's expectancy of success and the value of success. Simply put, what we attempt to accomplish depends upon what we will get and the likelihood of getting it!". The achievement motive is defined as the motive to be successful, to perform well, to be capable, to 'maintain or to improve the standard of excellence'. Two components are distinguished: 1) the hope of success as the partial motive to try to reach a certain goal, persist in the face of failure, and experience pride in accomplishments (resulting from intrinsic and extrinsic stimuli, including recognition of accomplishments by others), and, 2) the fear of failure, which often leads to the avoidance of the achievement-related situations, and the negative effects of failure on the self-esteem. Therefore, achievement motivation is generally a personal motive manifested as a striving for success, quite literally a motive to achieve, and in this study, it relates to the goal of achieving native-like competency in the TL.

Performance. In this study, performance refers to: 1) how an L2 learner meets a TL content standard; and 2) how an L2 learner demonstrates his / her TL knowledge and skills. It also refers to the quality and effect of an L2 learner's performance at a given

level of competency (benchmark) in the TL. Performance can also show learner progress toward meeting a TL standard (TEFL, n.d.). The competence-performance distinction introduced by Chomsky, distinguishes competence, i.e., a learner's idealized knowledge of language rules, from performance, i.e., the imperfect realization of these rules.

Proficiency. In this study, proficiency refers to the level of competency at which an L2 learner is able to use the TL for communicative tasks, and academic or other purposes (TEFL, n.d.). Proficiency is usually distinguished from competence, which refers primarily to knowledge: "proficiency refers to the learner's ability to use this knowledge in different tasks" (Ellis, 1994, p. 720).

Proficiency Testing. The issue of the relationship(s) between competency, proficiency, proficiency testing, and IL fossilization must be problematized in order to understand the reason why a proficiency test is used in this study to determine levels of IL fossilization. As stated above, competency primarily refers to 'idealized knowledge', while proficiency refers to 'the ability to use knowledge'. IL fossilization involves cognitive processes or, at least underlying mechanisms, which produce, or rather, result in permanent stabilized forms (Han, 2004). TL acquisition also involves metacognition, or active control over the cognitive processes engaged in learning, and moreover, proficiency in an L2 is the expression of the executive ability to apply, oversee, and regulate cognitive resources through metacognitive control, (i.e., self-regulation, executive control, and even meta-memory), in the use of a competency or competencies, rather than simply the expression of the knowledge to be able to answer a given stimulus with a set of drill-learned responses. For this reason, proficiency is considered to be one of the primary indicators and measures of IL fossilization, along with persistent errors,

backsliding, etc. (Birdsong, n.d.). The *TOEFL CBT* or 'English Language Proficiency Evaluation' was not selected for use in this study merely because it is the most widely used academic English proficiency test in the world, but because it measures the learner's ability to use English effectively and appropriately throughout a range of social, personal, and other situations, including the use of the learner's competencies in five English language processes, i.e., 1) listening comprehension; 2) fluency, structure, and grammar; 3) reading comprehension; 4) writing and essays; and 5) verbal communication and pronunciation.

Second language. A language acquired or learned after an individual's acquisition of L1.

Second-language acquisition. SLA is the subconscious process of learning an additional language that is similar, if not identical, to the processes by which individuals learn their native tongue. The term SLA has become standard for referring to all research on non-native language learning, even when the language learned is a learner's third or fourth language.

Target language. TL is a language that a non-native speaker is in the process of learning.

1.3 Purpose of the Study

Little is known about the causes of fossilization, but five processes in addition to motivation have been found to exert influence on it, and these are: 1) language transfer, i.e. L1 interference (Brown, 1994); 2) transfer-of-training, i.e. weaknesses in language-learning materials and/or approaches (Crookes, 1991); 3) strategies of L2 learning, i.e.

difficulties resulting from the learner's own approach (Gardner, 1990); 4) strategies of L2 communication, i.e. mistakes resulting from the learner's communication with TL speakers (Omaggio, 2001); and 5) overgeneralization of TL rules (Krashen, 1981). However, it has been theorized that motivation is more important than all of these internal factors, and is primarily "responsible for the onset of fossilization..." and that "interlanguage rules... will fossilize when there is no perceived need to change them" (Omaggio, 2001, p. 274).

Researchers, including Atkinson (1964, 1966, 1978) and McClelland (1975, 1980, 1987), have studied drive states and motivation. Additionally, there has been considerable research by Cook (1995), Ellis (1985, 1994, 1997, 1999), Van Els (1984), Singleton (1989, 1995), and Skehan (1991) in the area of motivation as a predictor of success in L2 learning, which indicates that there is a relationship between attitudes and motivation (and language aptitude) on the one hand and L2 achievement on the other, but the process underlying the relationship is certainly open to question. One might argue that particular attitudinal / motivational characteristics facilitate the acquisition of a L2 (which is the interpretation favored by most researchers). It might also be argued that success in learning a L2 promotes particular attitudinal / motivational characteristics. Most research however, has primarily dealt with elementary and secondary school-aged children (Singleton, 1995), and only in recent years have some studies been conducted with university-aged students (Carroll, 1967; Ely, 1986). However, the majority of these studies have merely underscored the existence of IL fossilization. Few studies have attempted to research the approximal development of TL proficiency (Krashen,

1981), with a focus on identifying the impact of motivation, and specifically achievement motivation, on IL fossilization (Gardner & MacIntyre, 1991).

The purpose of this research is twofold: 1) to establish if adult ESL learners are aware of IL fossilization and, 2) to examine if motivation, and more specifically achievement motivation, is a factor in IL fossilization. If motivation is indeed found to be one of the key internal factors contributing to the onset of fossilization, the importance of the present study may lie in the analysis of the findings of the study regarding the individual competency level of each participant and juxtaposing participant motivation and/or perception of motivation with achievement motive theory. The conclusions can then be applied to the development of techniques for the management of motivational development within the framework or context of instruction in order to minimize or even overcome the phenomenon of fossilization. Adults learn languages more quickly than children (Krashen, Long, & Scarcella, 1979) and indeed have superior language learning capabilities (Walsh and Diller, 1978). However, classroom practices and instructional methods often discriminate against adult learners (Lenneberg, 1967), resulting in the stereotyping of adults as poor language learners. The question, 'Can middle-aged ESL learners ever acquire native speaker competency?' may be closer to being answered if this additional clue regarding ESL acquisition is uncovered, the corresponding solutions implemented, and the myth of the inevitability of IL fossilization in adult ESL language acquisition is put to rest one way or another.

1.4 Methodology

The participants for this study are randomly selected volunteers from a specific age-group population (i.e., men and women between the ages of 40 and 60) in Puerto Rico. The sample consists of fifteen ESL learners who have had at least eight years of formal ESL training, including four years at high school and four years at university where the medium of instruction is Spanish. They have Spanish as their L1 and have not lived or studied in an English-speaking country.

To gather information, a four-part questionnaire was administered to the participants. Part I of the research instrument was used to collect the qualifying personal and demographic data of each participant. Part II included the 'Informed Consent Statement'. Part III of the instrument included an 'English Language Proficiency Evaluation' modified and adopted, with full permission, from Roberta Steinberg's *TOEFL (CBT)*, which measured competency through a combined assessment in the following: 1) 'Listening / Comprehension Test', 2) 'Fluency / Structure / Grammar Test', 3) 'Reading / Comprehension Test', 4) 'Writing / Essay Test', and 5) 'Verbal Communication / Pronunciation Test'. Participant responses were recorded, scored, and analyzed by the researcher. Each section of the 'English Language Proficiency Evaluation' was worth 50 points, for a total of 250 points. Scores falling within the following ranges corresponded to different levels of fossilization: 161 points or less indicating high levels of IL fossilization; 162-199 points indicating medium or moderate levels of IL fossilization; and 200-236 points indicating low or minimal levels of IL fossilization; and scores between 237-250 points corresponding to TL competency. Part IV included a 'Measure of Achievement Motivation' modified and adopted, with full

permission, from Dr. Hubert J. M. Hermans' *Achievement Motivation Measure*, to determine each participant's 'achievement motive'.

After the results were analyzed, participants were identified and selected to participate in individual or group interviews based upon four categories representing learners with high levels of IL fossilization, learners with medium or moderate levels of IL fossilization, learners with low or minimal levels of IL fossilization, and learners that had attained TL competency. The purpose of these interviews was to ascertain participant perception of the role of motivation and barriers to language competency, and participant perception regarding the motivational components of TL acquisition. The findings of these interviews served to elaborate on what was learned through the quantitative research. The combination of qualitative with quantitative research assisted in explaining and vividly illustrating, by the personal experience that comes out of the focus groups, the findings based upon the statistically valid sample of the target population.

All the information was gathered, analyzed, and interpreted in terms of the role achievement motivation plays in IL fossilization of middle-aged ESL learners, with a view to: 1) establish if there is any correlation between the level of motivation and the degree of success in L2 acquisition, and 2) indirectly assist in identifying other factors that exercise influence on fossilization.

Pursuant to the collection and analysis of the data, recommendations are proffered (in chapter 5) regarding the development of learning strategies that include motivational techniques, etc. to assist middle-aged ESL students to learn more effectively.

1.5 Researcher's Background and Interests

Although this research was primarily quantitative in character, the researcher was the principal data collection instrument for the qualitative component of the study, which involved four focus group interviews. It is therefore necessary to provide some information about me, the researcher, my previous experiences in the field, and the biases that I may have brought to this research. No doubt, this information constitutes the lens through which I have viewed the ESL learning experiences as manifested by the participants in this component.

My mother tongue is Serbo-Croatian. However, by the age of 13, I was fluent in both Hungarian, (having lived in Banat, Yugoslavia), and German (having lived in Munich, Germany). At the age of 14, I moved to Australia where I learned English and later studied Spanish as an adult. I have a B.A. in Modern Languages from Thomas Edison University in Trenton, New Jersey, and a Licentiate in Orthodox Theology from St. Sophia Orthodox Seminary in South Bound Brook, New Jersey. I received an M.A. in Education with a specialization in Teaching English as a Second Language (TESL) from the University of Phoenix, Puerto Rico campus, a D. Min. in Marriage and Family Therapy from Southern Christian University in Montgomery, Alabama, and am currently pursuing a Ph.D. in General Psychology at Northcentral University in Prescott, Arizona. Since August 1998, I have worked as an English language lecturer at the University of Turabo, Puerto Rico and am Director of the Center for the Study of Language. It was through his studies at the University of Phoenix that I first learned of IL and IL fossilization.

As an adult foreign language learner and ESL lecturer, I am curious about those learners whose ILs have fossilized during their ESL acquisition process. In particular, I am interested in discovering the reasons why only a small percentage of L2 learners overcome area(s) of stability in their IL development.

The following is a brief reference to the assumptions that I have brought to this study: 1) adult learners can achieve TL competency; 2) adult learners who achieve TL competency have experienced at least one temporary area of stability on the continuum of their IL development; and 3) adult learners who achieve TL competency have overcome plateaus in their ILs, at least in part, because of high achievement motive. One of my interests in this study was to discover, whether there was indeed any correlation at all between achievement motivation and surmounting IL plateaus, avoiding IL fossilization, and reaching TL competency.

1.6 Organization of the Dissertation

Chapter II presents a review of the related literature and provides a comprehensive overview of research on IL and fossilization, as well as language learning motivation.

Chapter III describes the methodology of the study. It includes information on the sample population, instruments and methods utilized.

Chapter IV elaborates on statistical data, findings and analysis.

Chapter V discusses implications of the results, draws conclusions, and makes recommendations.

1.7 Summary

Practically every L2 learner experiences IL fossilization. These learners may reach a level of competency that allows them to socialize in a TL cultural setting and/or to communicate with reasonable effectiveness. However, there may still be slight, or glaring, evidence that the speaker is not a native speaker of the TL, and those fossilized elements of the L2 may, at times, hinder communication or effective integration into the TL culture.

Fossilization, therefore, warrants proper understanding and explanation. However, studies regarding the role of motivation on IL fossilization among adult ESL learners, remain inconclusive. Although much research has been conducted since the presentation of the concept (Selinker, 1972), we still need to know more.

It is hoped that this research will offer clarification on the role of achievement motivation on IL fossilization of middle-aged ESL learners. Does motivation to speak like native English speakers diminish as L2 learners achieve, or perceive themselves to achieve, a satisfactory degree of competence in communicating with the TL speakers? Do L2 learners consciously 'decide' to become 'fossilized'? The findings of this study will increase knowledge regarding the phenomenon of fossilization and may assist in clarifying why it is so hard to overcome.

CHAPTER II: LITERATURE REVIEW

An overview of the research in the area of second language acquisition (SLA) reveals an ever-expanding interest and attention to the etiology of the phenomenon of IL fossilization. Many diverse factors and variables have been identified as exerting influence on the etiology of IL fossilization, all of which have some legitimacy. Han (2004), for example, lists over fifty factors. However, nearly all researchers agree that one variable, learner motivation, indisputably affects L2 acquisition.

Motivation and L2 acquisition have been extensively researched by R.C. Gardner and his colleagues (Gardner, 1979; 1980; 1985; 1996; Gardner, Ginsberg & Smythe, 1976; Gardner, Lalonde & Moorcroft, 1985; Gardner & Lambert, 1972; Gardner & MacIntyre, 1993; 1991; Masgoret & Gardner, 2003). They found that motivation is multifaceted and is itself affected by a number of variables (Gardner & Lambert, 1972). Motivation can be either extrinsic or intrinsic, or both, and Gardner maintains that motivation aids learning (Gardner, 1996). Intrinsic motivation has been found to give better results in SLA, and moreover, in ESL (Masgoret & Gardner, 2003).

In the process of investigating intrinsic motivation, McClelland and Atkinson (1953), researched achievement motivation. They discovered that certain individuals have traits that set them apart from the rest of the crowd. They have 'what it takes' to achieve and accomplish the tasks they set before themselves, and they have the attitude, the consistency, the drive, etc. to succeed in their undertakings.

This chapter surveys the major research, theories, and developments in the areas of achievement motivation as related to SLA / ESL acquisition and IL fossilization. The

literature review provides a backdrop to the present study, which hypothesizes that achievement motivation plays a central role in TL acquisition and in the IL fossilization.

2.1 Motivation

Motivation is not a concept that can be used as a singular explanation of behavior. Motivational states result from the multiple interactions of a large number of other variables, among them: 1) the need or drive level, 2) the incentive value of the goal, 3) the individual's expectations, 4) the availability of appropriate responses, 5) the possible presence of conflicting or contradictory motives and, of course, 6) unconscious factors (Reber, 1985; Hunt, 1993). Motivation is intimately intertwined with emotion. Emotional states tend to have motivational properties, and the energizing elements of a motivational disposition often have a strong emotional tone to them.

Motivation can be explained as the degree to which an individual strives to do something because s/he desires to and because of the pleasure and fulfillment derived from the activity. It is defined as an internal state or condition that activates and gives direction to thoughts, feelings, and actions.

The Columbia Electronic Encyclopedia (2003), defines motivation, from the psychological perspective, as the intention of achieving a goal, leading to goal-directed behavior. Some human activity seems to be best explained by postulating an inner directing drive. While a drive is often considered to be an innate biological mechanism that determines activity, a motive is defined as an innate mechanism modified by learning.

There has been considerable research conducted on the topic of attitudes and motivation in L2 learning for many years. It stands to reason, and research has corroborated, that motivation is one of the essential learner characteristics that determine the rate and success of L2 learning. Focusing primarily on factors that affect French-speaking and English-speaking Canadians when learning the language of each others' community, the studies of Robert Gardner and his colleagues (Gardner, 1979; 1980; 1985; 1996; Gardner, Ginsberg & Smythe, 1976; Gardner, Lalonde & Moorcroft, 1985; Gardner & Lambert, 1972; Gardner & MacIntyre, 1991; 1993) support the theory that integrative motivation (wanting to learn a language in order to identify with the community that speaks the language) promotes SLA. This motivation seems to promote SLA, regardless of the age of the learner or whether or not the language is being learned in a TL community, (e.g., learning English in the context of an English-speaking community), or learning a TL in an EFL setting, (e.g., learning English in a non-English-speaking country). However, it has been demonstrated that even if learners do not have this positive attitude toward learning an L2, they may have instrumental motivation, i.e., they may want to learn the L2 to meet their own needs and goals (Moss, 2003).

Gardner's studies were based on the framework that he later developed into his socio-educational model (Gardner, 1985; 1996). Since its introduction, Gardner's model has dominated the area of language learning motivation, and evidence has confirmed the correlation between motivation and L2 linguistic achievement (Ellis, 1999; Laine, 1981; Kraemer, 1990, cited in Gardner & MacIntyre, 1992; Skehan, 1989; Ehrman & Oxford, 1993; Spolsky, 1989).

2.1.1 Definitions and Basic Concepts

Dornyei (2002a, p. 8) identifies motivation as “why people decide to do something, how long they are willing to sustain the activity [and] how hard they are going to pursue it”. Gardner and Lambert (1972) introduced the notions of integrative and instrumental motivation. In later research studies, Crookes and Schmidt (1991), and Gardner and Tremblay (1994) explored four other motivational orientations: 1) reason for learning, 2) desire to attain the learning goal, 3) positive attitude toward the learning situation, and 4) effortful behavior.

Subsequently the trend has been to recognize that motivation is multi-factorial. Indeed, Oxford and Shearin (1994) analyzed a total of 12 motivational theories or models, including those from socio-psychology, cognitive development, and socio-cultural psychology, and identified six factors that impact motivation in language learning: 1) attitudes, i.e., sentiments toward the learning community and the TL; 2) beliefs about self, i.e., expectations about one’s attitudes to succeed, self-efficacy, and anxiety; 3) goals, i.e., perceived clarity and relevance of learning goals as reasons for learning; 4) involvement, i.e., extent to which the learner actively and consciously participates in the language learning process; 5) environmental support, i.e., extent of teacher and peer support, and the integration of cultural and outside-of-class support into learning experience; and 6) personal attributes, i.e., aptitude, age, sex, and previous language learning experience.

2.1.2 Achievement Motivation

Achievement motivation is a desire to achieve goals through one's efforts, with an emphasis on establishing realistic goals, mastering the tasks needed to achieve these goals, discovering solutions to problems encountered in striving to reach these goals, and then being open to and even seeking out feedback on one's performance (Atkinson, 1964). Individuals high in achievement motivation are at their best when they can maintain a high level of involvement in ensuring the excellence of activities.

Unierzyski (2003) describes achievement motivation as a lasting psychological feature, as a trait having 'permanent character', being formed during the preceding weeks, months and years. Achievement motivation directs a person's activity and makes it more (or less) dynamic, influencing other factors affecting performance. This property, the 'driving power of activity', should be understood as the joint function of the motive power (which is a permanent property of personality) and the consequences of what a given individual expects of his / her own actions (Atkinson & Feather, 1966) aimed at achieving success and avoiding failure. People with greater achievement motivation prefer tasks and situations where they can influence the result and be successful. Such people also persist at long-lasting insoluble tasks more effectively (Atkinson & Feather, 1966).

High achievement motivation often manifests in an optimum level of stimulation in difficult situations and in realistic levels of aspiration (Unierzyski, 2003). It has its roots in Murray's (1938) theory of personality which drew from both Freudian and Jungian psychoanalysis, to form a complex system of basic motivational forces. Murray developed the Thematic Apperception Test (TAT), widely used by psychologists for

assessing personality, whose interpretation system included scoring for various needs. David McClelland (1980) extended Murray's concept of needs into use of the TAT to identify three needs: need for affiliation, need for power, and need for achievement, that together served to motivate the successful attainment of goals. In his studies related to the construction of a measure of achievement motive, Dr. Hubert J. M. Hermans of the University of Nijmegen in the Netherlands discovered that there was a high correlation between the need for achievement and performance in unstructured educational programs while there was no significant correlation in structured programs (Hermans, 1970). His *Achievement Motivation Measure* is extensively used as a clinical predictor of success by academic institutions throughout the world and has been adopted, with permission, as an instrument for this study.

Achievement motivation theory establishes a relationship between personal characteristics, social background and achievement. A person with a strong need for achievement tends to exhibit such characteristics as: 1) regarding the task as more important than any relationship; 2) having a preference for tasks over which they have control and responsibility; 3) needing to identify closely, and be identified closely, with the successful outcomes of their actions; 4) seeking tasks that are sufficiently difficult to be challenging, to be capable of demonstrating expertise, and to gain recognition from others, while also being capable of achievement; 5) avoiding the likelihood and consequences of failure; 6) requiring feedback on achievements to ensure that success is recognized; and 7) needing opportunities for promotion.

The need for achievement is based on a combination of an intrinsic motivation, i.e., drives from within the individual, and an extrinsic motivation, i.e., pressures and

expectations exerted by an organization, peers, and / or society. Achievement is also clearly influence by education, social awareness, cultural background, and values.

Since the 1960s and 1970s the main 'needs' studies have examined achievement, power, affiliation and intimacy. Need for power, affiliation and intimacy was extensively studied along with the need for achievement (or achievement motivation). However, achievement motivation remains the single most research need. Achievement motivation refers to the desire to do things well, and overcome obstacles, to do things better. A person high in achievement motivation tends to choose more difficult tasks than a person low in achievement motivation, because they want to find out more about their ability to achieve. Murray's 'Needs Theory' is sometimes studied as part of the trait perspective as 'needs' are seen as akin to traits. According to Murray (1938), a need is a force in the brain that organizes perception, understanding, and behavior in such a way as to change an unsatisfying situation and increase satisfaction. His work has been used in connection with enhancing learning and achievement among school children.

The achievement motivation construct has been extensively criticized, with the arguments centering around the difficulty of isolating and identifying the specific environmental variables that generate achievement motivation. Criticism also stems from the multidimensional nature of the construct and the difficulty of distinguishing it from other constructs, such as intelligence and self-esteem. However, in spite of the criticism, both on theoretical and empirical grounds, the achievement motivation construct continues to generate much research using a variety of methods: historical analysis, content analysis of literature and folklore, laboratory experimentation, projective tests such as TAT, open interview, and other questionnaires. [It should be noted that the

achievement motivation construct has also been stretched to include not only hope of success but also fear of failure and even fear of success. In addition, motives for power and affiliation, are now also considered part of the theory. The two major motives of the theory, achievement and power, would seem to fall within Maslow's esteem category, although achievement motivation has some aspects in common with self-actualization].

One classification of motivation differentiates among achievement, power, and social factors (McClelland, 1985; Murray, 1938, 1943). In the area of achievement motivation, the work on goal-theory has differentiated three separate types of goals: 1) mastery goals (also called learning goals) which focus on gaining competence or mastering a new set of knowledge or skills; 2) performance goals (also called ego-involvement goals) which focus on achieving normative-based standards, doing better than others, or doing well without concerted effort; and 3) social goals which focus on relationships among people (see Ames, 1992; Dweck, 1986; Urdan & Maehr, 1995). In the context of school learning, which involves operating in a relatively structured environment, students with mastery goals outperform students with either performance or social goals. However, in life success, it seems critical that individuals have all three types of goals in order to be very successful. There may also be a correlation between these types of goals and IL fossilization.

In McClelland's (1985) view, all motives are learned, becoming arranged in a hierarchy of potential for influencing behavior that varies from individual to individual. As people develop, they learn to associate positive and negative feelings with certain things that happen to them and around them. Therefore, achievement situations such as a challenging task may elicit feelings of pleasure, and ultimately a person may be

characterized by strong achievement motivation. For such a person, achievement is directed toward the top of the motive hierarchy; it takes only minimal achievement cues to activate the expectation of pleasure and thus increase the likelihood of achievement striving. Under such circumstances weaker motives are likely to give way to the achievement motive and assume a distinct secondary role in influencing behavior. This may also indicate or underscore the need to construct teaching methodologies that enhance the development of achievement motivation in SLA.

2.1.3 Achievement Motivation and IL Fossilization

Research on achievement motivation indicates the complexity of the problem of determining the possible interactions among the many components: individual differences, situational differences, social and cultural factors, and cognition. In concluding their review of motivation theory, Maehr and Braskamp (1986) suggest how an individual's level of achievement motivation can be derived from one or more of these sources.

When the antecedents of achievement motivation and personal investment are considered in their simplest form, it seems that people do 'what they believe they can do' and 'what they believe is worth doing'. The theory of personal investment centers on two basic ideas: 1) people invest themselves in certain activities depending on the meaning these activities have for them, and 2) meaning involves three interrelated categories of cognition: personal incentives, sense of self, and perceived options. Although the focus of Maehr and Braskamp's theory as it is developed in *The Motivation Factor* is on how motivation functions in the workplace, it has direct applications to the concept of

motivation in educational settings. Learners, like individual workers, must derive some sense of personal reward from specific tasks before they can be expected to generate any significant motivation to carry out the task.

In ESL, achievement motivation refers then to a willingness or desire to achieve competency through effortful activity (Elliot & Church, 1997). Perceptions influence a learner's achievement-oriented behavior (Atkinson, 1957; Bandura, 1986; Covington, 1992; Eccles et al., 1983; Nicholls, 1984; Schunk 1984; Weiner, 1992). In order to understand what factors influence a learner's willingness or desire to achieve TL competence, the learner's own perceptions of his / her own abilities and achievements must be considered. It is hypothesized that the causes attributed to success or failure in SLA are related to achievement motivation and, at the same time, these causes influence future achievement-oriented behavior (Covington & Omelich, 1979), such as the willingness or desire to demonstrate effort (Weiner, 1992). The purpose of this study is to determine if any significant correlation can be established between achievement orientation and IL fossilization.

2.2 IL Fossilization

One of the principal developments in SLA theory has been the construct of 'learner language'. Larsen-Freeman and Long (1991) claim that the study of SLA can be said to have passed through a series of developmental stages defined, in part, by the methods of inquiry researchers have utilized in their work, e.g., contrastive analysis (CA), error analysis (EA), performance analysis and discourse analysis, etc. The development of these stages eventually led to the theory of IL.

The IL concept was proposed independently by three different scholars, and variously labeled 'idiosyncratic dialect' by Corder (1971), 'approximative system' by Nemser (1971) and 'interlanguage' by Selinker (1972). Selinker (1972) adapted his term, 'interlanguage' or IL, the only term that has endured, from Weinreich's (1953) sociolinguistic term, 'interlingual' in Weinreich's *Languages of Contact* (1953).

According to Selinker and Gass (1994), learners create a language system composed of numerous elements, mostly from the L1 and the TL, as well as elements that do not have their origin in either the L1 or the TL. What is important is that the learners themselves impose structure on the available linguistic data and formulate an internalized system, termed IL. IL is, in reality, a third language, with its own grammar, lexicon, etc. This system can be observed when the verbal communication of L2 learners who attempt to produce a TL norm is studied. The rules used by the learner are to be found in neither his / her own L1, nor in the TL. IL is a system in its own right (Nemser, 1971; Corder, 1971; Selinker, 1972). Learners tend to go through a series of ILs in systematic and predictable ways.

IL is the incomplete linguistic system in the process of developing as a learner engages in learning an L2. It involves "a long series of language growth stages between the learner's knowledge of L1 and complete mastery of L2" (Smith, 1994, p. 200). Stated briefly, IL is considered "the systematic linguistic behavior, or language, produced by a non-native speaker of a language" (Selinker & Gass, 1994, p. 333). In Selinker's view, IL is an intermediate system located on a continuum stretching from the L1 to the TL, a system that is governed by its own rules and that very rarely becomes totally congruent with the system of the L2.

This inevitable incongruence is explained by the phenomenon called fossilization, a concept central to Selinker's 'Interlanguage Hypothesis'. "Linguistic phenomena that fossilize are those items, rules, and sub-systems that speakers of a particular native language will tend to keep in their IL while acquiring a particular second language, i.e., these aspects of the IL are permanent and will never be eradicated for most second language learners, regardless of the amount of explanation and instruction they receive" (Selinker, 1972, pp. 118-119).

2.2.1 Definitions and Basic Concepts

Selinker and Lamendella state that fossilization takes place when the cessation of L2 learning persists "in spite of the learner's ability, opportunity, and motivation to learn the TL and acculturate into the target society" (1978, p. 374). They refer to fossilization as "the permanent failure of the vast majority of adult L2 learners to achieve... mastery of TL norms" (1978, p. 185). Permanency is therefore integral part of the construct and indeed the basis of the *Random House Dictionary of the English Language* (1987:755) definition of fossilization relating to linguistic forms, features, and rules, i.e., "to become permanently established in the interlanguage of a second language learner in a form that is deviant from the target-language norm and that continues to appear in performance regardless of further exposure to the target language". As a result, the term 'fossilization' came to refer to the fact that in the process of L2 development, learners very often seem to reach some sort of a 'plateau', as Klein and Perdue (1997) call it. According to Klein and Purdue: "it is as striking that this plateau is so similar, for so many learners, for such

a long period of time... as it is striking that the better learners also pass through a stage where their learner variety is similarly structured” (Klein & Purdue, 1997, p. 309).

Selinker, discussing the phenomenon of fossilization, states: “I know it exists. I also know that most teachers and researchers I’ve talked to know that non-learning is a persistent problem in SLA, that fossilization, or a cessation of IL learning, often far from TL norms, is a reasonable way of looking at this non-learning” (Selinker, 1992, p. 251).

He states:

Because of the difficulty in determining when learning has ceased, one frequently refers to stabilization of linguistic forms, rather than cessation of learning. In SLA, one often notes that IL plateaus are far from the TL norms. Furthermore, it appears to be the case that fossilized or stabilized IL exists no matter what learners do in terms of further exposure to the TL. Unfortunately, a solid explanation of permanent or temporary learning plateaus is lacking at present (Selinker & Gass, 1994, p. 11).

In 1972, Selinker’s use of the term fossilization recognized an aspect of language acquisition that is fundamentally linked to SLA: imperfect learning. In L1 acquisition this can be unequivocally observed in abnormal cases: feral children (Curtiss, 1977) and deaf children (Newport & Supalla, 1987, cited in Johnson & Newport, 1989). In the years since Selinker first defined fossilization, the term has been widely accepted by both researchers and practitioners but the phenomenon has remained relatively unstudied. Books and articles about SLA now accept fossilization as a fact of life for L2 learners. However, the definition, causes, and consequences of this phenomenon have been largely neglected by researchers, who are more interested in learning, than in the cessation of learning. Hytlenstam says the concept is “scientifically undeveloped” (Hytlenstam,

1988, p. 68), and Schachter points out that, although a key concept in SLA, it "... has, to a large extent, been ignored" (Schachter, 1988, p. 229).

Fossilization, representing a non-TL stage, is frequently observed and results when new (correct) input fails to have an impact on the learner's IL. The correct input is not apperceived or comprehended because the input does not provide a forum for the learner to readily detect a discrepancy between his / her learner language and the TL, and therefore fossilization is likely to occur. Fossilization refers to the linguistic phenomenon in which L2 learners internalize 'incorrect' or 'non-standard' forms of the TL to the degree that they become habits of verbal and other communication that are not easily corrected.

Selinker and those working with him, limit the description of 'fossilization' as applying to those linguistic forms or systems which are permanent, a situation they insist is inferred. Undesirable observed forms or systems of a speaker's IL that could not be "shown to be permanent were distinguished as being in a state of stabilization, and could possibly be corrected through destabilization" (Selinker and Lamendella 1978, pp. 186-187). Selinker and Lamendella also posited that both stabilization and fossilization could occur across a learner's IL in a generalized sense. It could also occur in systems at different levels or among different types of forms in a differential sense. This second sense allows for the reality of stabilization or fossilization at different points among different features of the IL in the process of language acquisition.

Tollefson and Firm (1983) argued for retention of the term fossilization to designate those permanent, non-target-like aspects of a person's L2. In place of stabilization and destabilization, they proposed the terms jellification and de-jellification,

“... for want of a better metaphor...” (Tollefson & Firm, 1983, p. 31). Despite their intentions, the use of stabilization and destabilization have attained common usage to designate the non-permanent aspects of a language learner’s IL.

Krashen further perpetuated the notion of the permanence of fossilization by stating that “...most adult second-language acquirers ‘fossilize’, that is, they stop short of the native speaker level of performance in their second language” (Krashen, 1985, p. 43). Years after introducing a definition of fossilization, Selinker (1992) referred to it as “cessation of IL learning, often far from TL norms” (Selinker, 1992, p. 251). In 1994, Gass and Selinker say that it “generally refers to the cessation of learning” (Gass & Selinker, 1994, p. 11). Smith, in summarizing the underlying debate concerning fossilization over the last 25 years, defines fossilization as “the apparently final stage when development in some area stops not because there is no more exposure to the language but rather despite repeated exposure and attempts to learn (Smith, 1994, p. 199).

Although the characterization of fossilization as permanent is for all practical purposes universally accepted, it is not without some controversy. For example, Long (2003) differs and has considerable reservations about fossilization. He objects to using the term ‘fossilization’ on the theoretical grounds that ‘stabilization’ is a more appropriate term as it does not imply the absoluteness present in the meaning of ‘fossilization’. He promotes the view that stabilization, rather than fossilization, should comprise the more relevant domain of inquiry for empirical longitudinal studies and investigation. He also claims that: 1) stabilization is the first sign of (putative or alleged) fossilization; 2) the difference between stabilization and fossilization is permanence; and 3) stabilization and fluctuation are reciprocally exclusive. These assumptions

subsequently lead him to the conclusion that understanding the causes of stabilization (and destabilization) is more important for SLA theory than work on fossilization.

Zhao Hong Han (2004) suggests that Long's (2003) postulations rest upon an incorrect presupposition that ascribes to fossilization the status of a theoretical construct, or even a cognitive mechanism, and therefore, it is not entirely acceptable. Long's proposals suggest an equation between stabilization and fossilization, which may, in fact, not be theoretically or empirically sound. Theoretically, such an equation threatens to merge the construct of the 'learning plateau', (which is a natural learning process), with the 'permanent cessation of learning' (Han, 2004). Stabilization and fossilization processes may share the same surface characteristics, but may differ in underlying causes. On the empirical level, although Long's equation appears to aid in operationalizing 'fossilization', it compounds or confounds empirical research by advocating an unnecessary broadening of definitional boundaries based on the inclusion of every stabilization case in point, while at the same time, retaining the possibility of missing the target entirely, i.e., not finding the type of stabilization that functions as a forerunner to fossilization (Han, 2004). Additionally, the view that stabilization and fluctuation are mutually exclusive ignores the IL developmental fact that IL varies, and that IL variations may stabilize at competence and performance levels (Han, 2004). In view of the complexity surrounding stabilization and fossilization, Han (2004) proposes, in response to Long, that it makes perfect sense to conceptually maintain stabilization and fossilization as two separate theoretical and empirical realities, while selectively investigating stabilization as part of the fossilization process.

Notwithstanding Long's (2003) objections, and indeed those concerns raised in Bruzese, (1977), Graham, (1981), Sotillo, (1987), etc., and in keeping with what has become generally accepted in SLA literature, this study will retain the definition of fossilization as: the cessation of the learning of a L2 resulting in the permanent retention of undesirable forms, features, and rules that fall short of the TL. The term stabilization will be used to refer to any forms, features, rules, or states in the language acquisition process that are not permanent. Because fossilization is a permanent state, the notion of de-fossilization is not a possibility. Instead, destabilization will be looked at as a preventive measure against impending fossilization.

2.2.2 Overview of Theoretical Accounts Addressing Fossilization

Many hypotheses concerning the etiology of fossilization have been generated and various models or accounts in the last three decades have attempted to provide insight into the same. CA can be viewed as a prelude to the models introduced in the 1970s, which include: 1) psycho-social factors, in which acculturation and psycho-social distance from the TL are considered the basis of fossilization, 2) interactive accounts, in which formal teaching, input and corrective feedback are considered to be the primary issues, and 3) biological accounts, in which age, transfer of knowledge, and Universal Grammar (UG) are considered as central to IL fossilization. Another set of models, the cognitive accounts, which have their origins in the 1970s, but did not blossom until the middle and late 1980s, deal with the abilities of a learner to integrate a new concept into the pre-existing conceptualization. Learning strategies and monitoring are among the key issues used to explain the etiology of fossilization in the cognitive accounts.

Each of these sets of models will be discussed by addressing the framework of the model as it relates to the issue of fossilization. Since this is not a discussion of SLA or ESL theory in general, a selective exclusion of many of the elements of each model will be necessary. The intent is to orient the reader to how the various models attempt to explain the etiology of fossilization.

In reading summaries of the models proposed in the 1970s, such as Tollefson and Firn's (1983), it may appear that these models were rigid and focused, almost exclusive of each other. The contrary is true. The proponents of the models were willing to address issues raised by one another, adjust their own theories based on this input, and then move in other directions, which benefited SLA theory as a whole.

A brief review of SLA theory and development that led to IL theory and the concept of fossilization will serve as a backdrop for the discussion of the models addressing fossilization. As Selinker and Lakshamanan (1992) pointed out, prior to the late 1960s most of the literature addressing errors or a lack of competency in SLA focused exclusively on the concept of language transfer and CA. This observation led them to remark, "Given the historical SLA record, we have asked ourselves if it might be the case that the only principles one could suggest about fossilization involve language transfer" (Selinker & Lakshamanan, 1992, p. 199). They proceeded to show, in light of research following the CA era, that they believed this was not true. In the process of doing this, they recognized the foundational attention that CA gave to the field of SLA and the issue of fossilization.

In her survey of the literature addressing IL fossilization, Delozier pointed out that in the early 1960s:

...one of the basic premises of transfer theory... was that language learning is a matter of habit formation. An old habit (i.e., the native language) either hinders or facilitates the acquisition of a new habit (the target language) depending on the differences or similarities of the two. This assumption gave rise to the development of contrastive analysis: the detailed comparison of languages in order to 'predict the difficulties and errors which will occur in learning the foreign language' (Lee, 1968, p. 168).

The prominence of the audiolingual method in the 1960s was the apex of this language learning viewpoint. The audiolingual method views learners "as organisms that can be directed by skilled training techniques to produce correct responses" (Richards & Rodgers, 2001, p. 62), and its "teaching focuses on the external manifestations of learning rather than on the internal processes" (p. 62). Richards summarized the approach of Audiolingualism as:

...a linguistic, or structure-based, approach to language teaching. The starting point is a linguistic syllabus, which contains the key items of phonology, morphology, and syntax of the language arranged according to their order of presentation. These may have been derived in part from contrastive analysis of the differences between the native tongue and the target language, since these differences are thought to be the cause of the major difficulties the learner will encounter (Richards & Rodgers, 2001, p. 59).

By combining structural linguistic theory, contrastive analysis, aural-oral procedures, and behaviorist psychology "Audiolingualism... claimed to have transformed language teaching from an art to a science, which would enable learners to achieve mastery of a foreign language effectively and efficiently" (Richards & Rodgers, 2001, pp. 53 - 54).

Two theoretical frameworks were foundational for CA and Audiolingualism: 1) structural linguistics and 2) behaviorism. The theory of structural linguistics was expounded in the 1950s by linguists such as Moulton and Fries. The underlying assumption of structuralism was that "learning a language... entails mastering the

elements or building blocks of the language and learning the rules by which these elements are combined, from phoneme to morpheme to word to phrase to sentence” (Richards & Rodgers, 2001, p. 55).

The theory of behaviorism arose through the work of B. F. Skinner. It claimed the universal explanation of human behavior in terms of an organism’s response to stimulus and how further response to that same stimulus is affected by the type of reinforcement offered (Richards & Rodgers, 2001). Pavlov’s dogs’ salival reaction to the ringing of a dinner bell is the most famous example of this claim. In parallel reasoning, L2 learners would learn and continue to produce the right forms if given positive reinforcement for correct verbal communication and negative reinforcement for incorrect verbal communication.

The prominent thinking in the 1950s and 1960s followed a scientific approach. The ‘right’ program graded clearly from the smallest to the most complex aspects of the TL, and the right approach to language learning behavior (positive reinforcement given to positive responses to the language stimuli, negative support given to negative responses) would ensure that complete mastery of a language would happen. Although issues of fossilization are not directly addressed, it could be surmised that this approach might treat ‘errors’ as something corrected by the right program and behavior principles.

Richards pointed out that Audiolingualism and CA had set out to bring a reformation to L2 instruction by advocating “a return to speech based instruction with the primary objective of oral proficiency, and dismissed the study of grammar or literature as the goal of foreign language teaching” (Richards & Rodgers, 2001, p. 58).

Delozier contended that in the late 1960s and early 1970s language began to be defined in cognitive rather than behaviorist terms. This was due, in part, to the contributions of Chomsky who “argued for the role of creativity in language learning, maintaining that language is an open-ended and stimulus-free system instead of just a set of verbal habits” (Delozier, 1986, p. v). Many researchers in the 1970s and 1980s sought to continue the reformation started by the structural / contrastive analysis model by attempting to address the more problematic issue of fossilization in terms of more than just transfer and differences between two languages. Tollefson and Firn (1983) reviewed the prevalent models of the 1970s relating to fossilization in SLA. Their goal was to produce a unification of the models that would satisfactorily account for the phenomenon of fossilization. They insisted that:

...models of SLA must incorporate an account of fossilization, because explaining fossilization is equivalent to answering the most basic question in SLA: ‘Why do a few adult learners acquire a L2 completely while most learners fail to achieve adequate proficiency?’ The expanded form of this question was proposed by Selinker and Lamendella: 1) ‘Is fossilization most adequately described in terms of factors which are external to the learner, internal to the learner, or external to the learner and filtered through innate processing mechanisms?’ Or, ‘Is fossilization best described as a combination of these factors? 2) What are the contributions of affective, cognitive, social, psychological, neuromaturational, and genetic factors in determining when fossilization will occur, how long it will last, and the circumstances under which it might be overcome so that language learning might continue? (Tollefson & Firn, 1983, p. 149).

Selinker and Lamendella conclude in one article (1979a, p. 246) that there is no “single ontological factor” which can account for fossilization, although they, and almost all other researchers, have continued to focus on one or another particular factor as the key. Although the answers to the questions have varied, they are based on one of the following

variables: psycho-social factors, and interactive, biological, and / or cognitive accounts; but once again there is no consensus. However, it should be remembered that research does indicate that “internal factors are responsible for the onset of fossilization” (Omaggio, 2001, p. 283). The following sub-sections review the most prominent theories regarding factors related to the etiology of IL fossilization.

2.2.2.1 Psycho-Social Factors

According to the psycho-social factors model, L2 acquisition is driven, not only by linguistic input, but by attitudes, behaviors, beliefs, and values. External, non-linguistic factors, such as lack of motivation or “desire to learn the language of another community in order to communicate with, interact with, or to become... a part of the other language community” (Gardner & Smythe, 1975, p. 219) are proposed as causes of fossilization. Gardner (1988), Nickel (1998), and Schumann (1976, 1978a, 1978b) suggest that a lack of motivation will lead to reduced efforts to develop the IL toward the TL norm. Beebe elaborates on this and claims that “fossilization arises from a risk-taking situation where learners perceive high risk - low gain. In other words, learners experience a crisis in motivation because they evaluate the situation as a bad gamble” (1983, p. 45). Closely related to this position are Corder (1976, 1978) and Nickel’s (1998) view that fossilization is linked to the learners’ communicative needs and, if learners experience no need to communicate in the TL, and feel that they can manage with whatever knowledge they have, learning will cease. Consequently, “his [sic] interlanguage will fossilize at the point in its development where his needs are satisfied” (Corder, 1978, p. 83). [See also Nickel, 1998, p. 4 and Ushioda, 1993].

Selinker (1972, p. 217), citing Coulter (1968) claims that fossilization occurs when the “strategy of communication dictates to them [i.e., to learners], internally as it were, that they know enough of the target language in order to communicate”. Corder states that when a nonnative speaker can “communicate adequately for his purposes... his motive to improve his knowledge or elaborate his approximative system disappears” (Corder, 1976, p. 22).

Major (1988), citing Higgs and Clifford’s (1982) study as evidence, takes the thought further, claiming that when an L2 speaker is forced to perform a task in the L2 which is beyond his / her linguistic competence and is successful, the non-target-like form will become fossilized as exemplified in Schumann’s (1978b) case study of a 33-year-old Spanish-speaking non-professional worker, when communicative demands are low, and English is needed primarily for referential functions.

Ushioda’s (1993) case study on fossilization in advanced stages of L2 learning by a middle-aged Japanese couple who had lived in Ireland for over 30 years, also supports this theory. Her conclusions were that despite the long period in Ireland and their good command of English, the subjects’ linguistic performance showed signs of fossilization of syntactic and phonological rules, especially in informal unmonitored situations. The findings point to the role played by learners’ judgment of the adequacy of the development of a fluent, efficient and successful system of communication that can meet the learners’ communicative, integrative, and professional needs.

The findings suggest complex tripartite relationships between affective variables, linguistic fossilization, and communicative skills. Language needs, irrespective of psycho-social integration, must be recognized as additional factors that also significantly

determine the kind of input received, and control the development of an individual's linguistic competence and range of performance skills.

2.2.2.1.1 Acculturation.

The acculturation model, proposed by Schumann (1975, 1978, & 1986), is based on the premise that TL competency is directly related to the degree to which the L2 learner adopts the TL culture. Learning, then, includes not only the learning of language skills but also the espousal of other patterns of behavior of the TL community. Consequently, L2 learning results in changes of self-identity. There are two opposing forces: 1) 'integrativeness', i.e., the desire to become an accepted member of the TL culture, and 2) 'fear of assimilation', i.e., the fear of losing the L1 and L1 culture. TL competency depends, or at least is related to the level of assimilation, preservation, or adaptation achieved.

Adamson (1988) provides a summary of Schumann's three claims regarding L2 learning: 1) that IL in the first stage of L2 acquisition is reduced and simplified in a way that is similar to pidgin languages; 2) that there is only one continuum of structures for a learner to acquire from the intermediate to the advanced stage of acquisition; and 3) that factors related to social and psychological distance are among the main causes for a learner to fail to acquire the TL norms.

Regarding the first claim, Schumann (1975) argues that IL, similar to pidginization, arises merely to serve a "communicative function" (Schumann, 1975, p. viii). Once learners have developed their ILs sufficiently for the purpose of communication, they stop developing their grammatical competence. The pidginization

claim sounds reasonable enough and has been adopted to explain fossilization in many studies, e.g., the research conducted by Parkin (1981) and Dole (1983).

Parkin (1981) reports research results obtained from error analysis of the ILs used by children in French immersion programs. Immersion students reached a plateau of stability in their ILs since it was found that different learners in different settings systematically repeated some errors. The explanations given by Parkin were that the students developed a simplified language to serve their communication needs with the teacher and their peers. He also blamed the teacher for not giving corrective feedback when the students made errors. The explanation of using simplified and reduced IL for communicative purposes was also used by Dole (1983) to account for the fossilization of nine multilingual immigrants to the Saquenay Peninsula of Quebec province. The nine immigrants had developed a degree of fluency in English, which allowed them to communicate with English-speaking people in the community. The error analysis revealed that communication was adequate in spite of all kinds of errors. Since communication could be achieved, there was less motivation for the immigrants to improve their English to the standard norms. As a result, there was a great deal of fossilization.

There have also been studies that offer conflicting evidence, such as the research conducted by Kelly (1982), who evaluated the use of negation and verb morphology by six Spanish speakers who had immigrated to the United States at least nine years prior to the study, had acquired English with little or no instruction, and had fossilized at the early stage of L2 acquisition. The results revealed that acculturation, as measured by a 48 item questionnaire, did not positively correlate with English proficiency. In fact, the

informant who showed the greatest acculturation, had the least proficiency, and the informant with the greatest proficiency in English was among those who showed the least acculturation. Kelly (1982) suggested a plausible explanation: at the time of the study, the informant with the least proficiency had just developed a motivation to study English because s/he had successfully completed an English course for beginners and entered an advanced beginners' ESL class, while the informant with the greatest proficiency, who was motivated to learn English when s/he first came into the United States, developed a recent cynicism about the necessity of learning English because most of the people in his / her environment were Spanish-speaking people.

As a response to all these studies, Schumann (1984) concluded that the acculturation was testable in 'theory but not in fact', saying, "It is the dynamic, varying, and complex individual nature of affect which makes the idealized version of the acculturation model difficult to either prove or disprove" (Schumann, 1984, p. 12)

Stauble (1981) points out two reasons for the low correlation between English proficiency and acculturation scores in any given or particular study: 1) the samples are often too small, and 2) there is no principle for weighing various aspects of acculturation assessed by the questionnaire. Schumann (1986) further points out that research with the use of a larger sample with multivariate statistical measurement to deal with various acculturation factors will still have other problems to overcome. Measures to deal with different factors involved in acculturation such as culture shock, language shock and ego permeability might be difficult to construct. Furthermore, to assess the language proficiency of a large sample of untutored L2 learners is difficult because most of them are not literate enough to be tested on written forms. They may have only the oral

proficiency to be tested. Finally, acculturation is a dynamic process that changes over time. So far none of the research designs “are capable of handling this problem of history, and the complications involved in large sample longitudinal studies of acculturation and SLA are formidable if not insurmountable” (Stauble, 1981, p. 390). Adamson (1988) points out that although the hypothesis is not testable, it does not mean that there is no relationship between acculturation and L2 acquisition. He proffers that perhaps the test fails because there are too many variables, both in the acculturation paradigm and among individual language learners. He recommends the use of random sampling and large numbers of informants / subjects in socio-cultural research. He explains that most researchers in L2 acquisition were influenced by psycholinguistic research, which was successful in finding similar orders of language acquisition without randomly selecting the informants. In psycholinguistics, random sampling might not be required because most individuals have basically the same cognitive process, but in socio-cultural research, people behave differently; therefore, it is required.

Tollefson and Firn stated that Schumann (1976, 1978a, 1978b), Andersen (1978), and Stauble (1978a, 1978b) view fossilization as the cessation of a learner’s acculturation to the target society. These models hold the notion that a learner will achieve a level of success in acquiring the TL only in relation to the level of social and psychological adaptation achieved. High acculturation ensures successful TL learning. “In contrast, social and psychological distance from the target culture predicts a persistence of [fossilized] forms in the learner’s IL” (Tollefson & Firn, 1983, p. 21).

For example, a learner may be geographically distant from the culture whose language s/he is trying to learn. In another instance, the learner may be geographically

close to the TL but unable to enter into close social contact because of physical, time-related, or social-boundary conditions. There is also the possibility of the learner having all opportunity to interact with the target culture, but choosing not to for psychological reasons. LaForge (1983), using a Counseling-Learning perspective, attributes fossilization partially to “unresolved affective conflicts” (LaForge, 1983, p. 47). The learner must resolve the conflict between the L1 and TL selves by reversing counseling roles with the knower. This reversal allows the learner to accept corrective feedback. Proponents of the acculturation accounts would say that these factors are what cause fossilization because they prevent the learner from gaining the input needed to develop TL competency.

2.2.2.1.2 Psycho-social distance.

Psycho-Social distance from TL speakers and culture has been proposed as a cause of fossilization (Agnello, 1977; Bruzzese, 1977; Schumann, 1978b). This was most explored by Stauble (1978) who studied three apparently fossilized subjects. Information from a questionnaire showed that psychological distance (how different the learners perceived themselves and their culture to be from the target language and culture) had more effect on their degree of acculturation than social distance (the amount of opportunity the learners had to interact with native speakers of the TL). A similar perspective is taken by researchers using the Multidimensional Model (Meisel, Clahsen, & Pienemann, 1981; Johnston, 1987). Johnston contends that due to their attitude to the TL and culture, some learners simplify non-developmental features in almost all situations resulting in a “consistently nonstandard pattern of speech that ... in the case of

long-term residents, fossilized” (Johnston, 1987, p. 29). The ZISA (*Zweitspracherwerb Italienischer [Portugiesischer] und Spanischer Arbeiter*) project (Meisel, Clahsen, & Pienemann, 1981) also examined attitude and development of the L2. They found a strong correlation between the attitude towards the TL and target-like or non-target-like use of non-developmental features. However, the study did not show that learners who had negative attitudes actually fossilized non-target-like features, nor did it explain why non-native speakers should fossilize at different proficiency levels for developmental features of the TL when, according to the model, acquisition of those features is based on cognitive prerequisites, not psychological attitude.

The researchers of the European Science Foundation hypothesized that “external circumstances which effect motivation to learn the L2, such as the family situation or change of jobs, or loss of a job may determine fossilization” (Perdue, 1984, p. 14). These situations may put the L2 learner at more or less distance from native speakers psychologically, but not necessarily physically or in terms of opportunity. Therefore, in 1984 they tested the psychological distance theory and its relationship to fossilization. They also hypothesized that unpleasant, embarrassing, and unsuccessful speech interactions in the TL would lead the learner to avoid using the TL, thus “...provok[ing] fossilization at a low level of TL competence” (Perdue, 1984, p. 93). In this case, fossilization seems to be attributed to lack of opportunity to practice, lack of interaction, and / or lack of input, all of which have been held by various theorists to be necessary for L2 acquisition. Thus, it seems that the researchers of the European Science Foundation hold two separate views on the cause of fossilization: 1) psychosocial distance from

native speakers of the TL, and 2) lack of necessary conditions for acquisition, although they did not specify which one or ones are missing.

Like the interaction models, these models assert that fossilization is only temporary and can be overcome by increasing the integrative motivation or by decreasing the social and psychological distance between the learner and the TL community.

Tollefson and Firm summarized this similarity: “The resulting increase in available input leads to resumed IL development. In this respect, the interactive and psycho-social factors are similar. Both predict that changes in external factors may end fossilization” (Tollefson & Firm, 1983, p. 22).

Perhaps the psycho-social factor paradigm is a subset of the interaction models: without significant contact with speakers of the TL, the vital interaction and feedback cannot take place. Tollefson and Firm (1983) note that the model was criticized for its failure to account for instances when, on the basis of social and psychological factors, a learner who is predicted to acquire a language does not acquire it and one who is not predicted to acquire it, does so.

The former instance would be a situation where a learner perhaps lived among the speakers of the TL, was very positive and proactive toward interacting with them, had many opportunities to do so, and yet experienced cessation of effective TL learning. The suggestion is that there are biological factors at play in this instance or a lack of skill in interpreting the cognitive and affective feedback around him / her. The second instance would be a situation where a learner might be taking a class geographically removed from the target culture, have interaction with perhaps only one native speaker (the teacher) in the classroom, have no clear psychological desire to become a member of the

culture at a later point, and yet becomes a very proficient speaker of that language. This situation perhaps calls for more reliance on a biological disposition toward language learning and / or a high level of competence in reading the feedback coming from the native speaker. Clearly, the matter still warrants additional study utilizing a more reliable research design to help us more fully understand this relationship between IL vs. social and psychological factors.

2.2.2.2 Interactive Accounts

This model is concerned with the interaction of the learner with the TL. Interaction accounts propose that external interactional variables are of primary importance in explaining fossilization. These variables include conversations with speakers of the TL and the feedback that those speakers give. In this model, it is conversational interaction that determines whether a component of the learner's IL system is reinforced, contributing to fossilization, or destabilized, which leads to progress towards TL forms. According to Tollefson & Firn (1983), this model suggests that an overemphasis on conveyance of meaning in the classroom, together with a lack of negative cognitive feedback, may actually promote fossilization. The crucial factors involved are cognitive and affective feedback, concepts developed by MacNamara (1973, 1976).

Cognitive feedback relates to information about beliefs and facts primarily encoded in linguistic form. Affective feedback, expressed primarily in forms such as facial expression and tone of voice, "involves the interlocutor's impression of or feeling for both self or other" (Tollefson & Firn, 1983, p. 20). Richards attributes fossilization to

“lack of reinforcement from native speakers” (Richards, 1974, p. 75). However, some researchers support the idea that fossilization is caused by a lack of formal instruction, input, and / or feedback. Pienemann argues, “giving up the instruction of syntax is to allow for the fossilization of interlanguages” (Pienemann, 1982, p. 33) although he adds that “it is unclear whether fossilization can be avoided by instruction” (p. 33).

2.2.2.2.1 Formal teaching.

The lack of formal instruction in the TL has been advanced as another reason for fossilization of incorrect language forms (Graham, 1981; Valette, 1991). Graham argues that “learning simply by contact has led them [many students] to devise IL or idiosyncratic languages with rules often wildly [sic] different from those of standard English” (1991, p. 6). Similarly, Valette made a distinction between street learners and school learners and claims, “fossilization often occurs among ‘street’ learners who have had extensive opportunity to communicate successfully, albeit with inaccurate lexical and syntactic patterns. As a result, their errors have become systematized and are almost impossible to eradicate” (1991, p. 326). Street learners are never corrected, nor do they correct themselves.

Valette’s (1991) conclusions are shared by Higgs and Clifford who remark that learners at Government language schools in Canada are “hopelessly stranded on various sorts of developmental plateaus” (Higgs & Clifford, 1982, as cited in Sims, 1989, p. 64). They call those learners ‘terminal cases’, “affected by prior language experience of some informal nature... such as street learning in the target culture, which then inhibits their progress in formal classroom instruction” (Higgs & Clifford, 1982, as cited in Sims,

1989, p. 65). Moreover, Higgs and Clifford argue that “contemporary approaches to second language teaching... place a premium on communication, often at the expense of accuracy...[;] under such methodologies, learners will tend to fossilize at relatively low levels, because systematic errors in their IL will usually go unremediated” (Higgs & Clifford, 1982, as cited in Sims, 1989, p. 65).

In contrast, Mukattash (1986), who finds partial support in Lennon’s (1991) research, conducted a study with advanced students at the University of Jordan, in order to examine the role and significance of systematic error correction and explicit grammatical explanation in adult foreign-language education. He found that despite attention, the errors that the subjects made tended to persist and that this casts serious doubts on the validity of the use of explicit grammatical explanations.

Lennon (1991) conducted a longitudinal study on a 24-year-old female German student who had studied English at school and university in her home country for 14 years but had never resided in an English-speaking country. During her six month stay in England, the subject received no formal instruction in English; but was simply exposed to the language through the natural environment.

The researcher studied her checked spontaneous language and analyzed items of 1) placement of the adverbs ‘only’ and ‘already’, 2) there is / there are, 3) possessive ‘have’ / ‘got’, 4) use of ‘always’, etc. The analysis revealed that the subject’s English improved only in some areas (use of ‘there is’ / ‘there are’, ‘have’ / ‘got’, and ‘always’) and appeared more fluent and colloquial. However, in other areas (e.g., when referring to the future), errors persisted. As a result, Lennon concluded that, in the absence of formal



instruction, some areas of L2 learners' IL seem to be more likely to stagnate or fossilize (Selinker & Lakshamanan, 1992).

2.2.2.2.2 Input.

The lack of input has also been suggested as an explanation for fossilization by Higgs & Clifford, (1982), and Reid, (1996). According to Higgs and Clifford, “a language teaching methodology which stresses communicative activities before they [the students] have learned grammar runs the risk of fossilizing grammatical errors in the interlanguage of students” (Higgs and Clifford, 1982, as cited in Hammond, 1988, p. 105).

Selinker and Gass offer a fresh insight into nonoccurrence of a linguistic phenomenon in the input. Language growth comes through changes caused by exposure to forms in the language, which are overtly present. If certain forms are not present “the input does not provide a forum for the learner to readily detect a discrepancy between his or her learner language and the target language” (Gass & Selinker, 1994, p. 308). It is here where fossilization is most likely to occur.

This assertion seems to account for what Selinker and Lakshamanan (1992) view as “one of the main pieces in the fossilization ambiguity: the early occurrence of fossilization in cases of severely restricted input” (p. 212). If input has many gaps in it, the learner will quickly acquire many forms, presumably transferred from the L1 or assumed from UG, that have no way to be tested for accuracy and therefore become fossilized.

2.2.2.2.3 Feedback.

Vigil and Oller (1976) suggest that the type of feedback that learners receive in their conversational interactions with L2 native speakers may determine if the learners will fossilize or not. Vigil and Oller place particular emphasis on external interaction factors. They hold that these factors serve to reinforce or destabilize the structures employed by the L2 learner in order to exchange information, i.e., the cognitive dimension, and to express a notion of self in relation to valued others, i.e., the affective dimension. They stress that, if at the affective level, a learner receives positive feedback on erroneous grammatical rules (the cognitive dimension), the L2 learner's level of proficiency will tend to fossilize. However, positive feedback on the affective dimension encourages more attempts at communication and negative feedback on the cognitive channel indicates some problems in language use. This creates a desirable instability in incorrect or not well-formed utterances and prods the learners to make appropriate modifications (Graham, 1981).

Many studies have been cited as evidence for this view. For example, Higgs and Clifford (1982), in their study on performance on an oral proficiency test, concluded that students who learned their L2 in a 'communication first' environment (one without overt correction or focus on form) tended to reach only a level two proficiency (on the Foreign Service Institute Oral Proficiency Test). Similarly, Hammerly (1987) and Swain (1985), in their assessments of French immersion students in Canada, attribute the persistence of non-target-like forms, respectively, to insufficient opportunity to speak and lack of corrective feedback.

The most elaborate argument concerning feedback was put forth by Vigil and Oller (1976), who proposed that the corrective feedback the learner receives from the native speakers is the source of fossilization. Vigil and Oller make a distinction between the affective and cognitive factors in the interaction between sources and audiences of messages. The affective messages are mostly presented in kinesic mechanisms such as gestures and facial expressions, while the cognitive messages are coded in linguistic forms such as phrases, sentences and verbal communication. They argue that senders of messages receive both cognitive and affective feedback from their audience and that this feedback can be positive, negative, or neutral. In their view, when feedback is positive for both the affective and cognitive channels, the IL will tend to fossilize, but if the feedback is positive on the affective channel but negative on the cognitive channel, then the IL will continue to develop or even destabilize if it has stabilized. In other words, learners who do not get negative cognitive feedback on their errors will continue to repeat them and these will fossilize.

When the learner receives predominantly positive feedback on the cognitive dimension, for example, 'I understand what you mean', it is hypothesized that the learner's IL will tend to fossilize. On the other hand, if the affective feedback is predominantly negative, for example, indications from the audiences that they do not like the way the message is presented, it will result in abortion of future attempts in TL communication. Fossilization will result because the learner lacks the opportunity to interact with the audience.

In Vigil and Oller's (1976) thinking, it is this feedback that determines if the IL rule system will be "reinforced (leading to fossilization) or destabilized (leading to IL

progress)” (Tollefson & Firn, 1983, p. 20). Tollefson and Firn postulated five relevant predictions, which the Interaction Models make. Although they use the term fossilization they actually seem to be referring to stabilization, particularly in point three below:

1) the optimal environment for SLA is one where affective feedback is positive and cognitive feedback is negative, i.e., the learner is encouraged to speak the TL but is informed when his / her IL is inadequate for communicating information; 2) fossilization will not occur as long as the conditions above are present; 3) fossilization is not a permanent phenomenon; 4) when there is predominance of positive cognitive feedback, fossilization is most likely; and 5) unexpected “negative cognitive feedback is likely to destabilize the learner’s system of rules and allow the learner to resume language learning” (Tollefson & Firn, 1983, p. 21)

Tollefson and Firn also summarized much of the criticism and debate that had been exchanged between supporters of the different models in the 1970s. The Interaction Models were seen as inadequate because they do not predict just how much of the right feedback a learner needs to effectively acquire the language. Selinker and Lamendella (1978) proposed that typical verbal communication in any language involves approximately fifty linguistic structure rules. Tollefson and Firn (1983) insisted that cognitive processing of these rules is far too complex to determine which is being addressed by the cognitive and affective input.

Researchers in SLA are more than ready to apply Vigil and Oller’s (1976) hypothesis to their cases to explain the source of fossilization, because the corrective feedback theory corresponds to the method used by L2 teachers to teach their students to acquire the TL norms. For example, Parkin (1981) blamed teachers for not correcting the

errors produced by children in French immersion programs, and thus encouraging fossilization in the students' ILs. Parkin relies on the extrinsic feedback model, while Selinker et al. (1975), who also studied children in the French immersion program, attribute the cause of some persistent errors to a sociolinguistic factor, explaining that the absence of TL peers seems to be the source of fossilization.

Another researcher to use Vigil and Oller's hypothesis was Graham (1981), who studied fossilization of incorrect syntactic rules used by student informants who had been in the United States for years but who still exhibited fossilization in their IL. Graham describes the procedures she used to give positive and negative cognitive feedback and positive affective feedback to her college level ESL students and reported positive results. She hypothesized that the causes were the lack of formal grammar instruction and corrective feedback from native speakers and teachers, and she reported the success of her remedial class, which included formal grammar instruction, oral exercises with corrective feedback, sentence drills, written assignments and dictation. The main key to her success might be the fact that she motivated the students highly to study grammar, provided copious feedback, and encouraged students to see their own errors. However, one point to take into consideration is that she did not report the total number of her students taking pre-test and post-test writings in her study. There was definitely one student who made considerable progress in the post-test, but this might have biased the research result. However, her research gives some evidence that fossilization can be surmounted.

Vigil and Oller's construct was critiqued by Selinker and Lamendella (1979b) who agree that interaction and feedback play a role but argued that the cognitive-affective

dichotomy is simplistic. First, they point out that not all feedback is perceived. For example, the teacher / interlocutor may correct the non-native speaker's pronunciation but the L2 learner may interpret this as agreement (e.g., L2 learner: 'I came by sheep'. Teacher: 'by ship'. L2 learner: 'yes, a big sheep'). Second, they argue that cognitive feedback may be negative for certain parts of the verbal communication, but not for the whole verbal communication. In this case, they ask, how does the learner determine the specific object of the negative feedback? Third, they suggest that there are many possible forms that cognitive feedback could take. Are they all equally effective? This is supported by a subsequent study by Pica, et al. (1989) which showed that only cues of non-comprehension tended to trigger repairs towards target-like forms, while suppliance of target-like forms by the native speaker seeking to confirm what the L2 learner had said effected little or no change in the L2 learner's subsequent IL. On the other hand, a recent study by Gass and Varonis (1989) found movement to the TL without any overt focus on the correction of form or overt trigger of non-comprehension.

Selinker and Lamendella (1979), however, criticize Vigil and Oller's (1976) model of corrective feedback hypothesis, which they point out, relies too much on extrinsic feedback. They argue that: 1) extrinsic feedback would be effective only if filtered through a learner's internal faculties; 2) a particular learner's interactive needs constitute the source of fossilization; 3) there is little value in considering a learner's verbal communication as linguistic features accepted or rejected by a TL speaker because there are both truth values and various linguistic rules in verbal communication; 4) there are cases where language learners can achieve a TL norm without having an opportunity to interact with a TL speaker; 5) giving grammatical feedback has been shown to have

failed as a method in language teaching; and 6) extrinsic feedback per se is shown to be problematic in L1 acquisition. Brown agrees with these conclusions, saying that teachers generally give great importance to corrective feedback, “but one must recognize that there are other forces at work in the process of internalizing a L2 as well” (Brown, 1994, p. 187).

2.2.2.3 Biological Accounts

The presupposition that simply rectifying psycho-social factors or interactive accounts could reverse fossilization was a point of heavy criticism leveled at the holders of these views by proponents of the biological models. The majority of the criticism lay in the fact that the proponents of the psycho-social and interactive models seemed to exclude any biologically determined factors in their theories.

Biological accounts argue that some L2 learners have a greater genetic predisposition to fossilize farther from TL norms than other learners (Selinker & Lamendella, 1978) and that how far from TL norms fossilization occurs is directly related to neuro-maturational factors (Lamendella, 1977). Using a biological model, Lenneberg (1967) proposed that humans differ from animals in many cognitive aspects. It could be the case that because of these cognitive abilities, humans can use language. Lenneberg made two hypotheses, which relate the use of language in humans to the central nervous system. The first is the lateralization hypothesis, which states that for 90% of the population (the right-handers), it is the left-brain that stores many language specific abilities, and the second, that there exists a critical period for the acquisition of language.

The lateralization of the brain is supported by evidence from studies of injuries in the left hemisphere of the brain, which reveal that such injuries impair the language ability of the patient. The severity of the impairment depends on the degree and location of the injury. Other evidence is gained from dichotic listening tests, a method by which a subject simultaneously hears different words in the left and right ears. Those sounds processed in the left brain through the right ear can be identified more accurately and rapidly than those in the right brain through the left ear. However, there is a great deal of conflicting evidence to the claim that the left hemisphere of the brain controls more linguistic function than the right. For example, Zaidel (1975) has shown that the right hemisphere has some linguistic control, which is related to single words, and some phonology, but that syntactic processing is in the left-hemisphere brain. Zangwill (1971) also found that patients whose left brains had been removed early enough in life have been able to comprehend and to produce a great deal of language.

Regarding the critical period hypothesis, Lenneberg's (1967) argument is based on studies of the recovery of language after brain injuries, which have shown that adults with sufficiently serious brain injuries did not recover their speech ability. Children, however, could re-acquire language after a similar injury, and in the case of little children, they often re-acquired it fully; some even recovered their language abilities after the removal of the left-brain. Lenneberg (1967) relates this phenomenon to the lateralization process of the brain. He hypothesizes that the brain is gradually lateralized in terms of its functions from birth and is completely lateralized at puberty. In other words, it is difficult for an adult to acquire language after the completion of the lateralization process at puberty.

This hypothesis poses many questions. Many researchers, such as Krashen (1973), argued that lateralization is complete by the age of five. Clark and Clark (1977) conclude that the question of whether or not there is a critical period has not been settled with any certainty. Even if there were a critical period, it could be for “the capacity for propositional, analytic, and serial processing and not for language alone” (Clark & Clark, 1977, p. 520).

The biological or neurological maturation argument, as proposed by Scovel (1988) claims that fossilization is due to physical changes in the brain after puberty. He proposes that a language learner after the age of puberty cannot escape permanent fossilization and believes that the loss of plasticity of the brain after puberty is the cause, particularly in relation to learning phonology. However, Brown explains that the very fact that learners beyond the age of puberty do not generally acquire authentic pronunciation of the L2 may have little to do with the lateralization of the brain, and more to do with the lack of muscular plasticity in the mouth (Brown, 1987, p. 46), alongside complex identity-related psychological factors.

2.2.2.3.1 Age.

Expanding upon the lateralization of the brain and the critical period hypothesis, Long (1990), in a review of age and language learning, concurs that neurological changes in the brain are the most likely reason for the failure of adults to achieve complete target-like acquisition of a L2. In other words, fossilization is due to the limitations of the adult brain. Evidence from various studies for sensitive periods for the acquisition of various aspects of the L2 is very strong. Even those adult learners who are judged to be

native-like in spontaneous conversation were found: 1) to have different intuitions and metalinguistic competency (Coppetiers, 1987), 2) to score lower than native speakers on a grammaticality judgment test (Johnson & Newport, 1989), 3) to have different discourse rules (Scarcella, 1983) than native speakers, or 4) to have inferior competency in detection of foreign accents (Scovel, 1988).

Other researchers such as Selinker and Lamendella (1978) propose two major alternative explanations for such phenomena: 1) a genetic predisposition toward language acquisition, and 2) neuro-maturational factors. In the first explanation, they believe that a genetic predisposition toward language acquisition could explain the individual variation in the ability to acquire L1s, and such a genetic predisposition would lead to fossilization in L2 acquisition further from the TL norm than others. They conclude that there are biological differences among learners, which account for variable fossilization.

The other explanation is concerned with neuro-maturational factors. Lamendella (1977) distinguishes a sensitive period for L2 acquisition from the critical period for L1 acquisition. The critical period is defined as “a genetically determined, species-wide maturational process involving the development of infrasystems within the communication hierarchy of the learner” (Tollefson & Firn, 1983, p. 23). The sensitive period is defined as “that time during which individuals can adapt operational neurofunctional systems genetically programmed to serve in one functional domain PLA [primary language acquisition] to the new but similar domain of SLA [second language acquisition]” (Tollefson & Firn, 1983, p. 23). These neurofunctional systems are believed to operate fully from 6 to 13 years of age, and less so in older learners.

Lamendella (1977) believes that the development of L1 acquisition infrasystems and the ability of learners to adapt those systems to new tasks are controlled by a theoretical construct called the 'executive component'. The executive component is responsible for determining whether tasks can best be accomplished by the adaptation of an existing infrasystem or through construction of an entirely new one. Therefore fossilization, in Lamendella's term, may be defined as "the loss by the executive component of the capacity to adapt existing infrasystems or to construct new ones when confronted with the task of SLA" (Tollefson, & Firn, 1983, p. 23). Since Lamendella views the sensitive period as biologically determined, the age of the learner is the causal factor affecting ability to acquire a TL completely.

Lamendella's claims of a critical period for L1 acquisition and a sensitive period for L2 presented the view that "the age of the learner is the central causal factor affecting ability to acquire a language completely" (Tollefson and Firn, 1983, p. 23).

These two biological-centered factors led Tollefson and Firn to conclude:

...the major implication of all biological models is that fossilization is permanent. Whether one is talking about sensitive periods or critical periods, all are age related. Once the ability to acquire a language or some component of it has been lost, it has been lost forever. Herein lies a fundamental difference in the predictions made by interactive and acculturative factors and those made by biological factors. A unified theory of fossilization must deal with those differences (Tollefson & Firn, 1983, p. 24).

According to Tollefson and Firn, the Biological Models seem to be weakest in their ability to account for child L2 learners who fail to learn a TL even when they are within the proposed critical period. Another weakness they observed was that "Biological Models do not incorporate social, psychological, and interactional variables

as explanations of fossilization, which is a necessary step since not all fossilization is the result of cerebral incapacities” (Tollefson & Finn, 1983, p. 28).

Others, however, state that we need to consider research results on neurological issues with great caution since they do not provide conclusive findings, and some have been misinterpreted in order to be applied in the classroom (Scovel, 1982, pp. 324-325). There is counterevidence against age as a factor of fossilization in studies in SLA, such as Selinker et al. (1975) and Parkin (1981).

Thirty-three Cuban-American children who came into the United States before puberty were also found to be fossilized (MacDonald, 1987) especially in phonology, but a lack of exposure to native-speaking peers could be another important factor. It also needs to be noted that perhaps there are a greater number of people who can acquire the TL norms despite their age, but their ILs are not so interesting to researchers. However, at this point, one may come to the conclusion that age is an important factor accounting for failure of learners to achieve the TL norms [see also Jordens, (2001)]. Despite a few anecdotal cases to the contrary, this observation holds for both natural and classroom situations of L2 learning. The failure is explained by reference to the ‘age’ factor or to the fact that L2 learners already have an L1. Both kinds of observation are obvious. On the one hand, learners of an L2 are older than children learning their L1. On the other hand, learners of an L2 have had the experience of going through the process of learning their L1. If it is the ‘age’ factor which is relevant with respect to the ultimate L2 level, one must assume that there is a window of opportunity for language learning, a ‘critical period’. On the other hand, if it is the instantiation of the L1 system, which makes it

difficult for L2 learners to achieve native competence, one must assume that it is the fixation of certain options, which makes it difficult to acquire other possible options.

The 'age' factor explains the inability to achieve native competence because adults will learn an L2 by using learning strategies, which are not specifically geared towards the acquisition of language. This position is taken by Clahsen and Muysken (1986, 1989), among others. With respect to the acquisition of word order, they admit that L2 learners desire a rule, which sometimes violates Universal Grammar (UG) constraints on movement. Hence, "the L2 learners are not only creating a rule system which is far more complicated than the native system, but also one which is not definable in linguistic theory" (Clahsen & Muysken, 1986, p. 116). Schwartz, however, claims that "UG is accessible in (adult) L2 acquisition" (Schwartz, 1996, p. 227). Therefore, the possession of L1 does not necessarily imply that native competence is unachievable for L2 learners, only that as soon as abstract linguistic principles have been fixed according to the specific options of the L1 system, it is difficult to access the original linguistic abilities and therefore to acquire the options chosen by another system. A similar position with respect to the role of L1 in the acquisition of L2 phonology is taken by Wode (1996). In order to explain foreign accent in L2 acquisition, Wode argues that: "[it] is the rise of L1 perceptual categories and not any loss of innate sensory capacities or socio-cultural attachments that leads to the well known perceptual difficulties of L2 learners" (Wode, 1996, p. 342).

2.2.2.3.2 *Transfer of knowledge and UG.*

There is yet another element related to the biological models, which Selinker and his associates have studied over the last two decades that emphasizes the importance of the role of language transfer in fossilization. In *Rediscovering Interlanguage* (1992), Selinker stated that “we need to account for the agreed-on fact that most, if not all, learners find it very difficult at many points in their language learning careers to change IL forms to correspond to an expected TL norm” (Selinker, 1992, p. 253). To Selinker, factors like lack of time, exposure, or motivation can affect the stabilization of some IL forms, perhaps causing a plateau. However, he stated conclusively that “...they cannot account for the permanent cessation of IL learning often far from expected TL norms, which appears to occur for most, if not all, learners...” (Selinker, 1992, p. 253).

Selinker and Lakshamanan (1992) maintain that fossilization is a product of the ‘Multiple Effects Principle’ (MEP), which involves processes that can work together to lead to fossilization including, among many, language transfer of undesirable forms from the L1, order of acquisition of new forms in the TL, strong input of undesirable TL forms, and interference from UG. They hypothesize that “when two or more SLA factors work in tandem, there is a greater chance of stabilization of interlanguage forms leading to possible fossilization” (Selinker & Lakshamanan, 1992, p. 198). These researchers isolated ‘transfer’ as a central SLA factor, either as a ‘necessary’ co-factor (strong form of the MEP), or as a ‘privileged’ co-factor (weak form of the MEP). As a corollary to the MEP, Selinker and Lakshamanan add “apparently fossilized structures will not become open to destabilization through conscious raising strategies when multiple effects apply” (1992, p. 199). This account is proposed within a pedagogical perspective and seeks to

integrate UG-based and contextually based SLA accounts of the phenomenon. To find support for their position, Selinker and Lakshamanan reviewed literature on language transfer. Among the researchers that have studied transfer, Selinker and Lakshamanan mention Weinreich, who refers to “permanent grammatical transfer” (Weinreich, 1953, as cited in Selinker & Lakshamanan, 1992, p. 199) and Nemser, who discusses “the formation of permanent intermediate systems and subsystems” (Nemser, 1961, as cited in Selinker & Lakshamanan, 1992, p. 199). Likewise, the researchers cite Jain, who has concluded “there are stronger stabilization tendencies in this IL [i.e., Hindi English] when two processes work in tandem, in his case one of them is language transfer and the other being certain input” (Jain, 1974, as cited in Selinker & Lakshamanan. 1992. p. 200). Additionally, Selinker and Lakshamanan mention Wode’s, (1978), Zobl’s (1980, 1982, 1983) and Anderson’s (1983, 1989) studies, which have all concluded, that:

Language transfer works in tandem with universal processes in stabilizing the IL form, at the very least in bringing about a delay or a plateau where affected learners get stuck longer than those producing a similar form but with no possible language transfer effects involved (Selinker & Lakshamanan, 1992, p. 200).

Selinker and Lakshamanan’s examination of studies of adult and child L2 learners illustrates aspects of the TL that are ‘candidates’ for fossilization, e.g., tense-less clauses, IL morphological forms, null referential ‘it’ utterances, ECM (Exceptional Case Marking) verbs, etc. In all cases, transfer seems to be either the main factor or a co-factor. The researchers concluded that in many instances of apparent fossilization with language, the MEP appears to be at work.

Other researchers that found a link between fossilization and language transfer were Brown and Flores (1998). The purpose of Brown and Flores’ research on Costa

Rican college English teachers was to discover phonological errors fossilized both at the phonemic and segmental levels through the application of error and contrastive analysis. As a result of their analysis, Brown and Flores (1998) concluded, among other things, that: 1) negative transfer of mother tongue patterns both at phonemic and prosodic levels seems to be the major cause of phonological fossilization in the IL of English teachers; 2) intralingual errors appear less frequently (than interlingual ones) and are caused mainly by overgeneralization of L2 patterns; 3) the subjects whose IL draws closest to the L2 show fossilized structures, especially in prosodic aspects such as word and phrase stress (such patterns are the result of negative transfer of Spanish accentuation patterns to English); and 4) the methodology by means of which the subjects started the L2 could also be related to phonological fossilization.

A very simple example of the MEP comes from many beginning Spanish-speakers of English in their omission of the 'be'-verb in sentences. They use a marker before the verb to designate the progressive state of action, as in 'I am going'. The verb form, however, retains the same form as the simple present. As they learn English they immediately pick up on the addition of '-ing' as a marker of the progressive. However, the addition of the 'be'-verb to designate the progressive as well is often missing in many intermediate speakers. The way the proposed MEP works here is that they know from their L1 that there needs to be a marker for the progressive. They hear the obvious '-ing' ending and assimilate it. The principles of UG that helped them acquire the correct form of the progressive in Spanish when they were children may signal 'satisfaction' with the form and give them the go ahead to accept this as the way to express the progressive in English. If they cease gaining significant input at this point, they may move on to

fossilize in that area. Transfer of the knowledge of one marker for progressive and a confirmation from the UG have worked to produce a stabilized form in the IL.

Hale's position is slightly associated with Selinker and Lakshamanan's description of fossilization. He hypothesizes that "fossilization may result from the fact that certain L1 parameter settings may be extremely difficult to eradicate from acquired L2, at least at the level of linguistic competence" (Hale, 1988, p. 32; Selinker & Lakshamanan, 1992). Hale further hypothesizes that this difficulty is likely to result from parameters whose effects are diffuse within the grammatical systems as a whole. This account is couched within the framework of UG and the parameter-setting model of language acquisition. Nakuma (1998) warns that the issue of whether UG principles are available to adult L2 learners has been subject to much debate culminating in mixed conclusions. While some researchers, e.g., Clahsen, (1988), cited in Nakuma, (1998), have concluded that UG principles are not available to the adult L2 learner, others, e.g., Schachter (1989), have concluded that they are only partially available, and yet others, e.g., White, (1988), have concluded that they are "fully available" (Nakuma, 1998, p. 249).

Although Selinker maintained his tentative conclusions of the 1970s about the inevitability and permanence of fossilization, he held out hope for minimizing it, noting that there is nothing in the SLA literature suggesting "that some effects of fossilization cannot be bypassed in the learning / teaching process if emphasis is placed on communicative abilities in context" (Selinker, 1992, p. 252). He proposed that learners are able to bypass much of fossilization when they have an opportunity to express themselves meaningfully in an L2 in a variety of useful areas of everyday life, or

discourse domains. He also gave some credence to the use of certain consciousness-raising strategies in destabilizing undesirable IL forms. This can be linked to the use of learning strategies promoted by the cognitive models below. By conceding these possibilities to the proponents of other models, Selinker showed that he was still open to the suggestions of scholars in other areas and was being influenced by the work done by those in the cognitive field.

Concessions of this type, made by Selinker, and other proponents of the biological models, reflect their willingness to incorporate the interactive and acculturative elements of other models in the years following Tollefson and Finn's critiques. By referring to the values of cognitive processing as an aid in minimizing fossilization, Selinker and others reflected advances made in the field of cognitive psychology.

2.2.2.4 Cognitive Accounts

The cognitive models, developed in the 1980s built on many of the elements of the previously discussed factors and accounts, while adding the dimension of what was occurring on the cognitive level, i.e., the thinking, processing, and memory level(s) of the learner (Ausubel, 1968). Ausubel proposed that, in human beings, learning takes place through a meaningful process of relating new events to related pre-existing cognitive concepts or propositions. In a meaningful learning context, new elements enter the cognitive fields by relating to pre-existing cognitive structures in memory. However, totally new concepts cannot be included under the existing cognitive concept in long-term memory, and in the case of TL acquisition, most of the new linguistic elements that are taught, disintegrate and the learner is unable to develop his / her IL toward the TL norms.

The fossilized learner is in the process of disequilibrium, a state of uncertainty, which is reflected by the production of variable constructions. In other words, the fossilized learner has not yet reached the stage of formal operation, in which s/he can abstract, synthesize and join together the TL linguistic rules in reasonable relationships. As long as the learners are unable to dissolve the internal uncertainty, any external force such as psycho-social factors or interactive accounts cannot help them to modify their IL toward TL norms.

2.2.2.4.1 Learning strategies.

The use of incorrect learning strategies has been suggested as another reason for fossilization in SLA (Sims, 1989; Oxford, 1990; Naiman, et al., 1996; Skehan, 1998; Stern, 1975). After reviewing literature on the causes of fossilization, Sims (1989) suggested that somewhere along the IL continuum, inappropriate or misapplied learning strategies could lead to fossilization of some features (phonological, morphological, syntactic, lexical, psycholinguistic, or socio-cultural). Sims based his suggestions on Cohen (1988), who suggests, “the repeated use of unsuccessful strategies, i.e., those strategies which do not enable completion of a given language learning task, could impede a learner’s progress” (Cohen, 1988, as cited in Sims, 1989, p. 67). Finally, Sims concluded that the “proposed relationship of fossilization and learning strategies... could be a key to the remediation of systematized errors, as the role of the learner information processing in the second language acquisition process becomes more clearly understood” (Sims, 1989, p. 68).

O'Malley and Chamot hold that social / affective strategies involve either interaction with another person or exerting personal control over how one is reacting to the language-learning environment. For example, strategies that they list for usefulness in listening comprehension are: 1) cooperation, or working with peers to solve a problem, pool information, check notes, or feedback on a learning activity; 2) questioning for clarification, or eliciting from a teacher or peer additional explanation, rephrasing, or examples; and 3) self-talk [of a positive nature], or using mental control to assure oneself that a learning activity will be successful or to reduce anxiety about a task (O'Malley & Chamot, 1990).

Oxford (1990; 1994) affirms the position of O'Malley and Chamot but writes that "the powerful social and affective strategies are found less often in L2 research" (Oxford, 1994, p. 3). She maps out a framework of six learning strategies. Memory strategies and compensation strategies, along with cognitive strategies, are labeled as direct strategies while metacognitive strategies, affective strategies, and social strategies are grouped under indirect strategies. She concedes that "there is no complete agreement on exactly what strategies are; how many strategies exist; how they should be defined, demarcated, and categorized; and whether it is - or ever will be - possible to create a real, scientifically validated hierarchy of strategies" (Oxford, 1990, p. 17). Despite this, she insists that it is through learning strategies that learners take control of their learning and become more proficient: "although researchers have formally discovered and named language strategies only recently... Throughout history the best language students have used strategies" (Oxford, 1990, p. 1).

There may be instances where the use of inappropriate learning strategies causes fossilization. Pastini (1995) refers to a suggestion by Sims (1989) that if an inappropriate strategy is never corrected, permanent fossilization will be the result: “when a learner chooses an inaccurate strategy and applies it repeatedly, the attempt to acquire the TL feature will be inhibited rather than facilitated” (Pastini 1995, p. 18).

The underlying reason of O’Malley and Chamot, as well as Cohen (1990), Oxford (1990; 1994), and Scarcella and Oxford (1992), for giving learning strategies a central role in the cognitive accounts relates to how these strategies increase the effectiveness of the comprehension processes in learners. They concede that initially, learners may use these strategies intentionally and considerably. As the learners develop more effective skills in the L2, the strategies become automatic, and possibly even selectively enhance the effectiveness of the language learning process. They show that the elements that make effective language learners are “associated with greater motivation for learning the second language as well as with more frequent and varied use of learning strategies” (O’Malley & Chamot, 1990, p. 143). Effective language learners seem to be the most likely candidates to achieve communicative competence and mastery of the attempted L2.

2.2.2.4.2 Monitoring.

Krashen (1982), in his ‘Monitor Model’ argued that adult L2 learners develop TL competence through one of two ways: 1) acquisition or 2) learning. He described acquisition as a subconscious process similar to the way a child acquires his / her L1. In contrast, the concept of learning is described as a conscious process that is more related to knowing certain rules about a language, i.e., grammar, etc. Krashen’s theory consists

of five main hypotheses: 1) the acquisition learning hypothesis; 2) the monitor hypothesis; 3) the natural order hypothesis; 4) the input hypothesis; and 5) the affective - filter hypothesis (Krashen, 1982). His theoretical views have received harsh criticism and are generally discredited. "Krashen has not produced any evidence in support of his claims but has simply argued that 'certain phenomena can be viewed from the perspective of his theory'" (Mangubhai, 2003, p. 49).

Selinker and Gass (1994) critiqued Krashen's Monitor Model by saying that "Krashen has provided no evidence that learning and acquisition are indeed two separate systems... nor has he provided a means for determining whether they are separate" (Gass & Selinker, 1994, p. 149). VanPatten (1995) made a positive observation on this criticism of Krashen's learning-acquisition distinction, stating that this criticism served to underscore the role of comprehensible input as a major variable in acquisition.

O'Malley and Chamot (1990), claim two paradigms exist for describing L2 acquisition: 1) theories which assume that language is learned separately from other cognitive skills, and 2) the theory that cognitive processing has a central role in language acquisition. They are proponents of the cognitive theory alongside learning strategies as central to the effective working of language acquisition in SLA.

In its basic form, the cognitive psychology model proposes that new information is acquired through the interaction of short-term memory and long-term memory in a four-stage process involving selection, acquisition, construction, and integration, in which learners: focus on specific information of interest and transfer that information into working memory; actively transfer information from working memory into long-term memory; actively build internal connections between ideas contained in working

memory; and actively search for prior knowledge in long-term memory and transfer this knowledge to working memory. “Selection and acquisition determine how much is learned, whereas construction and integration determine what is learned and how it is organized” (O’Malley & Chamot, 1990, p. 18).

The model describes language comprehension as “...an active, constructive process that applies equally to listening or to reading” (O’Malley & Chamot, 1990, p. 37). The comprehension process moves through three recursive, nearly simultaneous stages of perceptual analysis, parsing, and utilization of the meanings uncovered. Perceptual analysis focuses attention on significant aspects of what is being heard and inserts them into short-term memory. Parsing decodes what is being heard and matches the information with meanings held in long-term memory. Utilization involves taking any new information in relevant forms into appropriate areas of long-term memory. These processes that enable comprehension are most effective when the learner has available in long-term memory two types of knowledge: real world knowledge with its context-rich understanding of life around the learner and linguistic knowledge which relates to the lexical meaning of words and the syntactical rules of the language being processed. Effective processing of input, in terms of cognitive theory, requires the use of both of these types of knowledge. The inference is that without them a learner will acquire an inadequate knowledge of the language.

It is in relation to production that O’Malley and Chamot offer a directly relevant point concerning fossilization: “The novice second-language learner cannot develop all aspects of the planning and articulatory stages simultaneously, and therefore selectively uses only those aspects that have already been proceduralized [i.e. processed to a point of

being used]. This results in two basic planning strategies, semantic simplification and linguistic simplification” (O’Malley & Chamot, 1990, p. 41).

Semantic simplification involves finding alternate ways such as gestures or manipulating the context to convey the basic meaning. Linguistic simplification involves omitting or generalizing aspects of the grammar such as verb endings and noun endings. Like Krashen (1985), the learning strategy cognitivists believe that these linguistic errors are monitored, detected, and corrected during the production stages. O’Malley and Chamot’s model, however, supports the idea that monitoring of the input also affects the correction of these errors. Their theory points to the possibility that it is the lack of appropriate cognitive processing of output and input that leads to a breakdown in correcting these simplification errors and, ultimately, to fossilization.

Van der Linden (1995) conducted a case study with an adult Chilean learner of Romanian, who had been studying the language for six years. The researcher arranged two interview situations. The first one consisted of a tape- recorded informal conversation about the subject’s life in Romania. During the second situation, the subject was informed that his IL would be studied and he was asked to speak Romanian as correctly as possible. After the linguistic analysis, in order to ensure that the learner knew the grammatical rules that he was supposed to apply to construct his verbal communication, the researcher asked the subject to indicate if they were correct or not, and to correct them if necessary.

Van der Linden found that the differences between the verbal communications produced in the two situations were small. The most striking fact in the subject’s IL was undoubtedly the large number of interference errors, especially in pronunciation, that

appeared in the IL despite the very advanced level of the learner. However, within the domain of morpho-syntax, the subject's knowledge of the TL rules was not stable enough to detect errors. Van der Linden concluded that, at least in the case studied, self-monitoring and fossilization are indeed in a situation of competition. Van der Linden also concluded that the IL of advanced language learners fossilizes because of incorrect communication in the TL, especially in informal and relaxed situations (Tarone, 1979). Van der Linden's conclusions also constitute support for Selinker and Lakshamanan's (1992) corollary.

2.2.2.5 New Insights

Cognition and the theory of knowledge have been of interest to researchers since the time of Plato's introduction of 'epistemology'. However, interest in affective factors in SLA came much later. Many of the major developments in SLA in the recent past are, in some way, related to the need to acknowledge 'affect' in language learning. New methods / models, including: 1) 'Suggestopedia', which attempts to reduce anxiety by creating a non-threatening learner environment; 2) 'Silent Way', in which the learner must take responsibility; 3) 'Community Language Learning', in which the group must decide what to learn; and 4) 'Total Physical Response', which attempts to engage the learner physically, putting the learner under no pressure and allowing him / her to speak when ready, take into account the affective side of language learning in quite a central manner. Communicative Language Teaching (CLT) has also had a major influence on TESOL in terms of materials, teaching methods, syllabus design, etc. and incorporates

affect. Similarly, the 'Natural Approach' takes affect into consideration in a prominent way through classroom activities designed to minimize stress.

Although affective contributions are central to SLA, the field of SLA is behind mainstream education research in that it has neglected, and indeed continues to neglect, the affective dimension(s) of SLA. Rejecting the cognitive-centeredness of previous language learning research, SLA educators are currently beginning to recognize the importance of the L2 learner's role in the cognitive and affective domain in the SLA process. Consequently, there has been a greater understanding and appreciation of affective variables. Schumann's (1997) model derives from an examination of SLA from a neurobiological perspective. His recent book, *The Neurobiology of Affect in Language*, offers a summary of his theory. According to Schumann, affect is seen as central to the understanding of L2 attainment / achievement, and the author argues that SLA is emotionally driven, and moreover, that emotion underlies all cognition. Even on the neurobiological level, emotions are part of reason. In summary, affect in SLA, often based upon perception, is not in opposition to cognition. In fact, the affective component often contributes more to language learning than the cognitive skills. When both are used together, the learning process can be constructed on a firmer foundation. It is within the power of SLA educators to address the affective concerns of their students, (which are often based upon perceptions), and, moreover that it is essential to address these affective concerns.

Nakuma (1998) presents new insights and explanations for fossilization that are also linked, in part, to perceptions. After reviewing the known accounts of fossilization, he remarks that there are two threads common to these accounts: 1) that transfer, in some

form or another, is a factor contributing to fossilization; and 2) that the fossilized deviant L2 forms have been acquired in their deviant forms, as they are believed to have been the object of transfer from L1 to L2. He hypothesizes that:

Fossilization is a performance-level phenomenon occasioned by the L2 learner's conclusion that a given L2 form need not be acquired because it is already available to the target L2 systems from his or her pre-acquired language system(s) through transfer. Fossilization, then, is engendered necessarily by the interlingual identification of an L2 form with an L1 form by the L2 learner (Nakuma, 1998, p. 252).

Nakuma's proposal is based on performance rather than competence. According to this formulation, the learner, at an early stage of the target L2 learning process has made a decision not to re-acquire the specific L2 forms that will be perceived subsequently by others as fossilized.

Nakuma's first assumption is that fossilized forms were "learned in a deviant form" (Nakuma, 1998, p. 251). Here, the learner unsuccessfully learned the TL form. In terms of the competence / performance distinction, this assumption implies that the deviant form was acquired by the learner; therefore, the fossilization is a competence-level phenomenon. Nakuma argues that fossilization may not be a matter of acquisition, but a matter of avoidance on the part of the learner. In this view, the learner chooses not to acquire the L2 form because it is believed that the form has already been incorporated into his / her knowledge of the TL. When the learner perceives that there is a correspondence between L1 and L2 forms, the L1 form is transferred and is used in the performance of the L2. Because of this perception, the learner avoids acquiring the actual L2 form, as this is sensed to be a duplication of effort. Nakuma claims that the learner's misconception of the relationship between L1 and L2 forms will persist until the

learner no longer perceives the forms as being identical. In the meantime, the learner will have no motivation to acquire the L2 form and will ignore L2 input that runs contrary to his / her perception.

Nakuma's second assumption is that fossilization involves deviant forms of the TL. Nakuma contends that there is both positive and negative fossilization. If transfer is a privileged or necessary factor in fossilization, as Selinker and Lakshmanan believe, and there can be either positive or negative transfer, then it stands to reason that fossilization can be either positive or negative.

Nakuma's hypothesis leads to four implications: 1) since each learner perceives the relationships between elements in the L1 and L2 differently, "the exact causes of fossilization in individual learners is [sic] beyond generalization" (Nakuma, 1998, p. 253); 2) external forces will not be able to destabilize a fossilized form as long as the learner maintains the identification between the L1 and L2 forms; 3) fossilized forms are not acquired deviant forms, but are forms which the learner has not acquired, and as a result, needed forms are "filled in during L2 performance with L1 forms believed to be identical to them" (Nakuma, 1998, p. 253); and 4) fossilization is made up of both positive and negative manifestations, and consequently, the phenomenon of fossilization is broader than generally considered.

2.3 Problems with Empirical Studies to Date

Given the ambiguous and contradictory character of the definitions of, and explanations for, IL fossilization (Han 2004), 'Can additional research / empirical studies

shed any light on the nature of this phenomenon? Unfortunately, the results of empirical studies on IL fossilization to date have been disappointing.

First of all, there have been very few empirical studies that specifically claim to study fossilized speakers, and those studies that do exist, interesting as they may be, tell us very little about fossilization. If non-native speakers can fossilize at any point in the course of their acquisition, then a description of their IL is merely a description of the product of fossilization, but does not shed any light on the process itself. Similarly, the description of the IL system leads to a better understanding of how the system is organized, but says little or nothing about the process of fossilization.

In addition to definitional issues, there are several gaps in terms of methodological issues. Most of the empirical studies to date are not longitudinal, i.e., they do not involve observations over long periods of time, and therefore cannot establish developmental trends. Fossilization is, therefore, largely assumed rather than established through longitudinal observation (Long, 2003). What is even more problematic is that longitudinal studies are necessary in order to establish long-term stabilization. Long (2003) suggests that analyses of longitudinal data be conducted at the level of 'types' as well as 'tokens' in order not to "miss changes in form-function relationships over time, zig-zag developmental curves, and U-shaped behavior"(Long in Han, 2003, p. 100). While empirical longitudinal studies are sorely needed, Long (2003) also insists that theoretical research on fossilization should proceed towards a more coherent, consistent, and authoritative account. He notes that many of the explanations attempted to date are devoid of predictive power. They are therefore analogous to the pseudo-explanations often found in the error-gravity studies in EA, i.e., they apply to some L2 learners and

some structures, but not to others. Long suggests that, at least in theory, a true explanation of fossilization, should apply to all learners and all structures, and should be capable of predicting items that fossilize and those that do not.

Zhao Hong Han (2004) proposes a comprehensive overview of fossilization in SLA. Besides primarily what appears to be the most complete synopsis of the literature available on fossilization, she makes some pertinent comments:

Over the past 30 years, the SLA literature appears to have documented a considerable bulk of evidence of fossilization across and within adult L2 learners, as well as a rich spectrum of explanations thereof from a myriad of perspectives. Due, however, to the lack of uniformity in the interpretation and application of the constructs of 'fossilization', the empirical phenomena that have been designated as fossilization seem widely disparate, and the explanatory accounts rather fragmented, thereby creating more confusion than clarity in the literature (Han, 2004, p. 4).

Han states that the purpose of her research is three-fold: to take stock of the major theoretical and empirical findings that have accumulated in this area; to introduce a framework for interpreting them; and to offer a principled perspective on adult L2 learner's lack of ability to fully acquire the TL. She reiterates that which all agree upon: "Despite the lack of large-scale and comprehensive studies able to demonstrate the phenomenon scientifically..." (Han, 2004, p. 5), there is conclusive evidence that adult L2 learners fail to reach the native-like competence in TL except for a very small number. However, there is no discussion of how to overcome this phenomenon.

The very presence of so many subdivisions and alleged causes of fossilization, raises questions about the underlying assumptions regarding the nature of language, IL and SLA.

At present, even that which constitutes appropriate evidence for fossilization can now be questioned. None of the definitions specify what type and domain of performance constitute adequate evidence for fossilization, e.g., spontaneous spoken verbal communication, planned spoken verbal communication, elicited speech, spontaneous written production, planned written verbal communication, comprehension of spoken language, metalinguistic awareness and judgments, appropriate sociolinguistic use, vocabulary, etc.

Also, when discussing fossilization, the question of the definition of errors arises. The performance for non-native speakers is rarely compared to the actual performance of native speakers under similar conditions. Instead, it is compared to native speaker intuitions. Finally, not all errors arise from faulty competence, some errors are problems of performance.

Another problem relates to the definition of fossilization as permanent. How long must a form be stable in order to be considered permanent? Clear and exact criteria in terms of time and allowable variation will be needed in order to operationalize this definition. Other definitions, which accept the possibility of de-fossilization, also need to specify under what conditions 'defossilization' occurs and what type of performance constitutes adequate evidence. The few empirical studies on fossilized L2 learners have, in fact, shown evidence of some learning in some situations and domains. [See Bruzese, (1977), Graham, (1981), Schumann, (1978b), and Sotillo, (1987)].

Given the research that has been done showing the opposite to be the case (Harley & Swain, 1984) in SLA, it is hard to say whether the subjects in the case studies were truly fossilized or merely stabilized. Perhaps stability in the IL is really a matter of

degree, on a continuum for each aspect of the TL, with fossilization at the extreme end of the continuum.

A closely related question is: 'How long is long enough to call an item stable or how much time is sufficient for learning to take place?'. It is commonly estimated that IL is stable after five years of residence in the L2 environment (Gass & Selinker, 1985). Other definitions give no estimate. However, as noted above, evidence from immersion studies (Harley & Swain, 1984) should encourage researchers to focus on the pace of learning, especially at advanced levels of proficiency. Additionally, as previously mentioned, the difficulties of researchers who have used the fractured language definition (Lepetit, 1985; Mukattash, 1986) highlight the need to know more about the stages of L2 development and the time needed for acquisition before assumptions are made about fossilization.

Another issue raised by the competing definitions of fossilization is: 'What are the differences between the processes of learning and fossilization?', an issue touched on by various SLA theorists. Perdue (1984) suggested that fossilization might be the result of one process and SLA the result of another process but does not elaborate. On the other hand, Vigil and Oller (1976), in their article on cognitive and affective feedback, argue that fossilization and learning are one and the same process. Similarly, Brown states that "the process of fossilization is really no different from what we call learning - the internalization of correct forms" (Brown, 1980, p. 181), although he specified that the term fossilization is used only for the internalization of incorrect forms. If Brown, Vigil, and Oller are right, then a deeper understanding of fossilization should lead to a greater understanding of the process of L2 learning.

The various and often conflicting definitions of fossilization also make it necessary to consider the dual nature of language. It is both an individual and a social phenomenon (Han, 2004). However, if it is defined as a group process, then the issue of what the target is must be considered. If a group of people all use the same 'fossilized' IL, is it because they stopped learning at the same level of development or because that shared language was, in fact, the target? Should the use of such 'nonstandard' speech in a younger generation of native speakers be treated as fossilization, ignoring the process of historic language change?

Yet another issue raised implicitly by the definitions and the empirical studies of fossilization is whether fossilization is a process or the product of IL development. The detailed descriptions of the ILs provided by empirical studies of fossilization (Agnello, 1977; Bruzzese, 1977; Schumann, 1978b; Sotillo, 1987; Stauble, 1978) would seem to indicate that the researchers view it as a product. In contrast, most of the definitions, either explicitly or implicitly consider fossilization to be a process.

There has also been little consideration of what aspects of L2 acquisition are subject to fossilization. Most researchers seem to agree that the phonology, intonation, morphology, and syntax systems of an IL can all be fossilized. Scarcella (1983) and Bartelt (1983) apply the term fossilization to discourse patterns. Hyltenstam (1988) discusses fossilization of the lexicon, claiming it "is particularly sensitive to fossilization, considering the fact that the lexicon is more individual in nature than other aspects of language" (Hyltenstam, 1988, p. 71). But this is less obvious since, unlike the other systems of language, the lexicon is an open system and thus continues to expand throughout life. Both L1 and L2 speakers continue to learn new words throughout life

and acquisition of a new item in the lexicon does not (usually) destabilize the rest of the lexicon. In contrast, acquisition of a new item of syntax or morphology requires a readjustment of the IL system to limit or alter the functions of previously acquired forms.

A final aspect of fossilization that has received little attention is the question of when and how fossilization begins. Lepetit (1985) believes that fossilization is possible after only one year of instruction, and both Perdue (1984) and Selinker (1985) concur that fossilization can begin before two years of exposure to the TL. Furthermore, Selinker (1985) believes it occurs in certain domains and structures before others, although he has not advanced specific hypotheses concerning this. In contrast, most theorists speak of fossilization as a monolithic process that affects all aspects of SLA concurrently.

As can be seen, a large number of the studies reviewed have addressed the possible causes of fossilization, while a smaller number of investigations have been aimed at proposing ways to overcome and prevent fossilization.

Among the possible reasons for fossilization are: 1) psycho-social factors, including motivation, acculturation, and psycho-social distance, 2) interactive accounts, including lack of formal instruction and input, failure to provide feedback, etc.; 3) biological accounts, including age, transfer of knowledge, and UG, 4) cognitive accounts, including incorrect language learning strategies, failure to develop and strengthen learners' self-monitoring, etc.

In conclusion, the literature reviewed includes many aspects of research on fossilization and reveals that, unfortunately, theoretical work on fossilization has developed very little since Selinker and Lamendella's early discussions (1979a, 1979b, 1979c). Regarding sources of fossilization, different models have been proposed.

However, research results concerning all these models are not conclusive. Furthermore, empirical work has focused on analyzing the product rather than the process and, consequently, has failed to explain the nature of and / or remedy for fossilization. Based on an extensive review of the aforementioned studies, I have concluded that the proposed research questions of this present study, related to the role of achievement motivation on IL fossilization, are not answered by the existing literature.

The following chapter describes the methodology of the study and includes information on the sample population, instruments and methods utilized.

CHAPTER III: METHODOLOGY

This chapter includes the details of the methods and procedures that were used to collect and analyze data for this study. The purpose of this research was twofold: 1) to establish if adult ESL learners are aware of their IL fossilization and, 2) to examine if motivation, and more specifically achievement motivation, is a factor in their IL fossilization. This study was guided by the following research questions:

1. Are middle-aged ESL learners aware of their IL fossilization?
2. Is there a relationship between middle-aged ESL learners' competence (or perceived competence) and achievement motivation?
3. What factors do middle-aged ESL learners view as barriers to their achievement of TL competency?

To find the answers to these questions, a combined quantitative and qualitative research paradigm was employed. The following section summarizes the main assumptions of this integrated research design.

3.1 Paradigm and Methodology

Rigorous quantitative research surveys do not necessarily provide all of the data needed when studying human behavior. Consequently, qualitative methods, (e.g., focus groups or in-depth interviews, etc.), have emerged as an important part of the research paradigm.

A brief examination of the quantitative and qualitative models will identify their strengths and weaknesses and how the divergent approaches can complement each other.

Quantitative research uses methods adopted from the physical or hard sciences that are designed to ensure objectivity, generalizability, and reliability. These techniques include: 1) the ways research participants are selected randomly from the study population in an unbiased manner, 2) the standardized questionnaire or intervention participants receive, and 3) the statistical methods used to test predetermined hypotheses regarding the relationships between specific variables. The researcher is considered external to the actual research, and results are expected to be replicable no matter who conducts the research.

Quantitative-experimental research tends to focus on the analogous concepts of reliability, replicability, validity, and generalizability (Brown & Rodgers, 2002) and the very strengths of the quantitative paradigm are that its methods produce quantifiable and reliable data that are typically 'generalizable' to a larger population. This paradigm has a tendency to break down when the phenomenon under study is difficult to measure or quantify. The greatest weakness of the quantitative approach is that it often 'decontextualizes' human behavior in a way that removes the event from its real world setting and ignores the effects of variables that have not been included in the model (Cohen & Manion, 1994).

Qualitative research methodologies are designed to provide the researcher with the perspective of participants / subjects through immersion in a culture or situation and direct interaction with those under study (Patton, 1990). Qualitative research tends to address concepts parallel to those of quantitative research, i.e., dependability, confirmability, credibility, and transferability (Brown & Rodgers, 2002). Qualitative methods include observations, in-depth and other interviews, focus groups, etc. These

methods are designed to help researchers understand the meaning(s) people assign to certain phenomena and to clarify the mental processes underlying behaviors. Hypotheses are generated during data collection and analysis, measurement tends to be subjective, and in the qualitative paradigm, the researcher becomes the instrument of data collection, and results may vary significantly depending upon who conducts the research.

The advantage of using qualitative methods is that they generate rich and detailed data that leave the participants' perspectives intact and provide a context for human behavior. The focus upon processes and 'reasons why' differs from that of quantitative research, which addresses correlations between variables. A disadvantage is that data collection and analysis may be labor intensive and time-consuming. Additionally, the qualitative methods are not yet entirely accepted by the mainstream research community and qualitative researchers may find their results challenged as invalid by those outside the field of social sciences.

Nevertheless, integrating quantitative and qualitative methods lends depth and clarity to research. The present study is primarily quantitative in nature but uses qualitative results to give support for and to help interpret or explain the quantitative findings.

To gather information, a four-part questionnaire was administered to the participants. Part I of the research instrument was used to collect the qualifying personal and demographic data of each participant. Part II included the 'Informed Consent Statement'. Part III of the instrument included an 'English Language Proficiency Evaluation' which measured English language competency through a combined assessment in the following: 1) 'Listening / Comprehension Test', 2) 'Fluency /

Structure / Grammar Test', 3) 'Reading / Comprehension Test', 4) 'Writing / Essay Test', and 5) 'Verbal Communication / Pronunciation Test'. Participant responses were recorded, scored, and analyzed by the researcher. Each section of the 'English Language Proficiency Evaluation' was worth 50 points, for a total of 250 points. Scores falling within the following ranges corresponded to different levels of fossilization: 161 points or less indicating high levels of IL fossilization; 162-199 points indicating medium or moderate levels of IL fossilization; and 200-236 points indicating low or minimal levels of IL fossilization; and scores between 237-250 points corresponding to TL competency. Part IV included a 'Measure of Achievement Motivation' to determine each participant's achievement motive [see page 223 in Appendix D]. In Part V, the qualitative component, participants were selected to participate in interviews based upon four categories representing learners with high levels of IL fossilization, learners with medium or moderate levels of IL fossilization, learners with low or minimal levels of IL fossilization, and learners that had attained TL competency. These interviews served to ascertain participant perception of the role of motivation and barriers to language competency, and participant perception regarding the motivational components of TL acquisition.

3.2 Research Validity / Reliability

The validity and reliability of this study's quantitative component is directly linked to the validity and reliability of the test instruments used, and to the procedures of administration as described below in section 3.4. Part I collected the qualifying and demographic data, Part II incorporated the 'Informed Consent Statement', and Part III, included the 'English Language Proficiency Evaluation' which was adopted, with full

permission, from Roberta Steinberg's *TOEFL (CBT)*. The *Test of English as a Foreign Language (TOEFL)* is a test that evaluates non-native English speakers' ability to read, write, speak, and listen to English and is used by most US colleges and universities as a measurement of English language proficiency and is a prerequisite for admission to university for students whose first language is not English. It is a well-respected and established measure of English language proficiency. Hinkel (2005), favors this instrument and views pragmatic competence as separate from cultural knowledge and relatively context-independent. She suggests that *TOEFL (CBT)* evidences convergent and discriminant validity in each of its sub-sections. Ellis and Barkhuizen (2005) focus on the ideal methods of data collection from L2 learners, which indeed are reflected in both *TOEFL (CBT)* and in this study's research design, and include: 1) non-linguistic performance data, such as non-verbal measures of comprehension of linguistic input in order that inferences can be made about linguistic knowledge, 2) samples of oral and written learner language, which constitute the primary data for investigating L2 acquisition, and 3) reports from learners about their own learning. The three principal methods of data collection which are identified in Ellis and Barkhuizen, and which are also present in *TOEFL (CBT)* [and in this study's research design], include: 1) obtaining samples of 'naturally occurring' language use, 2) eliciting data through the use of specially designed instruments, and 3) verbal reports, e.g., 'self-report' and 'self-observation'. Construct validity is the key theme emphasized throughout Ellis and Barkhuizen, who encourage the use of multiple types of data to attain construct validity, given that no single method will provide a completely valid picture of learner knowledge. The Part IV of the research instrument included a 'Measure of Achievement Motivation',

which was adopted, with full permission, from Dr. Hubert J. M. Hermans, who is a professor of psychology at the University of Nijmegen in the Netherlands. He developed his *Achievement Motivation Measure* for adults as a result of his research into Motivation. The test is an established measure and is used around the world.

In order to ensure validity of the findings derived from this study's qualitative component, a paraphrase or rephrasing technique was used, i.e., the information provided by the participants in the interviews was repeated to them by the researcher, in his (i.e., the researcher's) own words, to confirm whether the researcher had understood the participants' ideas and experiences correctly. The paraphrase was carefully worded to lead to further discussion or increased understanding of the participants' positions. An audit trail was also left, i.e., a record of the processes that were followed to conduct the interviews, how the data was analyzed and interpreted, and of all the materials used and steps followed to conduct this study.

3.3 Participants

The participants for this study were randomly selected male and female volunteers between the ages of 40 and 60 in Puerto Rico through the specially designed questionnaire in Part I of the Research Instrument [see page 198 in Appendix A]. The sample consisted of fifteen ESL learners that had at least eight years of formal ESL training, including four years at high school and four years at university where the medium of instruction was Spanish. They have Spanish as their L1 and have not lived or studied in an English-speaking country. Table 1 [below] shows that all participants met

the established criteria for participation in the study. It also displays each participant's self-perception of his / her ESL skills.

Table 1
Participants' Demographic and Qualifying Information

Participant	Age	Sex	No. of Years in Undergraduate ESL	No. of Years in Graduate ESL	No. of Years in Postgraduate ESL	Total No. of years in ESL	Participant Self-Rating (Not used to qualify participants)
1	51	F	4	2		10	Native-Like
2	47	M	4	2		10	Native-Like
3	45	F	4	2	2	12	Native-Like
4	42	M	4	2		10	Native-Like
5	49	M	4	2	2	12	Native-Like
6	54	F	4	2		10	Native-Like
7	53	F	4	2		10	Native-Like
8	40	F	4			8	Native-Like
9	55	F	4	2		10	Advanced
10	40	F	4	2		10	Advanced
11	41	F	4	2		10	Advanced
12	43	F	4			8	Advanced
13	43	F	4			8	Intermediate
14	41	M	4			8	Intermediate
15	40	M	4			8	Intermediate

3.4 Research Instruments and Procedures

A four-part test instrument was administered to the participants. This included: 1) 'Questionnaire Seeking Participants for Study', 2) 'Informed Consent Statement', 3) 'English Language Proficiency Evaluation', and 4) 'Measure of Achievement Motivation'. After the testing, interviews based upon the categories related to TL competency and IL fossilization were conducted. Follow-up interviews were conducted approximately 6 months after testing.

3.4.1 'Questionnaire Seeking Participants for the Study'

Part I of the research instrument was used to collect the qualifying personal and demographic data of each participant. Participants were located through a 'questionnaire' that was distributed in four agencies / institutions in San Juan. A total of 50 'questionnaires' were distributed and all were returned. The 'questionnaire', [see page 198 in Appendix A], asked for information regarding the age, sex, native language, university studies, degrees, etc. of potential participants. Other questions pertinent to qualification for the study were also asked. Of the 50 questionnaires returned, 16 met the established criteria for participation in the study. One potential participant withdrew when presented with the 'Informed Consent Statement'.

3.4.2 'Informed Consent Statement'

Part II included the 'Informed Consent Statement', [see page 200 in Appendix B]. This had two major purposes: 1) to enable potential participants to make an informed choice as to their participation in a study, and 2) to document their decision / agreement

to participate. The statement contained information regarding the study, the voluntary nature of participation, the amount of time involved, etc. It concluded with an ‘acknowledgment and acceptance’ statement. One participant withdrew upon learning that participation would require a 4 - 5 hour commitment.

3.4.3 ‘English Language Proficiency Evaluation’

Part III of the instrument included an ‘English Language Proficiency Evaluation’, [see page 202 in Appendix C] which measured English language competency through a combined assessment of: 1) ‘Listening / Comprehension’, 2) ‘Fluency / Structure / Grammar’, 3) ‘Reading / Comprehension’, 4) ‘Writing / Essay’, and 5) ‘Verbal Communication / Pronunciation’. Participant responses were recorded, scored, and analyzed by the researcher. Each section was worth 50 points, for a total of 250 points.

The five sections of the ‘English Language Proficiency Evaluation’ were administered utilizing a pre-established protocol / procedure to ensure that investigation conditions would be similar. Participants were individually tested in a computerized language lab environment. Instructions / directions for each section were read to / with the participants, who were also given the opportunity to request clarification regarding the objectives of the research, instructions, etc. Participants continued with each section of the ‘English Language Proficiency Evaluation’ only after doubts had been clarified. The overall time for the assessment was 3 hours. The assessments were computerized, i.e., they were formatted for *Windows XP* and each participant used a laptop computer to record answers. Participants had approximately 1 minute to respond to each question. Responses to the ‘Verbal Communication / Pronunciation’ section of the ‘English Language

Proficiency Evaluation' were tape-recorded and transcribed for analysis. Participants were not notified as to their 'English Language Proficiency Evaluation' scores before taking the 'Measure of Achievement Motive' or before participating in the interviews. They were notified of their 'English Language Proficiency Evaluation' scores, TL Competency / IL Fossilization categories, and 'Measure of Achievement Motivation' scores and levels after the completion of the study during the follow-up interviews.

3.4.4 'Measure of Achievement Motivation'

Part IV included a 'Measure of Achievement Motivation' (MAM) to determine each participant's achievement motive [see page 223 in Appendix D]. MAM is a multiple-choice item questionnaire for the measurement of three motives:

1. Achievement motive, i.e., the tendency to excel in task situations.
2. Debilitating anxiety, i.e., fear of dysfunctioning in stressful task situations, or task situations that lack a clear structure in which the fear has a negative impact on performance.
3. Facilitating anxiety, i.e., fear of dysfunctioning in stressful task situations, or task situations that lack a clear structure in which the fear does not hinder performance, and may actually result in improved performance.

The psychometric properties of Hermans' MAM, when compared to the most commonly used projective measures, including McClelland's Thematic Apperception Test, the French Test of Insight, and the Iowa Picture Interpretation Test, and the questionnaire measures such as the Edwards' Personal Preference Schedule, the California Personality Inventory, the Achievement Via Performance Scale, etc., (whose

validity against external criteria is not convincing), have been empirically established. MAM has sufficient substantive validity, internal consistency, discriminant validity, test-retest reliability, and validity against performance criteria as opposed to the aforementioned tests, which have several critical problems in these areas. MAM is used internationally and is among the top 20 most used tests in a group of over 200 tests measuring achievement motive, and for these reasons, including its relatively simple administration, it was selected for use in this study (Hermans, 1970). The pre-established protocol / procedure, venue, and method of recording answers was the same as for the 'English Language Proficiency Evaluation'. The overall time for this assessment was 30 minutes.

3.4.5 Category-Based Interviews

The qualitative component consisted of four category-based interviews with participants representing learners that had attained TL competency, learners with low or minimal levels of IL fossilization, learners with medium or moderate levels of IL fossilization, and learners with high levels of IL fossilization. The same 'interview format' was used for each category-based interview.

To ensure suitability, the 'interview format' was pilot-tested with three other informants / volunteers who had similar profiles to those who participated in the study before it was utilized with actual participants. Mackey and Gass (2005) emphasize the importance of pilot studies to avoid potential problems in the data of the study. Pilot-testing assisted the researcher to identify ambiguities in the instructions, clarify the wording of questions, etc. Pilot-testing also allowed for both broad and specific reactions

including comments on the length of the interview. This assisted the researcher in determining the effectiveness of the guide and enabled him to make the necessary adjustments.

After the results of the 'English Language Proficiency Evaluation' were analyzed, participants were identified and selected to participate in one of the four category-based interviews to discuss participant perception of the role of motivation and barriers to English language competency, and participant perception regarding the motivational components of TL acquisition.

There was 1 female participant in the 'TL Competency' category, 8 female and 3 male participants (for a total of 11 participants) in the 'Low / Minimal Levels of Fossilization' category, 1 female participant in the 'Medium Levels of Fossilization' category, and 2 male participants in the 'High Levels of Fossilization' category. Selection for each category was based on 'English Language Proficiency Evaluation' scores [see Table 2 on page 106].

The interviews were conducted in a quiet conference room environment. Participants in the 'TL Competency', 'Medium Levels of Fossilization', 'High Levels of Fossilization' category-based interviews sat at a conference table across from the researcher. Participants in the 'Low / Minimal Levels of Fossilization' category-based interview sat around the conference table with the researcher. Each category-based interview lasted approximately 1 hour. During each interview, the researcher took notes, summarizing the input of participants. These notes were read to the participants at the end of each interview session, to allow for correction and / or input by participants. Participants were informed that the notes would constitute the 'minutes' of the session.

To ensure that investigation conditions would be similar, the interviews were conducted utilizing a pre-established protocol / procedure [see Section 3.2 on page 90] and the following open-ended questions were presented for discussion:

1. During your study of ESL, have you experienced periods / areas of temporary cessation of progress or permanent stagnation on the continuum of your development towards competency in English?
2. Do you believe that there is any relationship between your achievement motive and your English language competency, (or your perception of your English language competency)?
3. What factors do you view as barriers to the achievement of competency in English-as-a-second-language?

The answers to these questions were duly recorded as described above. The findings served to elaborate on what was learned through the quantitative research. The combination of qualitative with quantitative research assisted in explaining and vividly illustrating the findings based upon the statistically valid sample of the target population, by using the personal experiences that came out of the interviews.

3.4.6 Follow-up Interviews

Approximately 6 months after the administration of 'ELPE' and 'MAM', and 5 months after the category-based interviews, short semi-structured follow-up interviews were conducted with all participants. These interviews had two objectives: 1) to provide participants with their 'ELPE' and 'MAM' scores, TL competency or IL fossilization

categories, and 'AM' scores and levels; and 2) to obtain linguistically relevant feedback from the participants that could shed additional light on the findings.

The researcher met with each participant individually, and after a short introduction, which included greetings, thanks, and other pleasantries, asked the participant the following questions: 'How do you think that you performed on the 'English Language Proficiency Evaluation' and 'Measure of Achievement Motivation', and what do you think your rankings were in terms of fossilization and achievement motivation?' Following the participant's response to the aforementioned opener, and taking to not offend or provoke the participant, the researcher discussed with the participant the errors that s/he had presented on 'ELPE' and advised the participant of his / her 'ELPE' score and TL competency or IL fossilization category in the most sensitive and supportive manner possible without altering the facts. The researcher proceeded to discuss 'MAM', highlighting the fact that this instrument was not seeking 'correct' or 'incorrect' answers, but rather measuring achievement motive traits and characteristics. The participant was then advised of his / her 'AM' score, and level. The 'minutes' of the participant's individual or group category-based interview were recapped, and finally, mention was made of the participant's original self-rating of English language proficiency as recorded on the 'Questionnaire Seeking Participants for the Study'.

Upon completing the above, an opportunity was created for the participant to express his / her thoughts and feelings in natural conversation regarding the linguistic issues that were raised in the study. Although elicited by the questions below, and prodded along, at times, by open-ended interrogatives such as 'why', 'what', 'how', etc., that provided opportunity for elaboration, clarification, and illustration, and that

encouraged higher thinking, extreme care was taken not to infer or transfer any bias and / or solicit any specific responses. The purpose was to allow the participant full rein to virtually develop his / her own personal 'discourse' in order that linguistic data might be collected. The questions included, but were not limited, to the following:

1. During your study of ESL, have you experienced periods / areas of temporary cessation of progress or permanent stagnation on the continuum of your development towards competency in English? Please explain.
2. Do you believe that there is any relationship between your achievement motive and your English language competency, or your perception / self-assessment of your English language competency? Please explain.
3. What factors do you view as barriers to the achievement of competency in English-as-a-second-language? Please explain.

The aforementioned questions were used as a springboard to elicit information regarding: 1) how awareness of periods / areas of temporary cessation of progress, or permanent stagnation, on the continuum of development towards competency in English are related to 'AM' and to the ability to overcome these periods / areas; 2) the relationship between achievement motive and English language competency, (or perceived English language competency / self-assessment), and moreover if motivation determines competency or competency affects motivation; 3) intrinsically-oriented and extrinsically-oriented barriers to achieving competency in English, and their relationship to achievement motivation and ESL competency; and / or 4) any other information related to this study that participants considered to be important.

3.5 Ethical Considerations

The purpose of the study was explained to participants before they agreed to participate. Special attention was devoted to how the information provided would be used. It was explained that all participant information would be kept confidential and would be used only for the purposes of this research. For this reason, pseudonyms would be used in order to protect participant identities. The participants were informed that participation in the study was strictly voluntary and that they were therefore free to withdraw their participation at any time. All the participants read and signed the 'Informed Consent Statement' in Part II of the research instrument. Once the form was signed, each participant was given a copy for his / her records. Permission was also sought from the participants to tape-record the 'Verbal Communication / Pronunciation' section of the 'English Language Proficiency Evaluation'.

3.7 Summary

In this chapter, the methods and procedures used in this study were identified and described. The research questions were reviewed, followed by a short explanation of the quantitative and qualitative research paradigms, and the reasons for selecting an integrated research design. The validity and reliability of the study and test instruments were discussed in relation to both the quantitative and qualitative components. The manner in which participants were selected, and the demographic and qualifying information of those who participated in the study were presented. Finally, the test instruments were discussed together with procedures and ethical considerations. The purpose of including details of the methodology is to enable others to verify the

authenticity of the results of this research or to replicate this study. Chapter IV presents the data, findings, and analysis.

CHAPTER IV: DATA, FINDINGS, AND ANALYSIS

This study, in general, deals with the question: ‘Does achievement motivation affect the IL fossilization of middle-aged ESL learners who have had at least eight years of formal exposure to the TL?’ To recap, the research was guided by the following questions:

1. Are middle-aged ESL learners aware of their IL fossilization?
2. Is there a relationship between middle-aged ESL learners’ competence (or perceived competence) and achievement motivation?
3. What factors do middle-aged ESL learners view as barriers to their achievement of TL competency?

4.1 Hypotheses

The formulation of the hypotheses is based upon the following definition of the conditions of the experiment:

- A. The non-directional hypotheses, i.e., that there is a systematic relationship between achievement motivation and the IL fossilization of middle-aged ESL learners.
- B. The null hypotheses, i.e., that there is no systematic relationship between achievement motivation and the IL fossilization of middle-aged ESL learners.

In order to explore the relationship of achievement motivation and IL fossilization, it was necessary to first determine the levels of TL competency or IL

fossilization of the participants of the study and to compare that information with each participant's achievement motive.

4.2 'English Language Proficiency Evaluation' Results

Part III of the instrument included an 'English Language Proficiency Evaluation' modified and adopted, with full permission, from Roberta Steinberg's TOEFL CBT, which measured competency through a combined assessment in the following: 1) 'Listening / Comprehension Test', 2) 'Fluency / Structure / Grammar Test', 3) 'Reading / Comprehension Test', 4) 'Writing / Essay Test', and 5) 'Verbal Communication / Pronunciation Test'.

On the combined scores of the 'English Language Proficiency Evaluation', 3 of the male participants had scores of 200 - 236 representing 'Low Levels of IL Fossilization', and 2 had scores of '161 or less' representing 'High Levels of Fossilization'. Of the female participants, 1 had a score of 237 - 250 representing 'TL Competency', 8 had scores of 200 - 236 representing 'Low Levels of IL Fossilization', and 1 had a score of 162 - 199 representing 'Medium Levels of IL Fossilization'.

It is important that these scores be interpreted in the 'real world' context of TL approximation / acquisition and not merely as grade tallies. [Please see Table 2 on page 106]. In order to offer a qualitative perspective on the 'ELPE' results, the following short representative excerpts of the actual writing of participants (in

Table 2

‘English Language Proficiency Evaluation’ Scores

‘English Language Proficiency Evaluation’ Scores	Male Participants		Female Participants		Total Participants
	Participant Numbers	Total	Participant Numbers	Total	
TL Competency 237 – 250			<i>1</i>	1	1
Low Levels IL Fossilization 200 – 236	<i>2, 4, 5</i>	3	<i>3, 6, 7, 8, 9, 10, 11, 12</i>	8	11
Medium Levels IL Fossilization 162 – 169			<i>13</i>	1	1
High Levels IL Fossilization 161 or less	<i>14, 15</i>	2			2

The Table shows the distribution of the ‘ELPE’ scores with ‘TL Competency’ and ‘IL Fossilization’ levels for both male and female participants. It also shows the total distribution.

response to the question in the 'Writing / Essay Test': 'What factors do you view as barriers to the achievement of competency in English-as-a-second-language?') are included. One participant from each category was selected. Participant pseudonyms are used.

In this first example, 'Lsoto', a female who, with a score of 242, was the only participant in the study to obtain a score corresponding to 'TL Competency', wrote:

I believe that lack of self-discipline is the principle barrier to achievement of competency in English-as-a-second language... Unfortunately, today, everyone seems to be looking for a handout. People lack self-discipline. Part of the problem rests in a failure to identify and set goals. To set goals, it is necessary to determine what you really want to do. It seems that there are so many options today, so many alternatives, that people don't know what they want. Since they don't know what they want, they make commitments or take on challenges half-heartedly. The desire is lacking to follow things through, to sacrifice in order to achieve. This makes self-discipline almost impossible. That's why people in Puerto Rico can study English all of their lives, hear it on the radio and TV everyday, etc. and after 20 or 30 years, still not speak English.

This extract demonstrates the participant's English language competency and fluency.

The sample demonstrates syntactic variety, appropriate word choice, consistent facility in the use of English, etc. The participant's performance on the 'Writing / Essay Test' is reflective of her overall performance and she presented a total of 4 incorrect responses on the 'English Language Proficiency Evaluation'.

In the next example, 'Acolon', a male who, with a score of 222.5, was one of 11 participants in the 'Low Levels of IL Fossilization' category, wrote the following (*italics* denote errors and [brackets] are corrections):

Although ineffective teachers and teaching techniques [can] contribute to [the] achievement of competency in English-as-a-second-language,

psycho-social development is also an important factor. Some people have learning disorders *which* [that] make it almost impossible [for them] to learn [another language]. These disorders are characterized by academic functioning that *are* [is] substantially below that expected, given the *persons* [person's] chronological age, measured intelligence, and age appropriate education. Others suffer from MR *disorder* [disorders] *thats* [that are] characterized by significantly sub-average intellectual functioning with an IQ of approximately 70 or below *with* [and] onset before age 18.

This extract demonstrates the writer's skills and fluency, but there are errors in article use, missing words, subject-verb agreement, plurals, prepositions, etc. An adequate vocabulary range is displayed. This participant's performance on the 'Writing / Essay Test' is reflective of his overall performance and he presented a total of 27 incorrect responses on the 'English Language Proficiency Evaluation'. His performance is representative of the 'Low Levels of IL Fossilization' category.

In this next example, 'Adiaz', a female who, with a score of 199, was the only participant in the 'Medium Levels of IL Fossilization' category wrote:

The achievement of competency in *english* [English]-as-a-second-language is difficult in Puerto Rico. Spanish is used in daily conversations. English is *consider* [considered] to be hard to pronounce and since everyone *prefer* [prefers] to speak *spanish* [Spanish] *its* [it's or it is] hard to practice. It is possible to listen to *english* [English] on the radio and to *sing a long* [sing-a-long] but *nobody* [no one is] there to listen to you and [to] *fix* [correct] your mistakes. Sometimes [the] *english* [English] on *the* television or in *the* videos *are* [is] not correct and *sometimes* [at times] *its* [it's] rude and *use* [contains] bad language. *Its* [It's] so hard to study *english* [English] when you *here* [hear] *spanish* [Spanish] all day. The worst part is that if you make a mistake, people will laugh *on* [at] you.

There are numerous errors in this extract, including subject-verb agreement, word choice, contractions, spelling, use of prepositions etc. There is a noticeably inappropriate choice of words and word forms. This is the result of a limited vocabulary. There is also a high

number of errors in sentence structure and usage. This participant's performance on the 'Writing / Essay Test' is reflective of her overall performance and she presented a total of 52 incorrect responses on the 'English Language Proficiency Evaluation'.

In this final example, 'Nlopez', a male who, with a score of 116, was one of two participants in the 'High Levels of IL Fossilization' category, wrote:

The factors they stop [impede] to the achievement of competence in English-as-a-second-language involves [involve] the power of the brain [mind(?)]. Some people doesnt [do not] learn because he cant [they cannot] learn English. He doesnt been [They are simply not] born with that kind of talent. Maybe he has another talent [they have other talents] like in mathematics or algebra[,] but he cant [they cannot] learn English. Its like a computer. He doesnt have a program he cant do the work. Doesnt matter what he does he just cant do it. [The last 3 'sentences' must be re-written].

This extract has serious and persistent errors in sentence structure and usage. There are errors in syntax, article use, word choice and form, contractions, punctuation, subject-verb agreement, pronoun use, missing words, use of prepositions, etc. This participant's performance on the 'Writing / Essay Test' is reflective of his overall performance and he presented a total of 133 incorrect responses on the 'English Language Proficiency Evaluation'.

A simple categorization and analysis of the fossilized features in participant responses to the questions of the 'Verbal Communication / Pronunciation Test' can also afford a qualitative understanding of the linguistic reality that the 'ELPE' scores represent. For example, among the 11 participants in the 'Low Levels of IL Fossilization' category, the principal fossilized features were related to tense, phonology, and lexis. Features that related to tense, but that also related to phonology, include: 1) the

omission of the third person present tense marker /z/ as in /mi:n/ for 'means', /ɪm'plai/ for 'implies', /di:'sɜrv/ for 'deserves', etc. by 9 of the 11 participants; and 2) the omission of the final past tense marker /^əd/ or /d/ as in /ɛ'lɛkt/ for 'elected', sometimes compensated with the addition of an almost half syllable as in /'tʃɛɪnj^ə/ for 'changed', /ɛ'lɛkt^ə/ for 'elected', /su:'jɛst^ə/ for 'suggested', etc. or invariably, overcompensated with the addition of an extra syllable and compensatory emphasized final /d/ as in /'tʃɛɪnj.^əd/ for 'changed', /hɛlp.ed/ for 'helped', etc. by 7 of the 11 participants.

Features related to phonology include: 1) the use of /tʃ/ for /ʃ/, e.g., the use of /tʃi:/ for 'she' by 8 of the 11 participants; 2) final consonant(s) omission, including stops, or plosives, and fricatives, (especially plural markers), in words such as /bi:r/ for 'beard', /əʊl/ for 'old', /maɪn/ for 'mind', /gɜrl/ for girls, /'stɜ:dn/ for 'students', etc. by 6 participants; 3) the use of /j/ instead of /dʒ/ as in /su:'jɛstɛd/ for 'suggested' by 4 participants; and 4) the tendency to occasionally slip into the use of Spanish vowels to replace shorter English vowels and / or diphthongs in words such as /'ɑ:brɑ:hɑ:m/ for 'Abraham', /ɑ:'drɛs/ for 'address', /'li:brɛri:/ for 'library', /mi:t/ for 'met', /lɛɪtɜr/ for 'letter', /'ti:kɛt/ for 'tickets', etc. by 10 of the 11 participants; etc.

Fossilization at the level of lexis includes the pronunciation of the word 'withdraw' in a fossilized form, i.e., /'wi:sdrəʊ/, by 3 participants. This is particularly interesting because it appears that the word 'withdraw' was actually learned in a deviant form since the same participants were able to pronounce /θ/ and /ɔ/ or /ɔ:/ without difficulty in other words. Participants may have therefore chosen not to acquire the

correct form because they believed that they had already incorporated it into their TL lexicon. It may also be possible that participants perceived a correspondence between L1 and L2 forms, i.e., /s/ and /θ/, and /əʊ/ and /ɔ/ or /ɔ:/, and the L1 form was therefore transferred and used in the L2. Because of this perception, participants may have avoided acquiring the L2 form, as this may have been perceived as a duplication of effort. However, this seems unlikely in this case for the reasons stated above. At any rate, the incorrect usage will persist until the form used by participants is recognized as being deviant or the L1 and L2 forms are no longer perceived as being identical.

It should be noted that neither the fossilized features in the speech of the participants of the 'Low Levels of IL Fossilization' category, nor those of the participants of the other IL Fossilization categories, necessarily mirrored the fossilized lexical and syntactic features found in their corresponding 'Writing / Essay Test'. This demonstrates that the correct form is sometimes known, but not utilized in speech. [Please see Tables 3 - 6 on pages 112 - 115 for a comparison of lexical, syntactic, and phonological, fossilization in the results of the 'Writing / Essay' and 'Verbal Communication / Pronunciation' tests].

To recap, an analysis of the fossilized features in participant responses to the questions of the 'Verbal Communication / Pronunciation Test' demonstrates that fossilization occurs at different levels, i.e., at the level of phonology, lexis, syntax, morphology, etc. The comprehensive nature of 'ELPE' facilitated the identification of fossilization at these levels.

Table 3

Lexical and Syntactic Fossilization vs. Phonological Fossilization in 'Low Levels of IL Fossilization' Category: Participants 2 - 7

Participant	Extracts From 'Writing / Essay Test' (<i>Italics</i> denote errors, [brackets], corrections)	Fossilized Features in Responses to 'Verbal Communication / Pronunciation Test'
2.	There are many barriers to [the] achievement of competency.... The first barrier is the <i>general</i> [generally] poor quality of education <i>in</i> [on] the island...	/ˈwi:sdrəʊ/ for <i>withdraw</i> , /ɪnsɪnju:ˈeɪt/ for <i>insinuates</i> , /ɑ:di:ˈtɔ:ri:u:m/ for <i>auditorium</i>
3.	The chief barrier to the achievement of competency... is the individual <i>students</i> [student's] capacity to learn. Each person is bound by <i>their</i> [his or her] genes...	/tʃi:/ for <i>she</i> , /ˈtʃeɪnʒ/ for <i>changed</i>
4.	Classes in poor areas are <i>over crowded</i> [overcrowded]... Teachers in poor areas <i>sometime</i> [sometimes] believe that children in poor areas... are unable to learn and <i>so</i> [therefore] they do not put a lot <i>a</i> [of] effort into teaching...	/tʃi:/ for <i>she</i> , /ˈɑ:bɹɑ:hɑ:m/ for <i>Abraham</i> , /ˈeɪtɪ:n ˈsi:sti:/ for <i>1860</i>
5.	These disorders are characterized by academic functioning that <i>are</i> [is] substantially below that expected, given the <i>persons</i> [person's] chronological age... Others suffer from MR <i>disorder</i> [disorders] <i>thats</i> [that are] characterized by significantly sub-average intellectual functioning...	/tʃi:/ for <i>she</i> , /di:ˈsɜ:v/ for <i>deserves</i> , /hɛlped/ for <i>helped</i> , /ɛɪˈlekted/ for <i>elected</i> , /su:ˈjested/ for <i>suggested</i>
6.	A major barrier to the achievement of English-as-a-second language competency in Puerto Rico <i>are</i> [is] the out-dated teaching techniques and methods. The programs seem almost <i>to be design</i> [designed] to 'turn students off'...	/tʃi:/ for <i>she</i> , /ɪnsɪnju:ˈeɪt/ for <i>insinuates</i> , /ˈɔ:rkɛstrɑ:/ for <i>orchestras</i> , /ɛˈlekt/ for <i>elected</i>
7.	The principle <i>barriers</i> [barrier] to the achievement of competency... <i>is</i> [is] the outdated teaching method... Although <i>its</i> [it is] important, little attention is given to conversation <i>that</i> [which] is the most important aspect of language learning...	/ˈtʃeɪnʒ/ for <i>changed</i> , /ˈstu:dɛn/ for <i>students</i> , /ɪnsɪnju:ˈeɪt/ for <i>insinuates</i> , /ˈwi:sdrəʊ/ for <i>withdraw</i> , /ˈsɜ:vɪs/ for <i>services</i> , /ɛˈlekt/ for <i>elected</i> , /ˈɑ:bɹɑ:hɑ:m/ for <i>Abraham</i> , /bi:ɪ/ for <i>beard</i>

Table 4

Lexical and Syntactic Fossilization vs. Phonological Fossilization in 'Low Levels of IL Fossilization' Category: Participants 8 - 12

Participant	Extracts From 'Writing / Essay Test' (<i>Italics</i> denote errors, [brackets], corrections)	Fossilized Features in Responses to 'Verbal Communication / Pronunciation Test'
8.	<i>Its</i> [It's] crazy. How can you... learn in a <i>like that</i> situation [like that]. <i>In</i> [At] university, <i>the</i> young people are going through their <i>rebellion</i> [rebellious] stage and think that learning... will make them stop <i>to be</i> [being] Puerto Rican...	/ɑ:'dres/ for <i>address</i> , /tʃi:/ for <i>she</i> , /mi:n/ for <i>means</i> , /tu:'tʃəʊn/ for <i>tuition</i> , /'tɪkət/ for <i>tickets</i> , /lɛɪtər/ for <i>letter</i>
9.	[The] <i>Teaching</i> of English in schools and <i>in</i> universities is <i>an</i> [a] half-hearted effort <i>although</i> [even though] English is a required course. Teachers are <i>poor</i> [poorly] trained... Grammar rules <i>is</i> [are] not studied, even in Spanish...	/mi:n/ for <i>means</i> , /tʃi:/ for <i>she</i> , /'tʃeɪnɪʒd/ for <i>changed</i> , /'wi:sdrəʊ/ for <i>withdraw</i> , /ɪnsɪnju:'eɪt/ for <i>insinuates</i> , /'sɜ:vɪs/ for <i>services</i> , /jəʊb/ for <i>jobs</i> , /gɜ:rl/ for <i>girls</i> , /bi:r/ for <i>beard</i>
10.	<i>In</i> elementary <i>school</i> and <i>in</i> high school, the classrooms <i>is</i> [are] crowded and teachers <i>can not</i> [cannot] give the attention needed to <i>the</i> students... <i>In</i> the university, learning English is not a priority and is <i>sometime</i> [sometimes] seen to be [a] political [act] or <i>denying</i> [the denial] of Puerto Rican identity...	/mi:n/ for <i>means</i> , /'tʃeɪnɪʒd/ for <i>changed</i> , /maɪn/ for <i>mind</i> , /'stju:ðən/ for <i>students</i> , /əʊ/ for <i>of</i> , /ɑ:'gri:/ for <i>agrees</i> , /'məʊni:/ for <i>money</i> , /ri:'kwairmənt/ for <i>requirement</i> , /'sɜ:vɪs/ for <i>services</i> , /dɪs'ku:tʃəʊn/ for <i>discussion</i> , /'li:brəri:/ for <i>library</i> , /'ɔ:rkɛstrə:/ for <i>orchestras</i> , /'tɪkət/ for <i>tickets</i> , /ɛ'lekt/ for <i>elected</i> , /su:'jɛst/ for <i>suggested</i> , /bi:r/ for <i>beard</i> , /'eɪtɪn'sɪstɪ/ for <i>1860</i> , /əʊl/ for <i>old</i> , /mi:t/ for <i>met</i>
11.	<i>Professor</i> [Professors] don't care if <i>student</i> [students] have good... They don't explain [to] <i>the</i> students the rules <i>about</i> [of] English. They use stupid text books that make students lose <i>his</i> [their] interest...	/mi:n/ for <i>means</i> , /ɪm'plaɪ/ for <i>implies</i> , /'tʃeɪnɪʒd/ for <i>changed</i> , /'stju:ðən/ for <i>students</i> , /ɪnsɪnju:'eɪt/ for <i>insinuates</i> , /'wi:sdrəʊ/ for <i>withdraw</i> , /'sɜ:vɪs/ for <i>services</i> , /gɜ:rl/ for <i>girls</i> , /bi:r/ for <i>beard</i> / /fi:rs/ for <i>fierce</i>
12.	In Puerto Rico[,] when you make a mistake, people laugh <i>on</i> [at] you and make fun <i>on</i> [of] you... teachers have to... discourage [the] <i>make</i> [making of] fun of the others...	/mi:n/ for <i>means</i> , /tʃi:/ for <i>she</i> , /ɪm'plaɪ/ for <i>implies</i> , /'stju:ðən/ for <i>students</i> , /dɪ:'sɜ:v/ for <i>deserves</i> , /ɪnsɪnju:'eɪt/ for <i>insinuates</i> , /'tɪkət/ for <i>tickets</i> , /bi:r/ for <i>beard</i>

Table 5

Lexical and Syntactic Fossilization vs. Phonological Fossilization in 'Medium Levels of IL Fossilization' Category: Participant 13

Participant	Extracts From 'Writing / Essay Test' (<i>Italics</i> denote errors, [brackets], corrections)	Fossilized Features in Responses to 'Verbal Communication / Pronunciation Test'
13.	<p>The achievement of competency in <i>english</i> [English]-as-a-second-language is difficult in Puerto Rico. Spanish is used in daily conversations. English is <i>consider</i> [considered] to be hard to pronounce and since everyone <i>prefer</i> [prefers] to speak <i>spanish</i> [Spanish] <i>its</i> [it's or it is] hard to practice. It is possible to listen to <i>english</i> [English] on the radio and to <i>sing a long</i> [sing-a-long] but <i>nobody</i> [no one is] there to listen to you and [to] <i>fix</i> [correct] your mistakes. Sometimes [the] <i>english</i> [English] on <i>the</i> television or in <i>the</i> videos <i>are</i> [is] not correct and <i>sometimes</i> [at times] <i>its</i> [it's] rude and <i>use</i> [contains] bad language. <i>Its</i> [It's] so hard to study <i>english</i> [English] when you <i>here</i> [hear] <i>spanish</i> [Spanish] all day. The worst part is that if you make a mistake, people will laugh <i>on</i> [at] you...</p>	<p>/ˈvi:si:t/ for <i>visited</i>, /tʃi:/ for <i>she</i>, /mi:'nu:t/ for <i>minutes</i>, /i:n'plai/ for <i>implies</i>, /mi:n/ for <i>means</i>, /a:'gri:/ for <i>agrees</i>, /i:nsɪnju:'eɪt/ for <i>insinuates</i>, /di:'seɪrv/ for <i>deserves</i>, /hɑ:s/ for <i>has</i>, /'ti:ket/ for <i>tickets</i>, /bɪ:r/ for <i>beard</i></p>

Table 6

Lexical and Syntactic Fossilization vs. Phonological Fossilization in 'High Levels of IL Fossilization' Category: Participants 14 and 15

Participant	Extracts From 'Writing / Essay Test' (<i>Italics</i> denote errors, [brackets], corrections)	Fossilized Features in Responses to 'Verbal Communication / Pronunciation Test'
14.	<p><i>Its</i> [It's] too <i>hard</i> to <i>say</i> [explain] the reasons [why] people in Puerto Rico <i>can not achievement of</i> [cannot achieve] competency in English-as-a-second-language. Some <i>peoples</i> [people] can learn English <i>easy</i> [easily]. Some <i>don't</i> learn no matter how <i>she tries to learn</i>. I think [that this ability is] <i>its ability</i> given in [at] birth. English is difficult to learn for the people [who] <i>speaks</i> Spanish. You write English one way and <i>talk other</i> [speak another] way. Words <i>write</i> [are written] in two [different] ways but you say [them] the same [way]. This is confusing for <i>the</i> Spanish people. In Spanish you write everything <i>like you say</i>. It is [a] very <i>normal</i> language...</p>	<p>/dʊ/ for <i>the</i>, /'vi:si:t/ for <i>visited</i>, /tʃi:/ for <i>she</i>, /'tʃeɪnʒd/ for <i>changed</i>, /i:n'plai/ for <i>implies</i>, /təʊt/ for <i>thought</i>, /'estu:den/ for <i>students</i>, /ɑ:'gri:/ for <i>agrees</i>, /di:'sɛɪrv/ for <i>deserves</i>, /fɑ:nɑ:nsi:ɒl/ for <i>financial</i>, /tu:'i:tʃəʊn/ for <i>tuition</i>, /'məʊni:/ for <i>money</i>, /ju:s/ for <i>used</i>, /di:'skʊ:tʃəʊn/ for <i>discussion</i>, /'laɪvɡɑ:r/ for <i>lifeguard</i>, /'kəʊnsɛɪr/ for <i>concert</i>, /ɑʊdi:'tɔ:ri:ʊm/ for <i>auditorium</i>, /əʊl/ for <i>all</i>, /'lektʃr/ for <i>lecture</i>, /'ɑ:brɑ:hɑ:m/ for <i>Abraham</i>, /e'lekt/ for <i>elected</i>, /bi:r/ for <i>beard</i>, /mi:t/ for <i>met</i>, /'eɪtɪn 'si:sti:/ for <i>1860</i></p>
15.	<p><i>The</i> factors <i>they stop</i> [impede] to the achievement of competence in English-as-a-second-language <i>involves</i> [involve] the power of the <i>brain</i> [mind(?)]. Some people <i>doesnt</i> [do not] learn because <i>he cant</i> [they cannot] learn English. <i>He doesnt been</i> [They are simply not] born with that kind of talent. Maybe <i>he has another talent</i> [they have other talents] <i>like</i> in mathematics or algebra[,] but <i>he cant</i> [they cannot] learn English. <i>Its like a computer</i>. <i>He doesnt have a program he cant do the work</i>. <i>Doesnt matter what he does he just cant do it...</i></p>	<p>/mi:n/ for <i>means</i>, /'vi:si:t/ for <i>visited</i>, /nəʊ/ for <i>known</i>, /dʊ/ for <i>the</i>, /tʃi:/ for <i>she</i>, /mi:'nu:t/ for <i>minutes</i>, /i:n'plai/ for <i>implies</i>, /'tʃeɪnʒ/ for <i>changes</i>, /təʊt/ for <i>thought</i>, /ɑ:'gri:/ for <i>agreed</i>, /'estu:den/ for <i>students</i>, /ɑ:'gri:/ for <i>agrees</i>, /i:nsi:nju:'eɪt/ for <i>insinuates</i>, /di:'sɛɪrv/ for <i>deserves</i>, /'esɛɪrvɪ:s/ for <i>services</i>, /jəʊb/ for <i>jobs</i>, /'li:bɹeri:, for <i>library</i>, /'ɔ:rkɛstrə/ for <i>orchestras</i>, /'ti:kɛɪt/ for <i>tickets</i>, /həʊ/ for <i>how</i>, /'leɪtɜ:/ for <i>letter</i>, /hɛɪlp/ for <i>helped</i>, /su:'jest/ for <i>suggested</i>, /bi:r/ for <i>beard</i>, /'eɪtɪn 'si:sti:/ for <i>1860</i>, /jɪr əʊl/ for <i>year old</i>, /'kɑ:mpeɪn/ for <i>campaign</i>, /i:'leɪtʃəʊn/ for <i>election</i>, /mi:t/ for <i>met</i>, /sɛnk'd/ for <i>thanked</i></p>

4.2.1 'Listening / Comprehension Test'

The distribution of the 'Listening / Comprehension Test' scores for both male and female participants is shown in Table 7 [below].

Table 7

Results of the 'Listening / Comprehension Test'

'Listening / Comprehension Test' Scores	Male Participants		Female Participants		Total Participants
	Participant Numbers	Total	Participant Numbers	Total	
50	<i>3, 4, 5</i>	3	<i>6, 7, 9, 10, 11</i>	5	8
48 - 49		0	<i>1, 2</i>	2	2
46 - 47		0	<i>8</i>	1	1
44 - 45		0	<i>12</i>	1	1
42 - 43		0	<i>13</i>	1	1
40 - 41		0		0	0
38 - 39		0		0	0
36 - 37	<i>15</i>	1		0	1
34 - 35	<i>14</i>	1		0	1
32 - 33		0		0	0
30 - 31		0		0	0
28 - 29		0		0	0
26 - 27		0		0	0
25 or below		0		0	0
Total		5		10	15

4.2.2 'Fluency/ Grammar / Structure Test'

The distribution of the 'Fluency / Grammar / Structure Test' scores for both male and female participants is shown in Table 8 below.

Table 8

Results of the 'Fluency / Grammar / Structure Test'

'Fluency / Grammar / Structure Test' Scores	Male Participants		Female Participants		Total Participants
	Participant Numbers	Total	Participant Numbers	Total	
50		0		0	0
48 - 49	2	1		0	1
46 - 47	4	1		0	1
44 - 45		0	1	1	1
42 - 43		0	3, 13	2	2
40 - 41	5	1	12	1	2
38 - 39		0	6, 7, 8	3	3
36 - 37		0	9, 11	2	2
34 - 35		0	10	1	1
32 - 33		0		0	0
30 - 31		0		0	0
28 - 29		0		0	0
26 - 27		0		0	0
25 or below	14, 15	2		0	2
Total		5		10	15

4.2.3 'Reading / Comprehension Test'

The distribution of the 'Reading / Comprehension Test' scores for both male and female participants is shown in Table 9 below.

Table 9

Results of the 'Reading / Comprehension Test'

'Reading / Comprehension Test' Scores	Male Participants		Female Participants		Total Participants
	Participant Numbers	Total	Participant Numbers	Total	
50	4	1	1, 3	2	3
48 - 49	2, 5	2	7, 8, 10, 11, 12	5	7
46 - 47		0	6, 9, 13	3	3
44 - 45		0		0	0
42 - 43		0		0	0
40 - 41		0		0	0
38 - 39		0		0	0
36 - 37		0		0	0
34 - 35	14	1		0	1
32 - 33		0		0	0
30 - 31		0		0	0
28 - 29		0		0	0
26 - 27		0		0	0
25 or below	16	1		0	1
Total		5		10	15

4.2.4 'Writing / Essay Test'

The distribution of the 'Writing / Essay Test' scores for both male and female participants is shown in Table 10 below.

Table 10

Results of the 'Writing / Essay Test'

'Writing / Essay Test' Scores	Male Participants		Female Participants		Total Participants
	Participant Numbers	Total	Participant Numbers	Total	
50		0	1	1	1
48 - 49		0		0	0
46 - 47		0		0	0
44 - 45		0	3	1	1
42 - 43		0	6	1	1
40 - 41	2	1	9	1	2
38 - 39	4, 5	2	7, 8	2	4
36 - 37		0	10	1	1
34 - 35		0		0	0
32 - 33		0		0	0
30 - 31		0	12	1	1
28 - 29	14	1	11, 13	2	3
26 - 27		0		0	0
25 or below	15	1		0	1
Total		5		10	15

4.2.5 'Verbal Communication / Pronunciation Test'

The distribution of the 'Verbal Communication / Pronunciation Test' scores for both male and female participants is shown in Table 11 below.

Table 11

Results of the 'Verbal Communication / Pronunciation Test'

'Verbal Communication / Pronunciation Test' Scores	Male Participants		Female Participants		Total Participants
	Participant Numbers	Total	Participant Numbers	Total	
50		0	<i>1</i>	1	1
48 - 49	<i>2</i>	1		0	1
46 - 47	<i>4, 5</i>	2	<i>3, 6, 8</i>	3	5
44 - 45		0	<i>7, 9, 11</i>	3	3
42 - 43		0	<i>12</i>	1	1
40 - 41		0	<i>13</i>	1	1
38 - 39		0	<i>10</i>	1	1
36 - 37		0		0	0
34 - 35	<i>14</i>	1		0	1
32 - 33		0		0	0
30 - 31	<i>15</i>	1		0	1
28 - 29		0		0	0
26 - 27		0		0	0
25 or below		0		0	0
Total		5		10	15

4.3 Results of the 'Measure of Achievement Motivation'

The distribution of the 'Measure of Achievement Motivation' scores for both male and female participants is shown in Table 12 below.

Table 12

'Measure of Achievement Motive' Scores

'Measure of Achievement Motive' Scores	Male Participants		Female Participants		Total Participants
	Participant Numbers	Total	Participant Numbers	Total	
High Achievement Motive 104 - 116			<i>1</i>	1	1
High / Medium Achievement Motive 91 - 103			<i>3, 6, 7, 9</i>	4	4
Medium / Low Achievement Motive 78 - 90	<i>2, 4, 5</i>	3	<i>8, 10, 11, 12</i>	4	7
Medium / Low Achievement Motive 65 - 77			<i>13</i>	1	1
Low Achievement Motive Under 65	<i>14, 15</i>	2			2

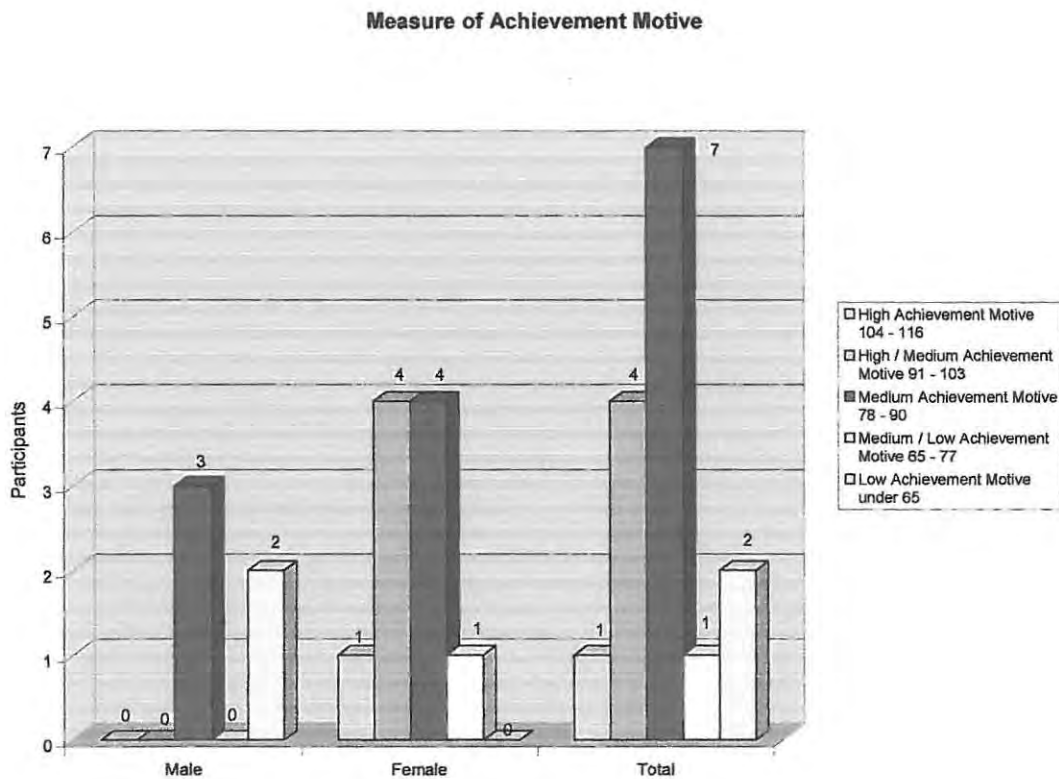


Figure 1: 'Measure of Achievement Motivation' Scores

This graph show the distribution of the 'Measure of Achievement Motivation' scores over 5 categories, i.e., 'High Achievement Motive', 'High / Medium Achievement Motive', 'Medium Achievement Motive', 'Medium / Low Achievement Motive', and 'Low Achievement Motive'.

4.4 Correlations: 'English Language Proficiency Evaluation'

vs. 'Measure of Achievement Motivation' Scores

The scores of the 'English Language Proficiency Evaluation' (ELPE) were examined in relation to the scores of the 'Measure of Achievement Motivation' (MAM) [see Table 13 on page 126 and Figure 2 on page 127]. The correlation between two variables reflects the degree to which the variables are related. The most common measure of correlation is the 'Pearson Product Moment Correlation' (also known as Pearson's Correlation). When computed in a sample, the Pearson Product Moment Correlation is designated by the letter 'r'. Pearson's Correlation reflects the degree of linear relationship between two variables. It ranges from +1 to -1. A correlation of +1 means that there is a perfect positive linear relationship between variables (Moore, 2004). The scatterplot graph, [see Figure 2 on page 127], depicts a moderate / strong positive relationship between the variables in this study. It is a positive relationship because high scores on the X-axis are associated with high scores on the Y-axis. The Pearson Correlation is $r = 0.785$. The p -value = 0.001.

A p -value is a measure of how much evidence exists against the null hypotheses (H_0). The smaller the p -value, the more evidence against the H_0 . Researchers will reject a hypothesis if the p -value is less than 0.05 as pre-established in this research. However, researchers will often use a stricter cut-off, e.g., 0.01, or a more liberal cut-off, e.g., 0.10. The general rule is that a small p -value is evidence against the H_0 while a large p -value means little or no evidence against the H_0 . It should be noted that little or no evidence against the H_0 is not the same as evidence for the H_0 . The p -value of 0.001 also indicates that the association between the response and the predictor is statistically significant,

comparing the p-value with the alpha level selected (i.e., 0.05), $p = 0.001$ for the Pearson Correlation coefficient as well as for the regression analysis (described below). The variables are related significantly and there exists a dependence relationship. The findings therefore negate the H_0 of this research.

Regression analysis is a statistical method where the mean of one, or more, random variables is predicted / conditioned on other variables. The simplest form of a regression model contains a dependent variable or 'Y-variable' and a single independent variable or 'X-variable'. In the case of this research, the regression equation is shown in Table 14 on page 128. Again, as in Pearson's Correlation, the findings negate the H_0 of this study.

The Chi-square is a non-parametric test of statistical significance for bivariate tabular analysis. Chi-square significance test operates by comparing observed frequencies to the frequencies expected if there were no relationship at all between the two variables. Please see the frequencies, or counts, in Table 15 on page 129. The expected counts are below the observed counts, and Chi-square contributions are below the expected counts. When the results are sufficiently different from the predicted H_0 results, as above, the H_0 can be rejected and it can be concluded that a statistically significant relationship exists between the variables.

Applying Chi-square to small samples exposes the research to the possibility of error. However, there is no accepted cutoff. Some set the minimum sample size at 50, while others would allow as few as 15. However, determining the critical value for the Chi-square, especially in this case, 21.03, is helpful. When the calculated Chi-square value is equal to or greater than the critical value, it can be concluded that the probability

of the H0 being correct is 0.05 or less. The calculated value of 45 is greater than the critical value of 21.03. The H0 can therefore be rejected and it can be concluded that there is a significant difference between the observed and expected frequencies. Critical values for the Chi-square are determined from a statistical table based on the significance level at which the test is being performed [0.05 in our case] and the degrees of freedom. The variables are related significantly and there exists a dependence relationship. The Chi-square findings negate the H0 and validate the non-directional hypotheses, i.e., that there is a systematic relationship between achievement motivation and the IL fossilization of middle-aged ESL learners who participated in this study [see Table 16 on page 130].

The following table, i.e., Table 13 on page 126 provides 'ELPE' and 'MAM' scores. An 'ELPE' score between 237-250 represents TL competency, a score between 200-236 represents 'Low' levels of IL fossilization, 162-199 represents 'Moderate' levels, and 161 or less represents 'High' levels of IL fossilization. A 'MAM' score between 104-116 represent 'High' Achievement Motive (AM), 91-103 represents 'High / Medium' AM, 78-90 represents 'Medium' AM, 65-77 represents 'Medium / Low' AM, and a score under 65 represents 'Low' AM.

Sections 4.4.1 - 4.4.5 illustrate some of the correlations that exist between the 'English Language Proficiency Evaluation' (ELPE) and 'Measure of Achievement Motivation' (MAM) scores in relation to extraneous variables, and I discuss the significance of these correlations in section 4.4.6.

Table 13

'English Language Proficiency Evaluation' (ELPE) vs. 'Measure of Achievement Motivation' (MAM) Scores

Participant Number	Participant Age and Sex	ELPE Scores	MAM Scores	Participant Self-Rating
1	51 - Female	242.0	114	Native-like
2	47 - Male	235.5	84	Native-like
3	45 - Female	232.0	102	Native-like
4	42 - Male	231.5	78	Native-like
5	49 - Male	222.5	86	Native-like
6	54 - Female	222.0	100	Native-like
7	53 - Female	220.0	97	Native-like
8	40 - Female	217.5	85	Native-like
9	55 - Female	216.5	99	Advanced
10	40 - Female	207.5	86	Advanced
11	41 - Female	206.5	89	Advanced
12	43 - Female	205.0	87	Advanced
13	43 - Female	199.0	76	Intermediate
14	41 - Male	156.0	64	Intermediate
15	40 - Male	116.0	60	Intermediate

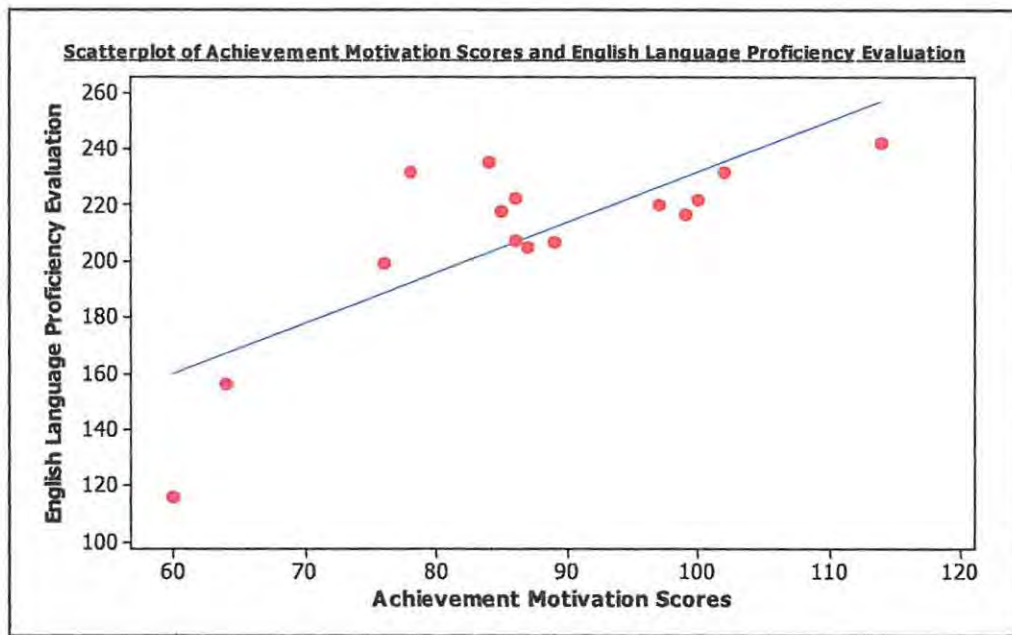


Figure 2: ‘English Language Proficiency Evaluation’ (ELPE) vs. ‘Measure of Achievement Motivation’ (MAM) Scores

This graph shows that there is a moderate / strong positive relationship between the variables in this study, i.e., TL Competency / IL Fossilization vs. Achievement Motivation.

Table 14

Regression Analysis: 'English Language Proficiency Evaluation' Scores vs. 'Measure of Achievement Motivation' Scores

<i>Y = 51.6 + 1.80 X (X represents Achievement Motivation Scores an Y represents English Language Proficiency Evaluation Scores)</i>				
Predictor	Coef	SE Coef	T	P
Constant	51.57	34.81	1.48	0.162
Achievement Motive Scores	1.8026	0.3946	4.57	0.001
Critical t = 2.14 Experimental t = 4.57		The significant level was pre-selected at 0.05		

Table 15

Chi-Square Frequencies / Counts

	C11	C12	C13	C14	C15	Total
1	1	0	0	0	0	1
	0.07	0.27	0.47	0.07	0.13	
	13.067	0.267	0.467	0.067	0.133	
2	0	4	7	0	0	11
	0.73	2.93	5.13	0.73	1.47	
	0.733	0.388	0.679	0.733	1.467	
3	0	0	0	1	0	1
	0.07	0.27	0.47	0.07	0.13	
	0.067	0.267	0.467	13.067	0.133	
4	0	0	0	0	2	2
	0.13	0.53	0.93	0.13	0.27	
	0.133	0.533	0.933	0.133	11.267	
Total	1	4	7	1	2	15

Please note: C11 = High Achievement Motive (AM), C12 = High / Medium AM, C13 = Medium AM, C14 = Medium / Low AM, and C15 = Low AM. Numbers 1-4 on the X-axis, in the left-most column, correspond to TL Competency, Minimal Fossilization, Moderate Fossilization, and Severe Fossilization.

The expected counts are printed below the observed counts. Chi-Square contributions are printed below the expected counts.

Table 16

Chi-Square Test

CHI-SQUARE TEST		TL Competency	Minimal Fossilization	Moderate Fossilization	Severe Fossilization	Total
		237 - 250	200 - 236	162 - 169	161 or less	
High Achievement Motive	104-116	1	0	0	0	1
High / Medium Achievement Motive	91-103	0	4	0	0	4
Medium Achievement Motive	78-90	0	7	0	0	7
Medium / Low Achievement Motive	65-77	0	0	1	0	1
Low Achievement Motive	Under 65	0	0	0	2	2
Total		1	11	1	2	15

The degrees of freedom and Chi-square have been calculated from the raw scores above.

Degrees of freedom: 12

Chi-square = 45 / p is less than or equal to 0.001

The distribution is significant.

4.4.1 Correlations: 'ELPE' and 'MAM' vs. Gender

The distribution of the 'English Language Proficiency Evaluation' (ELPE) and 'Measure of Achievement Motivation' (MAM) scores is shown in Table 17 below.

Table 17

'English Language Proficiency Evaluation' (ELPE) and 'Measure of Achievement Motivation' (MAM) Scores vs. Participant Gender

Participant Number	ELPE Scores	MAM Scores	Participant Gender
1	242.0	114	Female
2	235.5	84	Male
3	232.0	102	Female
4	231.5	78	Male
5	222.5	86	Male
6	222.0	100	Female
7	220.0	97	Female
8	217.5	85	Female
9	216.5	99	Female
10	207.5	86	Female
11	206.5	89	Female
12	205.0	87	Female
13	199.0	76	Female
14	156.0	64	Male
15	116.0	60	Male

Note that although 3 males ranked among the top 5 participants on 'ELPE', i.e., in the 2nd, 4th, and 5th positions in terms of achievement, they scored lower than females on 'MAM', with rankings of 8th (a female shared this place with a 'MAM' score of '86'), 10th, 11th, 13th, and 14th.

4.4.2 Correlations: 'ELPE' and 'MAM' vs. Participant Age

The distribution of the 'English Language Proficiency Evaluation' (ELPE) and 'Measure of Achievement Motivation' (MAM) scores is shown in Table 18 below.

Table 18

'English Language Proficiency Evaluation' (ELPE) and 'Measure of Achievement Motivation' (MAM) Scores vs. Participant Age

Participant Number	ELPE Scores	MAM Scores	Participant Age
1	242.0	114	51
2	235.5	84	47
3	232.0	102	45
4	231.5	78	42
5	222.5	86	49
6	222.0	100	54
7	220.0	97	53
8	217.5	85	40
9	216.5	99	55
10	207.5	86	40
11	206.5	89	41
12	205.0	87	43
13	199.0	76	43
14	156.0	64	41
15	116.0	60	40

It is interesting to note that in terms of 'ELPE', the lowest 6 scores, i.e., 207.5 and below, were held by participants between 40 - 43 years old, while 7 of the 9 participants with the highest scores, i.e., 216.5 and higher, were 45 - 54 years old. The 3 participants with the lowest 'ELPE' and 'MAM' scores were 40 - 43 years old.

4.4.3 Correlations: 'ELPE' and 'MAM' vs. Participant Education Level

The distribution of the 'English Language Proficiency Evaluation' (ELPE) and 'Measure of Achievement Motivation' (MAM) scores is shown in Table 19 below.

Table 19

'English Language Proficiency Evaluation' (ELPE) and 'Measure of Achievement Motivation' (MAM) Scores vs. Participant Education Level

Participant Number	ELPE Scores	MAM Scores	Participant Education Level
1	242.0	114	Master's Degree
2	235.5	84	Master's Degree
3	232.0	102	Doctoral Degree
4	231.5	78	Master's Degree
5	222.5	86	Doctoral Degree
6	222.0	100	Master's Degree
7	220.0	97	Master's Degree
8	217.5	85	Bachelor's Degree
9	216.5	99	Master's Degree
10	207.5	86	Master's Degree
11	206.5	89	Master's Degree
12	205.0	87	Bachelor's Degree
13	199.0	76	Bachelor's Degree
14	156.0	64	Bachelor's Degree
15	116.0	60	Bachelor's Degree

Of the 12 'ELPE' scores of 205 - 242, 2 had doctoral degrees, 8 had master's degrees, and 2 had bachelor's degrees. Of the 3 participants with the lowest 'ELPE' and 'MAM' scores, 3 had bachelor's degrees.

4.4.4 Correlations: 'ELPE' and 'MAM' vs. Length of Exposure

The distribution of the 'ELPE' and 'MAM' scores is shown in Table 20 below.

The table also shows the length of participant exposure to ESL instruction after completing elementary school.

Table 20

'English Language Proficiency Evaluation' (ELPE) and 'Measure of Achievement Motivation' (MAM) Scores vs. Length of ESL Instruction Exposure.

Participant Number	ELPE Scores	MAM Scores	Participant Length of Exposure
1	242.0	114	10 years
2	235.5	84	10 years
3	232.0	102	12 years
4	231.5	78	10 years
5	222.5	86	12 years
6	222.0	100	10 years
7	220.0	97	10 years
8	217.5	85	8 years
9	216.5	99	10 years
10	207.5	86	10 years
11	206.5	89	10 years
12	205.0	87	8 years
13	199.0	76	8 years
14	156.0	64	8 years
15	116.0	60	8 years

Of the 11 participants that scored over 206 on 'ELPE', 2 had 12 years of ESL instruction exposure, 8 had 10 years, and 2 had 8 years. The 4 participants with 'ELPE' scores under 206, had 8 years of ESL instruction exposure. Participants with the 3 lowest 'ELPE' and 'MAM' scores also had 8 years of ESL instruction exposure.

4.4.5 Correlations: 'ELPE' and 'MAM' vs. Participant Self-Assessment

The distribution of the 'English Language Proficiency Evaluation' (ELPE) scores and 'Measure of Achievement Motivation' (MAM) Scores is shown in Table 21 [below]. The table also shows participant self-assessment of competence.

Table 21

'English Language Proficiency Evaluation' (ELPE) and 'Measure of Achievement Motivation' (MAM) Scores vs. Participant Self-Assessment of Competence

Participant Number	ELPE Scores	MAM Scores	Self-Assessment of Competence
1	242.0	114	Native-like
2	235.5	84	Native-like
3	232.0	102	Native-like
4	231.5	78	Native-like
5	222.5	86	Native-like
6	222.0	100	Native-like
7	220.0	97	Native-like
8	217.5	85	Native-like
9	216.5	99	Advanced
10	207.5	86	Advanced
11	206.5	89	Advanced
12	205.0	87	Advanced
13	199.0	76	Intermediate
14	156.0	64	Intermediate
15	116.0	60	Intermediate

It is interesting to note, that with the exception of the participant that had achieved TL competency, all other participants overestimated their English language skills.

4.4.6 Significance of Correlations

Care must be taken not to hastily draw conclusions from the correlations observed in sections 4.4.1 - 4.4.5, however interesting and / or tempting this may be, because of the possible presence of confounding variables, or because of a failure to consider these extraneous variables in a holistic fashion, i.e., as complimentary one to another. For example, in Table 17 on page 131, males had the 2 lowest 'ELPE' scores. However, this may, in fact, have no correlation with gender, but rather, may be related to educational level or length of exposure [see Tables 19 and 20 on pages 133 and 134, respectively]. Having stated this, the information in Table 17, does nevertheless show a trend in which male participants were inclined to trail females in terms of 'AM'. This gender gap in motivation may be related to what Maslow describes in his 'hierarchy of motives' as 'self-actualization needs', i.e., needs for self-fulfillment and the somewhat abstract desire to actualize capabilities and to be true to one's own nature, which have a high correlation to achievement motive, as opposed to 'self-esteem needs', i.e., needs for independence, self-respect, confidence, competence, mastery in competition, status, etc. Self-actualization needs are strongly associated with the values of truth, beauty, oneness, and justice, which in turn are considered to be almost feminine qualities or virtues in Western culture, particularly in Puerto Rico.

In Table 18 on page 132, there is an observable trend in both 'ELPE' and 'MAM' scores in which younger middle-aged participants, i.e., participants between 40 - 43 years old, were inclined to score lower on these tests than those participants between the ages of 45 - 54. This is interesting because maturation of the central nervous system is often cited by promoters of the biological accounts as being linked to age-related loss of

functional capacity in language skills (Szaflarski, 2004). In Table 19 on page 133, a clear trend is established which shows that participants with bachelor's degrees were inclined to present lower 'ELPE' and 'MAM' scores than those with master's or doctoral degrees. Table 20 on page 134 shows that participants with 8 years of instruction exposure after elementary school were inclined to present lower 'ELPE' and 'MAM' scores than those with 10 or 12 years of instruction exposure.

In Table 21 on page 135, of the 8 participants that perceived themselves as having 'Native-like' English language skills, 1 had 'ELPE' scores that reflected TL competency and 7 had 'ELPE' scores that reflected IL fossilization. Of the 7, 3 had 'High / Medium AM' and 4 had 'Medium AM' according to the results of 'MAM'. Of the 4 participants that claimed 'Advanced' skills, all had 'ELPE' scores that reflected 'Low Levels of IL Fossilization' with 'Medium AM' to 'High / Medium AM', and although, in fact, their skills were quite advanced, their level of competency did not meet the participant definition of 'Advanced', i.e., they did not possess the skills of native speakers at the college level. Of the 3 participants that claimed 'Intermediate' English language skills, 1 participant's 'ELPE' and 'MAM' scores confirmed her claim, while the other two participants scores prove their self-assessment to be inaccurate.

4.5 Category-Based Interview Results

Interviews were conducted with individual participants or groups representing each of the four categories, i.e., TL competency, low or minimal levels of IL fossilization, medium or moderate levels of IL fossilization, and high levels of IL fossilization. The following open-ended questions were presented for discussion:

1. During your study of ESL, have you experienced periods / areas of temporary cessation of progress or permanent stagnation on the continuum of your development towards competency in English? Please explain.
2. Do you believe that there is any relationship between your achievement motive and your English language competency, or your perception of your English language competency?
3. What factors do you view as barriers to the achievement of competency in English-as-a-second-language?

The responses of each category of participants to these questions were documented and are summarized in the following sections.

4.5.1 TL Competency

This category consisted of only 1 participant. She was also the only participant whose 'Measure of Achievement Motivation' score reflected 'High AM'. Surprisingly, in response to 'Question 1', this participant was the only one who was aware of having experienced periods / areas of temporary cessation of progress on the continuum of development towards competency in English, while the other 14 participants, that had so manifestly experienced cessation of progress, had no such awareness. The 'TL Competency' percentage in the study appears to be comparable to Selinker's 5% discussed on page 4. It is interesting to note that, at first, this participant stated that she had no recollection of any temporary periods / areas of cessation of progress in her development of English language competency. However, after some discussion, she remembered that during high school she had difficulty in pronouncing /θ/, /tʃ/, and /s/ at

the beginning of a word. She decided that she would overcome her difficulties and listened regularly to the sound track of 'The King and I'. She stated that listening to, and singing along with, the sound track over and over again enabled her to overcome her difficulties in pronunciation and assisted her in 'polishing up' her English. In 'Part I of the Research Instrument', she reported native-like English language skills. It is particularly striking that this participant responded to her awareness by a concerted effort to overcome her temporary cessation of progress. In 'Part I of the Research Instrument', she reported possessing native-like English language skills.

In her response to 'Question 2', regarding the relationship between her achievement motive and her English language competency, the participant was emphatic that motivation was a key factor in her process of achieving TL competency. She stated that there was definitely a relationship between her native-like English language skills and her motivation, stating: "people have the power to do just about anything" and that "hard work is the key". She also said that it was necessary to "know what you really want" and then to "establish goals" in order to be successful. "Challenges have to be taken on whole-heartedly" and "I'm the kind of person that finishes everything I start". "That's why I didn't have any difficulty learning English". Her responses are indicative of persons with high achievement motive, i.e., her motivation is intrinsic, she is goal orientated, she is willing to sacrifice in order to attain her goals, she enjoys challenges, and she finishes what she starts. The satisfaction that she exhibits when discussing her achievement of TL competency would also seem to indicate that she enjoys being recognized for her accomplishments.

In regard to 'Question 3', the factors that this participant views as barriers to the achievement of competency in ESL are principally intrinsic, i.e., they emanate from the self. She affirmed that "hard work is the key" and that unfortunately "most people today are looking for a hand-out, or a free ride". "The problem is that people fail to establish goals. In order to set goals, you really have to know what you want. Most people don't know what they want and therefore cannot establish goals". She added that: "this is the reason why people in Puerto Rico can study English nearly all of their lives, hear it on the radio and TV every day, use English language text books at college, and after 30 or 40 years, still not speak English". The participant concluded by saying: "The lack of self-discipline, the failure to set goals, and the unwillingness to sacrifice to achieve are the major barriers". What she failed to mention is also significant. She failed to acknowledge or blame factors over which she had no control. She took full responsibility.

4.5.2 Low / Minimal Levels of Fossilization

This category included 11 participants and is the category that falls just short of TL competency. Four had scores on the 'Measure of Achievement Motivation' that reflected 'High / Medium AM' and seven had scores that reflected 'Medium AM'. The consensus, in response to 'Question 1', was that the participants had not experienced any temporary periods / areas of cessation of progress or permanent stagnation, but rather, that they were in a process of continually improving their English skills, especially in the area of acquiring a more diversified / richer vocabulary, in much the same way as native speakers improve their L1 language skills. Participant no. 12 stated that she was

'competent' but not 'fluent' in English. When asked to clarify her statement, she said that while she had achieved competency in English, she formulated her thoughts (and sentences) first in Spanish, and then translated them into English. This distinction between formulating thoughts (and sentences) in Spanish, as opposed to English, was understood by the participants to be the primary difference between possessing native-like or advanced English-language skills. However, it should be noted that vocabulary was also seen by participants as a determining factor, with 'advanced' English-language skills being compared to skills similar to native speakers in college, i.e., native speakers who were still in the process of vocabulary development. In 'Part I of the Research Instrument', 8 participants of this group self-reported native-like English language skills and 4 reported advanced English language skills.

In response to 'Question 2', although the participants in this category agreed that motivation was a factor in the achievement of TL competency, it was not considered a principal factor. All of the participants considered themselves to be highly motivated, and indeed considered themselves as having high achievement motive. The participants also stated that they had reached native-like or advanced competency in English and that their skills surpassed their communicative needs. Participant 2 recapitulated the view of the participants in this category, saying: "I understand, speak, read, and write more English than I need to know. The fact of the matter is I don't use English every day here in Puerto Rico. I know more than enough English".

After a lengthy discussion, the participants in this category agreed, in response to 'Question 3', that the barriers to the achievement of ESL competency in Puerto Rico were: 1) the lack of opportunities to practice English, i.e., external interactional variables

such as conversation [see page 49-50], 2) inadequate or culturally insensitive teaching methods [see page 56], 3) poorly prepared and / or uncommitted teachers, 4) the failure to teach grammar and vocabulary, i.e., the lack of formal grammar instruction [see page 56], 5) negative political connotations equating the learning or speaking of English to colonialism or unpatriotic behavior [see Psycho-Social Factors on page 40], 6) learning English informally, either from Puerto Ricans born or raised in the US who have moved to Puerto Rico or from TV, i.e., the lack of formal instruction [see page 51], and 7) the lack of natural ability [see Biological Accounts on page 58]. It was extremely interesting to note that while the group was able to identify all of the complex abovementioned factors, and indeed mirrored the theoretical accounts addressing fossilization discussed in Chapter II, none of the factors identified by this group involve the acceptance of personal responsibility for achieving or failure to achieve TL competency. This is consistent with the discussion of achievement motivation on page 23 in which a correlation between control, personal responsibility, and 'High AM' are established. Achievement motivation is a predictor of achievement-relevant circumstances, i.e., the development of concrete cognitive representations or goals directed to a specific end or achievement-relevant outcomes or goals. Achievement goals, which are intrinsically linked to personal control and responsibility, are therefore predictors of performance outcomes and were not reflected in this group's assessment of the barriers to achievement of English-language competency. Having stated this, it could be possible that, at least some of the factors identified by this group, and given the 'High / Medium AM' or 'Medium AM' scores of its constituents, could provoke avoidance-type achievement motivation and goals as opposed to approach-type achievement motivation and goals, i.e., achievement

motivation and goals based on the fear of failure (or avoiding incompetence relative to others) as opposed to achievement motivation and goals based on the need for achievement (or attaining competence relative to others). Avoidance-type motivation and goals are linked to negative personal outcomes, inefficiency, and the inability to focus (Elliot, 1997).

4.5.3 Medium Levels of Fossilization

There was only one participant in this category. Her score on the 'Measure of Achievement Motivation' reflected 'Medium / Low AM'. In response to 'Question 1', she stated that she was not aware that she had experienced periods / areas of temporary cessation of progress or permanent stagnation on the continuum of development toward competency in ESL. She maintained that she had been continually improving her English language skills and stated that her English skills are at an intermediate level. This was confirmed by the fact that in 'Part I of the Research Instrument' she categorized her English language skills as being at an intermediate level, which she described as meaning that her language skills were similar to those of a native speaker at the high school level. She stated that she needed to "practice English more" and that her principal difficulties were related to expanding her vocabulary. It was interesting to note that she appeared to be quite satisfied with her English language skills.

In response to 'Question 2', the participant did not believe that her level of motivation was directly related to her English competency. She stated that other factors were more important than motivation, especially the dynamics between teachers and students in the classroom and the opportunity to practice English in a safe environment.

This is both interesting and consistent with motivational theory. Achievement relevant outcomes or goal-involvement activities result in meeting challenges through increased effort, especially in activities that provide opportunities to learn and develop competence. Conversely, ego-involvement activities, in which feelings of success involve the maintenance of self-worth and avoidance of failure, produce a different conception of ability, in which ability itself limits the effectiveness of effort. Ego-invoking conditions produce less constructive responses to failure and difficulty. In certain situations, learners can even perceive 'gain' by not trying and / or by intentionally withholding effort. If poor performance is a threat to the individual's sense of self-esteem, lack of effort is more likely to occur, and indeed often occurs after the experience of failure. Failure, or fear of failure and ridicule, threatens self-appraisal and creates uncertainty regarding subsequent performance. If succeeding performance is also poor, then doubts concerning ability are confirmed. In order to avoid the threat, the individual withdraws effort, allowing failure to be attributed to other factors that, in turn, reduce the risk to self-esteem (Elliot, 1997).

In response to 'Question 3', regarding the barriers to achievement of English language competency, the participant stated that the fear of making mistakes and being ridiculed was the principal obstacle for her. She discussed the learning environment in Puerto Rico and the tendency to 'make fun of' learners' errors or mistakes, i.e., negative affective feedback [see page 48]. The participant stated that: "People in Puerto Rico like to make jokes and make fun of others. At school or in university, if you make a mistake, even the teacher will laugh at you. Nobody likes to be laugh[ed] *on* [at]. So nobody says anything. If you can't practice at school or university, how can you practice at home

when everyone is speaking Spanish?” Again, primary responsibility for difficulties in learning was attributed to third persons or situations.

4.5.4 High Levels of Fossilization

This category comprised 2 participants. Both had scores reflecting ‘Low AM’. The consensus, in response to ‘Question 1’, was that the participants in this category were not aware that they had experienced periods / areas of temporary cessation of progress or permanent stagnation on the continuum of development toward competency in ESL, confirmed by the fact that in ‘Part I of the Research Instrument’ they stated that they had achieved an intermediate level in their English language skills, which they insisted corresponds to the same level as a native speaker at the high school level. It was interesting to note that although both participants spoke in what would commonly be called ‘broken’ English during the interview, thereby demonstrating high levels of fossilization, neither recognized that they had experienced permanent stagnation in their ESL development. This failure to recognize stagnation was extremely significant because it resulted in an overtly inaccurate self-assessment that did not support movement toward the TL norm. The following phonetic rendering of Participant 15’s response to ‘Question 2’, cited in the next paragraph, provides a vivid example of the participant’s fossilization, i.e.,

[i:s | laɪk | kəʊm'pju:tər | 'prəʊgrɑ:m || ju: | hɒv | i:t | əʊr | ju: |
dəʊn | hɒv | i:t || ju: | kɑ:n | hɒv | əʊl | məʊti:'veɪtʃəʊn | i:n | dʊ |
wəʊrl || bət | i:f | dʊ | kəʊm'pju:tər | tʃi: | i:sʰn | prəʊ'grɑ:məd ||
ju: | jəʊs | kɑ:n | nəʊ | lɜ:n ||].

The principal features that fossilized here (in terms of pronunciation) are summarized as follows. The Spanish /i/ consistently replaces the English /ɪ/. There is also a tendency to use /ɑ:/ to replace the shorter /æ/. In general, the participant exhibits difficulty with English vowels. Having stated this, it is important to note that in Puerto Rico, students are exposed to English teachers from a variety of English-speaking backgrounds, both from the USA and abroad, and that the pronunciation of English, and particularly that of English vowels and diphthongs, can vary considerably, making it extremely difficult to assess pronunciation. In this extract, the participant also demonstrates a tendency to omit the /t/ in words such as 'it's', 'don't', etc., and the final /d/ in words such as 'would'. Final consonant omission is common among learners with Spanish as their L1, as only five consonants appear in 'word final' position in Spanish. The participant's pronunciation of /θ/, which does not exist in Latin American Spanish, in the word 'the', is similar to the /d/, although somewhat softer. The /ʃ/, which also does not exist in Spanish, is pronounced as /tʃ/. The /r/ trills heavily. However, and in addition to the aforementioned difficulties with pronunciation, this participant also demonstrated a significant problem in fluency and 'naturalness'. There was an observable interruption in flow, including hesitations and prolongations, as well as an atypical speech rate and rhythm that were apparent in spite of the fact that a SPM (Syllable Per Minute) rating was not calculated. This lack of fluency and naturalness seemed to almost highlight the participant's errors in pronunciation, and also resulted in the participant being difficult to understand at times.

In response to 'Question 2', the participants in this category agreed that motivation was not an important factor in achieving English language competency. This

was significant in that the roles of both explicit and implicit motivation were minimized by the participants as was the correlation between achievement goals and performance outcomes (Elliot, 1997). Explicit motive, in particular, is inherently linked to self-image. This type of motivation generates behavior and influences choice and responses from outside cues. The primary agent is self-perception or perceived ability based upon self-assessment. Inaccurate self-perception based upon unsound self-assessment can therefore be both the cause for the lack of explicit motive or, in turn, the result of the lack of explicit motive. At any rate, the participants attributed language acquisition skills to 'natural ability', i.e., biological factors [see page 58], that could not be enhanced or diminished. It was interesting to note that they believed that they had this 'natural ability'. The consensus was that natural ability was the principal factor in achieving English language competency. Participant 15 stated: "It's like [a] computer program, you have it or you don't have it. You can have all [the] motivation in the world, but if the computer *she* isn't programmed, you just cannot learn".

In response to 'Question 3', the consensus was that irrespective of motivation, teaching methods, opportunities to practice English, etc., each person has a 'natural ability' that either allows him / her to excel in the study of a foreign language or fail in his / her attempt to acquire an L2. During the discussion the participants provided examples of people known to them in support of their argument, i.e., relatives and friends who were 'extremely intelligent' but were unable to learn English and, others who learned English easily, although they were 'uneducated'. The participants in this category agreed that there was little that could be done to enhance the 'natural ability' because it was 'inborn'.

4.6 Integration: Quantitative vs. Qualitative Findings

In terms of the research question: ‘Are middle-aged ESL learners aware of their IL fossilization?’, the qualitative findings indicated that only the participant who had achieved TL competency was aware of any temporary cessation of progress, but that the participants who experienced varying degrees of fossilization were neither aware of temporary cessation of progress or of permanent stagnation or fossilization. This lack of awareness was difficult to interpret in light of the performance on the ‘English Language Proficiency Evaluation’ and in the category-based interviews of 14 participants who evidenced varying degrees or levels of IL fossilization.

In terms of the research question: ‘Is there a relationship between middle-aged ESL learners’ competence (or perceived competence) and achievement motivation?’, the information obtained in the qualitative component of this research appears to confirm the quantitative findings. The participant in the TL Competency category, i.e., the participant that achieved the highest score on the ‘English Language Proficiency Evaluation’ and scored the highest on the ‘Measure of Achievement Motivation’, also emphasized the importance of motivation in achieving TL competency during the interview. The participants in the Low Levels of IL Fossilization category obtained (as a group) lower scores on the ‘English Language Proficiency Evaluation’ and the ‘Measure of Achievement Motivation’ and described motivation as one of many factors related to TL competency during the interview. It should be noted that within this category, scores did not reflect a perfect positive linear relationship between the ‘English Language Proficiency Evaluation’ and the ‘Measure of Achievement Motivation’ but did reflect a moderate / positive relationship. In terms of ‘perceived competency’, while motivation

was considered as only one of many factors in obtaining competency, this category of participants perceived its level of competency as native-like or advanced, and considered their ESL skills to surpass their needs, (and indeed, it was my impression, that they did have very advanced ESL skills). It is possible that their view that they knew “more English than needed”, adversely affected their levels of motivation, reducing the chances of exerting the additional effort needed to acquire TL competency. The participant in the Medium or Moderate Levels of IL Fossilization category obtained still lower scores on the ‘English Language Proficiency Evaluation’ and the ‘Measure of Achievement Motivation’ and described motivation as not being directly related to TL competency during the interview. In terms of ‘perceived competency’, this participant also considered that she had obtained skills similar to those of a native at the high school level. The participants in the High Levels of IL Fossilization category obtained the lowest scores on the ‘English Language Proficiency Evaluation’ and the ‘Measure of Achievement Motivation’ and described motivation as not being important or related to TL competency during the interview.

In terms of the research question ‘What factors do middle-aged ESL learners view as barriers to their achievement of TL competency?’, the information obtained in the qualitative component of this research appears to have a correlation with the quantitative findings. The emerging trend is that there is a moderate / strong positive relationship between competence and achievement motive, and between competence and acceptance of personal responsibility. The participant in the TL Competency category, emphasized that motivation was the principal factor in achieving TL competency, and she actually proved, by her test results and goal-oriented behavior, to have a high achievement

motive. Participants from the other three groups systematically ascribed lesser importance to motivation in TL competency and scored lower on the 'Measure of Achievement Motivation'. Participants who demonstrated a lower achievement motive also proposed other factors (and primarily external factors) as causal to fossilization.

4.7 Follow-up Interviews

As explained in Chapter III [see page 99], approximately 6 months after the administration of 'ELPE' and 'MAM', and 5 months after the category-based interviews, short semi-structured follow-up interviews were conducted with all participants. The primary objective of these interviews was to obtain linguistically relevant feedback from the participants that could shed additional light on the findings. The interview method and procedure are discussed in section 3.4.6 on pages 99 - 101. All interviews began with the following introductory question: 'How do you think that you performed on the 'English Language Proficiency Evaluation' and 'Measure of Achievement Motivation', and what do you think your rankings were in terms of fossilization and achievement motivation?' The responses were recorded and participants were then informed of their 'ELPE' and 'MAM' scores before continuing with the interview. The interview questions included, but were not limited, to the following:

1. During your study of ESL, have you experienced periods / areas of temporary cessation of progress or permanent stagnation on the continuum of your development towards competency in English? Please explain.

2. Do you believe that there is any relationship between your achievement motive and your English language competency, or your perception / self-assessment of your English language competency? Please explain.
3. What factors do you view as barriers to the achievement of competency in English-as-a-second-language? Please explain.

The responses of each participant were transcribed in their entirety and can be found in Appendix I on pages 271 - 295. Brief analyses of the fossilized features evidenced in participant responses to the questions of the Follow-up Interviews are presented in sections 4.7.1 - 4.7.15 below.

4.7.1 Analysis of Responses: Participant No. 1

As also indicated in her 'Verbal Communication / Pronunciation Test', and indeed her overall 'ELPE' test score, this participant did not manifest any fossilized forms in her speech during the Follow-up Interview. Her interview performance further demonstrated her English language competency and fluency. The responses demonstrated syntactic variety, appropriate word choice, consistent facility in the use of English, and native-like pronunciation.

4.7.2 Analysis of Responses: Participant No. 2

The principal fossilized features in Participant No. 2's speech included the use of /s/ for /θ/ at the end of a word as in /bəʊs/ [both]; the omission of the 'word final' /z/ as in /'alwɛɪ/ [always]; the occasional use of /əʊ/ for /ɑ/, /i:/ for /aɪ/ or /ɪ/; and the use of the /ɪ/ for /ɪ/ as in /pri:'əʊrɪti:/ [priority]. Difficulties were evidenced in the use of

adjectives for adverbs as in ‘bad’ for ‘badly’ or ‘poorly’, the misuse of prepositions as in ‘in’ for ‘of’, syntactic errors, etc. Overall, these errors were minor and primarily phonological, and reflective of his ‘ELPE’ scores. The 11 participants in the ‘Low Levels of IL Fossilization’ category evidenced similar difficulties with vowels, prepositions, adjectives, adverbs, and weakened articulation or omission of ‘word final’ consonants.

4.7.3 Analysis of Responses: Participant No. 3

In addition to the fossilized forms cited above, Participant No. 3 used /tʃ/ for /ʃ/ as in /tʃu:r/ [sure]. She also omitted the final past tense marker /d/ as in /a'plai/ [applied], sometimes with an extra half syllable as in /li:nk.ə/ [linked]⁹. This last feature appears to be phonological in nature as neither the past tense marker ‘ed’ or ‘d’ are omitted in the participant’s ‘Writing / Essay Test’. It was also interesting to note that while this participant had difficulties pronouncing /ʃ/ at the beginning or middle of a word, she had no difficulty pronouncing the words ‘English’ or ‘Spanish’. This may suggest that there is some relationship between ‘word final’ position and phonemic acquisition in the case of /ʃ/, or that the learner may be identifying /tʃ/ as an allophone of /ʃ/, or again, that words with this particular voiceless alveopalatal fricative phoneme in other than ‘word final’ positions have simply been learned incorrectly. Nevertheless, it does show unequivocally that the participant can actually pronounce the phoneme correctly. This also seems to be applicable to all but one of the other participants who had difficulty in this area.

4.7.4 Analysis of Responses: Participant No. 4

Participant No. 4 exhibited some of the same areas of difficulty as participants 2 and 3 as is evidenced in his omission of the ‘word final’ /z/ as in /^lsəʊmtaɪm/ [sometimes], and the use of /tʃ/ for /ʃ/ as in /tʃu:d/, etc. However, he did not omit the past tense marker /d/. It is interesting to note that in his ‘Writing / Essay Test’ he also misspelled the word ‘sometimes’, which may be an indication that he may have acquired the word incorrectly. The participant also used /s/ for /ks/ as in /fɪs/ [fix].

4.7.5 Analysis of Responses: Participant No. 5

In addition to the ‘word final’ consonant omissions and use of /tʃ/ for /ʃ/ described above, Participant No. 5 also omitted ‘word final’ /t/ as in /fɪrs/ [first], /ts/ as in /tɛs/ [tests]’, and the /z/ as in /hɛlp/ [helps]. The latter may be related to tense as the final letter ‘s’ was not omitted from plural nouns in his writing sample on his ‘Writing / Essay Test’. He also exhibited weakened articulation of the ‘word final’ /d/ as in ‘regar/(d)/, etc. He used /j/ for the /dʒ/ as in /^ltʃɛɪnj/ [change] and omitted the ‘word final’ /ŋ/ as in /^ltʃɛɪnji:n/ [changing].

4.7.6 Analysis of Responses: Participant No. 6

Participant No. 6 evidenced difficulties with vowels, prepositions, adjectives, adverbs, and weakened articulation or omission of ‘word final’ consonants. The omission of the past tense marker /d/ as in /a^ltʃi:v/ [achieved] appears to be phonological in nature as neither the letters ‘d’ or ‘ed’ were omitted in her ‘Writing/ Essay Test’. Her

substitution of /n/ for /m/ as in /ɪn'pɑsɪbəl/ [impossible] is common among learners with Spanish as their L1.

4.7.7 Analysis of Responses: Participant No. 7

The errors presented by Participant No. 7 appear to be phonological in nature as neither the letters 's', 't', or 'ts' were omitted in the participant's 'ELPE' writing sample. The omission of the 'word final' /d/ in words such as /fɑ:sɪl'ɑɪs.ə/ [fossilized] was regularly accompanied by the addition of an extra half syllable.

4.7.8 Analysis of Responses: Participant No. 8

The principal fossilized features in Participant No. 8's speech involved the omission of the 'word final' /z/ as in /si:/ [sees], etc. and the use of /tʃ/ for /ʃ/ as in /ɑ:'tɛɪntʃəʊn/ [attention], etc. These errors were not reflected in the participant's 'ELPE' writing sample and appear to be phonological. There were some difficulties in the use of definite articles and the use of prepositions. Minor syntactic errors were also present.

4.7.9 Analysis of Responses: Participant No. 9

Participant No. 9 exhibited errors with vowels, prepositions, adjectives, adverbs, and weakened articulation or omission of 'word final' consonants. However, the latter were not reflected in the participant's 'Writing / Essay Test'. This demonstrates that the participant knows the proper form, but does not use it in speech.

4.7.10 Analysis of Responses: Participant No. 10

The principal fossilized features presented by Participant No. 10 included those noted in sections 4.7.1 - 4.7.9 above. A unique feature of his fossilized speech was the omission of the 'word final' /f/ as in /əʊ/ [of].

4.7.11 Analysis of Responses: Participant No. 11

Participant No. 11's errors included difficulties with vowels, prepositions, adverbs, etc. It should be noted that her 'word final' omission of /z/ was not consistently reflected in her 'ELPE' writing samples, indicating that the proper form is known to the participant. The 'word final' /d/ as in /əʊl/ [old], /bi:'haɪn/ [behind], etc. was also omitted throughout the interview. Additionally, general weakened articulation related to 'word final' consonants, was prevalent.

4.7.12 Analysis of Responses: Participant No. 12

Participant No. 12 presented errors similar to those noted in sections 4.7.2 - 4.7.11. Her phonological errors were not reflected in her 'Writing / Essay Test'. The 'word final' /d/ as in /əʊl/ [old], /bi:'haɪn/ [behind], etc. and 'word final' /z/ as in /'stu:den/ [students], were consistently omitted throughout the interview. Persistent weakened articulation, related to 'word final' consonants, and a general tendency to substitute Spanish for English vowels, created an instantly recognizable Spanish accent.

4.7.13 Analysis of Responses: Participant No. 13

Participant No. 13 was the only participant in the 'Medium Levels of IL Fossilization' category. Her principal fossilized features mirrored those of her 'Verbal Communication / Pronunciation Test' and included all of the errors noted in sections 4.7.2 - 4.7.12. Some of these errors were also present in the participant's 'Writing / Essay Test', such as the omission of the 'word final' tense-marking letters 's', 'd', and 'ed' in her 'ELPE' essay. These 'word final' tense-marking letter omissions were reflected in her speech throughout the interview in words such as /i:n'vəʊlv/ for [involves], /ɑ:kəʊmpli:tʃ/ for [accomplished], /pɛɪ'fɔ:rm/ for [performed], etc. and may indicate a problem in tense identification because, although the 'word final' /z/, and /d/ were also consistently omitted from nouns, etc. during the interview, the letters 's' and 'd' were not omitted in the spelling of nouns in the participant's writing sample. The persistent preference for long vowels and 'word final' consonant omission created a 'typical' Spanish accent. Syntactic errors were also present.

4.7.14 Analysis of Responses: Participant No. 14

Participant No. 14, one of two participants in the 'High Levels of IL Fossilization' category, presented fossilized features in his speech that included all of the errors described in sections 4.7.2 - 4.7.13. However, these errors were not generally reflected in the participant's 'ELPE' writing sample. This was the only participant to use /tʃ/ for /ʃ/ in the word /'i:ngli:stʃ/ [English]. The participant also used /d/ for /θ/ as in /du/ [the], /dat/ [that], /dɪs/ [this], etc. and sometimes used /t/ for /θ/ in words such as

/ti:nk/ [think]. There were persistent syntactic errors and a preference for the use of long vowels. The combination of all of these errors produced a strong Spanish accent.

4.7.15 Analysis of Responses: Participant No. 15

Participant No. 15, whose 'ELPE' scores placed him in the 'High Levels of IL Fossilization' category, presented all of the errors noted in sections 4.7.3 - 4.7.14. A special feature of this participant's speech included the omission of the penultimate /t/ as in /i:s/ [it's], etc. The participant also used /tʃ/ for /ʃ/ in 'word final' order position as in /'fɪntʃ/ [finish], etc. The use of Spanish vowels for English vowels as in /'nɑ:tʊ:rɑ:l/ [natural], /i:f/ [if], /i:t/ [it], /di:s/ [this], /prəʊ'grɑ:m/ [program], etc. produced a thick Spanish accent. Persistent syntactic errors were also present.

4.7.16 Summary of Follow-up Interviews

The Follow-up Interviews served to reinforce the results of the 'Verbal Communication / Pronunciation Test' and were used as a triangulation device to provide additional evidence. In fact, although the samples gathered in the Follow-up Interviews were more robust than those of the 'Verbal Communication / Pronunciation Test', an analysis of these unvaryingly reflected the fossilized features that had already been identified in 'ELPE'.

Notwithstanding, the enormous value of the Follow-up Interviews is made explicit in the very views expressed by the participants after receiving their 'ELPE' and 'MAM' scores. The participant in the 'TL Competency' category reaffirmed the significance of identifying periods or areas of temporary cessation of progress in

overcoming errors, but also added that affective and corrective feedback were of extreme importance, and in fact identified the same as crucial in her process of awareness of periods / areas of temporary cessation of progress. Her position regarding the barriers to competency in English did not change. At the end of the interview, she requested a copy of her test results to show to her husband. All of the 11 participants in the Low Levels of IL Fossilization changed their initial positions and conceded that they had unknowingly experienced periods or areas of temporary cessation of progress or permanent stagnation on the continuum of the development towards competency in English, and that the lack of awareness of those periods or areas had affected their motivation to establish and achieve learning goals. In terms of the relationship between achievement motive and English language competency, all affirmed that the relationship existed, and in fact, all claimed to have high achievement motive. However, the consensus was not clear in terms of cause and effect, i.e., whether motivation influenced competency, competency influenced motivation, or both. All agreed that unrealistic participant perception of English language competency, and moreover inadequate self-assessment, adversely affected motivation, the ability to establish learning goals, and ultimately the achievement of TL competency. Although the participants in this category accepted some responsibility for not recognizing periods or areas of temporary cessation of progress or permanent stagnation on the continuum of the development towards competency in English, arrests in motivation and in the setting of learning goals and objectives, and failure to achieve TL competency, the prime responsibility was squarely, and almost irately, placed on teachers and professors, whom participants blamed for not providing corrective feedback, and for generally not fulfilling their teaching duties. Their deep disappointment with their

'ELPE' scores was observable in both their facial expressions and in their tone of voice, as well as in the comments directed against teachers and professors. Participants in this category believed that they had always had the ability and motivation to attain TL competency, and appeared to suggest that this ability and motivation had been reactivated after being confronted with the reality of their test scores. All requested copies of their test results, some with, at least the expressed purpose of following up on their errors, and improving their language skills. The participants in the 'Medium Levels of IL Fossilization' and 'High Levels of IL Fossilization' categories did not amend their positions even in light of their test scores. In fact their postures appeared to become entrenched, and they became irritated with the researcher and the process, almost denying the validity of the tests. It was interesting to note that none asked for copies of their 'ELPE' or 'MAM' scores.

Another interesting fact emerged from these interviews. Spanish speakers routinely confuse /b/ and /β/, as in Spanish, the voiced bilabial /b/ has two allophones [b] and [β], which are spelled 'b' or 'v'. The [b] generally appears as a 'word initial' or after nasals, the [β] is used elsewhere, but the allophones do not necessarily match the spelling. For example, the words 'burro' [donkey] and 'vaca' [cow] are pronounced using the [b] and the words 'nube' [cloud] and 'voy' [I go] are pronounced using the [β]. However, this confusion appears not to have been transferred to English, at least among the participants in this study, because no participant confused /b/ with /v/ when speaking or writing English, although this is an extremely common error in Spanish. Another interesting note is that in Puerto Rican Spanish the /r/ is commonly confused with /l/ as

in /ɑ:'məʊl/ for /ɑ:'məʊr/, i.e., love. Again, no participant in this study transferred this rhotic replacement to English.

4.8 Conclusion

This study has dealt with the question: 'Does achievement motivation affect the IL fossilization of middle-aged ESL learners in the Commonwealth of Puerto Rico who have had at least eight years of formal exposure to the TL?' The data, findings, and analysis indicate that there is a systematic relationship between achievement motivation and the IL fossilization of middle-aged ESL learners in the Commonwealth of Puerto Rico. Chapter V discusses implications of the findings, makes recommendations, discusses limitations, and draws conclusions.

CHAPTER V: IMPLICATIONS, LIMITATIONS, AND RECOMMENDATIONS

The purpose of this study was to investigate if achievement motivation affects the IL fossilization of middle-aged ESL learners. After summarizing the findings, the implications based upon the analysis of the data, limitations of the study, and recommendations will be discussed.

5.1 Summary of Findings

The following is a summary of the findings of this study, based on an analysis of the data presented in Chapter IV and, in response to the research questions. First and foremost, this study found that there is a moderate to strong positive relationship between IL fossilization or TL competency and achievement motivation, i.e., high achievement motive is correlated to TL competency and descending levels of achievement motive are correlated to ascending levels of IL fossilization.

Another finding was that learners who attained TL competency were sensitive to periods or areas of temporary cessation of progress whereas learners who fossilized were not aware of any cessation of progress. It was also found that middle-aged ESL learners' competence (or perceived competence) is affected by and, in turn, may affect, achievement motivation.

This study also found that fossilized middle-aged ESL learners view the following as barriers to achievement of TL competency: a) the lack of opportunities to practice English; b) inadequate or culturally insensitive teaching methods; c) poorly prepared and uncommitted teachers; d) the failure to teach grammar and vocabulary; e) negative

political connotations equating the learning or speaking of English to colonialism or unpatriotic behavior; f) learning English informally, either from Puerto Ricans born or raised in the US who have moved to Puerto Rico or from TV; and g) the lack of natural ability. The ESL learner that attained TL competency views the lack of motivation and discipline as the principal barrier to the achievement of TL competency.

5.2 Implications

The results of this study represent another step in disentangling the mystery of IL fossilization. The findings have implications for ESL learning and instruction. These implications are discussed below.

5.2.1 Implications Related to ESL Learning

In terms of ESL learning, the findings suggest that not all IL fossilization may be permanent. On the continuum toward TL competency, learners may simply face periods or areas of temporary cessation of progress, as did Participant 1, who had difficulties in pronouncing /θ/, /ʃ/, and /s/ at the beginning of a word, and who then decided to make every effort to overcome those difficulties, converting them from potentially permanent fossilized features in her speech to periods or areas of temporary cessation of progress. This seems to be a particularly feasible option for learners with low levels of IL fossilization, who fall just short of TL competency. These learners do not have a cognitive awareness of periods or areas of temporary cessation of progress. Their competency, or perceived competency, although correlated to achievement motive, may in turn be a factor in stagnating achievement motive. Awareness, exemplified by the

participant that achieved TL competency, undoubtedly plays a crucial role in overcoming temporary periods or areas of cessation of progress.

Having stated the above, it is important to recognize that there is a definite correlation between achievement motive and attaining TL competency and that people with high achievement motive have certain characteristics. They take responsibility. They feel 'in control' of their lives. They set realistic goals and are productive. It was interesting to note that in this study, participants at all levels identified factors over which they had little or no control as the primary barriers to TL competency, while the participant that achieved TL competency identified the lack of self-discipline and the failure to establish goals as the primary barriers. It was equally interesting to note that as levels of IL fossilization increased, the importance given to achievement motivation, or motivation in general, as a factor in TL competency decreased. If this is considered alone, the attainment of TL competency could easily be reduced to or misconstrued as being related solely to personality traits, which are primarily developed in childhood. However, it must be noted that the desire and need to succeed, and the desire and need to avoid failure, which are critical determinants of aspiration and behavior, cannot be reduced to character type or temperament, but are, in fact, based upon attitudes and behaviors that can be enhanced and developed throughout life, and that the latter are based upon choice. All achievement motivation theories agree that mastery and approach-type goals or motives lead to constructive behavior and personal advancement and success. Conversely, avoidance-type goals or motives lead to negative personal outcomes, inefficiency, and inner-conflict. The strength of the approach vs. avoidance tendencies in achievement motivation is determined by the relative strength of the need to

achieve and the need to avoid failure (or success). In the case of learners with low levels of IL fossilization (who comprised 73% of the participants in this study), the avoidance tendency may have been evoked through the lack of awareness of periods or areas of temporary cessation of progress and their perception of competency, including the perception that they knew more English than needed or useful. It is possible that if the 'approach tendency' can be reactivated, these learners may simply need to be made aware of periods or areas of temporary cessation of progress or confronted with their irrational perceptions related to their own TL competency in order to stimulate or set in motion the achievement motive necessary to undertake a plan of action to overcome these periods or areas of temporary cessation of progress and attain TL competency.

It is also interesting to note that these findings may therefore suggest that there is a possibility that ESL learners may be able to achieve TL competency at a much higher percentage rate than previously held by Selinker and others. It has been widely propagandized that because of a critical period for SLA, etc., only children can attain TL competency. Because of this view, many adult learners do not even expect to achieve TL competency but are resigned to satisfy immediate and remedial language needs only. Additionally, many other factors have been propagated as being primary barriers to the achievement of TL competency, most of which are outside of learner responsibility or control. The common knowledge and widespread acceptance of these factors as primary or basal by ESL learners, as evidenced in the factors identified as barriers to TL competency by the fossilized participants in this study, has transformed these very factors into virtual and psychological pretexts for non-achievement (without denying the fact that in some cases these factors are indeed barriers to TL competency). This may affect

learners' ability to recognize periods or areas of temporary cessation of progress or their ability to identify irrational perceptions related to their own competency triggering avoidance tendencies in achievement motive. If indeed approach tendencies in achievement motive can be reactivated through techniques that are often more associated with therapeutic strategies, such as Ellis' Rational Emotive Behavior Therapy (REBT), rather than with language learning, TL competency levels, at least among the participants in this study, could be propelled from 6.6% to nearly 80%, implying the necessity of reconsidering the very concept of fossilization. Expanding upon this point, REBT suggests that irrational thoughts and images prevent goal attainment and lead to inner conflict while rational thoughts and images lead to goal attainment and inner harmony. REBT is an educational and active-directive process in which the therapist teaches the client how to identify irrational and self-defeating thoughts, dispute them, and replace them with rational and self-helping ones. One of the main objectives in REBT is to show the client that s/he has a choice (Ellis, 2003). This type of approach may be useful in confronting inaccurate self-assessment.

5.2.2 Implications Related to ESL Instruction

In terms of ESL instruction, the results of this study have significant implications in that they underscore the need for increased attention to the development of achievement motive in the ESL classroom as part of an integrative learning strategy. Needs, expectations, and incentives and other factors related to achievement motive are learned and can determine success. Although the past experiences related to these factors are unalterable, approach tendencies in achievement motive can be activated or

reactivated through learning strategies. Teachers can assist in training students to be independent and achievers, or they can promote the fear of failure. Reward and recognition for striving increases achievement motive and so teachers can be encouraged to recognize and reward these efforts. Censure and penalties for unsatisfactory performance and disregard for accomplishments lead to a fear of failure, and so additionally, to the extent that learners receive reinforcement (or self-reinforce), achievement motivation can theoretically be increased, through emphasizing successes and utilizing failures as cues to work harder. Learning strategies may need to include the teaching and / or encouragement of the development of personality traits that support achievement, including the empowerment of learners through the recognition, acceptance that they possess and can develop signature values and strengths in areas such as personal responsibility, self-control, confidence, love of knowledge, self-awareness, etc. It is also important to note that all of the participants with low levels of IL fossilization expressed irritation and disappointment upon learning that they had fossilized and not progressed. This underscores the fact that while positive reinforcement is necessary, it must be balanced and accompanied by very honest and frank appraisal and feedback from their teachers.

5.3 Recommendations

On the basis of the findings of this research, it is recommended that the teaching of signature values and strengths be integrated into ESL learning strategies, and that learners should be trained to identify personal strengths and skills (based upon actual experience, including testing or other hard evidence) and to develop and internalize a

sense of personal responsibility for the ‘what’ and ‘how’ of learning, together with an experiential understanding of the correlation between effort and improved performance. Skills also need to be developed in the following areas: self-control, (and to being ‘in control’ of the SLA process); the correlation between achievement and self-management; and the identification and establishment of priorities and goals. These can be enhanced by challenging inaccurate self-assessment and complacency in concrete and objective ways, e.g., through testing, etc., thereby effectively raising the learner’s levels of awareness. This in turn will increase learner self-monitoring. As part of this process it is also absolutely necessary for teachers to offer more accurate feedback regarding learner weaknesses. Attitudes that promote approach-type achievement motivation and goals, i.e., achievement motivation and goals based on the need for achievement (or attaining competence relative to others) need to be actively taught. These include learner self-confidence in his or her own ability; appreciation for the meaningfulness, value, and relevance of language learning; awareness and responsiveness, and moreover, self-awareness; self-examination of attributions, especially excuses, and the ability to double-check the accuracy of assumptions (especially as related to competency); and self-efficacy and positive self-concept, especially in regard to achievement and success.

In regard to teaching strategies, which were only discursively referred to in Chapter II, Graham’s successes [see page 56] might be emulated using the procedures she used to provide positive and negative cognitive feedback and positive affective feedback to her college level ESL students, including an emphasis on formal grammar instruction, oral exercises with corrective feedback, sentence drills, written assignments and dictation, together with her main key to success: the fact that she highly motivated

students to study and encouraged students to see their own errors. Granted, it takes a very talented and dedicated teacher indeed, to provide all of this, and moreover to be a language specialist.

5.4 Limitations and the Need for Further Research

There are several limitations to this study. An obvious limitation is related to the participant sample. The participants in this study belong to a specific racial, ethnic, and cultural group and therefore the findings may differ if the study were undertaken with another racial, ethnic, or cultural population. A vivid example of this is that, having come from a completely different ethnic background and cultural setting, I found it surprising that the majority of participants in this study had relatively few errors on the 'Listening / Comprehension Test' in comparison to the other sections of the 'English Language Proficiency Evaluation'. After some analysis, I reasoned that since the exposure to English through television, radio, videos, CDs, etc. is so pervasive in Puerto Rico, it stands to reason that people who have had such exposure would perform better on the 'Listening / Comprehension' component (Huang & Eskey, 1999). This most certainly would not be the case if the participants were from another cultural background or a country in which English was regarded as a 'foreign' language. Additionally, it should be noted that the participants lived and worked in a confined geographical area on the very island of Puerto Rico itself, and it is possible that the results would vary if participants were selected from another geographical region. The socio-economic level of the participants in this study, which facilitated exposure to the media, higher

education, trans-cultural and linguistic contacts, etc., may also have had an affect upon the findings.

Nevertheless, in this study, it has been shown that there is a moderate to strong positive relationship between IL fossilization / TL competency and achievement motivation, i.e., high achievement motive is associated with TL competency and descending levels of achievement motive are associated with ascending levels of IL fossilization. These findings, based upon the statistically valid sample of the target population, are transferable to the extent to which they can be generalized to other settings, which appears quite feasible.

In terms of future study, I believe that the periods or areas of temporary cessation of progress, particularly of those participants with low levels of IL fossilization, warrant further characterization. Studies, and in particular, qualitative studies might be conducted to determine motivational symptoms related to the periods or areas of temporary cessation of progress. This might lead to the identification of specific techniques to activate or reactivate, achievement motive. Studies might also be conducted in the area of qualitative and quantitative linguistic typology, transformational-generative grammar, 'i-language', codeswitching, etc., which can enhance the understanding of the relationship between linguistics and psychology, and moreover cognitive psychology, and ultimately the relationship between language acquisition and the psychology of motivation, and achievement motivation. Such studies could shed additional light on the nature of 'linguistic' blockages, and both syntactic and phonetic fossilization.

Another aspect that needs to be confirmed through further study is the role of awareness in surmounting periods or areas of temporary cessation of progress. Long

(1996) has suggested the facilitative effect of 'noticing' in SLA. However, little has been put forth in regard to 'awareness' as a factor that contributes to the overcoming of periods or areas of temporary cessation of progress. The questions that can be asked include: 'Can ESL learners surpass or overcome periods or areas of temporary cessation of progress without being aware of them?' 'What factors assist learners in becoming aware of periods or areas of temporary cessation of progress?' 'Can all periods or areas of temporary cessation of progress be overcome?' It would be especially interesting to monitor those participants who claim to be reactivated as a consequence of a renewed awareness of their deficiencies. Their improvement would indeed be a strong argument against the permanent character of IL fossilization.

Similarly, investigation is needed regarding other factors that contribute to the inaccurate self-assessment of TL competency expressed by fossilized learners in addition to the unreliable assessments that they received in the process of their own training. Since this self-perception, in some ways appears to be directly correlated to the inability to achieve TL competency, it is of utmost importance that we understand the reasons why this perception develops in the face of all evidence to the contrary.

5.5 Summary

To recap, this study has established that there is a moderate to strong positive relationship between IL fossilization / TL competency and achievement motivation, i.e., high achievement motive is associated with TL competency and descending levels of achievement motive are associated with ascending levels of IL fossilization. It should be mentioned that one of the strengths of this study, in fact, were its middle-aged

participants, whose educational levels, maturity, and personal and other insight assisted in the provision of rich and significant feedback during the different stages of the study.

The number of participants in this study (15), although small, has been robust enough to establish statistically valid trends [see pages 123 - 125], especially among participants with low levels of IL fossilization. However, because only 1 person was TL competent, additional studies are required to determine if learners that have achieved TL competency identify with the factors mentioned in (4) below. Ultimately, the conclusions were confirmed quantitatively through the results of 'ELPE' and 'MAM' scores and qualitatively affirmed in participant responses to the follow-up interviews [see section 4.7.16 on pages 157 - 160]. Therefore, after discussing and interpreting the results of this study and considering their implications, I have arrived at the following conclusions:

1. Awareness is essential in overcoming periods or areas of temporary cessation of progress in ESL learning.
2. Competence (or perceived competence) is affected by and, in turn, may affect, achievement motivation.
3. Fossilized middle-aged ESL learners are prone to identify external barriers to the achievement of TL competency rather than attribute any responsibility to themselves.
4. The ESL learner in this study that attained TL competency identified barriers to the achievement of TL competency in terms of internal factors.
5. It may ultimately be possible (especially for learners with low levels of IL fossilization) to overcome periods or areas of temporary cessation of progress in ESL learning and attain TL competency by addressing their inaccurate self-

assessments, i.e., by being made aware of their periods or areas of temporary cessation of progress in ESL learning, hereby reactivating approach-type achievement motivation.

Finally, and in addition to the necessity of additional studies related to the role of achievement motivation in SLA, this research accentuates the fact that the theories reviewed and discussed in Chapter II regarding external interactional variables [see page 49 - 50] , positive cognitive, affective, and corrective feedback [see pages 52 - 55], ‘noticing’ and self-monitoring [see page 73], learning strategies [see page 70], teaching strategies [see page 56], the percentage of learners who achieve TL competency [see page 4], and ultimately the permanent character of IL fossilization [see page 30] need to be revisited and re-examined, establishing a new prominence in some cases, and discarding others such as those related to Selinker’s ‘5%’ and the permanency of IL fossilization. Additionally, Nakuma’s insights [see page 77] that relate IL fossilization to performance rather than to competence also need to be seriously considered and investigated, together with the fact that fossilization is made up of positive and negative manifestations. The phenomenon of fossilization is much broader than generally considered.

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APPENDICES

APPENDIX A
Questionnaire Seeking Participants for the Study

PART I: QUESTIONNAIRE SEEKING PARTICIPANTS FOR THE STUDY

Dear Sir / Madam:

As part of my doctoral research at Rhodes University, I am conducting a study on the role of achievement motivation on the interlanguage fossilization of middle-aged English-as-a-second-language learners, and am seeking candidates that can participate in the study. In order to ascertain if you qualify to be a participant in this study, I request that you provide me with the following information:

1. How old are you? _____
2. Indicate your sex: Male Female
3. What is your native language? _____
4. Have you ever lived or studied in an English speaking country? Yes No
5. Have you completed university studies? Yes No
6. What degree(s) have you earned? _____
7. How many years have you studied English? ____ [at High School: ____ ; at University: ____]
8. If you qualify to be a participant for this study, would you be willing to be tested in order to determine (a) your level of English language proficiency, and (b) your achievement motive? Yes No
9. Would you be willing to participate in an individual or group interview?
 Yes No

[Rate your English-Language Proficiency: Native-Like Advanced Intermediate Other: _____]

If you answered affirmatively to questions 8 and 9, and would like to participate in this study, please provide your contact information.

Name and surname: _____ Telephone: _____
Address: _____ E-mail: _____

With sincerest thanks,

Dr. Zoran Vujisic, CFT

Director of the Center for Language at the University of Turabo, Gurabo, Puerto Rico

Telephone: (787) 640-5441, E-mail: crnagora@prtc.net

APPENDIX B
Informed Consent Statement

PART II: INFORMED CONSENT STATEMENT

The Department of English Language and Linguistics at Rhodes University, Grahamstown, South Africa, upholds the protection of the rights of human subjects participating in research. The following information is provided to you, to facilitate your decision as to whether you wish to participate in this present study. If you agree to participate, your participation is strictly voluntary, and you will be free to withdraw at any time.

I am conducting research on the role of achievement motivation on the interlanguage fossilization of middle-aged English-as-a-second-language learners. You will be asked to participate in an English language proficiency evaluation or test in order to determine your level of competency in English. This test involves the following components: 1) Listening / Comprehension, 2) Fluency / Structure / Grammar, 3) Reading / Comprehension, 4) Writing / Essay, and 5) Verbal Communication / Pronunciation. The final component will be recorded. You will also be asked to take a test that will determine your achievement motive, and to participate in an individual or group interview. It is estimated that the sessions will take approximately 5 hours, for which you will receive monetary compensation. Although participation in this study will not directly benefit you, the knowledge obtained from this study may be useful in helping others learn English-as-a-second-language more successfully.

Please note that your name and other personal information will not be revealed. The information that you provide will be kept confidential and will be used only for the purposes of this research.

If you would like additional information regarding this study, before or after it is completed, please contact me.

Dr. Zoran Vujisic, CFT

Director of the Center for Language at the University of Turabo, Gurabo, Puerto Rico

Telephone: (787) 640-5441, E-mail: crnagora@prtc.net

By my signature I affirm that I have read the aforementioned 'Informed Consent Statement'. I agree to participate in this study, consent to have my responses recorded, and confirm that I have been given a copy of this statement.

Signature: _____ Date: _____

APPENDIX C
English Language Proficiency Evaluation

PART III: ENGLISH LANGUAGE PROFICIENCY EVALUATION

*Modified and Adapted with Full Permission From Roberta Steinberg's TOEFL (CBT)
(TOEFL is a registered trademark of the Educational Testing Service or ETS)*

1. Listening / Comprehension Test

The Listening / Comprehension Test measures the ability to understand conversations and discussions in English. Listen carefully and answer all questions as instructed. There are two parts to the Listening / Comprehension Test, with special directions for each part.

Directions for Part A of Listening / Comprehension Test

In Part A of the Listening / Comprehension Test, you will hear short conversations between two people. In some of the conversations, each person speaks only once. In other conversations, one or both of the people speak more than once. Each conversation is followed by one question. You have approximately one minute to respond to each question before the next conversation begins.

Each question in Part A has four answer choices. You should mark the best answer to each question. Answer the question on the basis of what is stated or implied by the speakers. Please begin by listening to the first conversation.

1. What does the woman imply?
 - Ⓐ There will only be three or four more hot weeks.
 - Ⓑ She didn't know her apartment didn't have air conditioning.
 - Ⓒ She knew there would be so many hot days in the summer.
 - Ⓓ The apartment she has now doesn't have air conditioning.

2. What does the woman mean?
 - Ⓐ Both Tamara and Fred long for dinner.
 - Ⓑ Tamara and Fred messed up dinner.
 - Ⓒ Neither Tamara nor Fred came to dinner.
 - Ⓓ Tamara and Fred used to be thinner.

3. What does the man imply?
 - Ⓐ She shouldn't hate the couch.
 - Ⓑ She should have told him she didn't like the couch.
 - Ⓒ He would have told her if he had hated the couch.
 - Ⓓ He hates it too.

4. Where does this conversation take place?
 - Ⓐ In the lab.
 - Ⓑ In the cafeteria.
 - Ⓒ In the library.
 - Ⓓ In the dorm.

5. What does the man mean?
 - Ⓐ If it rains, the team will use the pool.
 - Ⓑ They're going by train to swim in the country.
 - Ⓒ The team will practice at the club swimming pool.
 - Ⓓ The country club pool is being repaired.

6. What does the woman imply?
 - Ⓐ She's got to make the 5:00 deadline.
 - Ⓑ She will go to the restaurant if the deadline passes.
 - Ⓒ She'll get to the restaurant ahead of him.
 - Ⓓ He should go on without her.

7. What does the woman mean?
 - Ⓐ Her computer midterm will be as long as her biology midterm.
 - Ⓑ She might be confused as to the length of the biology midterm.
 - Ⓒ Her computer midterm was very confusing.
 - Ⓓ Both of her midterms will be ten pages long.

8. What does the man imply?
 - Ⓐ He's sitting on the edge of his seat.
 - Ⓑ He fell over the ledge.
 - Ⓒ Going for help made him more confused.
 - Ⓓ He's on the edge of understanding the set.

9. What does the man mean?
- Ⓐ The oral presentations are voluntary.
 - Ⓑ If the presentation is longer than five minutes, there will be no extra credit.
 - Ⓒ He strongly recommends everyone give an oral presentation.
 - Ⓓ There will be an extra class for the presentations.
10. What does the woman mean?
- Ⓐ Run to the lecture so as not to be late.
 - Ⓑ The lecture was delayed.
 - Ⓒ The lecturer often runs late in the day.
 - Ⓓ The lecture often goes past its scheduled time.
11. What does the man imply?
- Ⓐ There were enough refreshments for the last meeting.
 - Ⓑ Since the cookies always get eaten, he won't get any next time.
 - Ⓒ He'll order more cookies for the next meeting.
 - Ⓓ It doesn't make a difference how many cookies he gets.

Directions for Part B of Listening / Comprehension Test

In Part B of the Listening / Comprehension Test, you will hear several longer conversations. The conversations will not be repeated. Each conversation is followed by several questions. You have approximately one minute to respond to each question.

The conversations are about a variety of topics. You do not need special knowledge of the topics to answer the questions correctly. You should answer each question on the basis of what is stated or implied by the speakers. For most of the questions, you will need to mark the best of four possible answers. Some questions will have special directions. Please begin by listening to the first conversation.

12. What does the man say about the student activity fee?
- Ⓐ It's no longer collected.
 - Ⓑ It's voluntary.
 - Ⓒ It supports campus events on weekends.
 - Ⓓ It enables students to go into the city.

13. What does the man imply about Friday and Saturday nights?
- Ⓐ The college could use some new faces on weekends.
 - Ⓑ Students don't participate in what's planned for them.
 - Ⓒ There isn't enough money to plan programs students want to attend.
 - Ⓓ Students are too tired to attend the organized programs.
14. What does the man want the woman to do?
- Ⓐ Plan new activities with him
 - Ⓑ Go with him into the city on weekends
 - Ⓒ Collect the student activity fee
 - Ⓓ Find some new faces to be on student government

Now listen to the next conversation.

15. Where will they get the materials for the first part?
- Ⓐ From a computer
 - Ⓑ In the library
 - Ⓒ In the student center
 - Ⓓ In class
16. What will the man do before they meet?
- Ⓐ Print the materials they need
 - Ⓑ Get the sources from the library
 - Ⓒ Find a big table at the student center
 - Ⓓ Spread out all their materials
17. Where will they meet?
- Ⓐ In the library
 - Ⓑ Over the Internet
 - Ⓒ At the student center
 - Ⓓ In class

Now listen to a design lecture about the printmaking process.

18. Which medium is used to create designs for printmaking?
(Mark 2 answers).
- Ⓐ Stone
 - Ⓑ Canvas
 - Ⓒ Metal
 - Ⓓ Paper
19. Which process leaves a platemark?
- Ⓐ Relief
 - Ⓑ Intaglio
 - Ⓒ Planographic
 - Ⓓ Lithographic

20. What is an example of each of these types of prints?
(Mark 1 answer for a, b, and c).
- | | | | | |
|----------------|---|----------|------------|----------------|
| a. lithographs | = | Ⓐ relief | Ⓑ intaglio | Ⓒ planographic |
| b. woodcuts | = | Ⓐ relief | Ⓑ intaglio | Ⓒ planographic |
| c. engravings | = | Ⓐ relief | Ⓑ intaglio | Ⓒ planographic |
21. How do printmakers etch onto metal?
- Ⓐ With sharp tools
 - Ⓑ With water, repulsed from a greasy image
 - Ⓒ With platemarks
 - Ⓓ By pressing the paper onto it
22. According to the lecture, why do printmakers go through the trouble of printmaking? (Mark 2 answers).
- Ⓐ They find painting too quick a process.
 - Ⓑ They want to make many impressions of an image.
 - Ⓒ They enjoy the slow, difficult technique.
 - Ⓓ They enjoy the variety of effects printmaking can produce.

Now listen to a discussion of a stamp-collecting group.

23. What is the main topic of the discussion?
- Ⓐ The contents of each section in the brochure
 - Ⓑ The history of American stamp collecting
 - Ⓒ Changing the name of the Campus Philatelist Society
 - Ⓓ What makes a stamp rare or unusual
24. Based on the discussion, classify the following types of separations.
(Mark 1 answer for a, b, and c).
- | | | |
|----------------|---|---------------------------------------|
| a. roulette | = | Ⓐ Stamps with little holes |
| | | Ⓑ Small cuts made by a knife |
| | | Ⓒ Stamps that cut apart with scissors |
| b. imperforate | = | Ⓐ Stamps with little holes |
| | | Ⓑ Small cuts made by a knife |
| | | Ⓒ Stamps that cut apart with scissors |
| c. perforation | = | Ⓐ Stamps with little holes |
| | | Ⓑ Small cuts made by a knife |
| | | Ⓒ Stamps that cut apart with scissors |
25. When were the first U.S. stamps issued?
- Ⓐ 1847
 - Ⓑ 1850
 - Ⓒ 1870
 - Ⓓ 1893

2. Fluency / Structure / Grammar Test

This test evaluates your ability to recognize language that is appropriate for standard written English.

There are two types of questions in this test. In the first type of question, there are incomplete sentences. Beneath each sentence, there are four words or phrases. Please choose the one word or phrase that best completes the sentence.

The second type of question has four underlined words or phrases. Please select the one underlined word or phrase that must be changed for the sentence to be correct.

You have approximately one minute to respond to each question.

1. Maurice Sendak's books *In the Night Kitchen* Ⓐ and *Outside Over There* Ⓑ describe the adventures of children Ⓒ which master their feelings by testing Ⓓ themselves in dangerous but ingenious places.
2. Woodie Guthrie had many personal misfortunes, _____ his music expressed a hopeful view of life.
Ⓐ but
Ⓑ therefore
Ⓒ which
Ⓓ so
3. Ⓐ Sheep are Ⓑ among the most important animals that people Ⓒ have tamed because they provide both food Ⓓ or clothing.
4. The bite of a tarantula is no more dangerous to people _____ the sting of a bee.
Ⓐ than
Ⓑ more
Ⓒ like
Ⓓ as is
5. Lorado Taft, an American sculptor, teacher, and writer is best remembered for *The History of American Sculpture*, _____.
Ⓐ the subject of the first book is
Ⓑ which is the subject of the first book
Ⓒ is the first book on the subject
Ⓓ the first book on the subject

6. (A) Whereas in the 1600's most better-quality American furniture was made in England, in the 1700's, furniture makers began producing a significant (B) amount of (C) furnitures in Newport, Rhode Island, Philadelphia, and (D) other U.S. cities.
7. Tacoma, one of (A) the largest cities in Washington, is (B) a industrial (C) and (D) commercial center.
8. The majority of Saul Steinberg's thought-provoking pen-and-ink drawings _____ captions or explanations.
(A) have neither
(B) are having no
(C) have none
(D) have no
9. Talc is (A) so soft that it (B) can be scratched with (C) a fingernail, and it feels (D) soap or greasy.
10. Reptiles can alter the (A) amount of heat (B) their bodies (C) absorb from the sun by changing their (D) skins colors.
11. The body has two adrenal glands, one _____.
(A) on top each kidney
(B) top of each kidney
(C) kidney on top of each
(D) on top of each kidney
12. When a crossword puzzle (A) is completed, (B) each square will contain a letter that (C) help to spell (D) a word.
13. Tarragon is (A) widely cultivated for (B) their leaves and young (C) shoots, which are used (D) as a flavoring for vinegar.
14. In most telescopes, a lens of mirrors is used _____ an image of an object.
(A) to forming
(B) formally
(C) when formed
(D) to form
15. Teepees (A) were (B) home to Plains Indians (C) who hunted the (D) buffalo huge herds.
16. A rug makes use of (A) variety of patterns (B) and textures (C) to achieve an (D) interesting design.

17. Bella Abzug supported legislation that promotes _____, public transportation, and individual rights to privacy.
Ⓐ job federal programs
Ⓑ federal job programs
Ⓒ job programs and federal
Ⓓ programming jobs federal
18. Interferon is Ⓐ a chemical substance Ⓑ producing by the cells of human beings and Ⓒ other mammals Ⓓ in response to viral infections or certain chemicals.
19. Ⓐ The University of Illinois Ⓑ it is a Ⓒ state-supported, coeducational institution with two campuses, one Ⓓ of which is in Chicago.
20. Ⓐ Because its great popularity, television Ⓑ has become Ⓒ a major way to reach people with Ⓓ advertising messages.
21. Nitrogen is _____ that the development of low-cost nitrogen greatly affected the use of fertilizer.
Ⓐ such an important fertilizer element
Ⓑ so important fertilize element
Ⓒ such a fertilizer element importance
Ⓓ an important fertilizer element so
22. The Rio Grande, Texas's Ⓐ longest river Ⓑ one of longest and most Ⓒ historic rivers Ⓓ in North America.
23. _____ early anthropologists mainly studied small communities in technologically simple societies, modern-day anthropologists work in wide-range of settings.
Ⓐ For
Ⓑ Despite
Ⓒ Although
Ⓓ Nevertheless
24. Thermodynamics is the study of Ⓐ various forms of energy and Ⓑ its conversion Ⓒ from one form into Ⓓ other.
25. _____ is made with dampened earth pressed down in building forms similar to those used for poured concrete walls
Ⓐ When a less common type of adobe
Ⓑ A least common type of adobe
Ⓒ A less common type of adobe
Ⓓ Adobe is a less common type

3. Reading / Comprehension Test

This section measures your ability to read and understand short passages. Each passage is followed by several different types of questions. After you finish reading a passage, select / highlight the best answer to each question, based on what is stated or implied. You have approximately 1 hour to complete this section.

Passage I: Questions 1-12

William Penn, the Quaker (1644-1718), has stirred up a fair amount of controversy. Few people during the exciting era of the Puritan Upheaval, the Cromwell Protectorate, the Stuart Restoration, and the Glorious Revolution understood him, and in many ways he remains a mystery until this day.

The uncertainty extends even to his appearance. There is no solid proof that the four or five so-called portraits of Penn were actually painted during his lifetime or by anyone who knew him well. Neither of the two best-known portrays Penn as we would expect. The portrait of a young man in armor is not the picture of a dedicated pacifist. In contrast, the scene of a treaty signing with the Indians shows a fat and stodgy-looking old man in a costume of a hundred years later. The treaty picture reflects friendliness and benevolence; however, neither portrait shows how vibrant and dynamic Penn was. He was described as a man of 'excellent sweetness'.

Penn was probably big-boned and portly, but it is uncertain whether he was tall or of medium height. His father was five feet eight, and both parents were stout. His hair was flaxen, though scanty throughout life, the result, he assumed, of a smallpox attack when he was three. There is no agreement about whether his eyes were blue or gray.

Penn was not a secretive man, but his personality is as much in doubt as is his appearance. Although a prolific writer and the author of scores of publications, he shed little light upon his own feelings or experiences; even the details in his writings were not precise. In recalling an event years later, time may have played tricks upon him. In all innocence, he may have written down what he thought might have happened, rather than what actually did occur.

1. With which of the following is the passage primarily concerned?
 - (A) The William Penn portrait collection
 - (B) William Penn as a reflection of Quaker values
 - (C) The uncertainty about Penn's demeanor and physical traits
 - (D) Penn's personality as evidenced in his costume and portraiture
2. Look at the word 'upheaval' in paragraph 1. Select / highlight the word or phrase in the paragraph that is closest in meaning to the word 'upheaval'.

3. Look at the word 'armor' in paragraph 2. The word is closest in meaning to
Ⓐ vertebrate
Ⓑ protective covering
Ⓒ battle maneuvers
Ⓓ military
4. Look at the phrase 'the two best-known' in paragraph 2. Select / highlight the word or phrase in the paragraph that 'the two best-known' refers to.
5. The following sentence could be added to paragraph 2. 'However, Penn's armor in the portrait may be reconciled with his Quaker pacifism due to the fact that he did not become a Quaker until his twenties, shortly after posing for the portrait'.

Where would it best fit into the paragraph? Select the square to add the sentence to the paragraph.

The uncertainty extends even to his appearance. Ⓐ There is no solid proof that the four or five so-called portraits of Penn were actually painted during his lifetime or by anyone who knew him well. Ⓑ Neither of the two best-known portrays Penn as we would expect. Ⓒ The portrait of a young man in armor is not the picture of a dedicated pacifist. Ⓓ In contrast, the scene of a treaty signing with the Indians shows a fat and stodgy-looking old man in a costume of a hundred years later. Ⓔ

6. Look at the word 'stout' in paragraph 3. Select / highlight the word or phrase in the paragraph that is closest in meaning to the word 'stout'.
7. The author suggests that
Ⓐ Penn had few acquaintances
Ⓑ Penn may not be the subject of his portraits
Ⓒ Penn was not the gentle, quiet man as assumed
Ⓓ Penn dressed inappropriately for the Indian signing treaty
8. This passage would most likely be assigned reading in a course on
Ⓐ writing
Ⓑ art history
Ⓒ religion
Ⓓ American Indians
9. Which paragraph describes Penn's presumed physical characteristics?
Ⓐ Paragraph 1
Ⓑ Paragraph 2
Ⓒ Paragraph 3
Ⓓ Paragraph 4

10. The author suggests that Penn may have
- Ⓐ closely resembled his father
 - Ⓑ inaccurately recorded events
 - Ⓒ kept many secrets
 - Ⓓ played tricks with his readers
11. It can be inferred from the passage that Penn
- Ⓐ was tall
 - Ⓑ kept his whereabouts hidden
 - Ⓒ was a revolutionary
 - Ⓓ negotiated with Indians
12. According to the passage, William Penn was
- Ⓐ blue-eyed
 - Ⓑ tall
 - Ⓒ portly
 - Ⓓ an Indian

Passage II: Questions 13-25

Paragraph A: If you pick up your child every time she cries, she will whimper and whine simply to get your attention. Never sleep with the baby because you will surely roll over and suffocate her. Newborn infants need rigorous schedules to be content; breastfeed only every two hours. A good mother must spend hours every day talking with her child to encourage mental development.

Paragraph B: ① New parents are deluged with such advice from pediatricians, childcare experts, and just about anybody on the street who stops to peek into the carriage. ② What few parents realize is that most of these rules, these laws of infant care, have little scientific credibility. ③ If proponents of a new branch of research into childcare, called ethnopediatrics, have their way, such advice may become a thing of the past. ④ This group of anthropologists, pediatricians, and child development researchers seeks to discover exactly how different styles of parenting across the globe affect the biology, growth, health, and survival of infants. ⑤ The reflexes of newborn babies the world over have been honed by millions of years of evolution. ⑥ Babies instinctively know when to sleep, when to eat, and how to cry out to signal their needs. ⑦ However, the way these needs are met varies widely among societies.

Paragraph C: The researchers also aim to explain how such cultural differences come to be and how they are forged from social expectations about children. Childcare in every society aims to shape babies into the type of children - and eventually adults - valued by that culture. Although newborn babies are the same the world over, from the moment babies start interacting with their mothers, they become members of distinct, changeable, modern societies, often quite unlike those that babies once adapted to through evolution.

13. The passage mainly discusses
- Ⓐ the lack of scientific credibility in parenting rules
 - Ⓑ new research on childrearing as a result of cultural differences
 - Ⓒ advice on how to be a good parent
 - Ⓓ shaping babies into valued members of society
14. The author includes the first paragraph in order to show
- Ⓐ the difficulties of being a good parent
 - Ⓑ various childrearing suggestions
 - Ⓒ the importance of interacting with infants
 - Ⓓ the lack of verbal interaction with infants
15. Look at the phrase 'deluged with' in paragraph 2. The phrase is closest in meaning to
- Ⓐ deceived by
 - Ⓑ bombarded by
 - Ⓒ attacked by
 - Ⓓ confused by
16. According to paragraph 2, which of the following is true about the laws of infant care?
- Ⓐ Laws of infant care are the same the world over.
 - Ⓑ These rules have little basis in science.
 - Ⓒ Ethnopediatrics is rewriting childcare rules.
 - Ⓓ Parents realize the limitations of infant care laws.
17. Select / highlight the sentence in paragraph 2 that lists which scientists are involved with ethnopediatrics.
18. Look at the word 'proponents' in paragraph 2. The word is closest in meaning to
- Ⓐ advocates
 - Ⓑ opponents
 - Ⓒ inspectors
 - Ⓓ consumers
19. Look at the word 'their' in paragraph 2. Select / highlight the word or phrase in the paragraph that 'their' refers to.
20. It can be inferred from the passage that the researchers will investigate all of the following except
- Ⓐ development
 - Ⓑ disease
 - Ⓒ heredity
 - Ⓓ adaptability

21. According to the passage, what can be said about newborns?
Ⓐ Their reflexes have remained constant throughout history.
Ⓑ They are similar all over the world.
Ⓒ They have their needs met in similar ways.
Ⓓ Their survival rate depends on the parenting they receive.
22. The author's attitude toward 'ethnopediatrics' is generally
Ⓐ enthusiastic
Ⓑ neutral
Ⓒ hostile
Ⓓ skeptical
23. Select / highlight the paragraph in the passage that explains how the way infants' needs are met is relative to their societies.
24. The following sentence could be added to paragraph 2 or 3. 'For example, whether or not young boys are discouraged from crying in public depends on one's culture'.

Where would it best fit into the paragraph? Select the square to add the sentence to the paragraph.

Ⓐ The reflexes of newborn babies the world over have been honed by millions of years of evolution. Babies instinctively know when to sleep, when to eat, and how to cry out to signal their needs. However, the way these needs are met varies widely among societies. Ⓑ The researchers also aim to explain how such cultural differences come to be, and how they are forged from social expectations about children. Childcare in every society aims to shape babies into the type of children - and eventually adults - valued by that culture. Ⓒ Although newborn babies are the same the world over, from the moment babies start interacting with their mothers, they become members of distinct, changeable, modern societies, often quite unlike those that babies once adapted to through evolution. Ⓓ

25. The passage following this one most likely deals with
Ⓐ statistics on birth weights of babies born in different countries
Ⓑ examples of childrearing in ancient cultures
Ⓒ examples of childrearing which encourage certain culturally - valued behaviors
Ⓓ statistics on modern society birthrates

Passage III: Questions 26-38

No one has ever seen black holes. It is not even certain that they exist, yet theorists have been enthusiastically predicting their existence ever since Einstein published his general theory of relativity in 1916. According to Einstein's theory, a black hole forms when a

massive object shrinks catastrophically under its own gravitational field. It is so strong that nothing, not even light, can escape. This occurrence produces the 'blackness'.

① After decades of searching, astronomers are now finding an increasing number of encouraging signs that black holes may exist. ② Definite proof of these bizarre phenomena, however, remains elusive. ③ A minority of astronomers do not accept the black hole theory at all. ④ The majority, however, believe there is a considerable body of evidence -admittedly indirect - which supports the existence of black holes. ⑤ Getting those all important hard data will not be easy. ⑥ How do you see an object that is, by definition, invisible? ⑦ Moreover, black holes are extremely tiny; they pack a given mass into the least possible volume. ⑧ So actually 'seeing' a dark object, blotting out the light from background stars, as the moon blots out the sun in a total eclipse, is out of the question. ⑨ Instead, astronomers must infer the existence of black holes indirectly from the influence of their extraordinarily strong gravity on the visible bodies that surround them.

There is, nevertheless, a way that the existence of black holes might be proved once and for all. When black holes form, they should generate vast amounts of gravity waves, which spread out like wavelets on a pond. Such 'ripples' in spacetime should be detectable by gravity-wave detectors which are currently being developed.

26. What does the passage mainly discuss?
- Ⓐ The origins of black holes
 - Ⓑ The difficulty in proving the existence of black holes
 - Ⓒ Einstein's theory and its relation to black holes
 - Ⓓ Astronomers' use of gravity-wave detectors
27. Look at the word 'they' in paragraph 1. Select / highlight the word or phrase in the paragraph that 'they' refers to.
28. What is the main focus of paragraph 1?
- Ⓐ The definition of black holes
 - Ⓑ The astronomers' dilemma
 - Ⓒ Proving the existence of black holes
 - Ⓓ Crediting Einstein with the discovery of black holes
29. Select / highlight the word or phrase in paragraph 1 that is closest in meaning to the word definite.
30. Look at the word 'shrinks' in paragraph 1. The word is closest in meaning to
- Ⓐ disappears
 - Ⓑ blinks
 - Ⓒ contracts
 - Ⓓ expands

31. The following sentence could be added to paragraph 1 or 2.
'Einstein's theory proposed that gravity affects the shape of space by curving it and the flow of time by slowing it down'.

Where would it best fit into the paragraph? Select the square to add the sentence to the paragraph.

- Ⓐ No one has ever seen black holes. Ⓑ It is not even certain that they exist, yet theorists have been enthusiastically predicting their existence ever since Einstein published his general theory of relativity in 1916. Ⓒ According to Einstein's theory, a black hole forms when a massive object shrinks catastrophically under its own gravitational field. It is so strong that nothing, not even light, can escape. This occurrence produces the 'blackness'. Ⓓ After decades of searching, astronomers are now finding an increasing number of encouraging signs that black holes may exist. Ⓔ
32. According to the passage, what do the majority of astronomers believe?
Ⓐ That there is direct evidence of black holes
Ⓑ That the black hole theory is unacceptable
Ⓒ That definite proof of black holes is out of the question
Ⓓ That black holes probably exist
33. Why does the author mention the moon blotting out the sun in paragraph 2?
Ⓐ To explain what the process of blotting is
Ⓑ To emphasize the moon and sun's similarity to black holes
Ⓒ To compare different types of seeing
Ⓓ To contrast the inability of seeing black holes with seeing the moon in a total eclipse
34. Look at the phrase 'out of the question' in paragraph 2. The phrase is closest in meaning to
Ⓐ controversial
Ⓑ debatable
Ⓒ problematic
Ⓓ impossible
35. Select / highlight the sentence in paragraph 2 where the author explains the size of black holes.
36. Look at the word 'vast' in paragraph 3. The word is closest in meaning to
Ⓐ huge
Ⓑ quick
Ⓒ tangible
Ⓓ powerful

37. Look at the word 'wavelets' in paragraph 3. Select the word or phrase in the paragraph that is closest in meaning to the word wavelets.
38. It can be inferred from the passage that
- Ⓐ invisible black holes may soon be visible
 - Ⓑ the existence of black holes may soon be proved
 - Ⓒ astronomers hope to see black holes soon
 - Ⓓ seeing black holes is like seeing an eclipse

Passage IV: Questions 39-50

A natural canal construction boom occurred in the U.S. during the 1820's and 1830's. Much of the construction occurred in what was then called 'The West'. For example, Ohio built the Ohio and Erie Canals linking the Ohio River to Cleveland so that farmers could transport produce directly to the East. Unfortunately, the western canal enthusiasm caused the states to overbuild. The result was that there simply wasn't enough traffic to pay for the new canals. From 1841-1842, nine states faced dangerously mounting debts and inevitably defaulted on their canal bonds. Profits were wiped out almost completely. In addition, by 1850 the railroad had emerged as an invincible competitor.

The railroads initially functioned as feeders, or branch lines, for canals. The first railroad to begin operation was the Baltimore and Ohio in 1830. Despite its potential, railroad use developed slowly. Between 1830 and 1850, only nine thousand miles of track were laid. Private capital showed mild interest, leaving the states to supply most of the building funds. The problems involved in railroad construction seemed almost insurmountable. The most commonly used metal in tracks, cast iron, proved a poor material. In addition, no standard gauge was used. The trains ejected sparks and cinders, which constituted a menace to society. Finally, engines had insufficient power to carry heavy loads over inclines. Because of the problems with railroads, shippers did not immediately switch their business to them.

The lower cost of shipping goods on canal boats also stopped shippers from switching to railroads. Additionally, certain states, such as New York, which had constructed canal systems, did not want to help fund a competitive mode of transportation. Eventually, however, land companies began to pressure the federal government to construct 'trunk lines' into the West at its own expense. Much of the support for private investment in railroads came from town, county, and state governments, which not only loaned money to private investors - mainly local businessmen, merchants, and farmers - but also invested in their stock.

As a result, between 1850 and 1860 twenty thousand miles of track were laid. Railroads began to take away much of the freight business from canals, forcing many of them to fail. By 1860, railroad tracks crisscrossed every state east of the Mississippi.

39. With which of the following is the passage primarily concerned?
- Ⓐ The reason for the importance of the Ohio and Erie Canal
 - Ⓑ Funding sources for railroad construction in the nineteenth century
 - Ⓒ The shift from canals to railroads, 1830 to 1860
 - Ⓓ Problems in canal construction
40. Look at the word ‘boom’ in paragraph 1. The word is closest in meaning to
- Ⓐ project
 - Ⓑ decision
 - Ⓒ increase
 - Ⓓ crash
41. The author explains that Ohio built a canal system in order to
- Ⓐ encourage canal enthusiasm
 - Ⓑ pay off state debts
 - Ⓒ ship goods to the East
 - Ⓓ link Cleveland to the West
42. Look at the word ‘defaulted’ in paragraph 1. The word is closest in meaning to
- Ⓐ paid additional money
 - Ⓑ failed to make a court appearance
 - Ⓒ continued to rely
 - Ⓓ stopped payment of money due
43. The author mentions New York in paragraph 3 in order to
- Ⓐ give an example of a state with a canal system
 - Ⓑ compare New York with Ohio
 - Ⓒ explain why certain states did not support railroad expansion
 - Ⓓ demonstrate canal enthusiasm
44. Which of the following is NOT mentioned in the passage as a problem in railroad construction?
- Ⓐ Inadequate bridge engineering
 - Ⓑ Safety problems
 - Ⓒ Lack of engine power
 - Ⓓ Lower costs of using canal boats
45. The following sentence could be added to paragraph 2. ‘Understandably, passengers complained as their clothing and belongings frequently caught on fire’.

Where would it best fit into the paragraph? Select the square to add the sentence to the paragraph.

Ⓐ The railroads initially functioned as feeders, or branch lines, for canals. The first railroad to begin operation was the Baltimore and Ohio in 1830. Ⓑ Despite

its potential, railroad use developed slowly. Between 1830 and 1850, only nine thousand miles of track were laid. Private capital showed mild interest, leaving the states to supply most of the building funds. © The problems involved in railroad construction seemed almost insurmountable. The most commonly used metal in tracks, cast iron, proved a poor material. Ⓓ In addition, no standard gauge was used. The trains ejected sparks and cinders, which constituted a menace to society. Ⓔ Finally, engines had insufficient power to carry heavy loads over inclines. Ⓕ

46. Look at the word 'insurmountable' in paragraph 2. The word is closest in meaning to
- Ⓐ ineffective
 - Ⓑ insolvable
 - Ⓒ inhospitable
 - Ⓓ inequitable
47. Look at the word 'their' in paragraph 3. Select / highlight the word or phrase in the paragraph that 'their' refers to.
48. It can be inferred from the passage that
- Ⓐ the Federal government absorbed states' debts
 - Ⓑ some states continued using cast iron
 - Ⓒ growth of the railroad was due to government and private investment
 - Ⓓ most farmers lived in the East
49. Look at the word them in paragraph 4. Select / highlight the word or phrase in the paragraph that 'them' refers to.
50. The passage supports which of the following conclusions?
- Ⓐ New York was not the only state that wanted to encourage the use of its own canal system.
 - Ⓑ State governments opposed the development of the railroad system in the 1850's.
 - Ⓒ Prior to 1860, the development of railroad lines took place predominantly west of the Mississippi.
 - Ⓓ By 1860, the major problems involved in railroad construction had been overcome.

4. Writing / Essay Test

In this test, you have the opportunity to demonstrate your ability to write in English. The essay topic is described below. You have 30 minutes to write your essay.

Please begin.

TOPIC: What factors do you view as barriers to the achievement of competency in English-as-a-second-language? Use specific reasons and examples to support your view.

5. Verbal Communication / Pronunciation Test

In this test, you have the opportunity to demonstrate your ability to speak English. Please listen carefully to the conversations and talks. Using complete sentences, answer each question in your normal speaking voice, clearly enunciating each word. Your answers will be automatically recorded. You have approximately 2 minutes to answer each question.

APPENDIX D
Measure of Achievement Motivation

PART IV: MEASURE OF ACHIEVEMENT MOTIVATION

(Modified and Adapted with Full Permission From Dr. Hubert J. M. Hermans)

Please answer the following questions honestly and to the best your ability by selecting / highlighting the statement that most closely represents your position. You have approximately one minute to respond to each question. Please begin.

1. Working is something:
 - Ⓐ I would rather not do.
 - Ⓑ I don't like doing very much.
 - Ⓒ I would rather do now and then.
 - Ⓓ I like doing.
 - Ⓔ I like doing very much.

2. At school they thought I was:
 - Ⓐ very diligent.
 - Ⓑ diligent.
 - Ⓒ not always so diligent.
 - Ⓓ rather easy-going.
 - Ⓔ very easy-going,

3. Other people think I:
 - Ⓐ work very hard.
 - Ⓑ work hard.
 - Ⓒ work pretty hard.
 - Ⓓ don't work very hard.
 - Ⓔ don't work hard.

4. To prepare yourself a long time for an important task:
 - Ⓐ really is senseless.
 - Ⓑ often is rather rash.
 - Ⓒ can often be useful.
 - Ⓓ testifies to a sense of reality.
 - Ⓔ is necessary to succeed.

5. When I am working, the demands I make upon myself are:
 - Ⓐ very high.
 - Ⓑ high.
 - Ⓒ pretty high.
 - Ⓓ not so high.
 - Ⓔ low.
 - Ⓕ very low.

6. When the teacher gave lessons at school:
- Ⓐ I usually set my heart on doing my best and making a favorable impression.
 - Ⓑ I usually paid great attention to the things being said.
 - Ⓒ my thoughts often strayed to other things.
 - Ⓓ I was more interested in things that had nothing to do with school.
7. I usually do:
- Ⓐ much more than I resolved to do.
 - Ⓑ a bit more than I resolved to do.
 - Ⓒ a little less than I resolved to do.
 - Ⓓ much less than I resolved to do.
8. If I have not attained my goal and have not done a task well then:
- Ⓐ I continue to do my best to attain the goal.
 - Ⓑ I exert myself once again to attain the goal.
 - Ⓒ I find it difficult to not lose heart.
 - Ⓓ I'm inclined to give up.
 - Ⓔ I usually give up.
9. At high school I thought perseverance was:
- Ⓐ very unimportant.
 - Ⓑ rather unimportant.
 - Ⓒ important.
 - Ⓓ very important.
10. To begin with homework was:
- Ⓐ a very great effort.
 - Ⓑ a great effort.
 - Ⓒ a rather great effort.
 - Ⓓ not much effort.
 - Ⓔ very little effort.
11. When I was still in high school the standards I set myself with regard to my studies were:
- Ⓐ very high.
 - Ⓑ average.
 - Ⓒ low.
 - Ⓓ very low.

12. If I was called from my homework to watch television or listen to the radio, then afterward:
- Ⓐ I always went straight back to work.
 - Ⓑ I would only take a short pause and then go back to work.
 - Ⓒ I would always wait a little before starting again.
 - Ⓓ I would find it very difficult to begin again.
13. Work that requires great responsibility:
- Ⓐ I would like to do very much.
 - Ⓑ I would only do if I was paid well.
 - Ⓒ I don't think I would be capable of doing.
 - Ⓓ is completely unattractive to me.
14. I would find a life in which one wouldn't have to work at all:
- Ⓐ ideal.
 - Ⓑ very pleasant.
 - Ⓒ pleasant.
 - Ⓓ unpleasant.
 - Ⓔ very unpleasant.
15. When I was in high school I thought that to attain a high position in society was:
- Ⓐ unimportant.
 - Ⓑ of little importance.
 - Ⓒ not so important.
 - Ⓓ rather important.
 - Ⓔ very important.
16. When doing something difficult:
- Ⓐ I give it up very quickly.
 - Ⓑ I give it up quickly.
 - Ⓒ I give it up rather quickly.
 - Ⓓ I don't give up too soon.
 - Ⓔ I usually see it through.
17. In general I am:
- Ⓐ very strongly future-oriented.
 - Ⓑ strongly future-oriented.
 - Ⓒ not so strongly future-oriented.
 - Ⓓ not at all future-oriented.

18. At school I found classmates who studied very hard:
Ⓐ very nice.
Ⓑ nice.
Ⓒ just as nice as others who didn't work as hard.
Ⓓ not nice.
Ⓔ not nice at all.
19. At school I admired persons who had reached a very high position in life:
Ⓐ very much.
Ⓑ much.
Ⓒ little.
Ⓓ not at all.
20. For life's extra pleasures:
Ⓐ I usually have no time.
Ⓑ I often have no time.
Ⓒ I sometimes have too little time.
Ⓓ I usually have enough time.
Ⓔ I always have time.
21. I usually am:
Ⓐ very busy.
Ⓑ busy.
Ⓒ not so busy.
Ⓓ not busy.
Ⓔ not busy at all.
22. I can work at something without getting tired for:
Ⓐ a very long time.
Ⓑ a long time.
Ⓒ only a short time.
Ⓓ only a very short time
23. Good relations with my teachers at high school:
Ⓐ were appreciated very much.
Ⓑ were appreciated.
Ⓒ were thought not to be so important.
Ⓓ were thought exaggerated in value.
Ⓔ were thought completely unimportant.

24. Boys succeed their father as manager of the business because:
- Ⓐ they want to enlarge and extend the business.
 - Ⓑ they are lucky their father is manager.
 - Ⓒ they can put their new views into practice.
 - Ⓓ this is the easiest way to earn a lot of money.
25. When I was in high school I was:
- Ⓐ extremely ambitious.
 - Ⓑ very ambitious.
 - Ⓒ not so ambitious.
 - Ⓓ a little ambitious.
 - Ⓔ hardly ambitious at all.
26. Organizing is something:
- Ⓐ I like doing very much.
 - Ⓑ I like doing.
 - Ⓒ I don't like doing very much.
 - Ⓓ I don't like doing at all.
27. When I begin something I:
- Ⓐ never carry it to a successful conclusion.
 - Ⓑ seldom carry it to a successful conclusion.
 - Ⓒ sometimes carry it to a successful conclusion.
 - Ⓓ usually carry it to a successful conclusion.
 - Ⓔ always carry it to a successful conclusion.
- 28.
- Ⓐ I very often am bored.
 - Ⓑ I often am bored.
 - Ⓒ I sometimes am bored.
 - Ⓓ I hardly ever am bored.
 - Ⓔ I never am bored.
29. Shopping is something:
- Ⓐ I like very much.
 - Ⓑ I like.
 - Ⓒ I don't like.
 - Ⓓ I hate.

APPENDIX E
Audio Scripts

AUDIO SCRIPTS

Audio Scripts for Listening / Comprehension Test

Script for Part A

1. (Woman) I thought we only got 3 or 4 really hot weeks in the summer.
(Man) I know that's what I told you, but it seems like every week this summer has been hotter than the one before.
(Woman) If I had known, I would have taken the apartment with air conditioning.

(Narrator) WHAT DOES THE WOMAN IMPLY?
2. (Man) I'm not sure that everyone knew that tonight's dinner was an hour earlier than usual.
(Woman) Yeah, I noticed both Tamara and Fred missed dinner.

(Narrator) WHAT DOES THE WOMAN MEAN?
3. (Woman) I've always hated this couch.
(Man) Really? Why didn't you just say so?

(Narrator) WHAT DOES THE MAN IMPLY?
4. (Woman) Have you seen the disk I was using in the lab?
(Man) I remember you had it in your hand when you left the lab.
(Woman) Yeah, me too. But then we had lunch in the cafeteria and went to the library. We've been back in the dorm for hours.

(Narrator) WHERE DOES THIS CONVERSATION TAKE PLACE?
5. (Man) I need to send a mass mailing to everyone on the swim team.
(Woman) I can do it; I have everyone's e-mail address. What's the message?
(Man) We'll train at the country club pool until ours is repaired.

(Narrator) WHAT DOES THE MAN MEAN?
6. (Man) Will you be ready to leave by 5:00?
(Woman) I've got to make today's deadline. You go on ahead, and I'll meet you at the restaurant.

(Narrator) WHAT DOES THE WOMAN IMPLY?

7. (Man) How many pages is the biology midterm going to be?
 (Woman) Was it ten? Maybe I'm mixed up with my computer midterm.
 (Narrator) WHAT DOES THE WOMAN MEAN?
8. (Woman) How are you doing on the last problem set?
 (Man) I went for extra help, but now I'm even more confused. It's put me right over the edge.
 (Narrator) WHAT DOES THE MAN IMPLY?
9. (Man) The oral presentation should be no longer than five minutes.
 (Woman) Excuse me. Does everyone have to give an oral presentation?
 (Man) Only if you want extra credit.
 (Narrator) WHAT DOES THE MAN MEAN?
10. (Man) I'm going to sit in the back row and on the aisle, so I can dash out of here as soon as he finishes.
 (Woman) Good idea; his lectures frequently run late.
 (Narrator) WHAT DOES THE WOMAN MEAN?
11. (Man) Did you hear anyone complain about our last club meeting?
 (Woman) I did hear some grumbling about a lack of refreshments.
 (Man) It seems that no matter how many cookies we order, there's never enough.
 (Narrator) WHAT DOES THE MAN IMPLY?

Script for Part B (Questions 12, 13, and 14)

- (Man) I thought I'd volunteer for student government.
 (Woman) We could use some new faces and some new activities.
 (Man) Yeah, I'm really tired of nothing happening on campus over the weekend.
 (Woman) That's the problem with suburban colleges. Students go into the city on the weekends.
 (Man) Supposedly our activity fee goes for weekend events, but they're talking about stopping them because no one ever goes. I want to try to organize some programs that'll keep people here on Friday and Saturday nights.
 (Woman) Great idea. I promise I'll come to your events!
 (Man) Well... I was hoping you'd work with me.
 (Narrator) Now answer questions 12 - 14.

Script for Part B (Questions 15, 16, and 17)

- (Woman) What time do you want to meet to go over our class presentation?
(Man) Does 4:00 tomorrow work for you?
(Woman) Actually, 5:00 is better. Before we meet, I'll go on the Internet and print out the electronic reserve articles we need for the first part.
(Man) OK. And I can go to the library and get the books we need for the second part.
(Woman) Good. Where should we meet?
(Man) I always like working in the student center. We can talk without disturbing anyone else, and they've got those big tables where we can spread out our materials.
(Woman) Sounds like a plan. Call me if you're going to be late.
(Narrator) Now answer questions 15 -17.

Script for Part B (Questions 18, 19, 20, 21, and 22)

- (Narrator) Listen to a design lecture about the printmaking process.
(Professor) Today we are going to discuss the process of making original prints. There are three main categories of prints: relief, intaglio, and planographic. Although each category entails a different process, all use matrixes of either wood, stone, or metal as a means of transferring an ink design to paper.

Let's begin with relief prints, which typically involve wooden blocks. A matrix is created by cutting away any surface area that is not meant to show up in the final design. After applying ink to the raised surface of the matrix, the printmaker presses it onto a sheet of paper to create a print. Popular examples of relief prints are woodcuts and wood engravings.

To make an intaglio print, an opposite process occurs. The printmaker creates a matrix by cutting a design into a surface. The cutaway part forms the design that is printed on the paper. After the ink is pressed into the recessed area, the surface is wiped clean. Then, under pressure, the ink is transferred to the paper. This process leaves a platemark, the sign of an intaglio print. Popular examples are engravings and etchings.

To make a planographic print, a print is made from a flat matrix of stone or metal whose surface is covered by a grease crayon or greasy ink. Water, which is repelled by the greasy surface, is washed onto the surface, and then ink, which the greasy images

holds, is applied to the surface. A press transfers the image onto paper. A popular example is lithographs.

As you can see, the printmaking process is complex and time-consuming. Printmakers must use caution while using sharp tools to carve lines onto the matrix and acid to burn away unwanted sections. What makes printmaking desirable is that matrixes can be used to create multiple images of a single design. In addition, printmakers can experiment with color and shading by varying the inking of the matrix. Ultimately, printmaking renders visual effects that differ from painting or sketching, justifying such a detailed process.

(Narrator) Now answer questions 18 -22.

Script for Part B (Questions 23, 24, and 25)

(Narrator) Listen to a discussion of a campus stamp-collecting group.

(Jesse) The September meeting of the Campus Philatelist Society is now called to order.

(Joey) I'm worried about our dwindling numbers. Maybe if we call ourselves the stamp collection society, we'll get new members.

(Kevin) I agree with Joey. But as we don't have much time today, let's discuss what's on the agenda for today's meeting: presenting and evaluating the contents for each section of our new brochure.

(Jesse) Did you all bring your sections?

(All) Yeah.

(Joey) I'll start. My section includes rare and unusual stamps. I brought prints of famous rare stamps, including a U.S. airmail stamp from 1918 which has an inverted center, and a French series from 1870 in which one of the stamps was accidentally printed upside down.

(Kevin) My section deals with separations. The first stamps were not perforated, so they had to be cut apart with scissors. The common term for this process is imperforate. Here is an example of an imperforate issued in France in the 1850's. Eventually, stamps were made easy to separate through two methods. First, small holes, or perforations, were punched between rows of stamps. A second method, known as roulette, relied on small cuts made by a knife.

(Eric) I've been working on collection types. I have samples from collections made up exclusively of birds, railroads, ships, or stamps of only one color that are prized all around the world. It's interesting that collectors from different countries value the same collections.

- (Danielle) My section is on the history of American stamp collecting. In 1847, the U.S. post office issued its first two stamps, bearing portraits of George Washington and our first postmaster general, Benjamin Franklin. The first U.S. commemorative stamps, honoring famous events, were issued in 1893, celebrating the four-hundredth anniversary of the discovery of America.
- (Jesse) Well, everybody, you've done a great job, and we're right on schedule. Please give me your original pages, and I'll take everything to the printer. The booklets will be assembled by next month's meeting. See you the first of next month. Same time, same place. Be prepared to discuss changing our group name and to make plans for distributing our brochure.
- (Narrator) Now answer questions 23 -25.

Audio Scripts for Verbal Communication / Pronunciation Test

1. (Woman) I heard you were up in Maine this summer. Why didn't you stop by?
(Man) If I had known your address, I would have visited you.
(Narrator) WHAT DOES THE MAN MEAN?

2. (Man) Just sign on the dotted line, and the apartment is all yours.
(Woman) If you don't mind, I'd like to read the lease through carefully.
(Narrator) WHAT WILL THE WOMAN PROBABLY DO NEXT?

3. (Man) Did you see how small the windows are on the new freshman dorm on Vassar Street?
(Woman) I didn't like them at first either. Now I think they're rather distinctive, with all the different colors.
(Narrator) WHAT DOES THE WOMAN IMPLY?

4. (Man) Are you sure the professor said you could have an extension on your paper?
(Woman) I thought so. I guess I better check with him right away.
(Narrator) WHAT DOES THE WOMAN MEAN?

5. (Woman) I can't believe this exhibit includes only student work.
(Man) Have you seen Anna's weavings? They're all so good it's hard to decide which is best, but she can submit only one for judging.
(Narrator) WHAT DOES THE MAN MEAN?

6. (Man) It says in the catalogue that you need History 101 before you can take 102. I don't understand why because each course covers different material.
(Woman) I know. It seems strange to me too. But I heard you can get the professor to override the prerequisite.
(Narrator) WHAT DOES THE WOMAN IMPLY?

7. (Man) If you get into every grad school you've applied to, where do you think you'll go?
 (Woman) It all depends on how much money each school gives me.
 (Man) You certainly deserve a piece of the pie.
 (Narrator) WHAT DOES THE MAN MEAN?
8. (Man) Do you know if I can pay with a credit card at the bursar's office?
 (Woman) Racking up those frequent flier miles, huh?
 (Man) Actually, I don't have any cash, and my tuition bill is due today.
 (Narrator) WHAT WILL THE MAN PROBABLY DO NEXT?
9. (Woman) Is it true everyone has to pass a swimming test in order to graduate?
 (Man) Don't worry. You only have to do one lap.
 (Woman) I can't believe they still make everyone do this!
 (Narrator) WHAT DOES THE WOMAN MEAN?
10. (Man) Have you stopped by career services yet?
 (Woman) Yeah, they're great. They edit resumes, do practice interviews, and post a surprisingly large number of available jobs.
 (Narrator) WHAT DOES THE WOMAN IMPLY?
11. (Man) What do you think about this schedule for next semester?
 (Woman) Let me see. Are you sure you want to have three classes in a row?
 (Man) That way I can be done every day by one.
 (Narrator) WHAT DOES THE MAN IMPLY?

Script for Questions 12 - 14

- (Man) Are you going to the campus job fair?
 (Woman) Yeah, I was hoping to get a job working security in one of the libraries.
 (Man) That looks like a great job. You just look in people's bags. Most of the time you can sit and do homework.
 (Woman) Exactly. I've been a lifeguard on campus, but while you're sitting there guarding, you're not allowed to do anything else - even if no

- one's in the pool. I was also a monitor in the photo lab where it's too dark to do any reading.
- (Man) But if you're a photographer, you can develop your pictures for free.
- (Woman) Right, except I'm not. So do you want to go to the fair now?
- (Man) I'll probably see you there. I've got to return a book to the library first.

12. WHAT IS THE DISCUSSION MAINLY ABOUT?
13. WHY DOES THE WOMAN NOT WANT TO WORK AS A LIFEGUARD?
14. WHAT WILL THE MAN PROBABLY DO NEXT?

Script for Questions 15 - 17

- (Man) Are you going to the concert tonight?
- (Woman) I hadn't heard about it. Who's playing?
- (Man) It's the competition of all the student orchestras on campus. They'll be judged on originality, performance, and difficulty.
- (Woman) Oh that sounds fabulous. Where are they playing?
- (Man) At Hill Auditorium at 8.
- (Woman) I'd love to go, I just don't have any money right now.
- (Man) You're in luck. You can pick up a complimentary ticket before 6 at the student union.

15. WHERE IS THE CONCERT?
16. WHAT CAN BE INFERRED ABOUT THE COMPETITION?
17. WHAT WILL THE WOMAN PROBABLY DO NEXT?

Script for Questions 18 - 20

- (Narrator) Listen to part of a lecture in an American history class. The lecture is on President Abraham Lincoln.
- (Professor) In 1860, both Abraham Lincoln and William H. Seward sought the presidency of the United States. The campaign was particularly fierce in New York. William H. Seward, the former governor of the state of New York had a good reputation as a statesman and well-respected businessman, whereas Lincoln, from Illinois, was less well-known. However, Mr. Lincoln also had many supporters. Surprisingly enough, eleven-year-old Grace Bedell, from the town of Westfield, proved to be one of Lincoln's most influential supporters. After listening to adult conversations about the candidates and looking at photographs of the two men, Grace felt that Lincoln could win the nomination by improving his appearance.

In her mind, Lincoln could win the nomination by growing a full beard. She reasoned that most ladies like whiskers and would urge their husbands to vote for Lincoln if he had a beard. Grace wrote Lincoln with her suggestion. Through the kindness of one of his secretaries, her letter reached Lincoln, touching him deeply. He responded to Grace's letter, explaining that growing a beard so late in the campaign might seem like a publicity stunt. A week later, however, he changed his mind.

One year later, Lincoln left his home in Illinois, bound for the White House to start his new job as president. Along the way, he related the incident to a group of followers and said he would like to see his young admirer. His train trip took him through New York State, stopping briefly in Westfield on February 16. Grace, with her family, was waiting to see Lincoln when his train stopped, and the little girl was lifted up to meet the future president. 'You see, my dear', he said, 'I let these grow for you. Perhaps you made me President'.

18. WHAT IS THE LECTURE MAINLY ABOUT? (*Summarize the lecture in 2 or 3 sentences*).
19. WHY DOES GRACE SUGGEST LINCOLN GROW A BEARD?
20. IN THE LECTURE, THE PROFESSOR EXPLAINS AN HISTORICAL SERIES OF EVENTS. TO THE BEST OF YOUR RECOLLECTION, PUT THE EVENTS IN CHRONOLOGICAL ORDER.

APPENDIX F
Answer Keys

ANSWER KEYS

Answer Key for (1) Listening / Comprehension Test

This test is worth 50 points. Each question is worth 2 points, (with 2 points being deducted for each error).

1. The apartment she has now doesn't have air conditioning.
2. Neither Gail nor Fred came to dinner.
3. She should have told him she didn't like the couch.
4. In the dorm
5. The team will practice at the club swimming pool.
6. He should go on without her.
7. She might be confused as to the length of the biology midterm.
8. Going for help made him more confused.
9. The oral presentations are voluntary.
10. The lecture often goes past its scheduled time.
11. It doesn't make a difference how many cookies he gets.
12. It supports campus events on weekends.
13. Students don't participate in what's planned for them.
14. Plan new activities with him
15. From a computer
16. Get the sources from the library
17. At the student center
18. Stone / Metal
19. Intaglio
20. lithographs = relief, woodcuts = planographic, engravings = intaglio
21. With sharp tools
22. They want to make many impressions of an image. / They enjoy the variety of effects printmaking can produce.
23. The contents of each section in the brochure
24. roulette = small cuts made by a knife, imperforate = stamps that cut apart with scissors, perforation = stamps with little holes
25. 1847

Answer Key for (3) Reading Comprehension Test

This test is worth 50 points. Each question is worth 1 point, (with 1 point being deducted for each error).

1. The uncertainty about Penn's demeanor and physical traits
2. upheaval = revolution
3. protective covering
4. portraits
5. 'However, Penn's armor in the portrait may be reconciled with his Quaker pacifism due to the fact that he did not become a Quaker until his twenties, shortly after posing for the portrait'. In contrast, the scene of a treaty signing with the Indian shows a fat and stodgy-looking old man in a costume of a hundred years later.
6. stout = portly
7. Penn may not be the subject of his portraits.
8. art history
9. paragraph 3
10. inaccurately recorded events
11. negotiated with Indians
12. portly
13. new research on childrearing as a result of cultural differences
14. various childrearing suggestions
15. bombarded by
16. These rules have little basis in science.
17. This group of anthropologists, pediatricians, and child development researchers seeks to discover exactly how different styles of parenting across the globe affect the biology, growth, health, and survival of infants.
18. advocates
19. proponents
20. heredity
21. They are similar all over the world.
22. neutral
23. paragraph 3
24. 'For example, whether or not young boys are discouraged from crying in public depends on one's culture'. Although newborn babies are the same the world over, from the moment babies start interacting with their mothers, they become members of distinct, changeable, modern societies, often quite unlike those that babies once adapted to through evolution.
25. examples of childrearing which encourage certain culturally-valued behaviors
26. The difficulty in proving the existence of black holes
27. black holes
28. The definition of black holes
29. definite = certain
30. contracts

31. 'Einstein's theory proposed that gravity affects the shape of space by curving it and the now of time by slowing it down'. According to Einstein's theory, a black hole forms when a massive object shrinks catastrophically under its own gravitational field.
32. That black holes probably exist
33. To explain what the process of blotting is
34. impossible
35. Moreover, black holes are extremely tiny; they pack a given mass into the least possible volume.
36. huge
37. wavelets = ripples
38. the existence of black holes may soon be proved
39. The shift from canals to railroad, 1830 to 1860
40. increase
41. ship goods to the East
42. stopped payment of money due
43. explain why certain states did not support railroad expansion
44. Inadequate bridge engineering
45. 'Understandably, passengers complained as their clothing and belonging frequently caught on fire'. Finally, engines had insufficient power to carry heavy loads over inclines.
46. insolvable
47. private investors
48. growth of the railroad was due to government and private investment
49. canals
50. New York was not the only state that wanted to encourage the use of its own canal system.

Answer Key for (4) Writing / Essay Test

This test is worth 50 points and will be evaluated on the basis of organization, theme development, vocabulary, spelling, grammar, syntax, sentence structure, etc. The organization and theme development of the essay are worth a total of 15 points. Vocabulary, spelling, grammar, syntax, sentence structure, etc. are worth 35 points, with 1 point being deducted for each error.

Answer Key for (5) Verbal Communication / Pronunciation Test

This test is worth 50 points with .5 point being deducted for each error in pronunciation. Answers may vary but should be consistent with the following examples.

1. The man means that he would have visited the woman if he had known the address.
2. She will take a few minutes to read the lease.
3. The woman implies that she changed her mind.
4. The woman thought that the professor agreed to grant her an extension.
5. The man means that the students' work is of high quality.
6. The woman implies that she agrees with him.
7. The man insinuates that the woman deserves to get financial aid.
8. The man will attempt to pay his tuition with a credit card or go to the bank and withdraw money.
9. The woman insinuates that she does not agree with the requirement.
10. The woman has used career services.
11. The man would like to have the afternoon free.
12. The discussion is about part-time jobs.
13. The woman does not want to work as a lifeguard because she will not have time to read.
14. The man is going to the library.
15. The concert is at Hill Auditorium.
16. The competition will be between all of the student orchestras.
17. The woman will pick up her complimentary tickets.
18. The lecture is about how a little girl's letter helped Abraham Lincoln to be elected President of the United States.
19. The girl suggested that Lincoln should grow a beard.
20.
 - a. Lincoln ran for President in 1860.
 - b. The campaign was fierce in New York.
 - c. Lincoln was not well known.
 - d. An eleven year-old girl wrote him a letter and advised him to grow a beard.
 - e. After winning the election, Lincoln met the girl and thanked her.

Scoring Key for the Measure of Achievement Motivation

Below is the direction of the coding for each item. The indicated alternative represents a high achievement motive with point value of '4'. The next alternative in ascending (or descending) order has a point value of '3'; the next, a point value of '2'; the next, a point value of '1'; and the last, a point value of '0'.

The score scales are: a) 104-116 = High AM; b) 91-103 = High / Medium AM; c) 78 -90 = Medium AM; d) 65-77 = Medium / Low AM; and e) Under 65 = Low AM.

1. Working is something:
 - (A) I would rather not do.
 - (B) I don't like doing very much.
 - (C) I would rather do now and then.
 - (D) I like doing.
 - (E) I like doing very much.

2. At school they thought I was:
 - (A) very diligent.
 - (B) diligent.
 - (C) not always so diligent.
 - (D) rather easy-going.
 - (E) very easy-going,

3. Other people think I:
 - (A) work very hard.
 - (B) work hard.
 - (C) work pretty hard.
 - (D) don't work very hard.
 - (E) don't work hard.

4. To prepare yourself a long time for an important task:
 - (A) really is senseless.
 - (B) often is rather rash.
 - (C) can often be useful.
 - (D) testifies to a sense of reality.
 - (E) is necessary to succeed.

5. When I am working, the demands I make upon myself are:
- Ⓐ very high.
 - Ⓑ high.
 - Ⓒ pretty high.
 - Ⓓ not so high.
 - Ⓔ low.
 - Ⓕ very low.
6. When the teacher gave lessons at school:
- Ⓐ I usually set my heart on doing my best and making a favorable impression.
 - Ⓑ I usually paid great attention to the things being said.
 - Ⓒ my thoughts often strayed to other things.
 - Ⓓ I was more interested in things that had nothing to do with school.
7. I usually do:
- Ⓐ much more than I resolved to do.
 - Ⓑ a bit more than I resolved to do.
 - Ⓒ a little less than I resolved to do.
 - Ⓓ much less than I resolved to do.
8. If I have not attained my goal and have not done a task well then:
- Ⓐ I continue to do my best to attain the goal.
 - Ⓑ I exert myself once again to attain the goal.
 - Ⓒ I find it difficult to not lose heart.
 - Ⓓ I'm inclined to give up.
 - Ⓔ I usually give up.
9. At high school I thought perseverance was:
- Ⓐ very unimportant.
 - Ⓑ rather unimportant.
 - Ⓒ important.
 - Ⓓ very important.
10. To begin with homework was:
- Ⓐ a very great effort.
 - Ⓑ a great effort.
 - Ⓒ a rather great effort.
 - Ⓓ not much effort.
 - Ⓔ very little effort.

11. When I was still in high school the standards I set myself with regard to my studies were:
- Ⓐ very high.
 - Ⓑ average.
 - Ⓒ low.
 - Ⓓ very low.
12. If I was called from my homework to watch television or listen to the radio, then afterward:
- Ⓐ I always went straight back to work.
 - Ⓑ I would only take a short pause and then go back to work.
 - Ⓒ I would always wait a little before starting again.
 - Ⓓ I would find it very difficult to begin again.
13. Work that requires great responsibility:
- Ⓐ I would like to do very much.
 - Ⓑ I would only do if I was paid well.
 - Ⓒ I don't think I would be capable of doing.
 - Ⓓ is completely unattractive to me.
14. I would find a life in which one wouldn't have to work at all:
- Ⓐ ideal.
 - Ⓑ very pleasant.
 - Ⓒ pleasant.
 - Ⓓ unpleasant.
 - Ⓔ very unpleasant.
15. When I was in high school I thought that to attain a high position in society was:
- Ⓐ unimportant.
 - Ⓑ of little importance.
 - Ⓒ not so important.
 - Ⓓ rather important.
 - Ⓔ very important.
16. When doing something difficult:
- Ⓐ I give it up very quickly.
 - Ⓑ I give it up quickly.
 - Ⓒ I give it up rather quickly.
 - Ⓓ I don't give up too soon.
 - Ⓔ I usually see it through.

17. In general I am:
Ⓐ very strongly future-oriented.
Ⓑ strongly future-oriented.
Ⓒ not so strongly future-oriented.
Ⓓ not at all future-oriented.
18. At school I found classmates who studied very hard:
Ⓐ very nice.
Ⓑ nice.
Ⓒ just as nice as others who didn't work as hard.
Ⓓ not nice.
Ⓔ not nice at all.
19. At school I admired persons who had reached a very high position in life:
Ⓐ very much.
Ⓑ much.
Ⓒ little.
Ⓓ not at all.
20. For life's extra pleasures:
Ⓐ I usually have no time.
Ⓑ I often have no time.
Ⓒ I sometimes have too little time.
Ⓓ I usually have enough time.
Ⓔ I always have time.
21. I usually am:
Ⓐ very busy.
Ⓑ busy.
Ⓒ not so busy.
Ⓓ not busy.
Ⓔ not busy at all.
22. I can work at something without getting tired for:
Ⓐ a very long time.
Ⓑ a long time.
Ⓒ only a short time.
Ⓓ only a very short time

23. Good relations with my teachers at high school:
Ⓐ were appreciated very much.
Ⓑ were appreciated.
Ⓒ were thought not to be so important.
Ⓓ were thought exaggerated in value.
Ⓔ were thought completely unimportant.
24. Boys succeed their father as manager of the business because:
Ⓐ they want to enlarge and extend the business.
Ⓑ they are lucky their father is manager.
Ⓒ they can put their new views into practice.
Ⓓ this is the easiest way to earn a lot of money.
25. When I was in high school I was:
Ⓐ extremely ambitious.
Ⓑ very ambitious.
Ⓒ not so ambitious.
Ⓓ a little ambitious.
Ⓔ hardly ambitious at all.
26. Organizing is something:
Ⓐ I like doing very much.
Ⓑ I like doing.
Ⓒ I don't like doing very much.
Ⓓ I don't like doing at all.
27. When I begin something I:
Ⓐ never carry it to a successful conclusion.
Ⓑ seldom carry it to a successful conclusion.
Ⓒ sometimes carry it to a successful conclusion.
Ⓓ usually carry it to a successful conclusion.
Ⓔ always carry it to a successful conclusion.
28. Ⓐ I very often am bored.
Ⓑ I often am bored.
Ⓒ I sometimes am bored.
Ⓓ I hardly ever am bored.
Ⓔ I never am bored.

29. Shopping is something:
- Ⓐ I like very much.
 - Ⓑ I like.
 - Ⓒ I don't like.
 - Ⓓ I hate.

APPENDIX G
Participant Responses

PARTICIPANT RESPONSES

Responses and Scores for Listening / Comprehension Test

Question No.	Key	Part. No. 1	Part. No. 2	Part. No. 3	Part. No. 4	Part. No. 5	Part. No. 6	Part. No. 7	Part. No. 8	Part. No. 9	Part. No. 10	Part. No. 11	Part. No. 12	Part. No. 13	Part. No. 14	Part. No. 15
1.	D	D	D	D	D	D	D	D	D	D	D	D	B	B	D	D
2.	C	C	C	C	C	C	C	C	C	C	C	C	C	A	C	C
3.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4.	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	A
5.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
6.	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
7.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	B
8.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C
10.	D	D	D	C	D	D	D	D	D	D	D	D	D	D	B	D
11.	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
12.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	D	D
14.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
15.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C	A
16.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
17.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
18.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B
	C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	D
19.	B	B	B	B	B	B	B	B	C	B	B	B	C	C	C	D
20.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B
	C	C	C	C	C	C	C	C	B	C	C	C	B	B	B	B
	B	B	B	B	B	B	B	B	C	B	B	B	C	C	C	C
21.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A
22.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
23.	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A
24.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	C	C	C	C	C	C	C	C	C	C	C	C	C	C	A	A
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C	C
25.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Total Score	50	48	50	48	50	50	50	50	46	50	50	50	44	42	34	36

Responses and Scores for Fluency / Grammar / Structure Test

Question No.	Key	Part. No. 1	Part. No. 2	Part. No. 3	Part. No. 4	Part. No. 5	Part. No. 6	Part. No. 7	Part. No. 8	Part. No. 9	Part. No. 10	Part. No. 11	Part. No. 12	Part. No. 13	Part. No. 14	Part. No. 15
1.	C	C	C	B	C	C	B	C	B	B	B	B	B	B	B	B
2.	A	D	A	A	A	A	C	A	A	A	B	B	A	A	B	C
3.	D	D	D	D	D	D	D	D	C	D	B	B	B	B	B	B
4.	A	A	A	A	A	A	A	D	A	A	A	A	A	A	D	D
5.	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	B
6.	C	C	C	C	C	C	C	C	C	C	A	C	C	C	D	C
7.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
8.	D	D	D	A	A	A	A	A	D	A	A	A	A	A	A	C
9.	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	B
10.	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
11.	D	D	D	D	D	D	A	A	D	D	D	D	D	D	A	D
12.	C	C	C	C	C	B	C	C	B	B	C	C	D	C	D	A
13.	B	B	B	B	B	B	B	B	B	B	A	A	B	B	B	C
14.	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
15.	D	D	D	D	D	D	D	D	A	D	D	D	D	D	A	A
16.	A	A	A	A	A	B	A	A	A	A	A	A	A	A	A	A
17.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
18.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
19.	B	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
20.	A	A	A	A	A	A	A	A	A	D	D	D	A	A	D	A
21.	A	A	A	A	A	A	C	D	A	A	A	A	A	A	A	A
22.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	A
23.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	A
24.	D	D	D	B	D	B	D	B	B	B	D	D	D	D	D	D
25.	C	A	C	C	C	C	C	C	C	A	C	C	C	C	A	C
Total Score	50	44	48	42	46	40	38	38	38	36	34	36	40	42	24	24

Responses and Scores for Reading / Comprehension Test

Question	Key	Part. No. 1	Part. No. 2	Part. No. 3	Part. No. 4	Part. No. 5	Part. No. 6	Part. No. 7	Part. No. 8	Part. No. 9	Part. No. 10	Part. No. 11	Part. No. 12	Part. No. 13	Part. No. 14	Part. No. 15
1.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	D	A
2.	revolution	revolution	revolution	revolution	revolution	revolution	revolution	revolution	revolution	revolution	Stirred up	revolution	revolution	revolution	controversy	controversy
3.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C
4.	portraits	portraits	portraits	portraits	portraits	portraits	portraits	portraits	portraits	portraits	portraits	portraits	portraits	portraits	portraits	portrays
5.	D	D	C	D	D	C	C	D	E	D	D	C	D	C	C	C
6.	portly	portly	portly	portly	portly	portly	big-boned	big-boned	portly	big-boned	portly	portly	portly	portly	big-boned	big-boned
7.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C
8.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	D
9.	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B	B
10.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
11.	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
12.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
13.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A
14.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
15.	B	B	B	B	B	C	B	B	B	B	C	B	B	B	C	D
16.	B	B	B	B	B	B	B	B	C	B	B	C	C	C	C	C
17.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3
18.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	D
19.	proponents	proponents	proponents	proponents	proponents	proponents	proponents	proponents	proponents	proponents	proponents	proponents	proponents	proponents	proponents	parents
20.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
21.	B	B	B	B	B	B	B	B	B	B	B	B	B	C	B	B
22.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
23.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
24.	C	C	C	C	C	C	B	C	C	B	C	C	C	C	B	C
25.	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
26.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C
27.	black holes	black holes	black holes	black holes	black holes	black holes	black holes	black holes	black holes	black holes	black holes	black holes	black holes	black holes	black holes	black holes

Responses and Scores for Reading / Comprehension Test, Continued

Question	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.	49.	50.	Total Score
Key	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	50
Part. No. 1	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	50
Part. No. 2	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	49
Part. No. 3	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	50
Part. No. 4	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	50
Part. No. 5	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	48
Part. No. 6	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	F	B		C	canals	A	46
Part. No. 7	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	49
Part. No. 8	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	49
Part. No. 9	A	certain	C	D	D	A	D	7	A	ripples	B	C	C	C	D	C	A	F	B		C	canals	A	46
Part. No. 10	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	48
Part. No. 11	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	48
Part. No. 12	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	48
Part. No. 13	A	certain	C	C	D	A	D	7	A	ripples	B	C	C	C	D	C	A	E	B		C	canals	A	46
Part. No. 14	A	certain	A	B	A	B	B	7	A	ripples	B	C	C	C	D	C	A	D	B		C	canals	A	35
Part. No. 15	A	certain	B	B	A	B	A	5	D	ripples	D	D	D	A	B	A	A	C	A		A	canals	B	16

Participant Writing Samples and Scores for Writing / Essay Test

Participant No.	Writing Samples From 'Writing / Essay Test'	Score
1.	<p>I believe that lack of self-discipline is the principle barrier to achievement of competency in English-as-a-second language... Unfortunately, today, everyone seems to be looking for a handout. People lack self-discipline. Part of the problem rests in a failure to identify and set goals. To set goals, it is necessary to determine what you really want to do. It seems that there are so many options today, so many alternatives, that people don't know what they want. Since they don't know what they want, they make commitments or take on challenges half-heartedly. The desire is lacking to follow things through, to sacrifice in order to achieve. This makes self-discipline almost impossible. That's why people in Puerto Rico can study English all of their lives, hear it on the radio and TV everyday, etc. and after 20 or 30 years, still not speak English.</p>	50
2.	<p>There are many barriers to [the] achievement of competency in English-as-a-second-language in Puerto Rico. The first barrier is the <i>general</i> [generally] poor quality of education <i>in</i> [on] the island. Education is not really a priority in Puerto Rico. Entertainment is our national priority. Since education is not the priority, schools are run down, teachers are not trained or paid well, teaching materials are outdated, and equipment is <i>mostly</i> [almost] non-existent. <i>Even though</i> [Although] most people recognize that English is important to get <i>a head</i> [ahead] in <i>today's</i> [today's] world, <i>not</i> [neither the] government <i>or</i> [nor] the school [education] system give it the attention [that] it deserves.</p>	40
3.	<p>The chief barrier to the achievement of competency in English-as-a-second-language is the individual <i>students</i> [student's] capacity to learn. Each person is bound by <i>their</i> [his or her] genes. Some people simply have a greater capacity than others to learn a language. This accounts for the divergence in competency of among students studying the same curricula under the same circumstances. Some students are limited in <i>the</i> [their] capacity to learn. No matter what they do, they <i>can not</i> [cannot] learn because they <i>can not</i> [cannot] be pushed beyond the limits of their developments.</p>	45

4.	<p>English competency in Puerto Rico is associated with class opportunities. Children in Puerto Rico that attend private or parochial schools usually have a better opportunity <i>in</i> [of] achieving English competency. Schools in poor areas do not have the facilities, <i>like</i> [such as] language labs and other equipment needed to make language learning interesting. People living in underprivileged areas also do not have the time to encourage their children to study, to help them with <i>their</i> homework, or to provide supervision because they are too busy trying to make ends meet. Classes in poor areas are <i>over crowded</i> [overcrowded]. The better teachers get jobs in private schools. Teachers in poor areas <i>sometime</i> [sometimes] believe that children in poor areas or black children are unable to learn and <i>so</i> [therefore] they do not put a lot <i>a</i> [of] effort into teaching. At university the study of English has negative <i>implications</i> [connotations] <i>like</i> related to <i>nacional</i> [national] identity. Also, people in Puerto Rico generally believe that learning a language is a natural ability, and you either have it or <i>not</i> [you don't have it]. Children are often told that they don't have the ability to learn English and at university you often hear students say: 'el panis no me entra' which means 'English doesn't get through or enter (my head)'.</p>	39
5.	<p>Although ineffective teachers and teaching techniques [can] contribute to [the] achievement of competency in English-as-a-second-language, psycho-social development is also an important factor. Some people have learning disorders <i>which</i> [that] make it almost impossible [for them] to learn [another language]. These disorders are characterized by academic functioning that <i>are</i> [is] substantially below that expected, given the <i>persons</i> [person's] chronological age, measured intelligence, and age appropriate education. Others suffer from MR <i>disorder</i> [disorders] <i>doesn't</i> [that are] characterized by significantly sub-average intellectual functioning with an IQ of approximately 70 or below <i>with</i> [and] onset before age 18.</p>	39
6.	<p>A major barrier to the achievement of English-as-a-second language competency in Puerto Rico <i>are</i> [is] the out-dated teaching techniques and methods. The programs seem almost <i>to be design</i> [designed] to 'turn students off'. Repetition and memory [exercises] are used just like they were over 50 years <i>a go</i> [ago]. This is <i>rediclous</i> [ridiculous] since educators have made so many discoveries on how to teach. Boredom in the class makes it <i>impossible</i> [impossible] to learn. Children and young adults could be <i>give</i> [afforded] better opportunities to learn using [the] latest scientific methods.</p>	42

7.	<p>The principle <i>barriers</i> [barrier] to the achievement of competency in English-as-a-second-language in Puerto Rico <i>is</i> [is] the outdated teaching method. Teachers concentrate on drills and memorizing vocabulary. Although <i>its</i> [it is] important, little attention is given to conversation <i>that</i> [which] is the most important aspect of language learning. Also[,] the vocabulary lessons have <i>anything</i> [nothing] to do with everyday life[,] <i>and so</i> making [it] difficult to memorize the words. The lessons are based on American culture and are not relative to people in Puerto Rico. Generally speaking, classes are taught using outdated methods and techniques and there is nothing to make the classes interesting <i>to</i> [for] the students. Culturally sensitive <i>method</i> [methods] should be used to catch <i>students</i> [students'] interest. If this <i>would</i> [were to] happen, there would be better results in Puerto Rico's English-as-a-second-language programs.</p>	38
8.	<p>What factors are barriers to the achievement of competency in English-as-a-second-language? This is really a good question. The major problem is probably that in Puerto Rico we are using <i>antique</i> [antiquated] methods and technologies to teach English[,] and everything else too. The average elementary school room has more than 30 kids. It doesn't matter if they have English every day, the teacher can't give the kids any attention. Classrooms in public schools are a joke. <i>Its</i> [It's] crazy. How can you expect to learn in a <i>like that</i> situation [like that]. <i>In</i> [At] university, <i>the</i> young people are going through their <i>rebellion</i> [rebellious] stage and think that learning English will make them stop <i>to be</i> [being] Puerto Rican. Sometimes <i>in</i> [at] university, learning English is <i>mostly</i> seen as not patriotic.</p>	39
9.	<p>Ineffective teaching methods, materials, and programs make it impossible to achieve English-as-a-second-language competency in Puerto Rico. [The] <i>Teaching</i> of English in schools and <i>in</i> universities is <i>an</i> [a] half-hearted effort <i>although</i> [even though] English is a required course. Teachers are <i>poor</i> [poorly] trained. Many <i>can not</i> [cannot] speak English well themselves. Grammar rules <i>is</i> [are] not studied, even in Spanish. Most [of the] English that children and young adults pick up is not through classes but through music videos and movies. If you live outside of the San Juan metropolitan area, on the island, opportunities to speak or practice <i>in</i> English <i>become less</i>. This adds to making it harder to learn English in Puerto Rico.</p>	40

10.	<p>It is very difficult to achieve competency in English-as-a-second-language studying in Puerto Rico. Teachers don't have <i>compromise</i> [a commitment to teaching]. They just want to put in time and collect <i>his</i> [a] check. Most teachers <i>can not</i> [cannot] speak English well themselves. The barrier is that teachers are not prepared, [are] underpaid, and have no motivation to teach <i>the</i> students. <i>In</i> elementary <i>school</i> and <i>in</i> high school, the classrooms <i>is</i> [are] crowded and teachers <i>can not</i> [cannot] give the attention needed to <i>the</i> students. Also, English class is not taken seriously. <i>In the</i> university, learning English is not a priority and is <i>sometime</i> [sometimes] seen to be [a] political [act] or <i>denying</i> [the denial] of Puerto Rican identity. Many professors discourage the use of English on campus. With all of these problems: How can anybody learn English in Puerto Rico?</p>	37
11.	<p>Professors <i>in the</i> [at] university are to blame for people not <i>achievement of</i> [achieving] competency in English-as-a-second language in Puerto Rico. <i>Professor</i> [Professors] don't care if <i>student</i> [students] have good grades or not. They don't explain [to] <i>the</i> students the rules <i>about</i> [of] English. They use stupid text books that make students lose <i>his</i> [their] interest. They waste time in the classroom talking in Spanish <i>so</i> students don't practice [Spanish] <i>and get corrected</i>.</p>	28
12.	<p>The greatest barrier to [the] achievement of competency in English-as-a-second-language is [the] fear that <i>your</i> [you are] going to make a mistake. In Puerto Rico[,] when you make a mistake, people laugh <i>on</i> [at] you and make fun <i>on</i> [of] you. This doesn't help you to practice English or to achieve competency. I believe that if we want to have more success in teaching English, teachers have to take control of the classes and discourage [the] <i>make</i> [making of] fun of the others.</p>	30
13.	<p>The achievement of competency in <i>english</i> [English]-as-a-second-language is difficult in Puerto Rico. Spanish is used in daily conversations. English is <i>consider</i> [considered] to be hard to pronounce and since everyone <i>prefer</i> [prefers] to speak <i>panish</i> [Spanish] <i>its</i> [it's or it is] hard to practice. It is possible to listen to <i>english</i> [English] on the radio and to <i>sing a long</i> [sing-a-long] but <i>nobody</i> [no one is] there to listen to you and [to] <i>fix</i> [correct] your mistakes. Sometimes [the] <i>english</i> [English] on <i>the</i> television or in <i>the</i> videos <i>are</i> [is] not correct and <i>sometimes</i> [at times] <i>its</i> [it's] rude and <i>use</i> [contains] bad language. <i>Its</i> [It's] so hard to study <i>english</i> [English] when you <i>here</i> [hear] <i>panish</i> [Spanish] all day. The worst part is that if you make a mistake, people will laugh <i>on</i> [at] you.</p>	28

14.	<p><i>Its</i> [It's] too <i>hard</i> to <i>say</i> [explain] the reasons [why] people in Puerto Rico <i>can not achievement of</i> [cannot achieve] competency in English-as-a-second-language. Some <i>peoples</i> [people] can learn English <i>easy</i> [easily]. Some <i>don't</i> learn no matter how <i>she tries to learn</i>. I think [that this ability is] <i>its ability</i> given <i>in</i> [at] birth. English is difficult to learn for the people [who] <i>speaks</i> Spanish. You write English one way and <i>talk other</i> [speak another] way. Words <i>write</i> [are written] in two [different] ways but you say [them] the same [way]. This is confusing for <i>the</i> Spanish people. In Spanish you write everything <i>like you say</i>. It is [a] very <i>normal</i> language.</p>	28
15.	<p><i>The factors they stop</i> [impede] <i>to</i> the achievement of competence in English-as-a-second-language <i>involves</i> [involve] the power of the <i>brain</i> [mind(?)]. Some people <i>doesn't</i> [do not] learn because <i>he cant</i> [they cannot] learn English. <i>He doesn't been</i> [They are simply not] born with that kind of talent. Maybe <i>he has another talent</i> [they have other talents] <i>like</i> in mathematics or algebra[,] but <i>he cant</i> [they cannot] learn English. <i>Its like a computer</i>. <i>He doesn't have a program he cant do the work</i>. <i>Doesn't matter what he does he just cant do it</i>. [The last 3 'sentences' must be re-written].</p>	9

Responses and Scores for Verbal Communication / Pronunciation Test

Part. No.	Fossilized Features (Per Question) in Pronunciation From Participant Responses to 'Verbal Communication / Pronunciation Test'	Score
1.	Participant's speech was not fossilized.	50
2.	⑧ /'wi:sdəʊ/ for withdraw; ⑨ /ɪnsɪnju:'eɪt/ for insinuates; ⑮ /əudi:'tɔ:ri:ʊ:m/ for auditorium	48.5
3.	② /tʃi:/ for she; ③ /tʃi:/ for she, /'tʃeɪnj/ for changed; ⑥ /tʃi:/ for she; ⑨ /tʃi:/ for she; ⑬ /tʃi:/ for she	47
4.	② /tʃi:/ for she; ③ /tʃi:/ for she; ⑥ /tʃi:/ for she; ⑨ /tʃi:/ for she; ⑬ /tʃi:/ for she; ⑱ /'ɑ:brɑ:hɑ:m/ for Abraham; ⑳ /'eɪtɪn 'si:sti/ for 1860	46.5
5.	② /tʃi:/ for she; ③ /tʃi:/ for she; ⑥ /tʃi:/ for she; ⑦ /di:'sɜ:v/ for deserves; ⑨ /tʃi:/ for she; ⑬ /tʃi:/ for she; ⑱ /hɛlpəd/ for helped, /ɛ'lɛktəd/ for elected; ⑲ /su:'jestəd/ for suggested	45.5
6.	② /tʃi:/ for she; ③ /tʃi:/ for she; ⑥ /tʃi:/ for she; ⑦ /ɪnsɪnju:'eɪt/ for insinuates; ⑨ /tʃi:/ for she; ⑬ /tʃi:/ for she; ⑮ /'ɔ:rkɛstrɑ:/ for orchestras; ⑱ /ɛ'lɛkt/ for elected	46
7.	③ /'tʃeɪnj/ for changed; ⑤ /'studen/ for students'; ⑦ /ɪnsɪnju:'eɪt/ for insinuates; ⑧ /'wi:sdəʊ/ for withdraw; ⑨ /ɪnsɪnju:'eɪt/ for insinuates; ⑩ /'sɜ:vɪs/ for services; ⑱ /ɛ'lɛkt/ for elected, /'ɑ:brɑ:hɑ:m/ for Abraham; ⑲ /bi:r/ for beard	45
8.	① /ɑ:'dres/ for address; ② /tʃi:/ for she; ⑥ /tʃi:/ for she; ⑦ /mi:n/ for means; ⑧ /tu:'ɪtʃən/ for tuition; ⑨ /tʃi:/ for she; ⑬ /tʃi:/ for she; ⑰ /'tɪkət/ for tickets; ⑱ /leɪtər/ for letter	45.5
9.	① /mi:n/ for means; ② /tʃi:/ for she; ③ /'tʃeɪnj 'd/ for changed; ⑦ /mi:n/ for means; ⑧ /'wi:sdəʊ/ for withdraw; ⑨ /ɪnsɪnju:'eɪt/ for insinuates; ⑩ /'sɜ:vɪs/ for services; ⑫ /jəʊb/ for jobs; ⑱ /gɜ:l/ for girls; ⑲ /bi:r/ for beard	44.5

10.	<p>① /mi:n/ for means; ② /'tʃeɪnjə/ for changed, /maɪn/ for mind; ⑤ /mi:n/ for means, /'stu:dən/ for students, /əv/ for of; ⑥ /ɑ:'gri:/ for agrees; ⑦ /ɪn'sɪnju:'eɪt/ for insinuates; ⑧ /bæŋk/ for bank, /'məʊni:/ for money; ⑨ /mi:n/ for means, /ri:'kwairmən/ for requirement; ⑩ /'sɜ:vɪs/ for services; ⑫ /dɪs'ku:tʃəʊn/ for discussion; ⑬ /'li:brəri:/ for library; ⑭ /'ɔ:rkɛstrə:/ for orchestras; ⑮ /'tɪkɪt/ for tickets; ⑯ /ɛ'lekt/ for elected; ⑰ /su:'jest/ for suggested, /bɪr/ for beard; ⑱ /'eɪtɪn 'si:sti:/ for 1860, /jɪr əʊl/ for year old, /mi:t/ for met</p>	38.5
11.	<p>① /mi:n/ for means; ③ /ɪm'plai/ for implies, /'tʃeɪnjə/ for changed; ⑤ /'stu:dən/ for students; ⑦ /ɪn'sɪnju:'eɪt/ for insinuates; ⑧ /'wi:sdrəʊ/ for withdraw; ⑨ /mi:n/ for means; ⑩ /'sɜ:vɪs/ for services; ⑪ /gɜ:l/ for girls; ⑫ /bɪr/ for beard; ⑬ /fɪr/ for fierce</p>	44.5
12.	<p>① /mi:n/ for means; ② /tʃi:/ for she; ③ /ɪm'plai/ for implies, /tʃi:/ for she; ⑤ /'stu:dən/ for students, /mi:n/ for means; ⑦ /mi:n/ for means, /di:'sɜ:v/ for deserves; ⑨ /ɪn'sɪnju:'eɪt/ for insinuates, /tʃi:/ for she; ⑬ /tʃi:/ for she; ⑮ /'ti:ket/ for tickets; ⑰ /bɪr/ for beard</p>	43
13.	<p>① /'vi:zɪt/ for visited; ② /tʃi:/ for she; /mi:'nu:t/ for minutes; ③ /ɪn'plai/ for implies; /tʃi:/ for she; ⑤ /mi:n/ for means; ⑥ /ɪn'plai/ for implies; /tʃi:/ for she; /ɑ:'gri:/ for agrees; ⑦ /ɪn'sɪnju:'eɪt/ for insinuates, /di:'sɜ:v/ for deserves; ⑨ /ɪn'sɪnju:'eɪt/ for insinuates, /tʃi:/ for she; ⑩ /hɑ:s/ for has; ⑬ /tʃi:/ for she; ⑮ /'ti:ket/ for tickets; ⑰ /bɪr/ for beard; ⑱ /bɪr/ for beard</p>	41
14.	<p>① /du/ for the, /'vi:zɪt/ for visited; ② /tʃi:/ for she, /'tʃeɪnjəd/ for changed; ③ /ɪn'plai/ for implies, /tʃi:/ for she, /'tʃeɪnjəd/ for changed; ④ /təʊt/ for thought, /du/ for the; ⑤ /'estu:dən/ for students; ⑥ /ɪn'plai/ for implies, /tʃi:/ for she, /ɑ:'gri:/ for agrees; ⑦ /di:'sɜ:v/ for deserves; /faɪ'nænsi:əl/ for financial; ⑧ /tu:'i:tʃəʊn/ for tuition, /'məʊni:/ for money; ⑨ /tʃi:/ for she, /du/ for the; ⑩ /ju:s/ for used; ⑫ /dɪs'ku:tʃəʊn/ for discussion; ⑬ /'lɑ:vɡɑ:r/ for lifeguard, /tʃi:/ for she; ⑮ /'kəʊnsɜ:t/ for concert, /ɑ:di:'tɔ:ri:əm/ for auditorium; ⑯ /əʊl/ for all; ⑰ /'lektʃər/ for lecture, /'ɑ:brɑ:hɑ:m/ for Abraham, /ɛ'lekt/ for elected; ⑱ /bɪr/ for beard; ⑲ /bɪr/ for beard, /mi:t/ for met, /'eɪtɪn 'si:sti:/ for 1860</p>	35

15.	<p>① /mi:n/ for means, /'vi:si:t^ə/ for visited, /nəʊ/ for known; ② /dʊ/ for the, /tʃi:/ for she, /mi:'nu:t/ for minutes; ③ /i:n'plai/ for implies, /tʃi:/ for she, /'tʃeɪnʒ/ for changes; ④ /təʊt/ for thought, /ɑ:'gri:/ for agreed, ⑤ /mi:n/ for means, /'estu:dən/ for students; ⑥ /i:n'plai/ for implies, /tʃi:/ for she, /ɑ:'gri:/ for agrees; ⑦ /i:nsi:nju:'eɪt/ for insinuates, /di:'serv/ for deserves; ⑧ /i:nsi:nju:'eɪt/ for insinuates, /tʃi:/ for she; ⑩ /'esɜ:vɪ:s/ for services; ⑫ /jəʊb/ for jobs; ⑬ /tʃi:/ for she; ⑭ /'li:bɪəri:/ for library; ⑮ /'li:bɪəri:/ for library; ⑯ /'ɔ:kɪstrə:/ for orchestras; ⑰ /'ti:kɪt/ for tickets; ⑱ /həʊ/ for how, /'leɪtə/ for letter, /hɛɪlp/ for helped; ⑲ /su:'jest^ə/ for suggested, /bɪ:ɹ/ for beard; ⑳ /eɪ'tɪm 'si:sti:/ for 1860, /jɪ:ɹ əʊl/ for year old, /'kɑ:mpeɪn/ for campaign, /i:'leɪtʃən/ for election, /mi:t/ for met, /senk^əd/ for thanked</p>	31
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Responses and Scores for Measure of Achievement Motivation

Question No.	AM	Part. No. 1	Part. No. 2	Part. No. 3	Part. No. 4	Part. No. 5	Part. No. 6	Part. No. 7	Part. No. 8	Part. No. 9	Part. No. 10	Part. No. 11	Part. No. 12	Part. No. 13	Part. No. 14	Part. No. 15
1.	E	E	E	D	E	E	D	D	D	D	D	D	E	D	D	C
2.	A	A	B	A	C	C	C	C	C	B	C	B	C	C	D	D
3.	A	A	A	A	A	A	B	B	A	B	B	B	A	C	B	C
4.	E	E	E	E	D	D	E	E	D	D	D	D	D	C	C	C
5.	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B	C
6.	A	B	B	B	B	B	A	C	B	B	C	C	B	B	C	C
7.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C	C
8.	A	B	A	B	A	A	B	B	A	B	B	B	A	B	C	C
9.	D	D	C	D	C	C	D	D	C	D	C	C	C	B	C	C
10.	E	E	D	E	C	C	D	D	D	D	D	D	C	D	C	C
11.	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B
12.	A	A	B	B	D	B	B	B	C	B	C	B	D	C	C	D
13.	A	A	A	B	A	A	B	B	A	B	B	B	A	A	B	B
14.	E	E	C	E	C	C	D	D	C	D	C	C	C	C	B	B
15.	E	E	C	E	B	B	E	E	D	E	D	D	B	C	B	B
16.	E	E	E	E	E	E	E	E	E	E	E	E	E	E	D	D
17.	A	A	C	B	C	C	B	B	C	A	C	C	C	C	C	C
18.	A	A	C	B	C	C	B	B	C	B	C	C	C	C	C	C
19.	A	A	C	A	C	C	A	A	C	A	B	B	C	C	C	C
20.	A	A	B	A	C	B	B	B	C	B	B	B	C	D	D	D
21.	A	A	B	A	B	B	A	A	B	A	B	B	B	B	B	B
22.	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B
23.	A	A	C	B	C	B	A	B	C	B	B	B	C	B	C	C
24.	A	A	D	A	C	C	A	A	B	A	A	A	C	C	D	D
25.	A	A	C	B	C	B	B	B	C	B	B	B	C	D	D	C
26.	A	A	B	A	B	B	A	A	B	A	B	B	B	B	C	C
27.	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D
28.	E	E	C	D	C	D	D	D	A	D	C	D	C	C	C	B
29.	A	A	D	A	D	B	A	A	A	A	A	A	A	A	A	A
Total Score	116	114	84	102	78	86	100	97	85	99	86	89	87	76	64	60

APPENDIX H
Minutes of 'Category-Based Interviews'

MINUTES OF CATEGORY-BASED INTERVIEWS

TL Competency Category	
Question 1 [see page 131]	<p>This category consisted of only 1 participant. She was also the only participant whose 'Measure of Achievement Motivation' score reflected 'High AM'. At first, the participant stated that she had no recollection of any temporary periods / areas of cessation of progress in her development of English language competency. However, after some discussion, she remembered that during high school she had difficulty in pronouncing 'th', 'sh', and 's' at the beginning of a word. She decided that she would overcome her difficulties and listened regularly to the sound track of 'The King and I'. She stated that listening to, and singing along with, the sound track over and over again enabled her to overcome her difficulties in pronunciation and assisted her in 'polishing up' her English. The participant stated that she responded to her awareness by a concerted effort to overcome her temporary cessation of progress.</p>
Question 2 [see page 131]	<p>Regarding the relationship between her achievement motive and her English language competency, the participant was emphatic that motivation was a key factor in her process of achieving TL competency. She stated that there was definitely a relationship between her native-like English language skills and her motivation, stating: "people have the power to do just about anything" and that "hard work is the key". She also said that it was necessary to "know what you really want" and then to "establish goals" in order to be successful. "Challenges have to be taken on whole-heartedly" and "I'm the kind of person that finishes everything I start". "That's why I didn't have any difficulty learning English".</p>
Question 3 [see page 131]	<p>The factors that this participant views as barriers to the achievement of competency in ESL are principally intrinsic, i.e., they emanate from the self. She affirmed that "hard work is the key" and that unfortunately "most people today are looking for a hand-out, or a free ride". "The problem is that people fail to establish goals. In order to set goals, you really have to know what you want. Most people don't know what they want and therefore cannot establish goals". She added that: "this is the reason why people in Puerto Rico can study English nearly all of their lives, hear it on the radio and TV every day, use English language text books at college, and after 30 or 40 years, still not speak English". The participant concluded by saying: "The lack of self-discipline, the failure to set goals, and the unwillingness to sacrifice to achieve are the major barriers".</p>

Low Levels of IL Fossilization Category

<p>Question 1 [see page 131]</p>	<p>This category included 11 participants and is the category that falls just short of TL competency. Four had scores on the 'Measure of Achievement Motivation' that reflected 'High / Medium AM' and seven had scores that reflected 'Medium AM'. The consensus, in response to 'Question 1', was that the participants had not experienced any temporary periods / areas of cessation of progress or permanent stagnation, but rather, that they were in a process of continually improving their English skills, especially in the area of acquiring a more diversified / richer vocabulary, in much the same way as native speakers improve their L1 language skills. Participant no. 12 stated that she was 'competent' but not 'fluent' in English. When asked to clarify her statement, she said that while she had achieved competency in English, she formulated her thoughts (and sentences) first in Spanish, and then translated them into English. This distinction between formulating thoughts (and sentences) in Spanish, as opposed to English, was understood by the participants to be the primary difference between possessing native-like or advanced English-language skills. However, it should be noted that vocabulary was also seen by participants as a determining factor, with 'advanced' English-language skills being compared to skills similar to native speakers in college, i.e., native speakers that were still in the process of vocabulary development.</p>
<p>Question 2 [see page 131]</p>	<p>The participants in this category agreed that motivation was a factor in the achievement of TL competency, but that it was not considered a principal factor. All of the participants considered themselves to be highly motivated, and indeed considered themselves as having high achievement motive. The participants also stated that they had reached native-like or advanced competency in English and that their skills surpassed their communicative needs. Participant 2 recapitulated the view of the participants in this category, saying: "I understand, speak, read, and write more English than I need to know. The fact of the matter is I don't use English every day here in Puerto Rico. I know more than enough English".</p>
<p>Question 3 [see page 131]</p>	<p>After a lengthy discussion, the participants in this category agreed that the barriers to the achievement of ESL competency in Puerto Rico were: 1) the lack of opportunities to practice English, 2) inadequate or culturally insensitive teaching methods, 3) poorly prepared and / or uncommitted teachers, 4) the failure to teach grammar and vocabulary, 5) negative political connotations equating the learning or speaking of English to colonialism or unpatriotic behavior, 6) learning English informally, either from Puerto Ricans born or raised in the US who have moved to Puerto Rico or from TV, and 7) the lack of natural ability.</p>

Medium Levels of IL Fossilization Category

<p>Question 1 [see page 131]</p>	<p>There was only one participant in this category. Her 'MAM' score reflected 'Medium / Low AM'. In response to 'Question 1', she stated that she was not aware of experiencing periods / areas of temporary cessation of progress or permanent stagnation on the continuum of development toward competency in ESL. She maintained that she had been continually improving her English language skills and stated that her English skills are at an intermediate level. In 'Part I of the Research Instrument', she categorized her English language skills as being at an intermediate level, which she described as meaning that her language skills were similar to those of a native speaker at the high school level. She stated that she needed to "practice English more" and that her principal difficulties were related to expanding her vocabulary.</p>
<p>Question 2 [see page 131]</p>	<p>In response to 'Question 2', the participant did not believe that her level of motivation was directly related to her English competency. She stated that other factors were more important than motivation, especially the dynamics between teachers and students in the classroom and the opportunity to practice English in a safe environment.</p>
<p>Question 3 [see page 131]</p>	<p>In response to 'Question 3', regarding the barriers to achievement of English language competency, the participant stated that the fear of making mistakes and being ridiculed was the principal obstacle for her. She discussed the learning environment in Puerto Rico and the tendency to 'make fun of' learners' errors or mistakes, i.e., negative affective feedback [see page 48]. The participant stated that: "People in Puerto Rico like to make jokes and make fun of others. At school or in university, if you make a mistake, even the teacher will laugh at you. Nobody likes to be laugh[ed] on [at]. So nobody says anything. If you can't practice at school or university, how can you practice at home when everyone is speaking Spanish?"</p>

High Levels of IL Fossilization Category

Question 1 [see page 131]	<p>This category comprised 2 participants. Both had scores reflecting 'Low AM'. The consensus, in response to 'Question 1', was that the participants in this category were not aware that they had experienced periods / areas of temporary cessation of progress or permanent stagnation on the continuum of development toward competency in ESL, confirmed by the fact that in 'Part I of the Research Instrument' they stated that they had achieved an intermediate level in their English language skills, which they insisted corresponds to the same level as a native speaker at the high school level.</p>
Question 2 [see page 131]	<p>In response to 'Question 2', the participants in this category agreed that motivation was not an important factor in achieving English language competency. The participants attributed language acquisition skills to 'natural ability', i.e., biological factors [see page 56], that could not be enhanced or diminished. It was interesting to note that they believed that they had this 'natural ability'. Participant 15 stated: "It's like [a] computer program, you have it or you don't have it. You can have all [the] motivation in the world, but if the computer she isn't programmed, you just cannot learn".</p>
Question 3 [see page 131]	<p>In response to 'Question 3', the consensus was that irrespective of motivation, teaching methods, opportunities to practice English, etc., each person has a 'natural ability' that either allows him / her to excel in the study of a foreign language or fail in his / her attempt to acquire an L2. During the discussion the participants provided examples of people known to them in support of their argument, i.e., relatives and friends who were 'extremely intelligent' but were unable to learn English and, others who learned English easily, although they were 'uneducated'. The participants in this category agreed that there was little that could be done to enhance the 'natural ability' because it was 'inborn'.</p>

APPENDIX I
Follow-up Interviews

FOLLOW-UP INTERVIEWS

Participant No. 1

The researcher met with Participant 1, Lsoto, a 51 year-old female participant with a master's degree and 10 years of instruction exposure to English after elementary school, who had an 'ELPE' score of 242 and a 'MAM' score of 114. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were 'Native-like'. After a short introduction [see page 93], the researcher began the interview with the following question.

Qⁱ: ... [See introductory question on page 143].

Answer: I believe that I did extremely well on the 'English Language Proficiency Evaluation' and the 'Achievement Motivation' Test. I'm sure that I'm not 'fossilized'. I don't look it, do I? I'm only kidding. Everyone thinks that I lived in the US because I don't have any accent. In regard to motivation, I accomplish everything that I begin. I know that I have high achievement motivation. There's absolutely no doubt in my mind.

The researcher advised the participant of her 'ELPE' and 'MAM' scores, etc. as explained in section 3.4.6 on page 92 and then continued with the interview.

Q1: ... [See question 1 on page 143].

Answer: As I told you before, I only had 1 period of temporary cessation of progress in my development towards competency in English. I had difficulty saying /tʃ/, /θ/ and /s/ at the beginning of a word. Once I realized that I had a problem, I decided that I had to overcome it. As I told you before, I began listening to a sound track of the *'King and I'*. I listened to it over and over again, paying attention to the words and singing along with it, when possible, until I perfected my pronunciation. That's how I did it. It all boiled down to effort.

Q: 'How did you know that you had a problem?'

Answer: My uncle, my mother's younger brother, came to visit us from the United States. He lived in Illinois. I remember that I was so happy to have him with us because he was so much fun. He was so cosmopolitan, and I had an opportunity to talk to him about the world and to practice English with him. He corrected my mistakes by stopping me when I made them, and by practicing the sounds with me. He did it in the sweetest of ways. It was almost a game. He would say: 'Here's the trick: *es* is the letter but '*¡So-o-o!*' The sound is /s/.' [*es* is Spanish for 'it is' and '*¡So-o-o!*' is Spanish for 'Whoa!'] When he left I began

listening to the *'King and I'* which uses only the best English, not like the English they use in movies today.

Q: 'Can you remember what you thought about your English language skills prior to your uncle's visit, and before he started to draw your attention to areas that needed to be improved?'

Answer: Oh, yes! I was so conceited that I thought that I spoke English perfectly. My mother didn't help. She was always bragging about me.

Q2: ... [See question 2 on page 144].

Answer: Of course! As I said before, I believe that motivation is the key factor in learning a second language. My English language competency is directly linked to my motivation to achieve. You can see from what I already told you, once I realized that I had areas that weren't up to standard, I immediately began to work on them.

Q3: ... [See question 3 on page 144].

Answer: The unwillingness to work hard, sacrifice, and make the extra effort is the principal barrier to achieving competency in English. You can't just sit there and learn a language by osmosis; you have to work at it. You have to take the bull by the horns. It's your responsibility; you can't pass it to someone else. You have to be motivated.

Q: 'How?'

Answer: You have to know what you want, set goals, and make the effort to realize your goals. You have to be careful not to bite off more than you can chew. You have to want it. You have to want to do and be better than the rest.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: I don't think so. But I do want to thank you for giving me the opportunity to participate in this study. I hope that it will help all those who want to learn English to help themselves. Oh, and by the way, may I please have a copy of my tests to show my husband?

Participant No. 2

Participant 2, Omarrero, a 47 year-old male participant with a master's degree and 10 years of instruction exposure to English after elementary school had an 'ELPE' score of

235.5 and a 'MAM' score of 84. On the 'Questionnaire Seeking Participants for the Study' he had reported that his English language skills were 'Native-like'. His responses to the follow-up interview are recorded below.

Qⁱ: ... [See introductory question on page 143].

Answer: I think that I went well on /bəʊs/ [both] test/(z)/. I /'alweɪ/ [always] got good mark/(z)/ in English and I speak English well. I am also a person **that** [who] has a lot of motivation. You have to have a lot of motivation to work /'fu:l-taɪm/ [full-time] and study your master's degree **at the same time**.

The researcher advised the participant of his 'ELPE' and 'MAM' scores, etc. and continued.

Q1: ... [See question 1].

Answer: Well it /lu:k/ [looks] like I do have some areas that I need to improve. I didn't even realize that I experienced this kind of stagnation. I'm not very happy because I /'alweɪ/ [always] got good mark/(z)/ in English. In a way, I knew that my English wasn't perfect, but I didn't know exactly what was wrong. Anyway, I didn't do too **bad** [badly or poorly].

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: Yes. I think [that] I would have tried harder if I realized [it]. Probably I would have tried harder but you can't try harder if you don't know what your mistake/(z)/ are.

Q2: ... [See question 2].

Answer: I didn't make a self-assessment. My professor/(z)/ /'alweɪ/ [always] gave me good mark/(z)/. I thought I was doing fine. But maybe it affected me. I don't know. It's hard to see your [own] mistake/(z)/ and correct them when your professor/(z)/ tell you [that] you're doing a great job. I have motivation to achieve but maybe I needed a little more motivation to study English. English wasn't my /pri:'əʊrɪti:/ [priority] because I know more English than I can ever use **in** [on] a daily basis in Puerto Rico. My /pri:'əʊrɪti:/ [priority] was to finish my master's degree and [to] get a job in my field. Also, since I thought my competency was **on** [at] a **more** higher level, I thought I didn't have to try so hard.

Q: 'So, are you saying that there is a relationship?'

Answer: Yes.

Q: 'What is that relationship?'

Answer: Probably my motivation to study English influenced my competency and the idea that I had about my **high** competency influenced my motivation.

Q3: ... [See question 3].

Answer: I think that the main factor is the poor quality of education in Puerto Rico. Look at me! If the professor/(z)/ **would have** [had] corrected my mistake/(z)/, I would have improved. **The other way** [The way it turned out], I didn't know what my mistake/(z)/ were. **Also** [Additionally], **maybe** professor/(z)/ [may] need to motivate student/(z)/ to see the importance of English.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: I guess so. Probably it's important to take ownership **in** [of] your own education, I mean to be empowered. I know this, I have a master's degree in Social Work and I tell my client/(z)/ this all the time. It's just hard to apply it to yourself.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: No. I can't think of anything else, but can you give me a copy of my test result/(z)/? I'm sure that if I try, my English can be perfect.

Participant No. 3

Participant 3, Wpagan, a 45 year-old female participant with a doctoral degree and 12 years of instruction exposure to English after elementary school had an 'ELPE' score of 232 and a 'MAM' score of 102. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were 'Native-like'. After a brief introduction, she was interviewed and her responses are recorded below.

Qⁱ: ... [See introductory question on page 143].

Answer: I believe that I did well. I was a very good student in high school and I had top grades at college, and during my graduate and post-graduate studies. My English language skills are native-like. I'm /tʃu:r/ [sure] that my score on the achievement /məʊti:'vɛɪtʃəʊn/ [motivation] test was high.

The researcher advised the participant of her 'ELPE' and 'MAM' scores, etc. and continued.

Q1: ... [See question 1].

Answer: I'm /sɜː'praɪs/ [surprised], especially in regard to the errors in /prəʊnʊnsi:'eɪtʃəʊn/ [pronunciation]. During all my years of study, I don't think that anyone has ever pointed out these /mɪsprəʊnʊnsi:'eɪtʃəʊns/ [mispronunciations] to me. Professors often /'mentʃəʊn/ [mention], in general terms, the difficulties Spanish-speaking people have with /ʃ/ [*There was an attempt to correct the pronunciation of the phoneme /ʃ/, but it was forced beyond 'naturalness'.*] but I didn't realize that my problem was so obvious.

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: I think that this goes without saying. It's impossible to be motivated to correct something unless you know it needs /kəʊ'rektʃəʊn/ [correction]. If we can be /tʃu:r/ [sure] of anything, we can be **sure** [*Again, there was an attempt to correct the pronunciation of the phoneme /ʃ/, but it was noticeably forced.*] of that.

Q2: ... [See question 2].

Answer: Possibly. I always considered myself to have excellent language skills, but, putting it in medical terms, it could be that my self-assessment led to a failure to diagnose the problem accurately, which led to a failure to treat it more aggressively. The way I understand it, /məʊti:'vɛɪtʃəʊn/ [motivation] is /li:nk/ [linked] to achieving goals. If you think that you have English language competency, or for that matter, competency in any other field, you don't need to try harder, because you have already reached your goal.

Q3: ... [See question 3].

Answer: The primary barrier to the achievement of competency in English-as-a-second-language lies within each person's genes. Some

people simply cannot learn, others have a greater capacity to learn a language.

- Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: In my particular case, there are some factors that I can identify that could make a difference. But they might not matter in other cases. I am a medical doctor and a psychiatrist. I have the capacity and ability to succeed in whatever I decide to do. For example, now that two areas of /stag'neɪtʃəʊn/ [stagnation], or maybe better said, two areas of difficulty in terms of /prəʊnʊnsi:'eɪtʃəʊn/ [pronunciation], have been brought to my /a'teɪntʃəʊn/ [attention]; I will apply the necessary effort to rectify these problems. So, if you're asking me for a factor that can be /a'plai/ [applied] to my particular case, I would say that factor is 'effort', but I do not believe that this can be /a'plai/ [applied] to everyone. Some people cannot achieve, no matter how much effort they may exert.

- Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: I think that the writing test was a little unfair because the errors that I made on the test were errors that native speakers of English make, and really don't represent any arrest in my writing skills. I would also like to request a copy of my tests. Is that possible?

Participant No. 4

Participant 4, Jcruz, a 42 year-old male participant with a master's degree and 10 years of instruction exposure to English after elementary school had an 'ELPE' score of 231.5 and a 'MAM' score of 78. On the 'Questionnaire Seeking Participants for the Study' he had reported that his English language skills were 'Native-like'. After a few opening remarks, the researcher began the interview with the following question.

- Qⁱ: ... [See introductory question on page 143].

Answer: I think I performed well. I don't think I'm fossilized and I know that I have high /məʊti:'veɪtʃəʊn/ [motivation] because I have been able to achieve a lot without the resources or the opportunities that rich people have. Also, when I was a child, I had to motivate myself to study. My mother was alone and didn't have the time to help us or motivate us. /tʃi:/ [She] was too busy working and making /tʃu:r/ [sure] we had food to eat.

At that point, the researcher advised the participant of his 'ELPE' and 'MAM' scores, etc. and continued.

Q1: ... [See question 1].

Answer: What can I say? It looks like I have a couple of areas [that] I need to improve. But, like it says in the Bible, 'How can I know if nobody tells me?' I think that's the job of the professors. Anyway, I think it's pretty good. There [are] not too many mistakes. I'm happy with the results.

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: Yes. Definitely. If you know you're doing something wrong, you can think about it, and then take the steps necessary to make it right, but if you don't know, and nobody tells you, how can you make it right?

Q2: ... [See question 2].

Answer: I just believed what my professors told me. I always got A's in English. What does that say? Not even one professor ever corrected the way I speak English. I think that I have plenty of /məʊti:'veɪtʃəʊn/ [motivation] and that's why I learned English without living in the United States. I think I have the /məʊti:'veɪtʃəʊn/ [motivation] to speak perfect English. The problem is not my /məʊti:'veɪtʃəʊn/ [motivation]. Somebody has to tell you when you make a mistake so you can work to /fɪs/ [fix] it.

Q3: ... [See question 3].

Answer: I think that barriers to English competency in Puerto Rico are linked to opportunity. Poor people have a harder time. The system doesn't put enough money and effort into teaching the poor. If **they** [it] did, there would be better teachers and better results.

Q: 'You mentioned extrinsically-oriented factors, i.e., outside factors over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: Uh... That's a difficult question. /'səʊmtaɪm/ [sometimes] it's easy to blame somebody else. It's not so easy to think about what you could do to change a /sɪtju:'eɪtʃəʊn/ [situation]. Probably, I /tʃu:d/ [should] have looked for an /ɑ:'mɛrɪkən/ [American] girlfriend to practice my English. That way /tʃi:/ [she] could be my professor and correct me.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: No, I have to go back to work now. But can I have my English test so I can start to /fɪs/ [fix] myself up. Thanks a lot. Take care.

Participant No. 5

Participant 5, Acolon, a 49 year-old male participant with a doctoral degree and 12 years of instruction exposure to English after elementary school had an 'ELPE' score of 222.5 and a 'MAM' score of 86. On the 'Questionnaire Seeking Participants for the Study' he had reported that his English language skills were 'Native-like'. The transcript of his interview is recorded below.

Qⁱ: ... [See introductory question on page 143].

Answer: I don't know but I think my English is very good and I'm a really motivated person. You know, I'm a /sɑː'kɒləʒɪst/ [psychologist], and part of my work is to motivate **the** people to /'tʃeɪnj/ [change]. I don't have /fɑːsɪlə'seɪʃən/ [fossilization] and I do have the /məʊti:'veɪʃən/ [motivation] to achieve.

The researcher advised the participant of his 'ELPE' and 'MAM' scores, etc. and then continued.

Q1: ... [See question 1].

Answer: I'm actually a little upset. I thought that I /pɛɪ'fɔːrmɪd/ [performed] better on both /tes/ [tests], but apparently there [are] some areas that I need to work on, and I didn't know it.

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: Yes. In order to /'tʃeɪnj/ [change], a person has to recognize that **they have** [he or she has] a problem. This is fundamental to /'tʃeɪnj/ [change]. If a person want [wants] to /'tʃeɪnj/ [change] a behavior, **they have** [he or she has] to /fɪrs/ [first] realize there is [a] problem, then contemplate /'tʃeɪnj/ [change], and finally after **they have** [he or she has] the /məʊti:'veɪʃən/ [motivation], work on /'tʃeɪnjɪ:n/ [changing].

Q2: ... [See question 2].

Answer: Yes. It definitely /lu:k/ [looks] like my self-assessment created a blind spot. It's not really a problem of /məʊti:'vɛɪtʃən/ [motivation]. It's a problem of awareness.

Q3: ... [See question 3].

Answer: I think [that] English teachers need to confront students when they make mistake/(z)/. You cannot /'tʃeɪnj/ [change] if you are in /pri:-kəʊntem'pleɪtʃən/ [pre-contemplation] and you don't know that you have a problem.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: Probably it's important to develop /ɪntrəʊ'spektʃən/ [introspection] in regard/(d)/ [*the d was said so softly that it could almost be missed*] to competency in the same way you develop /ɪntrəʊ'spektʃən/ [introspection] in any other behavior. When you behave in an unacceptable way, there are [is] usually a /ri:'aktʃən/ [reaction]. Others will tell you or let you know. This help [helps] you to have /ɪntrəʊ'spektʃən/ [introspection] **which** [that] lea/(d)/s [*the d was said so softly that it could almost be missed*] to awareness. Awareness has to be cultivated. So probably students need to look for people that speak English to interact with them.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: No, but could you please give me a copy of my result/(z)/? Thank you, I'm sorry, but I have to go to lunch with my mother.

Participant No. 6

Participant 6, Eramirez, a 54 year-old female participant with a master's degree and 10 years of instruction exposure to English after elementary school, who had achieved an 'ELPE' score of 222 and a 'MAM' score of 100. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were 'Native-like'. The following is a transcript of her interview.

Q¹: ... [See introductory question on page 143].

Answer: I'm an elementary school teacher and I found this test to be too long. It really wasn't an easy test and I don't know how I did on it. But I'm /tʃu:r/ [sure] that I have a lot of /məuti:'vɛɪtʃəʊn/ [motivation].

The researcher advised the participant of her 'ELPE' and 'MAM' scores, etc. and proceeded with the interview.

Q1: ... [See question 1].

Answer: I told you that I was /tʃu:r/ [sure] that I had a lot of /məuti:'vɛɪtʃəʊn/ [motivation], and as you see too, I have some difficulty/(z)/. If I had /nəʊ/ [known], I would have done something to correct myself.

Q: Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?

Answer: Yes. If you learn something incorrectly, and practice it enough time/(z)/ incorrectly, you won't even consider the possibility that you're wrong. It will be absolutely /ɪn'pɑ:sɪbəl/ [impossible] for you to recognize any problem. It's obvious that you can't have /məuti:'vɛɪtʃəʊn/ [motivation] to learn something if you believe that you already know it. *Se cae de la mata* [a Spanish saying that means something like: 'It's as plain as the nose on your face'].

Q2: ... [See question 2].

Answer: Yes, but I could not have /ə'tʃi:v/ [achieved] the level of English competency that I have unless I was highly motivated. It's not /məuti:'vɛɪtʃəʊn/ [motivation], it's more like you're riding on a bus, and you get off one stop too soon because you were not paying /ə'tentʃəʊn/ [attention]. I think that happens sometimes.

Q3: ... [See question 3].

Answer: Teachers don't communicate the need to cross the finish line. I'm a teacher. I know. They, I mean, we, communicate complacency. We communicate [say]: 'That's good enough!' We don't demand excellence. We let students think they /ɑ:'raɪv/ [arrived] because we're /'taɪr/ [tired], /əʊvər'wɜ:k/ [overworked], or maybe we feel sorry for the student. This is a problem.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: Each student, including me, has to take an active part in his, or her, learning process. Teachers have responsibility but so do student/(z)/. Student/(z)/ also have to require [excellence] from themselves **excellence**.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: Yes. If you give me a copy of my test and you come back in [the] next six month/(z)/, you'll see that I won't have the same problems. I only repeat a class [*that is a school year*] once.

Participant No. 7

Participant 7, Cgarcia, a 53 year-old female participant with a master's degree and 10 years of instruction exposure to English after elementary school had an 'ELPE' score of 220 and a 'MAM' score of 97. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were 'Native-like'. The interview began as follows.

Qⁱ: ... [See introductory question on page 143].

Answer: I am a person with high motivation to achieve. I have an M.B.A. and I studied at the Inter American University's English Trimester Program. I'm sure that I did well on the tes/(tz)/. I don't think my English is /fa:sil'aɪs^ə/ [fossilized]. I have native-like /skɪl/ [skills] but I probably could improve my vocabulary.

The participant was then advised of her 'ELPE' and 'MAM' scores, etc. after which the interview continued.

Q1: ... [See question 1].

Answer: My motivation score was high and my score in English wasn't too bad, but the English te/(tz)/ show/(z)/ that I have some area/(z)/ of stagnation. So I guess I have to answer, yes.

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: Yes. I think it /a'fekt^ə/ [affected] my motivation to study English, but not my motivation to achieve goal/(z)/ in other area/(z)/. I think it /a'fekt^ə/ [affected] my motivation in English because I didn't know that I had a problem.

Q2: ... [See question 2].

Answer: Yes. I think it /a'fekt^ə/ [affected] me because I thought that I had already /a'tʃi:v^ə/ [achieved] my goal/(z)/, so I /'stɑ:p^ə/ [stopped] trying.

Q3: ... [See question 3].

Answer: Teachers make /'stu:den/ [students] drill and memorize but do not pay attention to conversation, and conversation is the most important part of learning a language. Another important point is that teacher/(z)/ don't correct you when you pronounce words wrong. This is a problem in Puerto Rico, but it's not only in teaching, people in Puerto Rico don't like to address problems. It's cultural. In the classroom it /mi:n/ [means] that teachers don't like to correct /'stu:den/ [students] because it might affect their self-esteem. Teachers also give grade/(z)/ to **the** /'stu:den/ [students] that they didn't earn because they feel sorry for them or because the teachers want to look like they are good teachers.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: No. I don't think so.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: No. I'm so sorry. I have an appointmen/(t)/ at 3.00 p.m. and I'm already running late. Would you please send me my result/(z)/? You have my address and e-mail, right? Thank you.

Participant No. 8

Participant 8, Jlopez, a 40 year-old female participant with a bachelor's degree and 8 years of instruction exposure to English after elementary school had an 'ELPE' score of 217.5 and a 'MAM' score of 85. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were 'Native-like'. The researcher began the interview by asking her the following question.

Q¹: ... [See introductory question on page 143].

Answer: I hope that I did all right. Both test/(z)/ were hard. I really don't know how I did but I believe that I have high /məʊti:'vɛɪtʃəʊn/ [motivation]. My English is good, but I have to practice more, /ɛ'spɛtʃɑ:lɪ:/ [especially] my vocabulary.

Immediately after this, the researcher advised the participant of her 'ELPE' and 'MAM' scores, etc. as explained in section 3.4.6 on pages 92 - 94 and continued.

Q1: ... [See question 1].

Answer: Yes, I realize it now. I knew that I had some problems but I didn't know exactly what they were. **In** [at] university, student/(z)/ do not like to practice English, and the professors don't explain to you what you have to correct. I mean, if you go to class, and hand in your work, you get an 'A' or 'B'. So you think, I'm doing o.k. You don't realize [that] you are stuck, but you are.

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: Yes. I think that my lack of awareness stopped my progress in English but also I think that the lack of interest **to** [in] English **in** [at] university does not help you to think correctly about what level you are at.

Q2: ... [See question 2].

Answer: /məʊti:'vɛɪtʃəʊn/ [Motivation] is related to my competency in English. I have /məʊti:'vɛɪtʃəʊn/ [motivation] but maybe I did not have more /məʊti:'vɛɪtʃəʊn/ [motivation] to study English because I never had to put too much effort to get an 'A' in English **in** [at] **the** university. I don't know.

Q3: ... [See question 3].

Answer: That's a really good /'kwɛɪsti:əʊn/ [question]! But I think **now** that the principal reason is that teachers do not give **the** /ɑ:'tɛɪntʃəʊn/ [attention] to the student/(z)/ and they don't care if students learn English or not. Student/(z)/ take English because it is a requirement, but nobody /si:/ [sees] English as important. That is why student/(z)/ do not have /məʊti:'vɛɪtʃəʊn/ [motivation] to study English.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: Yes, I think [that] student/(z)/ **has** [have] to be more honest [with themselves]. Student/(z)/ may get A's or B's in English, but they know the real amount of effort they put into study[ing]. **In the** [at] university, there are more parties than study[ing]. If you want to learn, and not just get [an] 'A', you have to make the extra effort.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: I would like you to give to me a copy of my test so I can try to correct my mistake/(z)/. You know, next year, I want to go back to **the** university to do my master'/(z)/ degree.

Participant No. 9

Participant 9, Jilovet, a 55 year-old female participant with a master's degree and 10 years of instruction exposure to English after elementary school had an 'ELPE' score of 216.5 and a 'MAM' score of 99. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were at an 'Advanced' level. After some brief introductory remarks, the researcher asked the participant the following questions.

Qⁱ: ... [See introductory question on page 143]

Answer: I'm confident that I did well. I motivate people all the time. Actually, I coordinate volunteer/(z)/, so believe me, you have to have /məʊti:'vɛɪtʃəʊn/ [motivation] to deal with people and to get them to do a /jəʊb/ [job] for free. People can be so inflexible /'səʊmtaɪm/ [sometimes]. My English is not bad. I come from the island [*i.e., she comes from a rural area outside of the main metropolitan center*] and I didn't have the opportunity to practice English.

The researcher advised the participant of her 'ELPE' and 'MAM' scores, etc. and proceeded with the interview.

Q1: ... [See question 1].

Answer: I /ɛ'spɛkt^əd/ [expected] to get the score that I did in /məʊti:'vɛɪtʃəʊn/ [motivation], but I thought that I would do a little

better in English. It /lu:k/ [looks] like my English is not as good as I thought it would be. It's not easy to evaluate your own skill/(z)/ when you have /'nəʊsi:n/ [nothing] to compare your skill/(z)/ to. I have to say 'yes' to this question.

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: Yes. Awareness is probably one of the most important thing/(z)/. If you're not /'kɑ:ntʃəʊs/ [conscious] of your /mi:'steɪk/ [mistakes], you cannot do anything about them. How could I /ɛr'stɑ:blɪ:tʃ/ [establish] a goal to overcome an arrest in my progress of learning English when no one /'hɛlpəd/ [helped] me identify my problem area/(z)/? I think /aɪdenti:'fɪkeɪtʃəʊn/ [identification] of specific areas that need to be /ɪn'pru:vəd/ [improved] is the most important thing. It's not that I do not have /məʊti:'veɪtʃəʊn/ [motivation], it's that I could not see my problem area/(z)/, because I did not have the necessary /tu:l/ [tools]. You need a little personal /ɑ:'teɪntʃəʊn/ [attention] when you learn a language. Somebody has to correct you. They have to give you concrete /ɛ'sɑ:mpul/ [examples]. I cannot say to my volunteers, come and work. They won't know what to do. I have to say, come and serve lunch to the **elderlies** [elderly], come and wash the /'dɪtʃ/ [dishes], or /'səʊmsɪ:n/ [something], not just come and work. Teachers have to say, correct this or correct that. They have to let you know /ɛ'sɑ:kli:/ [exactly] what is wrong.

Q2: ... [See question 2].

Answer: Yes, but /məʊti:'veɪtʃəʊn/ [motivation] is one thing, and how you think about your skills is another. You can have plenty of /məʊti:'veɪtʃəʊn/ [motivation] but if you think that you /'fɪnɪʃəd/ [finished] the /jəʊb/ [job], why would you throw more /məʊti:'veɪtʃəʊn/ [motivation] on that /jəʊb/ [job]? So I think that the idea that you have about your English language competency /ə'fek/ [affects] your ability to move /'fɔ:rwɜ:/ [forward].

Q3: ... [See question 3].

Answer: Teachers don't do their /jəʊb/ [job]. That's the problem. Maybe they do not have the proper training. Maybe they are lazy or hungry for money. But they are the problem.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: Maybe students /tʃu:/ [should] not rely so much on the teachers but find ways to check their competency outside of the school or university. It's also a matter of /ɛɪ'stɑ:bli:tʃi:ŋ/ [establishing] what you really want or need. If I had to speak and listen to English every day, I would probably be more aware of my /mi:'steɪk/ [mistakes]. That's a /hɑ:/ [hard] question!

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: I really can't think of /'eni:si:ŋ/ [anything] right now, but I'd like a copy of my test, if possible.

Participant No. 10

The researcher met with Participant 10, Nperdomo, a 40 year-old female participant with a master's degree and 10 years of instruction exposure to English after elementary school, who had an 'ELPE' score of 207.5 and a 'MAM' score of 89. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were at an 'Advanced' level. The interview is recorded below.

Qⁱ: ... [See introductory question on page 143].

Answer: It's very /'dɪfɪ:kəʊl/ [difficult] for me to say how I /pɛɪ'fɔ:rm/ [performed] on these /tes/ [tests]. I /jʌs/ [just] don't know. I'm not good at /'teɪki:n/ [taking] /tes/ [tests], I'm much better at life. I am a /məʊti:v'eɪt/ [motivated] person and I speak English. I think [that] I have /'esələ/ [excellent] English language skill/(z)/. So anyway, we [will] see how I /pɛɪ'fɔ:rm/ [performed].

Immediately the researcher advised the participant of her 'ELPE' and 'MAM' scores, etc. The researcher then proceeded with the rest of the interview.

Q1: ... [See question 1].

Answer: I feel /dɪs'eɪpəʊnt/ [disappointed] because I thought that I would do much better on the English /tes/ [test], and really I didn't understand [that] I had so many areas /əʊ/ [of] /'dɪfɪ:kəʊlti:/ [difficulty]. I really had a wrong idea about my English ability. I almost feel /ɛn'bɑ:ras/ [embarrassed].

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: /tʃʊ:r/ [sure]. You cannot be /məʊti:v'eɪtʃəʊn/ [motivated] to achieve the goal/(z)/ [that] you think you already /a'tʃi:vʊ/ [achieved]. That's crazy. I need to improve my English, but I'm not crazy.

Q2: ... [See question 2].

Answer: This is like the story /əʊ/ [of] the chicken or the egg. I know I have /məʊti:v'eɪtʃəʊn/ [motivation] and I /'lɜ:nʊ/ [learned] plenty /əʊ/ [of] English for a person that has not /'lɪvʊ/ [lived] in the United States or some other English country. In term/(z)/ of competency, I'm almos/(t)/ there! I /'stɔ:pʊ/ [stopped] learning too soon because I thought I was already there, so lack of /məʊti:v'eɪtʃəʊn/ [motivation] didn't stop me. The idea I had /əʊ/ [of] my competency level /'stɔ:pʊ/ [stopped] me. Now that I know, I can have the /məʊti:v'eɪtʃəʊn/ [motivation] to arrive at competency. The /'kwɛɪsti:əʊn/ [question] is how did I get the idea that I /ɑ:raɪvʊ/ [arrived] at competency. This is an important /'kwɛɪsti:əʊn/ [question].

Q: 'And what is the answer?'

Answer: I think that teachers don't have **compromise** [enough commitment]. They get a check and go home. If you alway/(z)/ get 90% or 100% in your English language /tes/ [tests], you have to think that you are competent. I think maybe teachers don't have the correct /məʊti:v'eɪtʃəʊn/ [motivation] to teach.

Q3: ... [See question 3].

Answer: I think that the barrier/(z)/ are that teachers are not /pri:'peɪrʊ/ [prepared] and that they don't have the /məʊti:v'eɪtʃəʊn/ [motivation] to teach, which /ɪn'plai/ [implies] [that] they correct /'stu:den/ [students] and show them their errors.

Q: 'You mentioned extrinsically-oriented factors, i.e., outside factors over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: I think [that] if I were in university right now, I would demand that the professors show me where **are** my /mi:'steɪk/ [mistakes] [are]. I think [that] /'səʊmtaɪm/ [sometimes] when you're /'stadi:ɪ/ [studying], you focus too much on the diploma, the piece of paper, and

forget about the /ɛdju:'kɛɪtʃəʊn/ [education]. I think the /'prɛtʃʊr/ [pressure] from the society to get through university and to work /a'fɛk/ [affects] us in this way.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: Can I get my English /tɛs/ [test] so I can start to work on my problems, /ɛ'spɛtʃʊli:/ [especially] in /prəʊnʊnsi:'eɪtʃəʊn/ [pronunciation].

Participant No. 11

Participant 11, Msantiago, a 41 year-old female participant with a master's degree and 10 years of instruction exposure to English after elementary school had an 'ELPE' score of 206.5 and a 'MAM' score of 89. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were at an 'Advanced' level. The interview began as follows.

Qⁱ: ... [See introductory question on page 143].

Answer: You have to have **it** /məʊti:v'eɪtʃəʊn/ [motivation] to be a /'səʊsi:əl/ [Social Worker]. /əʊl/ [All] day long, I motivate people in crisis. You have to have /məʊti:v'eɪtʃəʊn/ [motivation] to do that and I am /məʊti:v'eɪtʃəʊn/ [motivated] and ready to go. You cannot give what you do not have. My English is good. **In the** [At] university, most of the /tɛs/ [text] books are in English, even if the class is in Spanish. So, I must have English /skɪl/ [skills] **on the** university level [university level skills].

The researcher proceeded to advise the participant of her 'ELPE' and 'MAM' scores, etc. and continued with the following interview questions.

Q1: ... [See question 1].

Answer: As you can see, my /məʊti:v'eɪtʃəʊn/ [motivation] is good but it /lu:k/ [looks] like I need help in English. I'm like the man in the race around the race /trɒk/ [track], I am so far /bi:'haɪn/ [behind] that I think I'm /ɑ:'he/ [ahead]. But it's not /əʊl/ [all] my /fəʊl/ [fault]. I /'alweɪ/ [always] got good grades in English, so I could be a little angry that I wasn't given an accurate /i:valju:'eɪtʃəʊn/ [evaluation] of my level of English /'lɑ:wi:tʃ/ [language] competency. Probably that's why I couldn't recognize that I had area/(z)/ of **the** /sɛs'eɪtʃəʊn/ [cessation] of **the** progress.

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: I did not set goal/(z)/ to progress in English because I thought that I did not need to set goal/(z)/. Sorry, I'm a little /əʊp'se/ [upset] but I'll be fine.

Q2: ... [See question 2].

Answer: My /məʊti:v'eɪtʃəʊn/ [motivation] is high. Even the test /tʃəʊ/ [shows] that my /məʊti:v'eɪtʃəʊn/ [motivation] is high. I thought that I did not need to /a'tʃi:vmənt/ [achievement] of competency because I was competent.

Q3: ... [See question 3].

Answer: /prəʊ'fesəʊr/ [Professors] **in the** [at] university are to blame because they waste their time in the classroom speaking Spanish to the /'stɜːdɪnt/ [students] instead of English. /i:'mɑːdʒiːn/ [Imagine] that, teaching people to speak English in Spanish. It must be the /'stɜːpɪdɪs/ [stupidest] thing you ever /hɜːr/ [heard].

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: I think that if you want to learn English you have to go to a private company that /ti:tʃə/ [teaches] /'lɑːŋwɪ:tʃ/ [languages]. If the company does not get result/(z)/, people won't go and **he** [it] will go out of business. If you want to learn, you have to get [a] /ri:'ætʃəʊn/ [reaction] of [from] the teacher, or somebody, to give you criticism on what you are doing wrong. I think that's normal.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: Could you please give me a copy of my /tes/ [test] score/(z)/? I want [to] work on my error/(z)/ so I need a copy. Thank you so much. This has been a good experience for me.

Participant No. 12

Participant 12, Jdiaz, a 43 year-old female participant with a bachelor's degree and 8 years of instruction exposure to English after elementary school had an 'ELPE' score of

205 and a 'MAM' score of 87. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were at an 'Advanced' level. The interview proceeded as follows.

Qⁱ: ... [See introductory question on page 143].

Answer: I'm really /məʊti:v'eɪt^ə/ [motivated] but I do not think [that] my test score/(z)/ were [are] very good. This /tes/ [test] was so /'dɪfɪ:kəʊl/ [difficult]. The /tes/ [tests] **in the** [at] university were much easier. But I believe that I have good English skill/(z)/. Anyway, I will see when you give me my result/(z)/.

After this, the researcher advised the participant of her 'ELPE' and 'MAM' scores, etc. and proceeded with the following questions.

Q1: ... [See question 1].

Answer: I told you that I that I didn't do well on this /tes/ [test]. It was very /hɑː/ [hard] and I was nervous. But I /'ri:lais^ə/ [realized] when we went over the correct answer/(z)/ [that] there were a lot of /'kwɛɪstɪ:ʃən/ [questions] that I don't know the answer to. So probably I had some /sɛs'eɪtʃən/ [cessation] of **the** progress [that] I didn't know about or realize it.

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answers: Probably it could have /ə'fekt^ə/ [affected] me because I /'stɔ:p^ə/ [stopped] **to try** [trying], but I really don't know.

Q2: ... [See question 2].

Answer: I don't know. Maybe if I /ni:d^ə/ [needed] to use English every day, I would have studie/(d)/ more. I don't know. I believe that I have /məʊti:v'eɪtʃən/ [motivation], but if you think you have good English, you don't feel the /məʊti:v'eɪtʃən/ [motivation] to study **the** English. Maybe you're idea that your English is /əd'vɑːns^ə/ [advanced] /teɪk/ [takes] away your /məʊti:v'eɪtʃən/ [motivation]. It's [a] very /'dɪfɪ:kəʊl/ [difficult] subject.

Q3: ... [See question 3].

Answer: It's so /'dɪfɪ:kəʊl / [difficult] to participate in the classe/(z)/ **in the** [at] university because the **professor doesn't** [professors don't]

have any control over the /'stu:den/ [students]. If you make a mistake the /'stu:den/ [students] make fun **on** [of] you. /'səʊmtaɪm/ [sometimes] even the professor/(z)/ laugh. This makes /ɛn'ba:rrɑ:smən/ [you embarrassed], so you don't even want to open your /maʊs/ [mouth] in class. This is one of the /'grɛɪtəs/ [greatest] barrier/(z)/.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: I really don't know. I can't answer you now. I need to think about it.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: If I had a copy of my /tɛs/ [test], I could try to /ɪn'pru:v/ [improve] myself. Can I have it?

Participant No. 13

The researcher met with Participant 13, Adiaz, a 43 year-old female participant with a bachelor's degree and 8 years of instruction exposure to English after elementary school, who had an 'ELPE' score of 199 and a 'MAM' score of 76. On the 'Questionnaire Seeking Participants for the Study' she had reported that her English language skills were at an 'Intermediate' level. The interview is recorded below.

Q¹: ... [See introductory question on page 143].

Answer: I don't /hɑ:v/ [have] any idea on how I /pɛɪ'fɔ:rm/ [performed]. Maybe I did well. I hope so. My English is at [an] intermediate level but I /jʊs/ [just] don't do well on **the** /tɛs/ [tests]. I believe that I /hɑ:v/ [have] high /məʊti:v'eɪtʃən/ [motivation] and /hɑ:v/ [have] /ɑ:'kɒmplɪ:tʃ/ [accomplished] many thing/(z)/ in my life.

Next, the researcher advised the participant of her 'ELPE' and 'MAM' scores, etc. and continued with the interview.

Q1: ... [See question 1].

Answer: You see, I told you. I don't /pɛɪ'fɔ:rm/ [perform] well on the /tɛs/ [tests]. **In the** [At] university the /tɛs/ [tests] were much easier than

this *tes* [test]. Also, **in the** [at] university, homework, class attendance, and class /*pɑ:rti:si:'peɪtʃəʊn*/ [participation] **was** [were] part of the grade. I /*'alweɪ*/ [always] got good grade/(z)/ in English. Anyhow, everythi/(ŋ)/ does not depend on a /*tes*/ [test]. It's not **the** /*məʊti:v'eɪtʃəʊn*/ [motivation]. I don't [that] think I /*hɑ:v*/ [have] /*ses'eɪtʃəʊn*/ [cessation] of **the** progress in English. I cannot /*ɑ:'sept*/ [accept] that. My English /*'lɑ:wi:tʃ*/ [language] /*skɪl*/ [skills] are at an intermediate level, like any /*ɑ:'mɛrɪkən*/ [American] /*ju:s*/ [youth] in **the** high school. I am constantly increasing my vocabulary and my competency. I will [be] /*lɜ:ni:n*/ [learning] until I die. This is how I see it. No /*di:srɪ:spɛk*/ [disrespect] to you or this /*tes*/ [test].

Q: 'Do you think that your lack of awareness of areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: No. First of all, my /*məʊti:v'eɪtʃəʊn*/ [motivation] is inside of me. Nothing can take it away. Besides that, I did not /*hɑ:v*/ [have] any lack of awareness, and /*lɜ:ni:n*/ [learning] English /*i:n'vəʊl*/ [involves] much more than [the] /*məʊti:v'eɪtʃəʊn*/ [motivation]. You have to /*hɑ:v*/ [have] an opportunity to practice, and English is /*'dɪfɪ:kəʊlti:*/ [difficult] to pronounce.

Q2: ... [See question 2].

Answer: No. The person's competency doesn't depend on his /*məʊti:v'eɪtʃəʊn*/ [motivation]. There are so many other thing/(z)/. In Puerto Rico, you listen to Spanish everywhere and you don't /*hɑ:v*/ [have] **nobody** [anybody] to practice with you. The English on the /*televi:si:əʊn*/ [television] and radio are not /*'alweɪ*/ [always] correct and /*'səʊmtaɪm*/ [sometimes] they say too many bad /*wɜ:(d)*/ [words]. So it's not /*jəʊs*/ [just] /*məʊti:v'eɪtʃəʊn*/ [motivation], There **is** [are] so many other /*'ri:səʊn*/ [reasons].

Q3: ... [See question 3].

Answer: I think that the principal barrier is that it's almos/(t)/ /*i:n'pɑ:sɪbəl*/ [impossible] to practice **the** English in Puerto Rico.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: No, I can't think of anythi/(ŋ)/ right now.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: No, I /hɑ:v/ [have] nothi/(ŋ)/ to say /ɛ'sɛp/ [except] that /məʊti:v'eɪtʃəʊn/ [motivation] could be a problem for some people but for mos/(t)/ of the people who /wɑ:nt/ [want] to learn English, /məʊti:v'eɪtʃəʊn/ [motivation] is not the /'bi:ɡes/ [biggest] problem. The /'bi:ɡes/ [biggest] problem is that you do not /hɑ:v/ [have] the opportunity to practice English in Puerto Rico.

Participant No. 14

The researcher met with Participant 14, Mrodrig, a 41 year-old male participant with a bachelor's degree and 8 years of instruction exposure to English after elementary school, who had an 'ELPE' score of 156 and a 'MAM' score of 64. On the 'Questionnaire Seeking Participants for the Study' he had reported that his English language skills were at an 'Intermediate' level. After a short introduction, the interview began with the following question.

Qⁱ: ... [See introductory question on page 143].

Answer: It's /har/ [hard] to say how I did on /dʊ/ [the] /tes/ [tests] but my /'i:ŋɡli:stʃ/ [English] is at [an] intermediate level. I /hɑ:v/ [have] /məʊti:v'eɪtʃəʊn/ [motivation] too. But /məʊs/ [most] of /əʊl/ [all], /'i:ŋɡli:stʃ/ [English] is easy for me.

The researcher advised the participant of his 'ELPE' and 'MAM' scores, etc. and continued.

Q1: ... [See question 1].

Answer: No. I didn'/(t)/ /hɑ:v/ [have] any /'trəʊbəl/ [trouble] at /əʊl/ [all]. /'i:ŋɡli:stʃ/ [English] is /'alwɛɪ/ [always] easy for me. **In** /dʊ/ [At] university /əʊl/ [all] of my /tes/ [tests] **were with** [received] good mark/(z)/. /dɪs/ [This] is only /jəʊs/ [just] one /tes/ [tests].

Q2: ... [See question 2].

Answer: No. My /məʊti:v'eɪtʃəʊn/ [motivation] for **the** /a'tʃi:vmən/ [achievement] is not /ri:'leɪt/ [related] to my /'i:ŋɡli:stʃ/ [English] /'lɑ:ŋwi:tʃ/ [language] competency. You can'/(t)/ learn **the** /'i:ŋɡli:stʃ/ [English] with /məʊti:v'eɪtʃəʊn/ [motivation]. You have to /hɑ:v/ [have] /dʊ/ [the] /ɑ'bi:lɪti:/ [ability]. /dɪs/ [This]

/ɑ:'bi:lɪti:/ [ability] is given to /ðu/ [the] person when he is bor/(n)/. You cannot/(t)/ **achievement** [achieve] of /'i:ngli:stʃ/ [English] if you don't /hɑ:v/ [have] /ðu/ [the] /ɑ:'bi:lɪti:/ [ability]. I/(t)'/s simple as /ðæt/ [that].

Q3: ... [See question 3].

Answer: I /tɪ:nk/ [think] /ðæt/ [that] the principal barrier is /ðæt/ [that] it's /'ɑ:l'məʊs/ [almost] /i:n'pɑ:sɪ'bəl/ [impossible] to practice /'i:ngli:stʃ/ [English] in Puerto Rico.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: No, I can't/(t)/ /tɪ:nk/ [think] of /'nəʊsɪ:n/ [anything] right now.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: No, I /hɑ:v/ [have] /'nəʊsɪ:n/ [nothing] else to say /ɛ'sɛp/ [except] /ðæt/ [that] /məʊti:'vɛɪtʃəʊn/ [motivation] is no/(t)/ /ðu/ [the] problem.

Participant No. 15

The researcher met with Participant 15, Nlopez, a 40 year-old male participant with a bachelor's degree and 8 years of instruction exposure to English after elementary school, who had an 'ELPE' score of 116 and a 'MAM' score of 60. On the 'Questionnaire Seeking Participants for the Study' he had reported that his English language skills were at an 'Intermediate' level. The interview is recorded below.

Qⁱ: ... [See introductory question on page 143].

Answer: I /'ɔ:lweɪ/ [always] get /ðu/ [the] good /mɑ:rk/ [marks] on /tes/ [tests] and I /hʌv/ [have] plenty /məʊti:'vɛɪtʃəʊn/ [of motivation]. I'm /nəʊ/ [not] /wəʊrri:/ [worried] for /ðu/ [the] /tes/ [test].

The researcher advised the participant of his 'ELPE' and 'MAM' scores, etc. and continued.

Q1: ... [See question 1].

Answer: No. I /jəʊs/ [just] /kəʊn'ti:nju:ə/ [continued] to lear/(n)/. /i:s/ [It's] /nætʃərə:l/ [natural]. You /ɛs'tɑ:r/ [start] /ɛs'ləʊ/ [slow] and /'fɪnɪtʃ/ [finish] knowing. /i:s/ [It's] /nætʃərə:l/ [natural].

Q: 'Do you think that your lack of awareness of the areas of cessation of progress affected your motivation to establish and achieve learning goals?'

Answer: No. I know /wəʊt/ [what] I'm /'du:i:n/ [doing] an/(d)/ I /dəʊn/ [don't] /həv/ [have] lack of /dʊ/ [the] /ɑ:'wɛrɪdʒnəs/ [awareness].

Q2: ... [See question 2].

Answer: No. /i:s/ [It's] /nəʊ/ [not] /məʊti:'veɪʃən/ [motivation]. /i:s/ [It's] /dʊ/ [the] power of /dʊ/ [the] braɪ/(n)/. I said /i:t/ [it] before, /i:s/ [it's] like [a] /kəʊm'pjʊ:tə/ [computer] /prəʊ'grɑ:m/ [program], you /həv/ [have] /i:t/ [it] /əʊ/ [or] you /dəʊn/ [don't] /həv/ [have] /i:t/ [it]. Even /əʊl/ [all] /dʊ/ [the] /məʊti:'veɪʃən/ [motivation] /i:n/ [in] /dʊ/ [the] /wɜ:rl/ [world] /kɑ:n/ /nəʊ/ [cannot] /hel'p/ [help] you /i:f/ [if] /dʊ/ [the] /kəʊm'pjʊ:tə/ [computer] /tʃi:/ [she] /i:s'n/ [isn't] /prəʊ'grɑ:məd/ [programmed].

Q3: ... [See question 3].

Answer: Maybe /dʊ/ [the] person /tʃi:/ [she] /həz/ [has] /ɑ:'nəʊsə/ [another] talen/(t)/. /di:s/ [This] is a barrier.

Q: 'You mentioned an extrinsically-oriented factor, i.e., an outside factor over which you have little or no control. Can you think of any intrinsically-oriented factors, i.e., factors over which you have some control?'

Answer: No.

Q: 'Do you have any other thoughts regarding the issues raised in this study that you would like to share at this time?'

Answer: No.

APPENDIX J
Permissions

PERMISSIONS

Permission to Use TOEFL

----- Original Message -----

From: "Steinberg Roberta G" <rgsteinberg@mountida.edu>
To: <crnagora@prtc.net>
Sent: Thursday, November 03, 2005 1:36 PM
Subject: Re: Permission to Use Tests

I'm very flattered. You have my permission. I'd also be honored if you were to mention my book in your results. Good luck with the study, Roberta Steinberg

From: crnagora@prtc.net [mailto:crnagora@prtc.net]
Sent: Thu 11/3/2005 12:15 PM
To: Steinberg Roberta G
Subject: Permission to Use Tests

Dear Ms. Steinberg:

I am conducting research (in partial fulfillment of Ph.D. requirements) related to the role of motivation on interlanguage fossilization among middle-aged ESL learners in Puerto Rico. The study will include 15 participants.

As part of the English language competency evaluation, I would like to have each participant take a test based upon / adapted from your excellent TOEFL (CBT) Test Preparation Guide. Would you have any objections to this? If you have no objections, would you like any special mention when I record the results of my study?

Please advise.

Thank you.

Sincerely,

Dr. Zoran Vujisic,
Center for Language
University of Turabo,
Gurabo, Puerto Rico

This message was sent using <http://webmail.coqui.net>
<<http://webmail.coqui.net/horde/services/go.php?url=http%3A%2F%2Fwebmail.coqui.net>>

Permission to Use Achievement Motivation Scale and Key

----- Original Message -----

From: "Hubert J.M. Hermans" <HHermans@psych.ru.nl >

To: <crnagora@prtc.net>

Sent: Friday, September 16, 2005 11:01 PM

Subject: Re: Permission to Use Scale

Dear Dr. Vujisic:

You have my permission. Here is the reference and the scoring key.

Best,

Hubert J.M. Hermans

NOTE MY NEW E-MAIL ADDRESS: HHermans@psych.ru.nl

NEW JOURNAL: International Journal for Dialogical Science:

<http://www.dialogical.org>

Homepage Hubert J.M. Hermans:

<http://www.socsci.kun.nl/~hermans/index.html>

Fourth International Conference on the Dialogical Self, 1-3 June 2006

in Braga, Portugal

<http://www.dialogicalself2006.com/>

International Society for Dialogical Science (ISDS)

<http://www.dialogicalscience.org>

(Are you interested in membership?)

From: crnagora@prtc.net [mailto:crnagora@prtc.net]

Sent: Fri 9/16/2005 4.48 PM

To: Hubert J.M. Hermans

Subject: Permission to Use Scale

Dear Dr. Hermans:

I am conducting research (in partial fulfillment of Ph.D. requirements) related to the role of motivation on interlanguage fossilization among middle-aged ESL learners in Puerto Rico. The study will include 15 participants.

As part of the study, I would like to have each participant take an Achievement Motivation Test based upon / adapted from your Achievement Motivation Scale. Would you have any objections to this? If you have no objections, would you like any special mention when I record the results of my study.

I would also need a copy of your Achievement Motivation Scale in English and a scoring key.

Please advise.

Thank you.

Sincerely,

Dr. Zoran Vujisic
Center for the Study of Language
Universidad del Turabo
Carr. 189, km. 3.3
Gurabo, Puerto Rico, 00778-3030
U.S.A.

FIGURES

The International Phonetic Alphabet (2006)

THE INTERNATIONAL PHONETIC ALPHABET (revised to 2005)

CONSONANTS (PULMONIC)

© 2005 IPA

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill	ʙ			ʀ					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

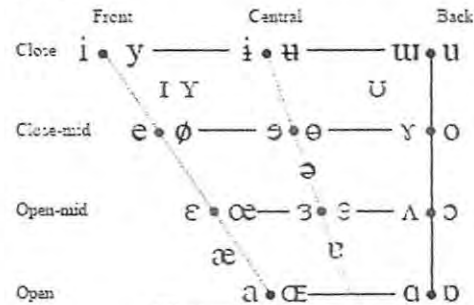
CONSONANTS (NON-PULMONIC)

Clicks	Voiced implosives	Ejectives
◌ ʘ Bilabial	ɓ Bilabial	◌ ʼ Ejectives:
◌ ǀ Dental	ɗ Dental alveolar	◌ ʘ Bilabial
◌ ǃ (Postalveolar)	f Palatal	◌ ʈ Dental alveolar
◌ ǁ Palatoalveolar	ɠ Velar	◌ ʞ Velar
◌ ǂ Alveolar lateral	ɣ Uvular	◌ ʂ Alveolar fricative

OTHER SYMBOLS

ʌ	Voiceless labial-velar fricative	ɕ ʑ	Alveolo-palatal fricatives
ʷ	Voiced labial-velar approximant	ɺ	Voiced alveolar lateral flap
ɥ	Voiced labial-palatal approximant	ɥ	Simultaneous ʃ and x
ħ	Voiceless epiglottal fricative		
ʕ	Voiced epiglottal fricative		Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary.
ʡ	Epiglottal plosive		

VOWELS



Where symbols appear in pairs, the one to the right represents a rounded vowel.

SUPRASEGMENTALS

- ˈ Primary stress
- ˌ Secondary stress
- ː Long eː
- ˑ Half-long eˑ
- ˑ Extra-short e̘
- ː Minor (foot) group
- ˑ Major (intonation) group
- ˑ Syllable break: pi.ækt
- ˑ Linking (absence of a break)

TONES AND WORD ACCENTS LEVEL

- ˥ or ˩ Even high
- ˨ or ˧ High
- ˦ or ˤ Mid
- ˧ or ˥ Low
- ˨ or ˩ Even low
- ˩ Downstep
- ˨ or ˩ Upstep
- ˥ or ˩ Rising
- ˨ or ˩ Falling
- ˥ or ˩ High rising
- ˨ or ˩ Low rising
- ˥ or ˩ Rising-falling
- ˥ or ˩ Global rise
- ˨ or ˩ Global fall

DIACRITICS Diacritics may be placed above a symbol with a descender, e.g. ɪ̥

◌ ̥	Voiceless	◌ ̤	Breathily voiced	◌ ̦	Dental	◌ ̧	Apical
◌ ̨	Voiced	◌ ̩	Creaky voiced	◌ ̪	Laminal	◌ ̫	Nasalized
◌ ̜	Aspirated	◌ ̝	Linguolabial	◌ ̞	Labialized	◌ ̟	Nasal release
◌ ̠	More rounded	◌ ̡	Labialized	◌ ̢	Palatalized	◌ ̣	Lateral release
◌ ̤	Less rounded	◌ ̥	Velarized	◌ ̦	Pharyngealized	◌ ̧	No audible release
◌ ̨	Advanced	◌ ̩	Velarized or pharyngealized	◌ ̪	Raised	◌ ̫	Lowered
◌ ̜	Retracted	◌ ̝		◌ ̞		◌ ̟	Advanced Tongue Root
◌ ̠	Centrized	◌ ̡		◌ ̢		◌ ̣	Retracted Tongue Root
◌ ̤	Mid-centralized	◌ ̥		◌ ̦		◌ ̧	
◌ ̨	Syllabic	◌ ̩		◌ ̪		◌ ̫	
◌ ̜	Non-syllabic	◌ ̝		◌ ̞		◌ ̟	
◌ ̠	Rhoticity	◌ ̡		◌ ̢		◌ ̣	

Figure 3: The International Phonetic Alphabet (2006).

