# DETERMINING THE LEARNING STRATEGIES 

OF ADULTS LEARNING SPANISH FOR MULTIPLE PURPOSES

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## CHAPTER I

## INTRODUCTION

Since the opening of markets around the world, the increase of communications worldwide, and the influx of record number of immigrants entering the United States, the knowledge of another language - besides English - has become an important asset for American businesses and part of America's social fabric. From the business and the social perspectives, Spanish stands as one of the main languages for many reasons. These reasons are explored in the following sections.

## External Factors

In the external arena, a reason for the importance of the Spanish language, especially in business, is of our expanding trade with Latin America. New hemispheric trade treaties, like NAFTA, power commerce to our southern Spanish-speaking neighbors. According to the Mexican-based law firm Passsero Martin-Sanchez y Sanchez, the combined GNP of the 360 million people NAFTA market (Canada, USA and Mexico) is US\$ 5.9 trillion with a trade volume of US\$ 225 billion (1994).

The NAFTA area constitutes already the largest consumer market in the world. At present, over two thirds of Mexico's trading is with the U. S. while Mexico constitutes the United States' third largest partner, after Canada and Japan (Passero, 1994). The
trade with all Spanish-speaking Central and South American countries would, of course, be even larger.

## Internal factors

In the internal arena, the reason why Spanish language has become an important second language and a business tool is because recent immigrations laws have permitted a large influx of Spanish speaking immigrant to the American domestic markets and society in general.

According to U. S. Census information from March 1993, there where 22.8 million Hispanics in America, an $8.9 \%$ of the population. The Hispanic origin population is projected to increase rapidly over the 1995 to 2005 projection period, accounting 44 percent of the growth in the Nation's population ( 32 million Hispanics out of a total of 72 million persons added to the Nation's population).

During the 1960-1990 period, the Hispanic population was the second fastestgrowing population, after Asians, in every region of the United States (Campbell, 1996). The influx of Latin immigrants to our country has created one of the largest immigration waves in recent history (INS handbook, 1996). Many of these immigrants became documented in the United States through a 1986-88 program called IRCA (Immigration Reform and Control Act).

Approximately one million people took advantage of this program. Today many of the IRCA beneficiaries are entitled to bring the families they left behind, therefore multiplying the Hispanic community in the past years. As these immigrants flow into jobs, they contribute to the economy expanding and creating markets.

## Learning Spanish

Statistics of the U. S. Department of Education (1996) show that the above market and social conditions may have influenced students at all levels to learn Spanish. For example, during the period 1984 to 1994, the earned degrees in Spanish given by institutions of higher education increased 38\% for bachelor's degrees and almost $28 \%$ for master and doctor's degrees. Also, enrollment in Spanish courses have increased 11.9\% during the period 1985 to 1990 for students in grades 9 to 12 of public schools.

As shown in the above sections, there is a need for Spanish knowledge, however, language learning has not been traditionally an important part of the American educational system. At the school level, part of the reason why the school system has not included extensive language programs in its curriculum is because of the sheer amount of hours that it takes to learn a language.

Learning Spanish also takes many hours. According to studies done by the Foreign Service Department, for highly motivated Spanish students to reach a proficiency of 2 in a scale of 5 , they would require between 480 and 720 hours of instruction time, which is between sixteen and twenty four weeks of training. The Foreign Service Institute for foreign languages teaches languages using a scale between 1 and 5 to determine the level of proficiency (Level 5 equals bilingual proficiency) (Sudermann 1993).

Many business people do not have language skills because they grew up in the American educational system. For example, until recently, the American educational system did not see a need to include large amounts of foreign language study in
secondary education curriculum. A report from the American Association of Colleges titled "Integrity in the College Curriculum" dated in 1985, did not even include foreign language courses in its minimum required curriculum (Sudermann, 1993). Other authors like L. P. Roberts also wrote about this lack of language in the educational system. He wrote, in 1993, that young Americans would require an advanced proficiency in foreign language instruction that was not provided in schools (p. 39-43).

## Spanish Language for Business Purposes

Students and businesses alike have scrambled to learn Spanish to keep up with the market's demands. This can be noted in the reasons given to study a foreign language. As Hall and Bankowska (1994) explain, more than $50 \%$ percent of adult students learning a foreign language gave the reason of vocational usefulness as the most important in their decision to study Spanish.

Author B. Giersche (1995) wrote about the unique characteristics of language students for business purposes. Her research assumed that these students might use a different strategy to learn a second language from the strategies they would use to learn other topics. In her article "Business and foreign language learning", she explains that business people sometimes differed from other adult learners in that their motivation is linked to a professional need rather than a personal want. Giersche sensed there were other factors like motivation, company support and outcome expectations for students learning a language for business purposes.

In the same article she wrote that business people learning a foreign language tend to be highly motivated because of their communication with partners abroad and because
of the perception that the lack of knowledge of that foreign language will result in poor professional performance. These professionals would otherwise have the theoretical and practical knowledge and a high problem-solving capacity.

Another characteristic of these students is the limited time they have to fit a language training class. Authors like Clijsters and Verjans (1993) for example, have developed an instructional model for teaching foreign languages to professionals, particularly for those with limited time. Sudermann (1993) clarifies this point by explaining that serious language learning requires greater amounts of instruction than the available in the common college schedule.

One of the most comprehensive studies in the U. S. regarding the range and characteristics of learning strategies used in studying foreign languages is a three-year longitudinal study by Anne Uhl Charmot (1987). Although this study did not differentiate between the reasons why students study a foreign language, the project found that all students, no matter what degree of success in learning a foreign language, had some cognitive control over their learning efforts and were able to describe their own mental processes. The study also concludes that the main differentiation between the more effective students and the less effective ones was the way in which learning strategies were used and the greater range of different types of strategies used by the effective students (1987).

## Statement of the Problem

Adult educators, either in businesses or other organizations, strive to optimize the students' learning experience. Since language learning required many hours of learning
instruction, the problem was the availability of instructional time for those learning Spanish for business purposes. Spanish instructors had only generic learning strategy information. No specific learning strategy information was available to differentiate between the reasons why students learn Spanish.

## Purpose

The purpose of this study was to:
(a) Provide a basic demographic description of students learning Spanish.
(b) Identify the main reasons why students are learning Spanish.
(c) Identify the preferred learning strategies of students learning Spanish for business and other purposes.
(d) Identify any differences in usage of learning strategies by those studying Spanish for business purposes compared to all other purposes.

## Research Questions

Research attempted to assure the following questions:

1. What are the demographics of the population studied?
2. Which is the main reason why the participants study Spanish?
3. Which is the student's preferred learning strategies used to learn Spanish?
4. Which are the learning strategy differences between those learning Spanish for business and all other purposes?

## Outcome

The outcome intended for this study was to provide information that may assist language instructors to design more efficient lesson plans for language training, therefore eventually contributing to fewer hours of language instruction or more learning in the same amount of hours. By researching the learning strategies of students, we can increase the effectiveness in the teaching-learning process (Kolody, 1997). In a time consuming learning experience, as is the learning of Spanish, the resulting data may assist in the better design of lesson plans.

By identifying the specific learning strategies of students learning Spanish differentiated by purpose of study, instructors may design activities, homework and lessons plans in general that are more effective, in time and money, for the student.

As the literature base on SKILLS increases, reflective Spanish instructors can start generating their own knowledge base of their students preferred learning strategies.

## Assumptions

In order to conduct this research certain assumptions were considered to be valid. One of the most important assumptions comes from the SKILLS test and has to do with the difference between real life learning and the test-taking situation. The SKILLS test is an instrument that selects the preferred learning strategies selected by the subject.

SKILLS uses a series of scenarios that the subjects resolve by choosing between fifteen different specific learning strategies.

The assumption was made that the subjects will react in real life the same way they reacted in the test. The developers of the SKILLS test, instrument used to identify the learning strategies of students, have described this situation with research done by Sternberg (1986). Sternberg concludes that any analysis of the learning strategies adults typically use require that the learning episodes be characteristic of real world problems rather than artificial academic situations (Conti et al., 1993). Therefore, the original SKILLS situational tests actually went through minimum adjustments to reflect potential real life situations likely to be encountered by Spanish students.

## Limitations

This study was limited to students enrolled in the first two levels of introductory Spanish classes offered through Tulsa Community College in Tulsa, Oklahoma, Rogers State University in Claremore, Oklahoma, Oral Robert's University in Tulsa, Oklahoma and private tutoring of students. The subjects were from Spanish classes generally described as the first two introductory, basic or initial Spanish courses, and are the first courses students take when learning Spanish in these colleges.

Geographical limitations were those encompassed by a study of a medium Midwestern city, as well as age biased since some subjects we were targeting could be considered non-traditional (Adult) learners.

## Definitions

The following definitions may be found in this study
Learning Strategies: According to De Corte (1990) learning strategies can be
defined as the activity learners engage in during learning in order to acquire any of the following skills: a) Flexible application of an well-organized, domain specific knowledge base, involving concepts, rules, principles, formulas and algorithms; b) Metacognitive skills, involving knowledge concerning one's own cognitive functioning, and activities that relate to the self-monitoring and regulation of own cognitive process, and reflecting on one's learning and thinking activities, and c) Heuristic methods were systematic search strategies for problem analysis and transformation, such as carefully analyzing a problem specifying the known and unknowns; decomposing the problem into sub-goals; visualizing the problems using a diagram or drawing.

## SKILLS Test Terminology

SKILLS Test: An acronym for "Self Knowledge Inventory of Lifelong Learning Strategies" composed of the following learning strategies: 1) Metacognition: Knowing about and directing one's own thinking and learning process; 2) Metamotivation:

Awareness of and control over factors that energize and direc (motivate) our learning; 3) Memory: The storage, retention and retrieval of knowledge; 4) Critical thinking: A reflective thinking process utilizing higher order thinking skills in order to improve learning; and 5) Resource management. The process of identification, evaluation, and use of resources relevant to the learning task.

## Scope

The scope of this study included the students in Spanish courses offered by Tulsa Community College, Rogers State University (Claremore, OK), Oral Robert's University (Tulsa, OK) and tutored students during the Spring semester of 1998.

The study distinguished for those students learning Spanish for multiple purposes, and used all data available from every student regardless of their motive in order to compare and fulfill statistical information.

## CHAPTER II

## REVIEW OF LITERATURE

## Introduction

Several subcategories contributed to the development of this research. Previous literature was found in the following areas: Adult learning, language learning and business, and SKILLS test and learning strategies.

## Adult Learning

There are four basic orientations to learning regardless of age, although some authors like Merriam and Caffarella (1991) have determined four categories that encompass many other sub-categories. The four basic orientations are Behaviorist, Humanist, Cognitivist and Social Learning.

The behaviorist school initially developed by John Watson and followed by Skinner, Thorndike, and Pavlov among others view the external environment as locus of change and shaper of behavior. The behavior that is observable is the focus of study, rather than the internal process. This school believes in reinforcement as a medium to create change in behavior. The amount of change created by the external factors is what is measured to analyze the success of the learning objectives.

The humanists, Maslow, Rogers, and Knowles, believe that learning is an intrinsically part of human psyche determined by the individuals need to become
self-actualized. It is basically self-directed, almost intuitive and the teacher's role is to facilitate the tools for this experience.

The cognitivist theory is on the other end of the behaviorist school in that it focuses in the internal stimulus and process of the mind rather than environmental influences. This school of thought includes theorist like Piaget, Bruner and Gagne. They explain the learning process as the mind at work with tools like memory, processing and perception. "Perception, insight, and meaning are key contributions to cognitivism from Gestalt learning theorists" (Merriam \& Caffarella, 1991, p. 127-8).

Social learning refers to the socialization of the individual within a cultural medium. Theorists and sociologist like Bandura and Freire observe that a person actually learns by interacting with others and imitating them.

When entering the specific realm of adult learners, Hiemstra (1994) writes: "to be responsive and successful in the field of adult education today, it requires the understanding of how adults learn" (p. 76). One of the most extensive books to cover adult learning topic is Learning in Adulthood by Sharon B. Merriam and Rosamary Caffarella (1991). Zemke (1984) and Stephen Lieb (1996) have described adults using the following characteristics: Autonomous and self-directed, accumulated life-experiences and knowledge, goal oriented, relevant oriented, practical and the need to be treated as equal by the instructor.

The adult-leamer's characteristic described as Autonomous and self-directed (Zemke, 1984) may explain that, ultimately, it is the learner who determines the level of acquisition, interpretation or assimilation of material (Kolody, 1997). However, as Knowles (1970) explains that the behavior of the teacher probably influences the
character of the learning climate more than any other factor. These two forces, student interest and instructors delivery, must then find a synergy that combines the preferred way of learning of the student with an efficient lesson plan delivered by the instructor.

Others like Hofinger (1996) explain that while traditional students are primarily students as their main occupation, the non-traditional student is not. They are first and foremost a businessperson, a professional person, a community volunteer or a host of other roles that are part of the lives of adults in our society. Also, he adds, although the traditional student faces demands on their time, the non-traditional student's demands are multiplied by a multitude of outside forces.

A decade before, authors like Bauer (1981) suggested that adult students, in general, evoked anger to some faculty members because the instructors believed these students used education to enhance careers rather than to pursue learning for the sake of learning. However, this view was supported in the nineties with the study done by Hall and Bankowska that found that more than $50 \%$ of adult students learning a second language gave the reason of vocational usefulness as the most important reason for studying it (1994).

In his article Psychology and Adult Education, Wilbert J. McKeachie (1993) explains the sequence of information processing by adults includes: senses; attention; perception; working memory and long term memory. The area of motivation within the "attention" step could be different for adult or non-adult students due to the pressure for learning.

The book Learning in Adulthood concludes that at least the following four components of adult learning can be extracted from the theories exposed in the book:
(1) self-direction or autonomy as a characteristic or goal of adult learning; (2) breadth anc depth of life experiences as content or triggers to learning; (3) reflection or self-conscious monitoring of changes taking place; and (4) action or some other expression of learning that has occurred (Merriam S. B. \& Caffarella, R. S., 1991).

Many authors agree that the definition of adulthood (Therefore adult learning) is no longer clear. Marcia Mogelonsky writes that the place of living is no more indicative of the definition because of the full-nest syndrome, where adults go back or stay in their parent's house (1995). Different terms like "androgogy" have been used trying to make a clear-cut definition over this topic (Smith, 1970).

## College Language Education

Jan W. Walls (1992) addresses foreign language competence in international business mayors. He relates the role that language training must have in international management education. There are two common arguments against the inclusion of a second language-culture instruction in international management education. The first one is the Anglo-centric argument that says that English is the language of international business. The second argument is the called the zero-sum argument. The lack of curriculum time to learn a second language in international business schools is referred as the zero-sum argument. This explains that there are so many required courses in these business programs that a second language would water down what is now accepted as an optimal mixture of general and specialized courses. In this type of curriculum, second language sequences may be added only by getting rid of other sequences, none of which
is expendable. At the college level, Walls suggest four methods to integrate language training into management education (1992). They are:

1. Make second language competence a prerequisite to admission followed by advanced study in business contexts. As an example of this requisite he mentions the Anderson Graduate School of Management at UCLA. This requirement avoids therefore the zero-sum curriculum problem by making language mastery a prerequisite for admission.
2. Combine language prerequisites with summer language study and international internships. This approach, utilized by the University of South Carolina's Master of International Business Studies, requires the student to focus entirely on language study in the summer sessions, and to study business-focused language along with international business administration course offered during the spring and fall semesters.
3. Make second language training part of a concentration on international business studies. The American Graduate School of International Management (a.k.a Thunderbird School) has made modern languages one of the three sections of their Master's in International Management, together with international studies and world business and
4. Offer a joint degree program in co-operation with the arts faculty. As an example of this approach, the Joseph H. Lauder Institute of Management and International Studies at the University of Pennsylvania offers a joint degree program of MBA/BA.

In the last ten years, concerned authors have started to suggest changes. In 1993, David Sudermann suggested attach in a whole year of foreign language courses in today's
busy educational curriculum. An article from the North Carolina State Department of Education (1993) explains what educators expect children to know and be able to do with foreign languages, and the changes needed in the educational system to support it.

## Learning Strategies

Learning strategies are the techniques or skills that an individual elects to use in order to accomplish a learning task. We develop them at young age and sharpen them throughout our lives (Fellenz \& Conti, 1989). Learning strategies research is maybe a natural spin-off of the mental process examined by cognitive psychology in the sixties and seventies. Authors like Houle (1980), Tough (1971), Apps (1979) and Smith (1970) all wrote about how individuals take charge and can manage their own learning process. This management of the learning process is consequently a decision done by the learner as to what is to be learned and how. Each situation is approached differently and with different tools or strategies. Learners can actually use several different strategies to obtain their objective. It is different from learning styles in that styles are a more permanent characteristic of the individual that does not change easily. According to the authors of the SKILLS test this present study of adult learning strategies can then be viewed as a natural progression in the effort to help adults take more control over their learning (Conti, 1993).

According to the SKILLS manual itself, "One of the major characteristics of adult learning is that it is often undertaken for immediate application in real-life situations. Such learning usually involves problem solving, reflection on experience, or planning for one of the numerous tasks or challenges of adult life"(4).

The SKILLS manual points out that Keefe (1982) states "learning styles are cognitive, affective, and psychological traits that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment" (p. 44). On the other hand, strategies, are a matter of preference, developed throughout life and can vary by task. "While the effectiveness of a particular style relates to the individual, the success of strategies depending on the situation" (p. 4). The same individual, then, may choose a different strategy for a different set of problems.

The SKILLS manual continues to explain: "rather than skills in note taking, outlining, and test passing, learning strategies tend to focus on solving real problems involving metacognitive, memory, motivational, resource management, and critical thinking strategies"(p. 4). Therefore, the SKILLS test researched and developed the five mentioned fields (Metacognitive, Metamotivational, Memory, Critical Thinking and Resource Management). Each of these fields may be subsequently divided in the following areas according to the SKILLS manual.

## Metacognitive Strategies of Planning,

## Monitoring and Adjusting

Metacognition is defined as the knowledge and control over one's thinking and learning (Brown, 1985). Yussen (1985) explains that planning are the steps taken by the individual to organize and identify the essential steps for the learning process.

Monitoring, the second characteristic of Metacognitive strategies, relates to the ability to assess one's progress in the learning task. Adjusting, the third characteristic, involves the necessary flexibility of the learner during the learning process.

## Metamotivational Strategies of Attention,

## Reward and Confidence

Fellenz (1993) explains that Metamotivation is the awareness of and control over factors that energize and direct one's learning (p. 12). Kolody (1997) defines the first area of Metamotivation, attention, as focusing on the material to be learned. Reward, the second component, is explained as the anticipation or recognizing the value to oneself, of learning a specific material, having fun, or experiencing satisfaction with the learning activity (Fellenz and Conti, 1989). Confidence is directly related to one's ability to learn. The belief that a learner can complete the task is an important factor in the motivation to learn (Fellenz \& Conti, 1993, p. 16).

## Memory Strategies of Organization,

## External Aids and Memory

## Application

Memory is defined, for learning purposes, as the ability to repeatedly store, recall, and process information as a fundamentally important skill when dealing with learning strategies (Korinek, 1997, p. 48). All the following definitions of the components of memory are given by Fellenz and Conti: Organization, one of the components of Memory, is the structuring or processing of information so that the material will be better stored, retained and retrieved. External aids is using remembrances, mental images or other memories to facilitate planning or problem solving (1993, p. 30). Memory Application is using remembrances, mental images or other memories to facilitate
planning or problem solving (Fellenz \& Conti, 1993, p. 30). The importance of the memory strategies cannot be underestimated. Memory techniques definitely improves the total amount of information that is retrievable (McKeachie, 1980). "The process of learning and memory are so closely related and interdependent that it is often difficult to determine whether we are concerned with one phenomenon or two... without memory there is no evidence of learning" (Long, 1983, p. 58).

## Critical Thinking Strategies of Testing Assumptions

## Generating Alternatives and Conditional

## Acceptance

According to Brookfield (1985), there are four components of critical thinking.
The components are (a) Identifying and challenging assumptions,
(b) challenging the importance of context, (c) imagining and exploring alternatives, and (d) reflective skepticism..

The first area of Critical Thinking is testing assumptions. Fellenz and Conti define this strategy as "The process of challenging assumptions presumes the ability to identify these assumptions and the willingness to examine them. Because they have often been taken for granted over long periods of time, their limitations are not readily noticed. To define Testing Assumptions, Fellenz continues to explain that the process of challenging assumptions presumes the ability to identify these assumptions and the willingness to examine them (1993, p. 31).

The second characteristic, Generating Alternatives, is the preference of the learner to hypothesize while grounding options within a given situation and include strategies
such as brainstorming or envisioning the future, ranking the order of alternatives, and identifying alternate solutions (Fellenz, p. 33).

The third characteristic, Conditional Acceptance, is advocating reflective skepticism to avoid absolutes or over simplifications (Brookfield, 1987).

## Resource Management Strategies of

Identification of Resources, Critical
Use of Resources and Use of

## Human Resources

Fellenz and Conti (1993) explain that Resource management is "the identification of appropriate resources, critical use of such resources, and the use of human resources in learning" (p. 3). The three learning strategies of this area are: "Identification is knowing how to locate and use the best source of information."(p. 36).

A second strategy, Critical Use of Resources, is using and selecting appropriate resources rather than those immediately available, while recognizing their limitations. Use of Human Resources is integrating others into the social and political process of learning" (p. 30).

Groups of professors of adult education reviewed the SKILLS instrument during summer institutes held at Montana State University where the test was developed. Numerous pilot and field tests of the developing inventory were also conducted using a variety of groups of adults. Finally the instrument was presented to practicing adult educators at a variety of state, regional, and national conferences. Through these
processes the reliability, validity, and usefulness of the SKILLS test was determined.
Permission was granted to use this test by one of the authors, Dr. Gary Conti.

CHAPTER III

## METHODOLGY

Introduction

The information needed to achieve the objectives came from students learning Spanish in Tulsa Community College (Tulsa, OK), Rogers University (Claremore, OK), Oral Robert's University (Tulsa, OK), and students tutored taught by the researcher. They voluntarily and anonymously answered the questions of two instruments: The demographic questionnaire and the SKILLS test.

## Population

The population was comprised of the participating classes of Spanish language of Tulsa Community College (Tulsa, OK), Rogers University (Claremore, OK), Oral Robert's University (Tulsa, OK), and private tutoring students during the Spring semester of 1998. The students that participated were in the first two initial Spanish courses, also know as beginning, introductory or initial Spanish. The sample taken consisted of 76 students who participated in this research. The total population of the participating classes was 402.

## Situation Surrounding the Study

Tulsa Community College (TCC) teaches different languages in four different campuses. The study included all four campuses. TCC also teaches off-campus on the premises of those businesses interested in their employees to learn Spanish for business purposes. Rogers University (Claremore, OK) and Oral Robert's University (Tulsa, OK) have also developed Spanish programs on their campuses. Privately tutored students were those students that call private tutors to teach them Spanish. Six of the questionnaires were distributed to private tutoring students. All subjects of this questionnaire were volunteers and the study followed the ethical and privacy guidelines of Oklahoma State University.

The geographical area was limited to Tulsa County, Oklahoma. The locations of the campuses are roughly at the South, Center, North and West of the City. However, the influential area of these colleges goes beyond Tulsa county into surrounding counties.

> Instrumentation

The instruments of choice were two: An initial demographic questionnaire and the SKILLS test. A pilot study of 15 students did not indicate any problem with the test or the questionnaire. The questionnaire was for general demographic data. The second instrument, the SKILLS test, showed which were the preferred and most effective learning strategies (SKILLS) of the subjects learning Spanish for business purposes.

Demographic Questionnaire and the SKILLS Test

The initial demographic questionnaire was designed to determine the basic demographic characteristics of the sample studied (See Appendix A). In the questionnaire, the questions regarding general demographics were related to age, gender, highest degree earned and the reason for studying Spanish. The questionnaire was used to collect general and basic demographic data and asked for data similar to other SKILLS test research. Demographic and educational information was gathered from the students before the SKILLS test and included a student identification number to ensure students' anonymity. The questionnaire and SKILLS test was presented to the students together with a consent form.

After answering the demographic questionnaire, all students completed the SKILLS questionnaire or Self-Knowledge Inventory of Lifelong learning Strategies (See Appendix B). This test consisted of a series of four specifically designed scenarios depicting real-life learning situations, which necessitated various levels and types of learning. Each scenario was followed by fifteen questions that assessed how likely an individual was to use specific learning skills or techniques in resolving that learning issue. The learning areas were (1) Metacognition, (2) Metamotivation, (3) Memory, (4) Critical thinking, and (5) Resource management.

Each area mentioned above had three specific strategies. This provided a total of fifteen answers for each scenario, one for each specific learning strategy (Five areas times three specific strategies). Each of the fifteen specific learning strategies was represented in each of the four scenarios answered by the subjects. For each scenario, participants
obtained three points for each specific strategy that they would "Definitely Use"; two points for any specific strategy that they would "Possibly Use" and one point for any specific strategy that they would "Not Likely Use". Therefore, the range of total possible scores for each specific learning strategy is from 4-12, four scenarios times one, two or three points for each strategy.

The test took approximately 20 minutes to complete. For this test, the four original scenarios were slightly changed to fit a specific situation that involved a scenario likely to happen to a Spanish student. Minor word substitution helped the subjects focus on the SKILLS scenarios and potentially maintained higher level of interest throughout the application of the instrument (Korinek, 1997). The adjustments to the SKILLS test used the same basic format as the original SKILLS test, for both the scenarios and the responses. Minor word changes to the original SKILLS scenarios did not affect the scenarios validity (McKenna, Conti, \& Fellenz, 1994, p. 261). Each of the four scenarios was adjusted without changing the concept or the resolving method of each answer. In an interview with Dr. Conti, one of the developers of the SKILLS test, he accepted the different wording as minor and explained that these changes would not affect the validity or reliability of the test (Appendix A and B).

The SKILLS manual explained how the scores were computed by giving three points to each strategy chosen for "Definite use", two points for those marked "Probably use", and one point for "Not likely to be used". Points for each of the 15 strategies on the four selected scenarios were summed up to give a total score for each strategy. These total scores for each strategy were also added to determine the degree to which each strategy area was used over the four scenarios (p. 4).

## Validity and Reliability

Reliability for the SKILLS instrument was addressed by calculating a coefficient based on two equivalent forms administered to the same group. After statistical analysis was completed, it was determined that all correlations were in the acceptable range and that SKILLS is "a reliable instrument for assessing adult learning strategies in real life situations" (Conti \& Fellenz, 1991, p. 7).

Construct validity of the SKILLS test, the degree to which the test measures an hypothetical construct, was established through a literature review, which documented the source of the concepts in SKILLS. Content validity of the SKILLS instrument was field tested in different settings like basic adult education programs, undergraduate and graduate university courses and continuing education programs among others (Conti \& Fellenz, 1991). In the field tests, a sample set of 253 participants responses confirmed the assessment of the group of adult educators mentioned that the SKILLS represents adequately the five conceptual areas of the instrument.

## Methods of Data Gathering

The Spanish instructors, together with the researcher administered the instruments to those students that volunteered as subjects and allowed 25 minutes for the completion of the questionnaire and the SKILLS test. The subjects involved signed a volunteer release form (Appendix C) previous to the administration of the test. The instruments were distributed, as much as possible, personally by the researcher in order to assist, explain and gather back the results with the information sought.

## Analysis of the Data

The results were tabulated in charts and tables with different percentage frequency distributions and discriminate analysis.

The combination of both deductive and inductive reasoning is part of this research as well as other educational research. Deductive reasoning involves the transfer of conclusions from a general observation to a specific and individual case. Inductive reasoning is the process where we observe characteristics given to us from a specific or individual source and we conclude that the general population we are researching has these characteristics as well, we generalize from our observations.

In this research, when the questionnaire and SKILLS test is given to a group of subjects, we initially approach the obtained data in a deductive way because we intend to deductively investigate the relationship of learning strategies to a variety of demographic and educational variables. We also used inductive reasoning to identify the groups and their characteristics that inherently exist in the data, we observe the data to later generalize with it.

Another form of study used in this thesis is the quantitative research. All information gathered must ultimately reach the researcher either in number or words. Quantitative data is in the form of numbers and qualitative data is in the form of words. The nature of the data dictates the methodology. If the data is in the form of words (Verbal) the research methodology used is qualitative and inductive. If the data received are numbers the methodology used is quantitative and deductive (Leedy, 92; Kolody, 97).

In discriminative analysis the emphasis is upon analyzing the variables together rather than singly; the purpose of multivariate procedures is to examine the interaction of the multiple variables (Conti, 1993). With discriminate analysis the researchers can obtain the differences between two or more groups in relationship to several variables too, but simultaneously (Klecka, 1990). It is a statistical technique that allows the investigation of the differences between two or more groups in relationship to several variables simultaneously (Klecka, 1990). In this study, and to comply with research question number four (Which are the learning strategies differences between those learning Spanish for Business and other purposes?), discriminate analysis was used to investigate if learning strategies could be used to identify the ways groups differed.

Discriminate analysis is a technique that permits us to research the differences, or to predict membership, between the groups of interest. In this study, our interest is the difference in learning strategies used between two groups, those that chose to study "Spanish for business" and those that chose Spanish for all "Other purposes". With discriminate analysis we analyze the fifteen learning strategies together, as variables. The purpose of this procedure was to examine the interaction of the multiple variables (Conti, 1993). We analyzed how these fifteen learning strategies interact with the two groups

As a framework before applying discriminate analysis, two criteria were used. The first criteria is that there had to be sufficient differences between the 15 variables in order to determine if they can be "judged good and useful" (Conti, 1993, p. 93). In order to verify this, we examine the pooled-within matrix produced by the analysis. This matrix showed coefficients that did not share enough variance to consider them similar variables. If these variables did not have a coefficient sufficiently different it would be
impossible to discern the meaning of the function. This first criterion is especially important in this study because there are fifteen variables. If we do not distinguish them properly we may find that the functions may have high predictability but they correlate with so many of the variables that it is impossible to decipher the meaning of these functions (Hill, 1992).

The second criteria used for the discriminate analysis is related to the percentage of cases classified correctly as compared to the percentage expected by chance alone (Norusis, 1988, p. b-13). In order to judge the discriminate function useful, the criteria used in this study was that the function had to correctly classify more than the chance placement of $50 \%$ of the cases by an additional $20 \%$. In this two groups analysis this function would have to correctly classify more than $70 \%$ of the cases ( $20 \%$ more of the $50 \%$ by chance). Other SKILLS test have used $75 \%$ as a criteria to judge the discriminant function useful. Due to the small group of subjects researched and the exploratory nature of this research the criteria was set at $70 \%$.

# CHAPTER IV 

## FINDINGS

Introduction

Students learning Spanish for business purposes utilized different approaches and strategies to learning the language when compared to those learning it for other purposes. One finding was there was a significant difference by learning strategies used for those that gave "business" as the reason to learn Spanish and those that gave "other reasons". The strategies used by the group "Spanish for business" purposes differed significantly from the group "Other purposes" in three learning variables. The "Spanish for business" group used more of the "Critical use of resources" and "Conditional acceptance" learning strategies and less of "Organization". These findings were obtained through statistical percentages, frequency distribution and discriminant analysis.

Another finding was that the students for business purposes used significantly less the Organization strategy from the Memory area when studying Spanish although, as explained in the literature chapter of this study, memory techniques are important for learning.

## Statistical Profile of Learners

The subjects for the sample of this study were selected from different colleges and private students from the Tulsa area. There where a total of 76 participants. Of these participants, 66 responded in a complete manner to the demographic questionnaire and SKILLS test that provided the data for statistical analysis.

The following questions answered the first research question of this study, which was: What are the demographics of the population studied? The initial questionnaire dealt with three questions regarding the demographics of the students. The subjects were asked their gender, their age and the highest degree earned. The results are expressed in Tables I, II, and III. The first question asked about their gender (See Table I). The results were as follows.

TABLE I

GENDER OF PARTICIPANTS

| Gender | Frequency | Percent | Cumulative Percent |
| :--- | :---: | :---: | :---: |
| Female | 41 | 64.1 | 64.1 |
| Male | 23 | 35.9 | 100.0 |

As the data showed, almost two-thirds of the participants were female. The second question of the initial questionnaire asked about the participant's age (See Table II). The participants were classified according to four age groups. The first group of 17 to 22 years old reflected those participants that had recently left high school to pursue higher education goals. This group represented $72 \%$ of the total sample. The next largest group, from 31 to 40 years of age, represented $15 \%$ of the participants. Table II reported the results for this question:

TABLE II

AGE DISTRIBUTION OF PARTICIPANTS

| Age Grouping | Frequency | Percent | Cumulative Percent |
| :--- | :---: | :---: | :---: |
| $17-22$ | 44 | 72 | 72 |
| $23-30$ | 5 | 10 | 82 |
| $31-40$ | 9 | 15 | 97 |
| $41-51$ | 3 | 3 | 100.0 |

The age range of the sample was between 17 and 51 years of age. A mean of 23.5 years reflected a more accurate snapshot of the ages in question.

The third question asked about highest degree earned by the participants (See Table III). The alternatives offered where high school; associate degree; bachelor's degree and graduate degree. Table III shows this data.

TABLE III FREQUENCY OF THE HIGHEST DEGREE OF THE PARTICIPANTS

| Degree | Frequency | Percentage | Cumulative Percent |
| :--- | :---: | :---: | :---: |
| High School | 49 | 76.6 | 76.6 |
| Associate | 11 | 17.2 | 93.8 |
| Bachelor | 3 | 4.7 | 98.4 |
| Graduate | 1 | 1.5 | 100.00 |

This question assigned a number to each of the answers. Subjects where asked the highest degree earned. High School was tabulated as most frequent; Associates degree was second; Bachelor’s degree was third and Graduate degree was the least frequent. Three quarters of those interviewed were at the high school level.

In order to satisfy the second research question (Which is the main reason why the participants study Spanish?) the students where asked, the following question: "Please
check the MAIN reason you are learning Spanish?" The most frequent response was "business"; the second most frequent was "mainly for tourism purposes"; the third most frequent was "cultural activity, socializing, meeting people"; followed by "communicate better with relatives, family, or friends"; and the least frequent was "other". The data in Table 4 shows the following results.

## TABLE IV

FREQUENCY OF THE MAIN REASON FOR STUDYING SPANISH

| Main Reason | Frequency | Percent | Cumulative Percent |
| :--- | :---: | :---: | :---: |
| Business | 33 | 53.2 | 53.2 |
| Other | 14 | 22.6 | 75.8 |
| Cultural | 9 | 14.5 | 90.3 |
| Communicate | 3 | 4.8 | 95.1 |
| Tourism | 3 | 4.8 | 100 |

Answer one was "Business" and the answer five was "Other". In this case, six questionnaires where considered incomplete, so their data could not be tabulated. In answer number five, of the fourteen that marked "Other", six of the participants wrote down as a reason "Degree Plan"; the other eight just marked the answer with an "x". The
relatively high score of "Degree plan" in the "Other" answer shows how colleges are requiring a second language as part of the curriculum.

The third research question asked: "Which are the student's preferred learning strategies used to learn Spanish?" The test given to obtain these results was the SKILLS test. In scoring the four SKILLS scenarios, there were five learning strategy areas represented in each scenario. For each scenario, participants obtained three points for each specific strategy that they would "Definitely Use", two points for any specific strategy that they would "Possibly Use", and one point for any specific strategy that they would "Not Likely Use". The range of the total possible scores of learning strategy areas is 12 to 36 , four points times any of the three specific strategies in each area. Tables V and VI report the results of these questions:

## TABLE V

## MEANS OF LEARNING STRATEGIES AREAS USED BY PARTICIPANTS

| Areas | Mean | SD | Range |
| :--- | :--- | :--- | :--- |
| Resource Management | 26.621 | 3.459 | $19-33$ |
| Critical Thinking | 25.167 | 3.459 | $19-33$ |
| Memory | 23.015 | 2.44 | $17-29$ |
| Metacognition | 22.348 | 2.657 | $18-32$ |
| Metamotivation | 22.273 | 2.837 | $15-30$ |

All the group means were near the middle of the range (12-36). No single learning area seemed to be predominant. Resource Management was the learning strategy area preferred by the subjects. Resource Management and Critical Thinking only differed in their mean. These areas were the ones most used by the subjects. The divergence between Resource Management and the Critical Thinking mean was 1.45 or $5.46 \%$. With the same range and standard deviation these scores show little divergence when the participants were seen as a group. The divergence between the most used and the least used area was 4.35 or $16.33 \%$. Resource Management was comprised of three specific learning strategies that were: Identification of Resources, Critical Use of Resources and Use of Human: Resources.

Each area mentioned above had three specific strategies. This gave a total of fifteen answers for each scenario, one for each specific learning strategy (Five areas multiplied by the three specific strategies). Each of the fifteen specific learning strategies was represented in each of the four scenarios answered by the subjects. For each scenario, participants obtained three points for each specific strategy that they would "Definitely Use"; two points for any specific strategy that they would "Possibly Use" and one point for any specific strategy that they would "Not Likely Use". The range of total possible scores for each specific learning strategy was from 4-12, four scenarios times one, two or three points for each strategy.

TABLE VI
MEANS OF INDIVIDUAL LEARNING STRATEGIES
USED BY PARTICIPANTS

| Learning Strategies | Mean | SD | Range |
| :--- | :--- | :--- | :--- |
| (RM)Identification of Resources | 9.45 | 2.13 | $5-12$ |
| (CT)Testing Assumptions | 8.77 | 1.26 | $6-12$ |
| (MC)Planning | 8.76 | 1.56 | $4-12$ |
| (RM)Use of Human Resources | 8.73 | 1.55 | $4-12$ |
| (CT)Generating Alternatives | 8.71 | 1.73 | $4-12$ |
| (RM)Critical Use of Resources | 8.44 | 1.78 | $5-12$ |
| (M)Use of External Aids | 8.4 | 1.7 | $5-12$ |
| (MO)Attention | 8.03 | 1.98 | $4-12$ |
| (CT)Conditional Acceptance | 7.68 | 1.70 | $4-11$ |
| (M)Organization | 7.4 | 1.49 | $4-11$ |
| (MO)Reward | 7.29 | 1.78 | $4-12$ |
| (M)Memory Application | 7.2 | 1.74 | $4-11$ |
| (MO)Confidence | 6.96 | 1.46 | $4-11$ |
| (MC)Adjusting | 6.92 | 1.68 | $4-12$ |
| (MC)Attention | 6.67 | 1.39 | $4-10$ |

[^0]The first and last means diverged 2.78 or $29.41 \%$. This was a large spread due to the small sample. The Resource Management learning strategy of Identification Resources was the most used with a divergence of 0.68 or $7.2 \%$ when compared to the second preferred strategy, Testing Assumptions. Testing Assumptions was a Critical Thinking learning strategy. Overall the Resource Management learning strategies scored high in first, fourth and sixth places.

The last research question asked: "Which are the learning strategies differences between those learning Spanish for Business and other purposes?" In order to satisfy this question discriminate analysis was used.

## Discriminant Analysis

For analysis purposes, and to satisfy the fourth research question the respondents were placed into two groups. The first group was the students that chose to study "Spanish for business" purposes. The second group was those that chose all the "other purposes" combined together. Discriminate analysis helped answer if there was a difference in the way the two groups used the 15 learning strategy variables. Also, discriminate analysis helped determine if the variables interacted in some way.

The 15 discriminating variables used to predict placement were those found in SKILLS and were the following: Metacognition with Planning (PLAN), Monitoring (MONITOR) and Adjusting (ADJUST); Metamotivation with Attention (ATTENT), Reward (REWARD) and Confidence (CONFID); Memory with Organization (ORGAN), Using External Aids (EXT) and Memory Application (APPLY); Critical Thinking with Testing Assumptions (ASSUME), Generating Alternatives (ALTER) Conditional Acceptance (ACCEPT); and Resource Management with Identification of Resources (IDENT), Critical Use of Resources (USE) and Use of Human Resources (HUMAN). Table VII compares the learning strategy means for the two groups.

TABLE VII
GROUP MEANS

| MAIN | PLAN | MONITOR | ADJUST | ATTENT |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 8.75758 | 6.42424 | 6.72727 | 7.93939 |
| 2 | 8.68966 | 6.68966 | 7.17241 | 8.00000 |
| Total | 8.72581 | 6.54839 | 6.93548 | 7.96774 |
| MAIN | REWARD | CONFID | ORGAN | EXT |
| 1 | 6.84848 | 7.03030 | 7.09091 | 8.27273 |
| 2 | 7.72414 | 6.79310 | 7.55172 | 8.58621 |
| Total | 7.25806 | 6.91935 | 7.30645 | 8.41935 |
| MAIN | APPLY | ASSUME | ALTER | ACCEPT |
| 1 | 7.39394 | 8.81818 | 8.57576 | 8.03030 |
| 2 | 7.10345 | 8.72414 | 9.00000 | 7.37931 |
| Total | 7.25806 | 8.77419 | 8.77419 | 7.72581 |
| MAIN | IDEN | USE | HUMAN |  |
| 1 | 9.54545 | 9.00000 | 8.81818 |  |
| 2 | 9.51724 | 7.93103 | 8.72414 |  |
| Total | 9.53226 | 8.50000 | 8.77419 |  |

The largest difference between the means of the two groups accounts for the learning strategy of "USE" or Critical Use of Resources. Group one used this strategy $11.89 \%$ more than group two, a 1.06 point difference between means. Next in preferred usage by group one was "ACCEPT" or Conditional acceptance with $7.11 \%$ more than group two, a 0.65 point difference between means.

Group two used more of "REWARD" $11.33 \%$ more than group two, a 0.87
difference between means. Also, group two used more of the learning strategy
"ADJUST" or adjusting, a $6.2 \%$ more than group one, a 0.445 point difference between the means.

To find out if the variables share variance we calculated the pooled-within matrix. The pooled within groups correlations was the correlation for the variables with the respondents placed in their groups of either "Spanish for business" or for "other purposes" (Kolody, 1997). The examination of the 105 coefficients of this analysis showed that all were at a sufficient weak level and not related to each other and consequently were not sharing a common variance. Table VIII shows this information.

If we had not distinguished variables properly we would find that the functions may have high predictability but they correlate with so many of the variables that it is impossible to decipher the meaning of these functions (Hill, 1992). A high correlation between variables indicates that they are indeed sharing the same variance. They were all at less than the 0.2 level, thus the variables in this analysis were not related to each other.

In order to find out which variables were important to the discrimination between the students using Spanish for business and the group using Spanish for other purposes stepwise selection was used. Stepwise procedures produced an optimal set for discriminating variables. Wilks' lambda was selected to find out which variables added most to the discrimination between the two groups. This method for selecting variables for inclusion in the discriminant analysis was chosen because it took in consideration both the differences between the groups and the cohesiveness within the groups (Kolody, 1997).

## TABLE VIII

## POOLED WITHIN-GROUPS CORRELATION MATRIX

| Group | PLAN | MONITOR | ADJUST | ATTENT | REWARD | CONFID |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PLAN | 1.00000 |  |  |  |  |  |
| MONITOR | . 18142 | 1.00000 |  |  |  |  |
| ADJUST | -. 02327 | -. 09033 | 1.00000 |  |  |  |
| Attent | . 24265 | . 05070 | -. 19004 | 1.00000 |  |  |
| REWARD | . 11848 | -. 00269 | . 02847 | -. 23744 | 1.00000 |  |
| CONFID | . 13850 | -. 00248 | . 23334 | -. 21403 | . 29419 | 1.00000 |
| ORGAN | -. 12399 | -. 30685 | -. 00661 | -. 22116 | . 12702 | . 00956 |
| EXT | -. 10454 | -. 01947 | -. 06707 | . 02695 | -. 15077 | -. 18734 |
| APPLY | -. 20625 | -. 08035 | . 18558 | -. 32871 | -. 23966 | . 22109 |
| ASSUME | -. 05756 | -. 06974 | -. 02499 | -. 14909 | . 12402 | -. 08103 |
| ALTER | -. 41898 | -. 32925 | -. 05730 | -. 15943 | -. 06214 | -. 09483 |
| ACCEPT | -. 49417 | -. 14717 | . 04358 | -. 12747 | -. 25351 | -. 18941 |
| IDEN | -. 05570 | . 14147 | -. 17204 | . 30465 | -. 29700 | -. 42066 |
| USE | . 05922 | . 03350 | -. 38338 | . 07285 | -. 23229 | -. 21751 |
| HUMAN | -. 35902 | -. 24601 | -. 15841 | -. 25227 | -. 13280 | -. 28998 |
|  | ORGAN | EXT | APPLY | ASSUME | ALTER | ACCEPT |
| ORGAN | 1.00000 |  |  |  |  |  |
| EXT | -. 29250 | 1.00000 |  |  |  |  |
| APPLY | . 10421 | -. 27020 | 1.00000 |  |  |  |
| ASSUME | . 27265 | -. 11099 | -. 12606 | 1.00000 |  |  |
| ALTER | . 27185 | -. 11035 | . 16836 | -. 06455 | 1.00000 |  |
| ACCEPT | -. 07821 | -. 24884 | . 12399 | -. 14365 | . 53761 | 1.00000 |
| IDEN | -. 33890 | . 11236 | -. 29638 | -. 17357 | -. 39881 | . 00358 |
| USE | -. 18629 | . 30608 | -. 19287 | -. 02684 | -. 20119 | -. 21093 |
| HUMAN | . 02201 | -. 04745 | . 02569 | -. 01053 | . 12629 | . 20765 |
|  | IDEN USE | HUMA |  |  |  |  |
| IDEN | 1.00000 |  |  |  |  |  |
| USE | . 10643 | 1.00000 |  |  |  |  |
| HUMAN | . 14100 | -. 02812 | 1.00000 |  |  |  |

The following four variables and their corresponding Wilks' lambda were included in the discriminate function: Conditional Acceptance (.85), Critical Use of Resources (.91), Confidence (.78), and Generating Alternatives (-. 31). The negative number of Generating Alternatives of Group two explains that this group used significantly more of this learning strategy. These numbers give the contribution of each variable in discriminating between the group "Spanish for business" and "Other purposes". The discriminant function used to correctly classify the cases into the two groups was:
$\mathrm{D}=.54$ (Conditional Acceptance) +.46 (Critical Use of Resources) +.29
(Confidence) - . 31 (Generating Alternatives) - 7.40
This equation was $71 \%$ accurate in matching the subjects either on one side or the other of this mid point. This function was above the $50 \%$ chance by $20.5 \%$. The formula correctly placed in the "Spanish for Business" $72.7 \%$ of the cases, and it placed correctly $69 \%$ of the cases in "Other purposes". The average $71 \%$ is $20.5 \%$ above chance. The group centroid for the Spanish for business group was 0.49 and -0.55 for the group that chose Spanish for all other reasons. The mid-point was -0.3 .

The structure matrix contained the coefficients which showed similarity between each individual variable, and the total discriminant function. The highest coefficients related stronger to the discriminant function. These coefficients were used to name the discriminant function. They showed how closely the function and the variables were related (Kolody, 1997, p. 76). The purpose of the discriminant function and its further analysis was to describe the difference between the two groups. This process was key for the interpretation of the results of this study. Variables with coefficients of more than 0.3
are generally included in this interpretation (Conti, 1993). The variables ordered by size of correlation within function are explained in Table VIII.

## TABLE VIII

CORRELATION WITHIN FUNCTION

| Variable |  |
| :--- | :---: |
| CRITICAL USE OF RESOURCES | .60262 |
| CONDITIONAL ACCEPTANCE | .37136 |
| ORGANIZATION | -.35499 |
| REWARD | -.24797 |
| GENERATING ALTERNATIVES | -.23903 |
| TESTING ASSUMPTIONS | -.15274 |
| CONFIDENCE | .15134 |
| ADJUSTING | -.12773 |
| PLANNING | -.11848 |
| IDENTIFICATION OF RESOURCES | .10948 |
| ATTENTION | -.06915 |
| MONITORING | -.06504 |
| MEMORY APPLICATION | -.02963 |
| USING EXTERNAL AIDS | -.00981 |

Three variables in the structure matrix had sufficient coefficient to be included in the interpretation of the meaning of the discriminant function. These three distinctive variables differentiate the two groups. These variables were above the .30 correlation found in the above structure matrix produced by the analysis.

The two learning strategies most used by the "Spanish for Business" reason was "Critical Use of Resources" with a 0.60 coefficient and "Conditional Acceptance" with a 0.37 coefficient. The learning strategy most used by the group Spanish for other purposes was "Organizational" with a coefficient of -0.35 . Of the fifteen variables, the means of these three variables were significantly different to prove that there was a difference in the way the learning strategies are used by each group.

A discriminant analysis was calculated to research the question that it was possible to use a variety of variables related to learning strategies to discriminate between those students learning Spanish for business purposes and those learning it for all other purposes. The discriminant function, was identified as a "Resolving Medium". Based on the high percentages of variance explained by the discriminant function between groups and the high percentage of accuracy of prediction into the groups by the discriminant function, it was determined that it is possible to use learning strategies to discriminate between groups categorized by their business purpose or all other purposes of studying Spanish.

## CHAPTER V

## SUMMARY, CONCLUSIONS AND

 RECOMMENDATIONSSummary

More than $50 \%$ of adult students learning a foreign language gave the reason "Vocational usefulness" as being the most important in their decision to study it (Hall \& Bankowska, 1994). Due to the increase of Hispanic markets in the United States and abroad, the knowledge of the Spanish language has become an important foreign language to know for doing business.

Learning a language involves many hours of teaching. By researching the learning strategies of students learning Spanish, we can increase the effectiveness in the teaching-learning process. In this study, different analysis where used to find out the relationship between learning variables of adult students that specifically are studying Spanish for different purposes. These purposes ranged from enhancement of the student's business capabilities to requisite for a degree.

Different questions and parameters believed to have an influence upon how students used the learning strategies-defined by the SKILLS test-where used and added to the data. This research intended, therefore, to tabulate the learning strategies of English speaking adult learners of Spanish for multiple purposes.

Research answered the following questions:

1. What are the demographics of the population studied?
2. Which is the main reason why the participants study Spanish?
3. Which is the student's preferred learning strategies used to learn Spanish?
4. Which are the learning strategies differences between those learning Spanish for Business and other purposes?

Adult Spanish language students from the Tulsa area where asked to complete a demographic questionnaire stating their gender, age, highest degree earned and reason for studying Spanish. Following the demographic questionnaires, the subjects completed the SKILLS test to explore the learning strategies they applied while learning Spanish. Fifty percent of those asked, responded "Business" as the main reason for studying Spanish. The study continued to research the learning strategies of those learning Spanish for business purposes as compared to those learning Spanish for other purposes, the other fifty percent of the subjects.

The demographic questionnaire included age, gender and highest degree earned (Research question number one). The questionnaire asked the main reason for learning Spanish (Research question number two) and the SKILLS test allowed to find out the learning strategies preferred to learn Spanish from all the subjects (Research question number three). Once this data was obtained, and with the assistance of discriminate analysis, the researchers investigated if learning strategies could be used to identify the ways groups differed (Research question number four).

The purpose of this study was to:

1. Provide a demographic description of the students.
2. Identify the main reasons why students are learning Spanish.
3. Identify the preferred learning strategies of students learning Spanish for business and other purposes.
4.Identify any differences in usage of learning strategies by the group studying Spanish for business purposes compared to the group studying it for other purposes.

## Conclusions

One of the conclusions of this study was that the two distinct groups of leamers differed in the usage of learning strategies when resolving the problems presented in the SKILLS test. The two distinct groups of learners were group one, that selected learning Spanish for business purposes, and group two that selected all other reasons to learn Spanish. Of the fifteen learning strategies, three were significantly different between the groups. The three learning strategies that were significantly different were "Critical use of resources", "Conditional acceptance" and "Organization".
"Critical use of resources", a learning strategy in the Resource Management area, involves critical reflection about which are the most appropriate resources to learn, rather than those immediately available. This strategy addresses the effective use of resources and the consideration of these resources for their timeliness and other biases (Fellenz \& Conti, 1989). The learner using this strategy may contact experts in the field and verify the information given.
"Conditional acceptance", a learning strategy in the Critical Thinking area, was explained by Brookfield (1987) as considering and imaging alternatives to the development of a particularly critical cast of mind, especially where any claims for

Universal truth or validity of an idea or practice are concerned (p. 20-21). The conditional acceptance strategy questions simple answers, encourages reflection and avoids simplification.

The "Organization" learning strategy, in the area of "Memory" was group one's least used strategy. Organization refers to the manner in which the memory reorders the information that was originally presented (Seamon, 1980). The learners of the first group did not then use significantly the characteristics described in "Memory". They include the arranging of materials in patterns to direct their retrieval process; the usage of memory devices like mnemonics; visualization; imagery; associations and connections (Zechmeister \& Nyberg, 1982) neither the use of memory aids like chunking, that is the organization of information into sets (Miller, 1987).

The conclusion was also made in this study that students did not strongly prefer memory strategies although according to research, memory is considered to be important for any learning process. Even in the general five learning strategy areas, memory scored third out of five in preferred usage. In the specific learning strategies, those studying Spanish for business purposes scored even lower in the usage of the memory strategy Organization when compared to the group other purposes.

Another conclusion of this study was that it is likely that goal orientation influences the learning strategies that will be preferred. When it came to students studying Spanish for business purposes, the difference in the usage of learning strategies may be more related to external factors. These external factors may range from job pressure to motivation of completing a professional task. The focus of attention of the business students seems to be more on resolving their job-related task using language as a
medium. The combination of learning strategies to learn Spanish could be recognized as a "Resolving medium" to find answers or solutions to a real life business problem or task. The students studying Spanish for other purposes seem to be more interested in the acquisition of knowledge as a goal in itself.

Recommendations for Practice

In a time consuming learning experience, as is the learning of Spanish, the resulting data may assist in the better design and efficiency of lesson plans. Adult educators, either in businesses or other organizations, strive to optimize the experience of students' learning. Business instructors, just like educators in general, have searched for ways to tap into the differences that students have.

Research about student's learning strategies has contributed to explore the techniques that individuals use to accomplish a specific learning problem. Teaching then, occurs best when students are in a situation that better suits their preferred learning strategy. These learning characteristics that have not been studied before in these types of students, will eventually help design more efficient programs in terms of time and money. Also, businesses can use studies like this to design shorter language training programs.

Weinsten (1988) explained that current research demonstrated that a way to influence the process of information acquisition was to instruct the students in the use of learning strategies. Students learning Spanish for business purposes used significantly more of "Critical Use of Resources", which is one of the three learning strategies of the "Resource Management" area and "Conditional Acceptance" which is from the "Critical Thinking" area.

Resource management strategies involve the effective use of resources. To learn the task the students use the process of identification, evaluation and use of relevant resources. These learners take the correct risk when applying or learning what they learned, they are reflective, and will use the correct rather than the available source (Fellenz, 1993). Those learners engaged in the use of "Critical Use of Resources" will use the appropriate rather than available resources. Providing these learners with knowledge as to where to locate and use the best information is also critical (Fellenz \& Conti, 1989). It is recommended to include in the classroom setting suggestions as to contacting an expert in the field, even an outsider, also to check information given to them with a second source, and allow plenty of questions to check for bias (Kolody, 1997). Spanish language students need to be guided as to what they can do to practice their newly acquired knowledge. There are many opportunities to practice in restaurants, chat-rooms, viewing Spanish channels or subscribing to specialized magazines in Spanish that are of interest to the student.

Critical thinkers in general must be provided with assignments and projects that help them utilize their creativity and individuality, where hands on experimentation and problem solving is enhanced. Critical thinkers score high in testing assumptions (Kolody, 1997). The "Conditional Acceptance" learner will question simplistic answers and predict consequences, therefore a thorough understanding of the Spanish Grammar is important to explain any question. Learners will question simplistic answers and predict consequences; therefore a thorough understanding of the Spanish Grammar is important to explain any question. Learners will also check the information given to them with a second source, and ask questions to check for bias.

In the specific learning strategy of "Conditional Acceptance" the students will question simplistic answers and monitor or evaluate carefully their results. This finding is consistent with the researchers experience that language students usually try to understand all grammatical laws that apply to what they are learning. Many times it is recommended to press on with practice and usage of what is learned rather than theorize extensively about the different applicable grammatical rules. While all grammatical rules are important for a complete knowledge of the language, the immediate practice and exposure of what is learnt will eventually make the rules easier to understand in the long run. Some students tend to evaluate the specifics of language as a precise science before they can apply it. The generalizability within a situation, or apply whatever vocabulary is available, can be an important suggestion that the instructor may give to the students.

Instructors may provide support for the strategies that students use and also encourage those strategies that students don't use if these strategies are important enough. The learning strategy of Organization, in the memory area is an example of a learning strategy not sufficiently used by the Spanish for business group. Memory is the storage, retention and retrieval of knowledge. Memory is an important area for learning although business Spanish students scored low in the use of this strategy. For example grouping, a memory technique, definitely improves the total amount of information that is retrievable (McKeachie, 1980). There are many types of memory (Izquierdo, 1992) and they are crucial for any type of learning acquisition or problem solving. The Organizational learning strategy involves the structuring or processing information so that material will be better stored, retained and retrieved. Organization exercises with the student should include putting the material to be learned into frameworks of previous knowledge in
order to retrieve it easily. Helping the student structure the new Spanish information using English-Spanish cognates may help them process better the new data.

Other exercises may be borrowed from other memory strategies. Memory strategies include metamemory, mnemonics, external aids and various other memory skills, such as imaging and organizational techniques (Fellenz \& Conti, 1993). Instructors may then consider more homework and class activities where memory exercises, creativity and individuality, hands on experimentation and problem solving are enhanced. Simple suggestions like flash cards, a personal dictionary made by the student, and verbal and written repetition are some examples of memory exercises.

Therefore in a class environment any curriculum that includes exercises that would target the preferred characteristics of this group of students would be more efficient.

## Recommendations for Further Research

Recent studies have used the SKILLS method to study other areas like medical, corporate, military and Native American populations (Kolody, p. 139). Each of these studies is congruent with the conclusions related to age, gender and degree earned. The application of the SKILLS test to several types of populations and groups has not resulted in significant differences between groups until this research. Previous studies suggest that learning strategies are similar for students regardless of their races, gender or even culture.

According to Dr. Gary Conti, one of the initial creators of the SKILLS test, there have been several researched populations where this test has been applied, among others,
the military and native Americans. This study would then contribute to a larger purpose of cross-referencing results from different populations.

Further research suggested might include a larger population of Spanish students where the results of this research can be verified. Students for other languages can also be researched with the SKILLS test.

The adjustment of the SKILLS test in order to reflect the student's environment with the usage of typical case scenarios can also be explored further.

The crux of the learning process is the chemistry done by the brain and the body as a whole. To research the chemical process of how the brain stores, retrieves and applies data, and to eventually influence this process, is ultimately one of the biggest challenges of any kind of research related to learning.

## BIBLIOGRAPHY

Apps, J. W. (1979). Problems in Continuing Education. Toronto: McGraw-Hill.
Bauer, W. K. (1981). Strategies for recruiting and retaining the nontraditional student. College Student Journal, 15 (3), 234-238.

Brookfield, S. D. (1985). Self Directed Learning: From Theory to Practice. San Francisco: Jossey-Bass.

Brookfield, S. D. (1987). Developing Critical Thinkers. San Francisco: Jossey-Bass.
Brown, A. L. (1985). Knowing when, where, and how to remember: A problem of metacognition. Advances in instructional psychology. Hillsdale, NJ Erlbaum.

Brown, B. (1992). The History Of Bilingual Education in America. Report.
Charmot, A. U., et al. (1987, 1988). A Study of Learning Strategies in Foreign Language Instruction. Three year report. Interstate Research Associates. Rosslyn, VA

Clijsters, W., \& Verjans, M. (1993). La quadrature du cercle: ¿Comment combler les lacunes dans la competence en langue(s) etrangere (s) du public professionel?.Limbourg, Belgium Report.1-16.

Conti, G. J. (1998). Interview between researcher Sebastian Lantos and Dr. Gary Conti in University Center at Tulsa. Tulsa, Oklahoma, Feburary 19, 1998.

Conti, G. J. (1993). Using discriminant analysis in adult education. Paper presented to the $34^{\text {th }}$ Annual Adult Education Research Conference. Penn State University, Pennsylvania.

Conti, G. J. \& Fellenz, R. A. (1993). Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS): Manual. Center for Adult Learning Research. Bozeman, MT.

Crowther, P. (1991). Involving the community in adult education. National Institute of Adult Continuing Education, 3 (3), 67.

De Corte, E. (1990). Towards powerful leaning environments for the acquisition of problem solving skills. European Journal of Psychology of Education, 5, 5-19.

Fellenz, R. A., \& Conti, G. J. (1989). Learning and Reality: Reflections on Trends in Adult Learning. Columbus, OH: The Ohio State University. (ERIC Clearinghouse on Adult, Career, and Vocational Training, Information Series No 336).

Fellenz,R. \& Conti, G. (1993). Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS): Manual. Bozeman, MT: Center for Adult Learning Research.

Giersche, B. (1995 Business people and foreign language learning. Language learning Journal, 11 (64), 64-66.

Hall, J., \& Bankowska, A. (1994). Foreign languages for vocational purposes in further higher education. Interchange No 25. Scottish Council for Research in Education, p. 6.

Hiemstra, R. (1994). Self-Direction in Adult learning: Perspective on Theory, Research, and Practice (Theory and Practice of Adult Education in North America). Ralph G. Brockett Pub. (13).

Hill, M. (1992). Learning strategies used in real life and achievement of adult Native American tribal college students. Unpublished doctoral dissertation, Montana State University,Bozeman, Montana.

Hofinger J. R., \& Lehman F. R. (1996). Teaching the non-traditional student. Internet. Available from http://fre.www.ecn.purdue.edu/fre/asee/fie95/4d3/4d34/4d34.htm.

Houle, C. O. (1980). Continuing Learning in the Professions. San Francisco, CA: Jossey-Bass.

Izquierdo, I. (1992). ¿Qué es la memoria? Buenos Aires, Argentina: Brevarios de Ciencia Contemporanea.

Keefe, J. W. (1982). Learning style profile: Examiner's Manual. Reston, VA: National Association of Secondary School Principals.

Klecka, W. R. (1990). Discriminant Analysis. Newbury Park: Sage Publications.
Knowles, M. S. (1970). The modern practice of adult education: Androgogy versus Pedagogy. New York, NY: Associated Press.

Kolody, R. C. (1997). Learning Strategies in Alberta College Students. Unpublished doctoral dissertation, Montana State University, Bozeman, Montana.

Korinek, D. (1997). An investigation of learning strategies utilized by air force officers. Unpublished doctoral dissertation, Montana State University, Bozeman, Montana.

Immigration \& Naturalization Service Handbook. (1996). United States Government Publication.

Jarvis, P. (1987). Adult learning in the social context. Boston, MA: Coroom Helm, 79.
Leedy, P. D. (1992). Practical Research Planning and Design. New York: MacMillan.
Lieb, S. (1996). Principles of adult learning. Internet. Available from http://www/ hcc. hawaii.edu/hccinfo /facdev/AdultLearning.html.

Long, H. (1983). Adult learning: Research and Practice. New York: Cambridge.
McKeachie, W. J. (1993). Psychology and adult education. San Francisco: JosseyBass.

Merriam S. B., \& Caffarella, R. S. (1991). Learning in adulthood: A comprehensive guide. San Francisco: Jossey-Bass .

Miller, G. (1987). The magical number seven, plus or minus two: Some limits on our capacity for Processing information. Psychology Review, 63, 81-97.

Morrison T., Conaway W. A., \& Borden G. A. (1991). Kiss, Bow, or Shake Hands. Hoolbrook, MA: Bob Adams.

Mogelonsky, M. (1995). Everybody eats: Supermarket Consumers in the 1990s. New York: Probus Publishing Co.

Norusis, M. J. (1988). SPSS/PC+ V2.O basic manual. Chicago, IL: SPSS Inc.
Pasero, Martin-Sanchez \& Sanchez. (1994). Doing Business in Mexico. Paper presented a business seminar of the law firm Doerner, Stuart, Saunders, Daniel \& Anderson, Tulsa, Oklahoma.

Roberts, L. P. (1993). Taking the "Foreign" out of language and culture study. MiddleSchool Journal. 24 (3) 39-43.

Seaman, D. F., \& Fellenz, R. A. (1989). Effective strategies for teaching adults. Columbus, OH: Merrill Publishing Company.

SKILLS Manual, Center for Adult Learning research. Bozeman, MT: Montana State University.

Smith R. M., et al. (1970). What is androgogy?. Handbook of adult education, 43-55.
Sternberg, R. J. (1986). The triarchic mind. New York: Penguin Books.

Sudermann, D. P. (1993). Out of the Labyrinth: The Role of Foreign Language in General Education. The Journal of General Education, 42 (3), 33-34.

Sudermann, D. P. (1993). Out of the Labyrinth: The Role of Foreign Language in General Education. The Journal of General Education, 42 (3), 149-199

Tough, A. (1971). The adult's learning project. The Ontario Institute for Studies in Education. Toronto: Canada.
U. S. Department of Education, National Center for Education Statistics, "Participation in Adult Education" Unpublished data.

Walls, J. W. (1992). Role and Methods of Language Training programs in Internationalizing Management Education. Journal of Business Administration, 21 (2), 85-94

Weinstein, C. E., Zimmerman, S. A., \& Palmer, D. R. (1988). Assessing learning strategies: The design and development of LASSI. In C. Weinstein, E.Goetz, \& P. Alexander, Learning and study strategies: Issues in assessment, instruction and evaluation. San Diego, CA: Academic Press.

Yussen, S. R. (1985). The role of metacognition in contemporary theories of cognitive development. Metacognition, cognition, and human performance. Orlando, FL: Academic Press.

Zechmesiter, E., \& Nyberg, S. (1982). Human memory: an introduction to research and theory. Monterey, CA: Brooks-Cole.

Zemke, R., \& S. (1984). 30 things we know for sure about Adult Learning. Innovation Abstracts. 6 (8) 30.

## APPENDIXES

## APPENDIX A

ORIGINAL SKILLS TEST

## NATIONAL PARK

You have decided to visit a national park such as Yellowstone or Grand Canyon for a summer vacation. Because of the size of the park, the crowds of people, and the park's numerous attractions, you know that you will have to learn some things about the park before you go. How likely are you to use the following strategies to learn what you need to know in order to prepare for your trip?

Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the Definitely Use box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the Possibly Use box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet.

1. Taking a few minutes to think about how you best locate the materials you will need to plan this trip
2. Setting aside a specific amount of time to collect and review resource materials about the park
3. Gathering some resources such as books, maps, and names of people who have been there
4. Thinking about where you want to stay in order to check if there are accommodations available
5. Thinking about how nice it will be to tell stories about your trip when you return home
6. Analyzing carefully the materials about the park that you have collected by talking to others who have been there
7. Checking periodically to see if there are other things you would like to learn about the park
8. Reassuring yourself that you have been able to plan other trips successfully

9 . Forming a mental image of what would be nice to have in the car as you travel
10. Identifying some people who have been to the park to see if you can learn anything from their experience
11. Starting a list of all the important questions you have about the trip so you will remember to deal with them
12. Thinking about various things to do each day of your trip in case crowds or conditions make you change plans
13. Recalling similar experiences you have had in the out-of-doors to decide what extra supplies you will take along
14. Deciding to stop planning when you think you know enough about the park to have a good trip
15. Drawing up a tentative schedule of events for your trip while realizing that changes may need to be made once you get there

## RECRUITING LEADERS

Your best friend has been asked to help recruit bilingual leaders for a group that is going to investigate the needs of new immigrant's arriving in your community. You have volunteered to help study what good leaders are like and to recruit good bilingual leaders. How likely are you to use the following strategies in learning how to recruit leaders?

Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the Defniteiy Use box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the Possibly Use box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet

1. Asking yourself what specifically needs to be done in your community before identifying the most appropriate leaders

2 Reminding yourself to focus on learning about leadership rather than worrying about being able to talk people into volunteering
3. Calling local organizations in your town to see if they have a community leadership group or program from which you could get ideas

4 Reviewing your decisions to see if friendship for certain people has influenced the suggestions you have made
5. Thinking about how your efforts will help your community have good intercultural relationship
6. Examining closely the qualifications of those suggested as leaders by interviewing several people who have worked with them

7 Reflecting back to see if you are sticking with your learning plan

## LOCAL IIISTORY'

You have gotten a book on the history of the place where you live because you want to be able to tell friends and visitors interesting facts and stories about your town. How likely are you to use the following strategies to learn everything you want to learn and remember about the history of your area?

Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the Definitely Use box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the Possibly Use box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet.

1. Thinking through what kind of stories or facts you want to lcarn
2. Setting aside a specific time when you are going to study local history
3. Checking the computerized catalogue at a library to see if there are other history books on the area
4. Looking for the complete story behind popular interpretations of local history
5. Stopping to think about how nice it will be to have such stories to tell friends and visitors
6. Checking to see if this book and author are trustworthy sources for information about your town
7. Comparing your understanding of how history generally develops with your local history to determine what you need to learn
8. Stopping to reassure yourself that you can find plenty of interesting facts about your town
9. Painting a mental picture of the area as a setting for the story you want to remember
10. Discussing your ideas with people who have lived a long time in the area to see if their insights are different from what you are learning
11. Jotting down notes about the major points you want to remember
12. Asking yourself whether you have stories that would be of interest to the various types of visitors you expect
13. Remembering what it might have been like to live in your area at the turn of the century to check if these stories have been glorified over time
14. Deciding when the information you have gathered is adequate for telling interesting stories
15. Accepting the author's account of many past events but contmuing to look for information that may better explain interpretations given by the author

## BURIAL CUSTOMS

Funeral arrangements are being made for your best friend's father. You want to attend the funcral services. Because your friend is of a distinctively different culture, you are afraid you will not know how to act and thus will offend your friend's family. How likely are you to use the following strategies in learning that you need to know about this friend's customs related to death and burial?

Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the Definitely Use box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the Possibly Use box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet.

1. Thinking about what might interfere with your attempts to learn about the customs of other people
2. Resolving to study about your friend's buria! customs because you want to be of help
3. Calling those arranging the burial to see if they can offer some advice on appropriate cultural practices
4. Determining whether the funeral practices that you are familiar with are appropriate for your friend's culture
5. Recognizing that you will need to learn about these funeral customs to bring comfort to your friend
6. Checking the behavior you decide is appropriate with a person knowledgeable about your friend's culture
7. Reviewing your learning progress to see if your plans for learning are working
8. Feeling confident that you can learn enough in the next few days to understand your friend's burial customs
9. Thinking through what you will do at the funeral so you will not fall into old habits
10. Asking other friends whether they have had any experience with burial customs in this or other cultures
11. Jotting down any unfamiliar names or customs so you can refer to them when paying your respects
12. Thinking of other ways you can pay your respects to your friend's family
13. Recalling other things you know about the customs of your friend's family to see if what you are learning fits in
14. Revising your plan for learning if you feel you are not gaining insight into that culture's burial customs
15. Testing out in your mind different practices to see if they are appropriate

## APPENDIX B

DEMOGRAPHIC AND SPANISH SKILL TEST

## Learning Strategies <br> and Learning Spanish

Directions: Please answer the following questions about your background and about items related to this Spanish class. Then complete your responses to the four learning strategy situations. Please note that in order to receive your learning strategy scores, you must provide your social security number so that we can locate you with those scores.

Gender: __ Female __Male
Age: $\qquad$
Highest degree earned:
High School
Associate Degree
__Bachelor's Degree
__Graduate Degree

1. In terms of preferences, please rate the following activities from 1 to 4 using the following scale:

1: Very interesting, most preierred.
2: Somewhat interesting.
3: Mildly interesting.
4: Not interesting, less preferred.
$\qquad$ Games
_Grammar drills
Lecture by teacher
Group exercises
Homework
Other $\qquad$
---Please Also Complete Other Side-.-
5. Please check the MAIN reason you are learning Spanish:
__Business related
Mainly for tourism purposes
Cultural activity, socializing, meet people
__Communicate better with relatives, family, or friends
Other $\qquad$

Thank you for your help. In order for us to provide you feedback on your personal learning strategy scores, please provide the following information:

Campus $\qquad$
Course $\qquad$
Social Security Number:


## SUMMER VACATION

You have decided to visit Buenos Aires, Argentina for a summer vacation. Because of the size of the city, the crowds of people, and the city's numerous attractions, you know that you will have to learn some things about Buenos Aires before you go. How likely are you to use the following strategies to learn what you need to know in order to prepare for your trip?

Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the Definitely Use box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the Possibly Use box of the answer sheet. Select S other strategies that you would least likely use and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet.

1. Taking a few minutes to think about how you best locate the materials you will need to plan
2. Setting aside a specific amount of time to collect and review resource materials about Buenos Aires experience
3. Gathering some resources such as books, maps, and names of people who have been there
4. Thinking about where you want to stay in order to check if there are accommodations available
5. Thinking about how nice it will be to tell stories about your trip when you return home
6. Analyzing carefully the materials about Buenos Aires that you have collected
7. Checking periodically to see if there are other things you would like to learn about Buenos Aires
8. Reassuring yourself that you have been able to plan other trips successfully
9. Forming a mental image of what would be nice to have in the airplane and on the tours as you travel this trip
10. Identifying some people who have been to Buenos Aires to see if you can learn anything from their
11. Starting a list of all the important questions you have about the trip so you will remember to deal with them
12. Thinking about various things to do each day of your trip in case crowds or conditions make you change plans
13. Recalling similar experiences you have had in the other cities by talking to others who have been there
14. Deciding to stop planning when you think you know enough about Buenos Aires to have a good trip
15. Drawing up a tentative schedule of events for your trip while realizing that changes may need to be made once you get there

## RECRUITING BILINGUAL LEADERS

Your best friend has been asked to help recruit bilingual leaders for a group that is going to investigate the needs of new immigrants arriving in your community. You have volunteered to help study what good leaders are like and to recruit good bilingual leaders. How likely are you to use the following strategies In learning how to recruit leaders?

Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the Definitely Use box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the Possibly Use box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet.

1. Asking yourself what specifically needs to be done in your community before identifying the most appropriate leaders
2. Reminding yourself to focus on learning about leadership rather than worrying about being able to talk people into volunteering
3. Calling local organizations in your town to see if they have a community leadership group or program from which you could get ideas
4. Reviewing your decisions to see if friendship for certain pcople has influenced the suggestions you have made
5. Thinking about how your efforts will help your community have good intercultural relationship
6. Examining closely the qualifications of those suggested as leaders by interviewing several people who have worked with them
7. Reflecting back to see if you are sticking with your learning plan
8. Feeling confident you will be able to convince those you identify as good leaders to volunteer their services
9. Making up a word or phrase to remind yourself of the things you want to ask potential leaders
10. Talking with community leaders to test out your opinions on the qualities of a good leader
11. Using a notebook or note cards to keep track of ideas that you want to remember
12. Thinking of various possible ways of recruiting good leaders
13. Recalling similar experiences you have had in selecting leaders so you can remember what worked best
14. Asking yourself if there are any traits of good leaders about which you are still confused
15. Thinking through what could be done if those who are selected turn out to be poor leaders

## LOCAL HISTORY OF TULSA

You have gotten a book on the history of Tulsa because you want to be able to tell friends and visitors from Venezuela interesting facts and stories about your town. How likely are you to use the following strategies to learn everything you want to learn and remember about the history of your area?

Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the Definitely Use box on the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the Possibly Use box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet.

1. Thinking through what kind of stories or facts you want to learn
2. Setting aside a specific time when you are going to study the local history of Tulsa
3. Checking the computerized catalogue at a library to see if there are other history books on Tulsa
4. Looking for the complete story behind popular interpretations of Tulsa's local history
5. Stopping to think about how nice it will be to have such stories to tell friends and visitors
6. Checking to see if this book and author are trustworthy sources for information about Tulsa
7. Comparing your understanding of how history generaily develops with Tulsa's local history to determine what you need to learn
8. Stopping to reassure yourself that you can find plenty of interesting facts about Tulsa
9. Painting a mental picture of the area as a setting for the story you want to remember
10. Discussing your ideas with people who have lived a long time in the Tulsa area to see if their in-sights are different from what you are learning
11. Jotting down notes about the major points you want to remember
12. Asking yourself whether you have stories that would be of interest to the various types of visitors you expect
13. Remembering what it might have been like to live in the Tulsa area at the turn of the century to check if these stories have been glorified over time
14. Deciding when the information you have gathered is adequate for telling interesting stories
15. Accepting the authors account of many past events but continuing to look for information that may better explain interpretations given by the author

## BURIAL CUSTOMS

Funeral arrangements are being made for your best friend's father. You want to attend the funeral services. Because your friend is of a distinctively different culture, you are afraid you will not know how to act and thus will offend your friend's family. How likely are you to use the following strategies in learning what you need to know about this friend's customs related to death and burial?

Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the Definitely Use box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the Possibly Use box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet.

1. Thinking about what might interfere with your attempts to learn about the customs of other people
2. Resolving to study about your friend's burial customs because you want to be of help
3. Calling those arranging the burial to see if they can offer some advice on appropriate cultural practices
4. Determining whether the funeral practices that you are familiar with are appropriate for your friend's culture
5. Recognizing that you will need to learn about these funeral customs to bring comfort to your friend
6. Checking the behavior you decide is appropriate with a person knowledgeable about your friend's culture
7. Reviewing your learning progress to see if your plans for learning are working
8. Feeling confident that you can learn enough in the next few days to understand your friend's burial customs
9. Thinking through what you will do at the funeral so you will not fall into old habits
10. Asking other friends whether they have had any experience with burial customs in this or other cultures
11. Jotting down any unfamiliar names or customs so you can refer to them when paying your respects
12. Thinking of other ways you can pay your respects to your friend's family
13. Recalling other things you know about the customs of your friend's family to see if what you are learning fits in
14. Revising your plan for learning if you feel you are not gaining insight into that culture's burial customs
15. Testing out in your mand different practices to see if they are appropriate

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## Answer Sheet for Learning Strategies Survey

Directions: For each scene, select the 5 learning strategies that you would Definitely Use, 5 that you might Possibly Use, and 5 that you would Not Likely Use. Enter the number for each of these 5 items in the proper box below.

| Summer Vacation | Recruiting BiLingual Leaders | Local History | Burial <br> Customs |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Definitely } \\ & \text { Use } \end{aligned}$ | Definitely Use | Definitely Use | Dcfinitely Use |
|  |  |  |  |
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| Possibly Use | Possibly Use | Possibly Use | Possibly Usc |
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| Not Likcly Use | Not Likely Usc | Not Likcly Use | Not Likely Use |
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## APPENDIX C

SUBJECT CONSENT FORM

## CONSENT FORM

J, $\qquad$ , hereby agree to participate in the research project regarding the learning strategies of adults learning Spanish for multiple purposes. I understand the research is part of a graduate research project. To maintain confidentiality, all information obtained in the process will be reported in aggregate and/or by code. No specilic reference to my identify nor to that of the organization for whom I work will be made at any time. All records of this interview will be kept exclusively by the researcher under lock and key. After the researeh has been concluded and the report approved, all records will be destroyed.

This is done as part of an investigation entitled "Determining the Learning Strategies of Adults Learning Spanish for Multiple Purposes".

The purpose of the procedure is to gather insightul information regarding particular learning strategies that adults use when learning a foreign language. This information will then serve as survey data to reach meaningful lindings, conclusions and recommendations for those involved in the teaching of a foreign language to adults.

I understand that participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time without penalty after notifying the project director. I may contact Mr. Sabastian Lantos at telephone number (918) 481-1465. 1 may also contact Gay Clarkson, IRB Executive Secretary, 305 Whitchurst, Oklahoma State University, Stillwater, OK 74078; telephone (405) 744-5700).

I have read and fully understand the consent form. I sign it frecly and voluntarily. A copy has been given to me.

Date: $\qquad$ Time: $\qquad$ (a.m./p.m.)

Signed:
(Signature of Subject)

I certify that I have personally explained all elements of this form to the subject or his/her representative before requesting the subject or his/her representative to sign it.

Signed:
(project director or his/her authorized representative)

## APPENDIX D

INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD HUMAN SUBJECTS REVIEW

Date: 04-09-98
IR \#: ED-98-106
Proposal Title: DETERMINING THE LEARNING STRATEGIES OF ADULTS LEARNING SPANISH FOR MULTIPLE PURPOSES

Principal Investigators): Rey Martinez, Sebastian Lantos
Reviewed and Processed as: Expedited
Approval Status Recommended by Reviewers): Approved
ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL. REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

cc: Sebastian Lantos

VITA
Sebastian Lantos
Candidate for the Degree of
Master of Science

## Thesis: DETERMINING THE LEARNING STRATEGIES OF ADULTS LEARNING SPANISH FOR MULTIPLE PURPOSES

Major Field: Occupational and Adult Education

## Biographical:

Personal Data: Born in Buenos Aires, Argentina, on August 26, 1958, the son of Dr. Charles Peter Lantos and Norah Maria Irene De Nuncio.

Education: Graduated from St. John's School, Buenos Aires, Argentina in November, 1976; received Bachelor of Arts degree in Sociology from Langston University, Tulsa, in November, 1995; completed requirements for the Master of Science degree at Oklahoma State University, July, 1998.

Professional Experience: Owner, Sebastian Lantos Limited Liability Corporation; Language Consultants.

Professional Membership: Confederation of Hispanic Organizations, Tulsa; Hispanic Foundation, Tulsa; and Tulsa International Alliance.


[^0]:    ${ }^{1}$ RM: Resource Management; CT: Critical Thinking; MC: Metacognition; M: Memory; MO: Metamotivation

