# Second language acquisition: a study of a constructivist approach to teaching versus a varied approach, and its effectiveness in a first-year Spanish class at the secondary level 

Christina Di Mento Ferus<br>Rowan University

Follow this and additional works at: https://rdw.rowan.edu/etd
Part of the Educational Psychology Commons

## Recommended Citation

Ferus, Christina Di Mento, "Second language acquisition: a study of a constructivist approach to teaching versus a varied approach, and its effectiveness in a first-year Spanish class at the secondary level" (2004). Theses and Dissertations. 1147.
https://rdw.rowan.edu/etd/1147

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.

# SECOND LANGUAGE ACQUISITION: A STUDY OF A CONSTRUCTIVIST 

 APPROACH TO TEACHING VERSUS A VARIED APPROACH, AND ITS EFFECTIVENESS IN A FIRST-YEAR SPANISH CLASS AT THE SECONDARY LEVELby Christina Di Mento Ferus

A Thesis<br>Submitted in partial fulfillment of the requirements of the Master of Arts Degree of<br>The Graduate School<br>at<br>Rowan University 2004

## Approved by

Date Approved $5 / 4 / 0.4$


#### Abstract

Christina D. Ferus Second Language Acquisition: a Study of a Constructivist Approach to Teaching Versus a Varied Approach, and its Effectiveness in a First-Year Spanish class at the Secondary Level 2004 Dr. Klanderman \& Dr. Dihoff Master of Arts in School Psychology

The purpose of this study was to determine whether a Constructivist approach to teaching, or a varied approach is most effective in teaching a first-year Spanish class at the secondary level. The sample for this study consisted of 40 high school students enrolled in a Spanish I course. All students were given a pre test at the beginning of the second marking period. The test was developed by the researcher, and covered all the concepts that were to be taught throughout that marking period. One class was instructed using a Constructivist approach to teaching, while the other class received a varied instructional approach. At the end of the second marking period, the students took the same test, a post test. It was hypothesized that the students receiving the varied instructional approach would perform better on the post test than those receiving instruction through a constructivist approach. Pre and Post test results were analyzed using a two-way mixed ANOVA. Although results revealed inconclusive in terms of methodology, both groups improved regardless of instructional approach used.


## ACKNOWLEDGEMENT

I would like to thank my husband, Dan for his continued patience, love and support. He has taught me that anything is attainable if you are willing to be persistent.

I would like to thank my parents, for their unconditional love and guidance throughout my life. Through their life struggles and accomplishments they have inspired me and instilled the value of education and hard work.

I would like to thank my sister Sarina for providing comic relief in times of need. Without her sense of humor I would be lost.

To all of my family and friends I am indebted. I could not be the person that I am today without your confidence in my ability to succeed. I love you all!

## Table of Contents

Chapter One - The Problem
Need ..... 1
Purpose ..... 2
Hypothesis ..... 2
Theory .....  3
Definitions ..... 5
Assumptions ..... 6
Limitations .....  7
Summary ..... 8
Chapter Two - Review of Literature
The Structure of Age in SLA .....  9
Cognitive and Neuroscientific Perspectives in SLA ..... 15
The Effects of Anxiety on SLA ..... 21
Different Teaching Styles and their Effectiveness on SLA ..... 23
Summary ..... 27
Chapter Three - Design of Study
Sample ..... 29
Measures ..... 29
Design ..... 29
Testable Hypothesis ..... 31
Analysis ..... 32
Summary ..... 33
Chapter Four - Analysis of Results
Introduction ..... 34
Results ..... 34
Graph 1 ..... 35
Discussion ..... 36
Summary ..... 36
Chapter Five - Summary and Conclusions
Summary ..... 37
Conclusions ..... 39
Discussions ..... 39
Implications for further research ..... 41
References ..... 42

## Appendices

A - Letter to Parents............................................................ 50

B - Letter to Supervisor.......................................................... 51
C - Copy of IRB Approval................................................... 52
D - Copy of Pre/Posttest........................................................ 53

## CHAPTER 1

The Problem

Need
Children have been learning foreign languages in American schools since Colonial times. Therefore, the presence of these languages in the curriculum has often been the subject of controversy. (Curtain and Pisola, 15) Learning a second language is essential in today's global society. Consequently, some states have mandated that all students study a second language for a minimum of two years in order to obtain a high school diploma. Through the years, many different theories of second language acquisition and approaches to teaching a second language have been developed and adopted.

The researcher teaches Spanish I, II and III in a high school. She was raised in a bilingual household where Italian was the primary language spoken in the home. English was introduced at the preschool level, and Spanish was studied in college. Thus, due to her own experiences with language learning, she is interested in investigating the validity of the critical period hypothesis, and studying the effectiveness of the constructivist approach verses a varied approach to language teaching.

## Purpose

Schools have currently adopted a Constructivist, or holistic approach to language learning. That is, a student-centered approach with less emphasis on grammar and rote vocabulary memorization, and more emphasis on communication. Students are introduced to ideas, and in their cooperative groups they are required to demonstrate communicative competence through various oral exercises and roleplay activities.

The purpose of this study was to investigate the effectiveness of a Constructivist approach to teaching versus a varied approach in a first year Spanish course at the high school level. Due to her bilingualism, the researcher struggles to identify with the needs of her students. In the past three years, the researcher has attended numerous workshops on foreign language instruction, where the constructivist approach has been at the forefront. However, the researcher does not adhere to any single theory and adopts numerous different approaches in her daily lessons. She believes that a combination of approaches is necessary in teaching to the multiple ability levels and learning styles in her classroom. Hypothesis

The researcher believes that a full understanding of grammar and structure is essential in order to demonstrate communicative competence in a second language learner at the secondary level. The hypothesis for this study was that a varied
approach to teaching a second language is more effective than a Constructivist approach. This hypothesis was based on the critical period hypothesis theory to second language acquisition and current research on learning a language after puberty.

Theory
Children have a reputation for being natural language learners. (51) According to Chomsky (1965) all children are born with a special ability to process language through an innate "language acquisition device" (LAD). (Shrum and Glisan 2) This device is thought to contain the principals that are universal to all languages. Research indicates that both first and second language learners need large amounts of contextualized, meaningful input in order to acquire language. Through the years many theories have been developed in order to determine the most effective way to learn a second language.

The critical period hypothesis ( CPH ) states that there is a period in a person's life in which he or she must learn a language, or else language acquisition becomes impossible. Lenneberg hypothesized that language learning was possible between the periods from infancy to puberty, with a loss of abilities after puberty. The basis for this hypothesis is that by puberty the brain is already fully developed and afterwards language acquisition becomes extremely difficult. Studies have shown that before the brain is fully developed a second language (L2) can be learned more
easily than afterwards. However, many people have been able to master the syntax and vocabulary of a foreign language (FL) after puberty. The only conclusive evidence for the critical period hypothesis with regards to foreign language learning (FLL) is phonology. Learners who have shown great ability to acquire a L 2 have not been able to overcome their foreign accents.

The behaviorists believe that FLL consists of learners imitating what they hear and develop habits in the FL by routine practice. The instructional applications for this approach include grammar translation and audio-lingual methods, where the students repeat what they hear. In this view, the learners are thought to relate what they know of their first language (L1) to what they recognize in the L2. However, some problems arise with this view of FLL. Imitation does not help the learner in a real-life situation because they are required to form sentences that they have never seen before. A discreet number of pre-practiced sentences are not enough to carry on a conversation.

In the cognitive view FL learners are thought to creatively use their skills of cognition in order to figure out the L2 on their own. The learners notice a pattern and construct their own rules accordingly, then go back and change the rules if they are faulty. In this approach to L2 acquisition, the learners benefit from their mistakes because they are playing an active role in the FLL process and learn first hand how the language works. A problem with this view is that some errors that
learners make are based on rules of the L 1 , thus they become influenced by these rules instead of forming conclusions based on their cognitive abilities.

The constructivist approach relies heavily on interactive activities, cooperative group learning, and sociocultural variables. It is often referred to as communicative language teaching. It makes use of real-life situations that necessitate communication. Advocates for this approach believe that L2 learners construct their own perspective of the world through individual experiences and schema. The teacher sets up a situation that students are likely to encounter in real life. "Unlike the audio lingual method of language teaching, which relies on repetition and drills, the communicative approach can leave students in suspense as to the outcome of a class exercise, which will vary according to their reactions and responses" (Galloway, 1993). Students' motivation to learn comes from their desire to communicate in meaningful ways. Teachers in communicative classrooms act as facilitators of their students' learning and serve as referee or monitor, while students become responsible managers of their own learning.

Definitions
CPH stands for the critical period hypothesis.
Correlation is another word for relationship. If something is positively correlated with something else, then there is a reciprocal relationship between two comparable items.

FL stands for foreign language.
FLL stands for foreign language learning.
L1 and L2 are terms that refer to the first language and the second language.
Linguistics concerns itself with the fundamental questions of what language is and how it is related to the other human faculties. It is one of the cognitive sciences and provides a link between the humanities and the social sciences.

Phonology is the study of speech sounds; phonetics.
SLA stands for second language acquisition.
UG stands for universal grammar.

## Assumptions

When conducting research, one must make many assumptions. These are thoughts that may adversely affect the outcomes of the study. While keeping in mind the possibility, one assumes that these occurrences will have no ill affect on the findings. In this study, several assumptions were made.

One assumption was that all the students who were enrolled in the Spanish I classes were non-native speakers of Spanish. It was also assumed that it was the students first encounter with studying the language, that is, they had not previously taken a Spanish class. In addition, it was assumed that all students were of average cognitive abilities.

## Limitations

Every study has its limitations. An ideal study has a minimum of one hundred subjects, and would last a long period of time. Due to constraints on access and time, this study was limited to 40 students in Spanish I, and lasted one marking period, approximately ten weeks. Since this study solely collected data from one population, the relevance and reliability of the research was also limited.

For a study on second language acquisition, it would be beneficial to research the same individuals receiving the same instructional approach throughout their study of the Spanish language in their high school years. However, sampling one population over time may lead to other variables that may affect the results of the study, such as the time of day the class is held. Having Spanish class at the end of the day as opposed to the beginning may affect student alertness and concentration. If the student has a different teacher the following year that may also affect the amount of learning that may occur. In addition, a students' social or home life may change over the years also affecting their overall academic success in school. Lastly, some students may decide to study Spanish for more than the two-year minimum requirement, while others may not. These are just a few variables that may interfere with the overall acquisition of Spanish. Thus, it was not possible to compare the same individuals' scores at different levels of Spanish.

## Summary

In the upcoming chapters, the thesis for this study will be discussed through a review of pertinent literature. The design of the study will be outlined. An analysis of the results will ensue followed by a conclusion of the study.

Chapter two discusses research on second language acquisition. The issue of age and cognitive development will be investigated, as well as the role of grammar instruction in a communicative approach. The different approaches and their effectiveness will be reviewed. Comparable studies will be reviewed and discussed as well as the implications of the literature review.

Chapter three will focus on the design of the study. The sample to be studied will be discussed and the measurement used will be described. The hypothesis will be restated and the measure used to test the hypothesis will be described.

Chapter four will analyze the results of the data collected from the study, which was described in Chapter three, while Chapter five will summarize the research and the findings from start to finish. Lastly, the conclusions derived from the test will be disclosed and the implications that these results have on further research will be addressed.

## CHAPTER 2

## Review of Literature

Numerous studies have been conducted regarding second language acquisition. Thus, this chapter will focus on reviewing literature pertaining to the structure of age in second language acquisition, the cognitive and neuroscientific perspectives pertaining to SLA, the roles of anxiety and motivation, and the different language teaching styles and their effectiveness on second language acquisition. The critical period hypothesis will be discussed as well as numerous studies that have been conducted through the years to help explain the acquisition of a second language, and to uncover the mysteries that lie behind it.

The Structure of Age in Second Language Acquisition
Is there an optimal age for acquiring a second language? Does the nature of language acquisition change if the first exposure to the new language comes after a certain age? Is first language (L1) acquisition and second language (L2) acquisition the same process, and if so is this the case for all learners?

Penfield and Roberts (1959) were the first to propose the critical period hypothesis (CPH) in the neurolinguistic literature. Lennenberg (1967) shortly followed with his extensive study of brain trauma patients and their limited ability to acquire knowledge. In addition, subsequent research using behavioral evidence found that proficiency scores declined with increases in age of initial exposure to the
second language (Bialystok, Hakuta, Wiley). Conversely, other researchers have argued that language learning potential does not change after a critical period (e.g., Epstein, Flynn, \& Martohardjono, 1996; Hakuta, 2001). Evidence to support this include older learners who have achieved native-like competence in the L2 (Birdsong, 1992), and behavioral evidence that does not show a qualitative change in learning at the close of the critical period (Bialystok \& Hakuta, 1999).

A different interpretation to the CPH, suggests that SLA becomes compromised with age because of factors that have nothing to do with language. These factors include social and educational variables influencing learning potential and opportunity, and cognitive aging that effects the necessary mechanisms for learning complex things such as a new language (Bialystok, Hakuta, Wiley). Among social factors, education has been most influential in SLA. Learners who arrive as immigrants at different ages have different experiences and different opportunities for language acquisition then those who learn a second language in a controlled school setting (Flege, Yeni-Komshian, and Liu, 1999).

Some age-related changes in cognitive processes relevant to language learning include; a decreased ability to learn paired-associates (Salthouse, 1992), difficulty encoding new information (Craik \& Jennings, 1992), less accuracy in recalling detail as opposed to gist (Hultsch \& Dixon, 1990), working memory limitations, cognitive slowing and attentional deficits (Kemper, 1992). These
processes all decline with increasing age. Such reductions in cognitive resources would definitely affect the ability to learn a new language.

Bialystok, Hakuta and Wiley conducted a study examining the effect of age of acquisition on second language proficiency. In their study they used a very large sample of L2 learners who covered a wide range of ages of initial exposure to English. Data for the study was derived from the 1990 U.S. Census. The participants included for analysis were those respondents identified as native speakers of either Spanish or Chinese. These languages were chosen for their structural difference to English. Minimum length of residence in the United States was set at 10 years. The census form asked respondents to self-describe their English ability into one of five categories: "Not at all," "Not well," "Well," "Very Well, and "Speak only English." Although a more direct measure of English proficiency would have been desired, the researchers felt that the strength of their approach lie in the large sample size used. The Census questions in their analysis also included age, year of arrival in the U.S., and educational background. The goal of the researchers was to model English proficiency on age of immigration, education, and the existence of a critical period.

The researchers used both 15 years and 20 years as hypothesized cutoff points for the end of the critical period. Results of their study found no evidence of a change in language learning potential at the hypothesized cut off for the critical
period. Instead, they found that the degree of success in SLA steadily declines throughout the life span. Additionally, the data showed the importance of socioeconomic factors and the amount of formal education as predictors of English learning by immigrants.

In the article entitled, The Structure of Age: In Search of Barriers to Second language Acquisition, Bialystok (1997) discusses two small-scale studies that found a correspondence between language structures in L 1 and L 2 to be the most important factor affecting acquisition. The age at which SLA begins is not a significant factor. The amount of time spent speaking the L 2 however, proved to be significant in the second study. Bialystok concludes that SLA is not determined by maturational factors, but is based on processing differences between older and younger language learners.

Representations are mental structures that reflect knowledge states, and they possess three features. They are categorical, stable, and they include infinite instances in their structure. These features insure continuity and stability of knowledge over time as individual experiences change, and concepts expand. Children build their knowledge of the world by expanding upon the category structures that were formed in their early experiences (Bialystok, 1997). Therefore, during the course of L 1 , linguistic representations are built up to reflect the learner's knowledge of language and its structure. Since the system is organized around a
categorical structure, it is this categorical structure that is then involved when a L2 is being learned.

There are thought to be two ways for adapting the existing structure in order to develop an adequate representation of the L 2 . The first is to extend the existing categories, and the second is to create a new category. These are similar to the mechanism of adaptation described by Piaget; assimilation, where new concepts are added to existing schemes, and accommodation, where the structure of a scheme changes as a result of a new concept that does not fit (Bialystok, 1997). Adults tend to extend the existing categories, while children create new ones. This results in adults making errors in syntax and phonology of L2 because they are applying the rules of their L1. Therefore, children would appear to be the more successful language learners. This however, is not due to maturational limits on language learning, but instead, to stylistic differences in learning that occurs at varying times in ones life.

Young children are said to be "natural" language learners because they learn languages in natural settings if their exposure is for an extended period of time. However, children are unable to engage in sustained socialized speech until they move out of what Piaget calls the preoperational stage of cognitive development and move into the concrete operational stage (Twyford; 1988). Although younger children seem to learn a L2 easily, they are slower to respond to formal language
instruction in school than older learners. Older children learn because of their prior experiences with language. They use their own language to help them with their L2. For this reason, research has found that older learners can outperform younger learners in a L2 class, because of their conscious awareness of language and their ability to formalize linguistic rules.

To support this, Rhonda Oliver conducted a study that showed how older children, ages eight to thirteen, like adult learners, negotiate for meaning when learning a L2. Negotiation is a process whereby interactions are modified between or among conversational partners to help them overcome communication breakdowns. Oliver found that negotiation provides children these ages the opportunity to receive comprehensible input in order to produce comprehensible output, and obtain feedback on their communicative attempts.

As we have seen, there are many factors that affect SLA. We have discussed the cognitive and the linguistic factors, however, there are also social cultural and affective factors that may contribute to the success of learning a L2. Social cultural factors are based on whether education is valued in a particular household or not. Affective factors include motivation, anxiety, self-confidence, and other characteristics that might affect a person's attitude toward learning. These factors, in particular, have been hypothesized to be most responsible for the differences between children and adult language learners. A low level of anxiety is necessary
for learning a L2. The anxiety barrier might explain why older learners, including adolescents, are less successful at school language acquisition than younger learners. Self-confidence may also work as a barrier. Older learners, adults, may perform with more self-confidence then younger learners because age influences their assertiveness in the face of authority (Twyford, 1988).

Cognitive and Neuroscientific Perspectives in SLA
Many hypotheses arose surrounding the neurobiology of language acquisition. The acquisition of any language involves a reconfiguration of neuronalsynaptic structures, which affect theories on assessment, interpretation, or construction of SLA. By using such techniques as lateral eye movement, dichotic listening, visual field tasks, etc. neuroscientists have been studying how language is acquired and organized in the brain. For example, some evidence has emerged showing that bilinguals and advanced SL learners are equally lateralized in each of their languages. In addition, studies have also proposed that there might be a greater right hemisphere (RH) involvement in the early stage of SLA, and that there is greater left hemisphere (LH) involvement in formal learning tasks (Danesi, 1994).

As early as 1861 , Pierre Broca was able to present concrete evidence to link the articulation of speech to a specific cerebral site in the left frontal lobe of the LH. In 1874, Carl Wernicke conducted research to further link the LH with language. He documented cases in which damage to the LH consistently produced impairment of
speech comprehension. The early years of neuroscience were grounded on a "localization" theory, which believed the LH was the dominant one for generating the higher forms of cognition (Danesi, 1994).

During the 1950 's and 1960's studies conducted by Roger Sperry and his associates, on epileptic patients who had their two hemispheres separated, showed that both hemispheres, not just the LH were needed in order to produce complex thinking. In other words, both cerebral hemispheres worked together in processing incoming stimuli. This finding had a great impact on the field of neuroscience. In 1967 Lennenberg published his classic work suggesting a critical period for the laterization of speech. He noticed that most aphasia's became permanent after the age of puberty, concluding that the brain lost its ability to transfer the language functions from the LH to the nonverbal RH after puberty. Thus arose the controversial critical period hypothesis, which is still debated today.

By the early 1970 's neuroscientists entertained the possibility that even if specific language functions were centralized in the LH , the possibility existed that some of the functions related to communication were controlled by the RH (Danesi, 1994). In such an "interhemispheric" approach, language is thought to have its form and motor functions programmed in the LH , while, its content and expressivity are thought to be controlled by the RH. Therefore, the idea of "discourse" is believed to span the entire brain. Research findings of the early

1980's have linked the RH as a starting point for processing new stimuli. For any new input to be understood, it must be presented in a way that allows the RH to interpret it. In terms of SLA these findings have innumerable implications, suggesting that the brain is prepared to interpret new information primarily in terms of its contextual characteristics (Danesi, 1994).

Today it is known that the two hemispheres work cooperatively in SLA. They are complementary processors of information, reconciling two very diverse modes of perception. Obler (1977, 1980), Galloway and Krashen (1980), have come up with a "stage hypothesis", which states that the RH dominates the SLA process during the initial stages, while the LH takes on increasingly more at the later stages. However, Danesi $(1988,1991)$ believes that in SLA the RH plays a role as the primary processor of language as "context", while the LH plays a role in tasks requiring the processing of language as "text".

Young and Perkins, (1995) integrated several theories of SL learning processes into a general theory of human learning which they called the cognitive/conative model. They used research from Snow (1990) and Mislevy (1993) to develop their theory. The cognitive/conative model explains individual differences among SL learning processes.

Snow discusses three different kinds of cognitive knowledge: conceptual structures, procedural skills, and learning strategies. Conceptual structures refer to
declarative knowledge structures, such as facts, misconceptions, and alternative conceptions that can be found through conscious introspection. Procedural skills refer to structures, which, after practice, become automatic. Learning strategies refers to individualized ways of processing information in order to facilitate comprehension. Snow also includes five different categories of learning constructs: conceptual structures, procedural skills, learning strategies, self-regulatory functions and motivational orientations.

According to Mislevy, an individual's knowledge of language is thought of as a map. Since every individual is different and processes learned information differently, knowledge cannot be represented by one dimension of proficiency (Young \& Perkins, 1995). Thus, advanced learners do not have more of what beginners lack, but the factors underlying the linguistic performance of both types of learners are different and interact in different ways.

Cognition and language develop simultaneously in early childhood, and although it is less obvious in later years, their development never ceases (Kemper, 1987). Connectionism attempts to explain L1 acquisition by elaborating on the cognitive mechanisms involved in learning L1. It depends on a computational modeling of language learning, which builds internetwork association potentials, at the neural level, which are selectively activated into patterns that perform cognitive activities, such as language production and comprehension (Plunkett, 1995;

Rumelhart \& McClelland, 1986; cf. N.C. Ellis, 1998). The Connectionist L1 models of language acquisition account for the ability of complex language systems, such as past tense, to be learned over time without innate linguistic knowledge.

Connectionist theories of cognition and language acquisition suggest that learning occurs by an integration of knowledge being acquired from the external world. Since most infants are surrounded by language from the very beginning, their cognitive potentials are utilized in an abundance of rich, nurturing social activities and contexts. Atkinson (2002), uses the term sociocognitive to refer to language and its acquisition as occurring simultaneously, and as being constructed in the head and in the world. In this sense language is viewed as a social phenomena, as existing and taking place for the performance of action in the world. Language is used to convey, construct, and perform ideas, feelings, actions, and identities (Atkinson, 2002).

In terms of SLA, the sociocognitive approach views teaching and learning as co-constituents in the acquisition process. Activities, tasks, functions, and understandings are not isolated functions, but rather, are part of a system of meaningful relations, which develop within social communities (Lave \& Wenger, 1991). Teaching is often viewed as incidental, however, if one learns by participating in specific and meaningful social activity, then co-participants are often one's teachers (Crookes, 1997; R. Ellis, 1997). Therefore, peers can act as teachers
in a foreign language class. Atkinson (1998), believes that if L2 teachers could develop situations that take place in the world outside the classroom, then the teaching and learning potential of all human beings will be more fully utilized.

Students will usually possess more confidence in their language learning ability if they know and use their own language learning strategies (Chamot, Robbins, and El-Dinary, 1993). This was made evident in a study conducted by DiCamilla and Anton (1997), that disclosed the importance of repetition in the collaborative discourse of L2 learners. Data for this study came from five dyads of students completing a writing task in a Spanish class. The ten subjects were adult learners, enrolled in a six-week intensive Spanish class at the beginning level. The class met daily for three hours. The writing tasks were broadly based on topics that related to the content of the course. The collaborative writing sessions were conducted in a language lab, where the dialogue among the pairs was recorded.

DiCamilla and Anton revealed that the sociocultural and mental activity of their subjects was mediated by the repetition of both L1 and L2 utterances. The repetition was necessary in order to create and maintain a shared perspective of the task and to construct scaffolded assistance. Repetition constituted the ongoing externalization of knowledge between the individuals, which formed a basis, a scaffold, leading to a solution to the task at hand (DiCamilla and Anton, 1997).

## The Effects of Anxiety on SLA

Numerous studies have shown that anxiety, attitudes, and motivation influence language achievement. Language anxiety can refer to feelings of tension and apprehension mainly associated with SL contexts; speaking, listening, and learning. Steinberg \& Horwitz (1986) studied the effects of anxiety-arousal on the content of descriptions, in the target language, of pictures presented. They found that students who were made to feel more anxious were less interpretive in commenting on the pictures (MacIntyre \& Gardner, 1994). Additionally, research has found that anxiety causes cognitive interference in performing specific tasks. The interference may be due to distracting, self-related cognition including excessive self-evaluation, worry over possible failure, or concern over what others'are thinking. If this were the case, the learner who is anxious would have his/her attention divided between task-related cognition and self-related cognition, making learning very difficult.

Tobias (1986), describes the effects of anxiety on learning in three stages: Input, Processing, and Output. The input stage depicts the learner's first encounter with a given stimulus. It is concerned with the initial representation of items in memory. At this stage external stimuli are presented while internal representations are made. The processing stage involves the cognitive operations used on the stimulus. This stage involves organization, storage. and assimilation of the material.

Lastly, the output stage requires the production of learned material. Performance at this stage is dependent on success at prior stages (MacIntyre \& Gardner, 1994).

A study by MacIntyre and Gardner (1991) used Tobias' model in their investigation of the effect of anxiety on input and output in L1 and L2. Memory of numbers was used as a measure of performance at the input stage and scores on a vocabulary test were used as a measure of performance at the output stage. A significant correlation was found between language anxiety and L2 performance at both stages. In a follow-up study, a video camera was set up in order to arouse anxiety during a vocabulary-learning task. As would be expected, the anxiety aroused by the camera resulted in a decline in performance at the processing and output stages.

Through her work with children, Eileen Ariza developed tools, which can enable language teachers to help their students overcome anxiety about, and resistance toward second-language learning. Eileen Ariza worked as a bilingual Spanish teacher in a K-12 bilingual school in Mayaguez, Puerto Rico. Her students ranged from kindergarten to tenth-grade. She was successful in reaching her students by working with whatever attributes they possessed. In so doing, she enabled them to change their attitudes about themselves, allowing them to engage in the task of learning Spanish.

Ariza proposes three key principles in creating a non-threatening, lowanxiety classroom. The first is getting to know your students. In this way students feel important and liked by their teacher, creating a higher comfort zone and a student-friendly learning environment. The second key is to adapt to the students. When teaching children from varying cultures, their behavior and learning styles will differ from your style. Thus, sensitivity to these differences will lower the frustration that is often shared among teachers and their students in a language classroom. The third point that Ariza proposes is giving students opportunities to experience success. This can be done by creating ways that all students can feel proud of themselves, and succeed. Ariza suggests that the incorporation of these three keys into existing teaching techniques, will lower student anxiety levels allowing them to overcome their resistance to second-language learning. Different Teaching Styles and Their Effectiveness on SLA

The Standards for Foreign Language Learning (ACTFL, 1996) developed by the American Council on the Teaching of Foreign Languages (ACTFL) provide the framework for student expectations of the foreign language content knowledge (Webb \& Redmond, 2002). Many researchers suggest that students' oral proficiency in L2 will improve if more opportunities for oral practice in the classroom are offered. According to Szostek (1994), an atmosphere of mutual tolerance, cooperation, and respect among students, and a friendly and comfortable learning
environment is imperative in order to foster communication in the target language. Govoni (1999), suggests a proficiency-oriented approach, where ample opportunities for students to learn the L2 and apply their knowledge to real-life situations is essential.

According to Ellis (1986), it is not the quantity of practice but the quality of practice that enhances acquisition. Not all practice may be equally effective for learning a L2 (Schulz, 1991). As Mclaughlin states, there exists great individual variation among learners in L2 acquisition due to different learning, performance, and communication strategies. In addition, learners will continue to acquire specific structures or communicative functions at varying rates in spite of common instruction. Therefore, testing procedures need to be reflective of these differences in rate of acquisition.

In terms of language acquisition, motivation to learn is also important (Gardner, 1985), and can be enhanced in the appropriate social context. If the teacher can create a state of "relaxed alertness" (Caine and Caine 1994), the learner can become flexible and process new information. A study conducted by Noels (2001), showed that the more controlling the teacher was perceived to be, the less the students felt they were autonomous agents in the learning process, and the lower their intrinsic motivation. Conversely, the more teachers were perceived as being actively involved in students' learning, by giving informative praise and
encouragement, the more the students felt competent in learning. Greater perceptions of competence corresponded with the feeling that learning occurred because it was fun. The results of this study suggest that teachers' behaviors are linked with students' feelings of autonomy, motivation and competence in language learning.

In a constructivist setting, it is the learner who interacts with his or her environment and gains an understanding of its features and characteristics. The learner constructs his own ideas and finds his own solutions to problems, while mastering autonomy and independence. According to constructivism, learning is the result of individual mental construction, where the learner learns how to match the new material.against existing information, while establishing meaningful connections, rather than internalizing facts for later repetition. Learners are encouraged to construct new knowledge from authentic experience (Thanasoulas, 2001). The qualities of this "experiential learning" include; personal involvement, learner-initiation, evaluation by learner and pervasive effects of learner. Therefore, learning is successful when students can demonstrate conceptual understanding.

The cognitive approach dominated second language instruction in the U.S. in the 70 's and 80 's. Language was thought to consist of a "set of rules" with an associated lexicon. The sequence of instruction would follow; studying a rule, practicing it, and then applying the rule in meaningful interactions in the target
language. Krashen proposed a model of SLA in which the processing of input, rather than grammar instruction, played the imperative role in language acquisition. He believed that when learners learned in a low anxiety context they would make use of a mental language acquisition device that allowed them to store and produce utterances in the target language. He also felt that the learner had to be focused on meaning rather than form in order for the "affective filter" to be down (Terrell, 1991). Although this is true for younger language learners, Krashen felt that grammar study may lower the affective filter for some older learners, thus contributing to the acquisition process.

Tracy Terrell discusses the role of grammar instruction in the communicative approach. In her article, Terrell uses the term explicit grammar instruction (EGI), to refer to the use of instructional strategies to draw the students' attention to form or structure. Evidence exists that the ability to demonstrate grammatical knowledge on a discrete-point grammar exam does not guarantee the ability to use that knowledge in spontaneous conversation. A study conducted by Terrell, Baycroft, and Perrone (1987) showed that first year university students were unable to use the mood correctly in free conversation, in spite of their concentrated instruction on the forms and uses of the Spanish subjunctive. Although all students scored above ninety percent on written tests, they rarely surpassed ten percent accuracy levels in conversational uses of the subjunctive. In addition to not being able to use it in
conversation, students were also unable to monitor their speech with the grammatical information they had learned.

Although EGI proved ineffective in enhancing communicative competence, Terrell suggests three ways in which grammar instruction might affect language acquisition. It may serve as an advance organizer to help the learner make sense of input. It may also serve as a meaning-form focus in communication activities where there are many examples of a single meaning-form relationship. Lastly, she suggests that monitoring itself may directly affect acquisition if it is possible for learners to acquire their own output. Terrell does not promote a sole grammar approach to language teaching, but rather suggests using grammar instruction as an aid to the learner in the acquisition process.

## Summary

In terms of academic settings for language acquisition, age does not appear to be a factor in SLA. When fully exposed in an immersion setting children may appear to be more successful language learners at first. However, older learners use their existing knowledge of language to assist in their acquisition of L2. In addition, existing evidence suggests that stylistic differences in learning account for the different learning at varying ages. Although many theories of language cognitive functioning developed over the past century, it is now known that both the RH and LH work cooperatively in SLA. Language acquisition is a social process, thus a low
level of anxiety and student motivation are necessary agents in SLA.
There are many different approaches to language instruction. Some requiring the learner to match new information against existing information while others, rely on learners constructing knowledge from authentic experiences. The constructivist approach frowns upon the use of L1 in acquiring L2, however, a study that was reviewed showed the importance of Ll repetition in completing a task in the target language. In addition, the argument of grammar instruction in a L2 class also remains a topic of debate. Some feel it serves as a hindrance to a students' communication in the target language, while others view it as playing an imperative role in the acquisition process. The following study aims to determine whether the use of L1 and grammar instruction among other things, are necessary for SLA.

## CHAPTER 3 <br> Design of Study

Sample
The sample used for this study consisted of 40 high school students enrolled in a Spanish I course. It was assumed that all participants had never taken a Spanish class before and did not speak Spanish at home. Age and gender of the students were not controlled. Ages ranged from fifteen to seventeen.

## Measures

As its measuring devise, this study used a pre and posttest, designed by the researcher. The same test was used for both the pre and posttest. The test was developed in accordance with the prescribed Spanish I curriculum at the high school in which the study took place. The text required by the district is called, Dime Uno, published by D.C. Heath and Company. The test consisted of 75 multiple-choice questions. The questions reflected concepts covered in units two and three of the text. The test included: listening comprehension, time telling, conversation fill in, and basic regular and irregular verbs. Since this test was developed for sole purpose of this study, it lacks validity and reliability.

## Design

The 40 students were divided into two classes, 20 in each. All students were given a pre test at the beginning of the second marking period, which covered all the
concepts that were to be taught during that marking period. Students were told to do their best even though they had not been formally taught the material. The test included concepts such as telling time, days of the week, months, weather, seasons and various regular and irregular present tense verbs in Spanish. The tests were scored and each student was assigned a number as to maintain the anonymity of each participant.

During the course of the marking period, one class was instructed using a Constructivist approach to teaching, while, the other class, received a varied instructional approach. The students in the Constructivist class did not receive formal grammar instruction, instead they were encouraged to complete communicative tasks with the help of their classmates, and occasional unobtrusive input from their teacher. Vocabulary lists were provided weekly and students built knowledge around them. They completed daily communicative tasks, in pairs, and received corrective feedback by the teacher whenever necessary.

The students in the varied instruction class were formally introduced to weekly verbs, their correct use, and their rules. Regular and irregular verbs were taught and grammar drills were a part of daily instruction. The students in this class completed communicative tasks only after having learned basic vocabulary and verb conjugations.

Both classes completed weekly listening activities to reinforce their listening comprehension skills. In addition, they were both exposed to the video that accompanies each lesson of their text.

At the end of the second marking period, the students took the same test, a posttest. The results were analyzed, and the scores from the pre and posttests were compared. This was done in order to determine if one teaching technique was more effective than the other in student achievement and learning. Testable Hypotheses

* Null Hypothesis: There will be no difference in student performance from the pre test and the posttest.

Alternate Hypothesis: There will be a difference in student performance from the pre test and posttest.

* Null Hypothesis: There will be no difference in student performance on the posttest based on the type of instruction received.

Alternate Hypothesis: There will be a difference in student performance on the posttest based on the type of instruction received.

* Null Hypothesis: Students who received the Constructivist approach to Spanish instruction will not perform better on the posttest than those who received instruction through the varied approach.

Alternate Hypothesis: Students who received the Constructivist approach to

Spanish instruction will perform better on the posttest than those who received instruction through the varied approach.

* Null Hypothesis: Students who received the varied approach to Spanish instruction will not perform better on the posttest than those who received instruction through a Constructivist approach.

Alternate Hypothesis: Students who received the varied approach to Spanish instruction will perform better on the posttest than those who received instruction through a Constructivist approach.

## Analysis

In order to test the hypotheses in this study a Two-way analysis of variance (ANOVA) for repeated measures was used. This model is appropriate due to the fact that there were two independent variables with any number of levels withinsubjects. The independent variables in this study were the two different approaches to Spanish instruction, the Constructivist approach and the varied approach. The dependent variables were the scores obtained on the posttest, from the participants of the study. The results of this study enabled the researcher to determine if one approach is more effective in teaching a second language to high school aged students.

## Summary

Forty high school students enrolled in a Spanish one class were given a pre test containing knowledge that was to be covered during the second marking period. Each test score was assigned a number. The students were divided into two classes with twenty in each class. One class was taught using a Constructivist approach to teaching, and the other was taught using a varied approach. At the end of the marking period each student took the same test, a posttest, and their results were compared. From the results of the pre and posttests, a two-way mixed analysis of variance (ANOVA) for repeated measures was performed. This informed the researcher if there was a difference among each students pre and posttest scores. In other words, was testable knowledge obtained during the course of the second marking period, and if so, did it vary according to the teaching approach the student was exposed to. The upcoming chapters will discuss the data, divulge the results of the analysis, and determine if the data agree with the initial hypothesis proposed by the researcher upon beginning this study.

## CHAPTER 4

Analysis of Results
Introduction
In chapter one, the researcher hypothesized that a varied approach to teaching a second language will be more effective than a Constructivist approach. The researcher also proposed that there would be a difference in student performance from the pre test and post test.

## Results

The results of this study have been summarized in this section of the thesis. The data collected does not support the proposed hypothesis. Although there is no statistical significance between groups, some intriguing information was evident.

Graph 4.1 is a visual representation of the results of a two-way mixed ANOVA conducted on the scores obtained from the pre and posttests of the two groups in question. Group one represents the 20 students who were instructed using a varied approach and group two represents the 20 students who were instructed using a Constructivist approach. There was no interaction effect between the two groups. The significance level was .756. There was however, a difference in both groups in the pre and posttests. The significance level was .017 . Therefore, everyone improved throughout the marking period regardless of the instructional approach.

## Graph 4.1



Discussion
Although there was no difference in student performance on the posttest based on the type of instruction received, there was however, a difference in student performance from the pre test and posttest. Students who received the Constructivist approach to Spanish instruction did not perform better on the posttest than those who received instruction through the varied approach. In addition, students who received the varied approach to Spanish instruction did not perform better on the posttest than those who received instruction through a Constructivist approach.

The pre test scores of group one were higher than the pre test scores of group two. One might question the intellectual grouping of the two groups. Although the approach did not affect learning, both groups learned some of the material regardless of the instructional approach.

## Summary

This study revealed no clear evidence that one instructional approach is more effective in teaching a second language to high school students in a first year Spanish class. It appears that further research needs to be conducted in this area. Although there is no identified difference in learning based on instructional approach, there is adequate evidence to encourage further investigation with larger numbers of homogenous intellectual groups, over a longer period of time.

## CHAPTER 5

## Summary and Conclusions

## Summary

The purpose of this study was to explore the possibility that a varied approach to teaching a second language at the secondary level would be more effective than a Constructivist approach. Research has shown that in terms of academic settings for language acquisition, age does not appear to be a factor in SLA. However, there are many different approaches to language instruction, and debate remains as to which is the most effective.

The constructivist approach relies on learners constructing knowledge from authentic experiences. Advocates of this approach frown upon grammar instruction, and feel that it hinders a students' communication in the target language. In' addition, they do not condone the use of L1 when teaching L2. Others argue that grammar plays an imperative role in the acquisition process, and feel that L1 repetition is needed in completing a task in the target language.

In chapter one, the researcher presented the theories behind the study. Several theories on second language acquișition were discussed. The critical period hypothesis theory believed that there is a period in a person's life in which he or she must learn a second language or else language acquisition becomes impossible. The only validity to this theory is that learners who have acquired L2 at a later age were
unable to overcome their foreign accents. The behaviorists believe that FLL consists of learners imitating what they hear and develop habits in the FL by routine practice. The cognitive theorists believe that FL learners creatively use their skills of cognition to figure out the L2 on their own. The constructivists on the other hand, rely heavily on interactive activities and cooperative group learning. Through use of real-life situations, it is theorized that the L2 learners, through their motivation to learn, communicate in meaningful ways.

In chapter two the researcher selected studies that directly addressed the theories behind the thesis, and covered those areas in depth as to provide the reader a clear understanding of those theories. The topics discussed were: the structure of age in SLA, cognitive and neuroscientific perspectives in SLA, the effects of anxiety on SLA, and different teaching styles and their effectiveness on SLA. All of the articles reviewed contributed significantly to the researcher's thesis, and to the design of the study.

In chapter three, the researcher presented the design of the study. The intent of the study was to determine whether a varied approach to language instruction is more effective than a constructivist approach in second language acquisition. The sample, measure, procedure, hypothesis, and analysis of the study were covered in detail in chapters three and four.

## Conclusions

The results of this study did not answer the question posed in the beginning. The researcher hypothesized that a varied approach to language instruction would be more effective than a constructivist approach. The data obtained from the pre and posttests revealed that there was no difference in language acquisition based on the instructional approach applied. The data did, however, show an increase in scores from the pre and post tests of both groups, indicating that regardless of instructional approach, both groups acquired some knowledge from the beginning of the second marking period to the end.

## Discussion

The researcher attributes the lack of significance in the data collected to many factors. There were many assumptions that were made about the sample population at the beginning of the study. It was assumed that this was the students' first encounter with studying the language. It was also assumed that all students were of average cognitive abilities. In addition, it was assumed that the students who were enrolled in the course in the beginning of the second marking period would remain until the end. However the researcher later found that these were not the case.

Some of the students had failed Spanish one the year before. In addition the two classes of 20 students were not of equal cognitive abilities, as evident in the
results of the groups' pre test scores. Due to drop out, school transfer, alternative school placements, and absence from school on the day of the testing, there were many scores missing from the data. These factors combined may have greatly influenced the results of this study.

An additional factor, which may have influenced the test results, was the type of assessment used. The researcher developed the test based on the material dictated by the curriculum, which was to be covered during that marking period. The test had not been standardized, thus contributing to the inconclusiveness of the findings. In addition, the students who had been exposed to the Constructivist instructional approach should have been assessed in a different manner than paper and pencil. In order to preserve the integrity of the study, however, both groups had to receive the exact test at the beginning and at the end of the study.

Perhaps the error derived form the instructor. Is it certain that the instructor knew how to present information by use of the constructivist approach? It is assumed that the instructor was trained in this methodology, however it was never discussed.

Additionally, the limited number of samples, and the time constraints of the study hindered accurate results. An ideal study has a minimum of one hundred samples, and lasts a much longer period of time. Due to the researchers availability and time constraints, she was limited to 40 students over a period of ten weeks.

Although this study proved inconclusive in terms of which instructional approach to language learning is most effective, the literature available in this area is not only intriguing, but may prove to be promising in the future. More extensive studies on this topic need to be conducted before an effective method can be established. The researcher believes that this thesis illustrates the vast amount of information that needs to be addressed in future investigations. The researcher also believes that the information collected in this study contributes to the topic of second language acquisition.

## Implications for further research

The inconclusiveness of data obtained indicates that there is a need to revise the evaluation instrument administered to assess the effectiveness of the instructional approach used. Further research is also indicated for the assessment of the readiness of the teacher instructing the students. The sample size should be much larger and more homogenous in cognitive ability and lack of exposure to the language at hand. In addition, the study should last at least one scholastic year. With these adjustments in place, sound research findings on the effectiveness of instructional approach to second language learning will be more likely.

## References

American Council on the Teaching of Foreign Languages. (1996).
Standards for foreign language learning: Preparing for the 21st century. Lawrence, KS: Allen Press, Inc.

Anton, M. \& DiCamilla, F. (1999). Socio-cognitive functions of L1 collaborative interaction in the L2 Classroom. Modern Language Journal, Summer 99, Vol. 83 issue 2, p233, 15p.

Ariza, E. N. (1999). Torn between Two Worlds. Overcoming Resistance to Second-Language Learning. The Clearing House, March/April 1999.

Atkinson, D. (1998). Forum response to comments on "A critical approach to critical thinking in TESOL." TESOL Quarterly, 32, 133-137.

Atkinson, D. (2002). Toward a Sociocognitive Approach to Second Language Acquisition. The Modern Language Journal, 86.iv, (2002).

Bialystok, E. (1997). The structure of age: in search of barriers to second language acquisition. Second language research 13,2 (1997); pp116-137.

Bialystik, E., \& Hakuta, K. (1999). Confounded Age: Linguistic and cognitive factors in age differences for second language acquisition. In E. birdsong (Ed.) Second language acquisition and the critical period hypothesis (pp. 161-181). Mahwah, NJ: Erlbaum.

Birdsong, D. (Ed.) (1999). Second language acquisition and the critical period hypothesis. Mahwah, NJ: Erlbaum.

Caine, R. N., and G.Caine. (1994). Making Connections. Reading, Mass.: Addison-Wesley.

Chamot, A. U., J. Robbins, and P. B. El-Dinary. (1993). Learning Strategies in Japanese Foreign Language Instruction.

Craik, F.I.M., \& Jennings, J.M. (1992). Human memory. In F.I.M. Craik \& T. A. Salthouse (Eds.), The handbook of aging and cognition (pp.51-110). Hillsdale, NJ: Erlbaum.

Crookes, G. (1997). SLA and language pedagogy: A socioeducational perspective. Studies in Second Language Acquisition, 19, 93-116.

Curtain, H. \& Pesola, C. (1994). languages and children: Making the match. (2nd ed.). New York: Longman.

Danesi, M. (1994). The neuroscientific perspective in second language acquisition research: A critical synopsis. IRAL in language teaching, Aug 94, Vol. 32 Issue 3, p201, 28p.

DiCamilla, F. J., and A Anton, M. (1997). Repetition in the Collaborative Discourse of L2 Learners: A Vygotskian Perspective. The Canadian Modern Language Review, 53, 4 June 1997.

Ellis, R. (1986). Understanding second language acquisition. Oxford: Oxford University Press

Elis, N.C. (1998). Emergentism, connectionism, and language learning. Language Learning, 48, 631-664.

Ellis, R. (1997). SLA and language pedagogy: An educational perspective. Studies in Second Language Acquisition, 19. 69-92.

Epstein, S.D., Flynn, S., \& Martohardjono, G. 91996). Second language acquisition: Theoretical and experimental issues in contemporary research. Behavioral and Brain Sciences 19, 677-758.

Flege, J.E., Yeni-Komshian, G., and Liu, S. (1999). Age constraints on second language learning. Journal of Memory and Language, 41, 78-104.

Galloway, L., \& Krashen, S.D. (1980). "Cerebral organization in bilingualism and second language," in: R. Scarcella \& S. D. Krashen (Eds.), Research in second language acquisition (pp.74-80). Rowley, Mass.: Newbury House.

Gardner, R. C. (1985). Social psychology and second language learning. London: Edward Arnold.

Govoni, J.M. (1999, Summer). Effects of the ACTFL-OPI-type training on student performance, instructional methods, and classroom materials in the secondary foreign language classroom. Foreign Language Annals, 32,(2), 189-204.

Hakuta, K. (2001). A critical period for second language acquisition? in D. Bailey, J.T. Bruer, F. J. Symons \& J. W. Lichtman (eds.) Critical thinking about critical periods. (pp. 193-205). Baltimore: Brookes Publishing Co.

Hakuta, K., Bialystok, E. \& Wiley, E. Critical evidence: A test of the critical period hypothesis for second language acquisition. Stanford University Stanford, CA.

Hultsch, D. F., \& Dixon, R. A. (1990). learning and memory in aging, In J.E. Birren \& K. W. Schaie (Eds.), Handbook of the psychology of aging (3rd., pp. 259-274). San Diego, CA: Academic Press.

Kemper, S. (1987). Life-span changes in syntactic complexity. Journal of Gerontology, 42, 323-328.

Kemper, S. (1992). Language and aging. In F.I.M. Craik \& T.A. Salthouse (Eds.). The handbook of aging and cognition (pp.213-270). Hillsdale, NJ: Erlbaum.

Krashen, Stephen. Principles and Practice in Second Language Acquisition. Oxford: Pergamon, 1982.

Lave, J., \& Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge: Cambridge University Press.

Lennenberg, E.H. (1967). Biological foundations of language. New York: Wiley.

MacIntyre, P.D., \& Gardner, R.C. (1991b). Language anxiety: Its relation to other anxieties and to processing in native and second languages. Language learning, 41, 513-534.

MacIntyre, P.D., \& Gardner, R.C. (2001). The subtle effects of language Anxiety on cognitive processing in the second language. language learning 44:2, 283-305

McLaughlin, B. (1997). Theories of second-language learning. London: Arnold.

Mislevy, R. J. (1993): "Foundations of a new test theory: in N. Frederiksen, R. J. Mislevy, and I. Bejar, eds., Test Theory for a New Generation of Tests. Hillsdale, NY: Erlbaum.

Noels, K. A. (2001). Learning Spanish as a Second Language: Learners' Orientations and Perceptions of Their Teachers' Communication Style. Language learning 51:1, March 2001, pp.107-144.

Obler, L. (1980). "Right hemisphere participation in second language acquisition, "in: K. Diller (Ed.), Individual differences and universals in language learning aptitude (pp. 87-98). Rowley, Mass.: Newbury House.

Oliver, Rhonda (1998), Negotiation of Meaning in Child Interactions. The Modern Journal, 82.

Onwuegbuzie, A. J. Cailey, P. Daley, C. E. (2000). Cognitive, Affective, Personality, and Demographic Predictors of Foreign-Language Achievement. Journal of Educational research, Sep/Oct1999, Vol. 94, 1 p3, 13p,

Penfield, W., \& Roberts, L. (1959). Speech and brain mechanisms. Princeton, NJ: Princeton University Press.

Plunkett, K. (1995). Connectionist approaches to language acquisition. In P.Fletcher \& B. MacWhinney (Eds.), The handbook of child language (pp. 63-72). Oxford, UK: Blackwell.

Rumelhart, D.E. \& McClelland, J.L. (1986). On learning the past tense of English verbs. In J. L. McClelland, D. E. Rumelhart, \& the PDP Research Group (Des.), Parallel distributed processing: Explorations in the microstructure of cognition: Vol. 2: Psychological and biological models (pp. 216-271). Cambridge, MA: MIT Press.

Salthouse, T.A. (1992). Mechanisms of age-cognition relations in adulthood. Hillsdale, NJ: Erlbaum.

Schulz, R. A. (1991). Second Language Acquisition Theories and Teaching Practice: How Do They Fit? The Modern Language Journal, 75, (1991).

Snow, R. E. (1990): "New approaches to cognitive and conative assessment in education," International Journal of Educational Research 14, 455-473.

Steinberg, F.S., \& Horwitz, E.K. (1986). The effect of induced anxiety on the denotative and interpretive content of second language speech. TESOL Quarterly, 20, 131-136.

Szostek,C. (1994, Summer). Assessing the effects of cooperative learning in an honors foreign language classroom. Foreign Language Annals, 27(2), 252-261

Terrell, Tracy (1991). The Role of Grammar Instruction in a Communicative Approach. The Modern Language Journal, 75, 52-63.

Terrell, Bernard Baycroft \& Charles Perrone. "The Subjunctive in Spanish Interlanguage: Accuracy and Comprehensibility." Foreign Language Learning: A Research Perspective. Ed. Bill Van Patten, Trisha R. Dvorak \& James F. Lee. New York: Newbury House, 1987: 19-32.

Thanasoulas, D. (2001). Constructivist Learning. The weekly column, 54, April 2001.

Twyford, Charles (1987). Age-Related Factors in Second language Acquisition. The national clearinghouse for bilingual education, 2 Winter 1987/1988.

Webb, M. \& Redmond, M.L. (2002). Developing oral proficiency in the K12 Spanish program. Wake forest University, Department of education, Dec.,2002.

Young, R. \& Perkine, K. Cognition and conation in second language
acquisition theory. IRAL: International Review of Applied Linguistics in Language Teaching, May 1995, Vol. 33 Issue 2, P142, 23p.

Appendix A
Letter to the Parents

## Christina D. Ferus

October 27, 2003
Dear Parent/Guardian,
I am a graduate student in the School Psychology Department at Rowan University. I will be conducting a research project under the supervision of Dr. John Klanderman and Dr. Roberta Dihoff as part of my master's thesis concerning second-language acquisition. I am requesting permission to conduct a comparative study involving your child, who is among my two classes of Spanish I students. The goal of this study is to determine whether a constructivist approach or a varied approach to teaching a second language is most effective.

This study will compare test results of students exposed to a constructivist approach to teaching versus a varied approach. A pretest and posttest will be administered and scores will be compared and analyzed in order to conclude the study. Each student will be issued a number as to preserve his/her confidentiality. All data will be reported in terms of their given number, and I will be the only person who has access to individual scores.

Your decision whether or not to allow your child to participate in this study will have absolutely no effect on your child's standing in his/her class. At the conclusion of this study, a summary of the group results will be made available to all interested parents. If you have any questions or concerns, please contact me at (856) 3276040. Thank you in advance for your cooperation.

Sincerely,

Christina D. Ferus
Teacher of Spanish, Millville Senior High School
Please indicate whether or not you wish to allow me to conduct this study in my Spanish I classes.

I grant permission for my child $\qquad$ to
participate in this study.
$\qquad$ I do not grant permission for my child $\qquad$ to participate in this study.

## Appendix B

Letter to Supervisor


# Christina D. Fervs 

October 27, 2003
Mrs. Beverly Maul
Department of World Language- Chair
Millville Senior High School
Dear Mrs. Maul,

I am a graduate student in the School Psychology Department at Rowan University. I will be conducting a research project under the supervision of Dr. John Klanderman and Dr. Roberta Dihoff as part of my master's thesis concerning second-language acquisition. I am requesting permission to conduct a comparative study among my two classes of Spanish I students. The goal of this study is to determine whether a constructivist approach or a varied approach to teaching a second language is most effective.

This study will compare test results of students exposed to a constructivist approach to teaching versus a varied approach. A pretest and posttest will be administered and scores will be compared and analyzed in order to conclude the study. Each student will be issued a number as to preserve his/her confidentiality. All data will be reported in terms of their given number, and I will be the only person who has access to individual scores.

Sincerely,

Christina D.Ferus<br>Teacher of Spanish<br>Millville Senior High School

Please indicate whether or not you wish to allow me to conduct this study in my Spanish I classes.
$\qquad$ I grant permission for Christina Ferus to conduct this study.
$\qquad$ I do not grant permission for Christina Ferus to conduct this study.

## Appendix C

Copy of IRB Approval
Principal Investigator Christina D. Ferus
Co-Principal Investigator (if applicable)


## ADMINISTRATIVE DISPOSITION - DO NOT WRITE BELOW THIS LINE

Your claim for exemption for the research study identified above has been reviewed. The action taken is indicated below:

## APPROVED FOR EXEMPTION AS CLAIMED: CATEGORY \#

Note: Anything that materially changes the exempt status of this study must be presented to the IRB for approval before the changes are implemented. Such modifications should be sent to the IRB Office at the address above.

APPROVED FOR EXEMPTION - BUT NOT AS CLAIMED. Your claim for exemption does not fit the criteria for exemption designated in your proposal. However, the study does meet the criteria for exemption under CATEGORY \# $\qquad$ .
——A determination regarding the exempt status of this study cannot be made at this time. Additional information is required.

Your proposal does not meet the criteria for exemption, and a full review will be provided by the IRB.
EXPEDITED REVIEW: ___ Approved ___ Denied
FULL REVIEW : $\qquad$ Approved $\qquad$ Approved with modifications $\qquad$ Denied

DENIED:


Appendix D
Copy of Pre/Posttest

## I. COMPRENSIÓN ORAL

Muy activos. You overhear several people discussing their plans for this evening and tomorrow. In each blank; write the letter of the drawing that best illustrates the statements you hear. Then listen a second time to verify your answers.


1. $\qquad$
2. $\qquad$
3. $\qquad$
4. $\qquad$
5. $\qquad$
6. $\qquad$
7. $\qquad$
8. $\qquad$
9. $\qquad$
10. $\qquad$
¿Qué reloj! Your friend has inherited his great-grandfather's pocket watch. What time does he tell his friends it is?

11. a. son las sies y diez
c. Son las siete y cuarto.
b. Es la siete y quince
d. Son las siete y media

12. a. Son las diez ycuarto c. Son las dosy nueve b. Son las once menos d. Es la once yquince charto:

13. a Son las nueve y media
c. Es la nueve y seis b. Son las seis y nueve
d. Son las ance y media

14. 

a. Son las tres y veinte c. Es la cuatro y siete b. Son las siete y cinco d. Son las cinco menos veintey cinco

15.
a. Es la una y veinte c. Es la'dos y veinte b. Son las uno y veinte d Son las cuatro y cinco
tne statements on the right logically follow the statements on the left? Write the appropriate letter in the blank.
$\qquad$ 16.Tengo examen de
a. Vamos a comer en un café. historia en una hora.
b. Tengo que hacer la comida.
17. Tenémos práctica de fútbol.
c. Tiene que calificar exámenes.
d. Tengo que estudiar.
e. ¿Vas a jugar tú?
$\qquad$
18. Voy a salir con un amigo.
19. Mis amigos van a comer en mi casa.

- 20. La profesora tiene mucho trabajo.

En la escuela. Eva and Luis are talking at school. What do they say? Complete the conversation by circling the words that best fit in the blanks.

Eva: Perdón, Luis. ¿ 21 hora es?
LLIS: 22 nueve menos cuarto.
EVA: ¡Caramba! 23 clase dè computación en cinco minutos.
LLis: ¿Con 24 señor Robledo?
EVA: Sí. ¿Tú $\underline{25}$ clase con él también?
LUIS: Sí, pero mi clase es 26 la tarde.
EVA: $\langle 27$ qué hora?
LUIS: 28 una y media. Hay examen hoy, ¿no?
EVA: No, es 29 jueves.
21. a. Qué
b. Cómo
c. Quién
22. a. A las
b. Son las
c. Son
23. a. Tiene
b. Tienes
c. Tengo
24. a. el
b. la
c. los
25. a. tengo
b. tiene
c. tienes
26.
a. por
b. de
c. a
27.
a. Por
b. Son
c. A
28. a. Son la
b. A la
c. A las
29.
a. el
b. la
c. los
¿Qué hacemos? Olga and Maité are trying to decide what to do today. To find out what they say, complete the dialogue by circling the word that best completes each sentence.
olga: ¿Qué 30 gustaría hacer hoy?
MATE: ¿Por qué no vamos 31 cine? 32 una buena película en el Cine Chapultepec.
olga: ¿Otra vez? 33 vemos películas. 34 buen tiempo hoy. ¿Por qué no vamos a tomar 35 refrescos al café París?

MATEE: ¡Qué aburrido! 36 va allí.
OLGA:-Ay, Maité. 37 te gusta hacer cosas divertidas.
30.
a. me
b. te
c. le
31. a. a
b. a la
c. al
32.
a. Hay
b. Es
c. Hace
33. a. Nunca
b. A veces
c. Siempre
34. a. Hay
b. Está
c. Hace
35. a. a los
b. unos
c. las
36.
a. Nada
b. Nadie
c. Alguien
37.
a. Nada
b. Nadie
c. Nunca
¿Qué quieres hacer? Pedro and Enrique are discussing what to do today. To find out what they say, complete the dialogue by circling the words that best fit in the blanks.

PEDRO: ¿Qué te 38 hacer hoy?
ENRIQUE: ¿Qué tal si vamos 39 cine?
PEDRO: No, por favor. Tú th quieres hacer otra cosa. Hoy 4. muy buen tiempo.
ENRIQUE: Sí. ¿Por qué no 42 fútbol? Luego podemos 43 algo en un café. iY hablar con 44 chicas!
PEDRO: ¿Ay, chico! i 45 las chicas!
38. a. gustaría
b. gustan
c. quiere
39. a. a la
b. a
c. al
40.
a. nada
b. nunca
c. nadie
4.
a. hace
b. hay
c. está
42
a. jugar
b. juegáń
c. jugamos
43.
a. tomar
b. toman
c. tomamos
44.
a. unos
b. unas
c. una
45.
a. Nunca
b. A veces
c. Siempre

Querido amigo. Read Beto's letter to his pen pal and circle the words that best fit in the blanks.
¡Hola! ¿Como $46 ?$
Este año yo 47 clases muy 48 pero no may fáciles. También mis profesores son 49.

Mi mejor amigo 50 en mi clase de álgebra. La clase es dificil pero rosotros 51 estadiantes muy 52 . Mi amigo se llama Exrigue y es may 53 .

Pues, amigo, 54 a decir adiós. Tengo 55 estudiar mucho. Con un fuerte abrazo,
Beto
46. a. está
b. estoy
c. estás
47.
a. tengo
b. tiene
c. soy
48.
a. malas
b. buenos
c. interesantes
49.
a. estupendas
b. estupendos
c. aburridas
50. a. estoy
b. son
c. está
51.
a. somos
b. están
c. tienen
52.
53.
a. buenas
b. buenos
c. fáciles
54.
a. divertido
b. divertidos
c. divertida
a. estoy
b. tienes
c. voy
55.
a. a
b. que
c. de
out what they say, fill in the blanks with the appropriate form of the verb in parentheses.
Pedro: Hola. Mi nombre es Pedro Solís. ¿Cómo te (56) $\qquad$ (llamar) tú? Luci: (57) $\qquad$ (Ser) Luci Ordóñez.
PEDRO: Encantado, Luci(58) i $\qquad$ (Pasar) mucho tiempo en el parque?
Luci: Sí, señor. Yo (59) $\qquad$ (pasar) todos los domingos aquí con mi mamá.
PEDRO: ¿Qué (60) $\qquad$ (hacer) tú por aquí?
Lucl: (61) $\qquad$ (Subir) a las lanchas, (62) $\qquad$ (visitar) el zoológico y (63) $\qquad$ (tomar) muchos helados.

PEDRO: ¿Y tu mamá?
LuCl: Ah, ella siempre ( 64 ) $\qquad$ (leer) el periódico y (65) $\qquad$ (escribir) cartas.
56. a. llamo
b. llamas
c. $110 m a$
d. llamamos
57. a. Soy
b. eres
c.es
d somos
58. a. paso b.pasas c.pasa d.pasan
59. a. paso b.pasas c.pasamos d.pasa
60. a. hago b. haces c.hace d. hacemos
61. a. Subo b. Subes c. Sube d. Subimos
62. a. visitan b. visito $c$ visitamos $\because$ d. visites
63. a.tomamos b.tomas c.toma d. toman
64. a.leo b.lees c.leee
clëe d.leimos
65. a. escribs b. escribos
afternoon. To find out what they say, complete their conversation with the correct form of the verb in parentheses.
PABLO: Hola, Marisa. ¿Cómo (66) (estar)?

MARISA: Bien, gracias, ¿y tú?
Pablo: Excelente. Mis amigos y yo ( 67 ) (ir) a pasear en bicicleta esta tarde. Y tú, $(68){ }^{\circ}$ (tener) planes?
MARISA: Hay mucha tarea para la clase de hisforia. (69) (Tener) que estudiar.
Pablo: ¿No (70) (ir) a salir?
MARISA: Sí, a las dos Elena y yo ( 71 ) $\qquad$ (ir) a alquilar un video. Por la mañana ella (72) (tener) que limpiar la casa.
PABLO: ¡Caramba! ¡Su casa (73) $\qquad$ (ser) muy grande!

Marisa: Es cierto.
PABLO: ¿Qué película (74) (ir) a ver ustedes?
MARISA: La nueva película de Raúl Gutiérrez.
pablo: Todas sus películaṣ (15) $\qquad$ (ser) muy buenas.

MARISA: Sí, pues hasta luego, Pablo.
pablo: Adiós, Marisa.
6le. a. estoy b. estás c.está d.estamos
67. a. voy b. vamos c. vas d. va
68. $a$. tienes $b$ tengo $c$ tenemos ditiene 69. a tiene b. tenemos c.tienen d.tengo 70. a. voy b. vas c.va d.vamas

7! a. van b. voy c.vamos divais
72. a.tengo b. tieres c.tiene d.tenemos
73. a.es b. soy c. son d..eres 74 a: vas b.va c.vamos d.van
75. a: soy b. son c.eres d. Somo's

