THE EFFECTIVENESS OF THE
THEMATIC UNIT PROCESS IN A SECONDARY, MULTILEVEL,
MULTILINGUAL ENGLISH AS A SECOND LANGUAGE PROGRAM

by

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THE EFFECTIVENESS OF THE THEMATIC UNIT PROCESS IN A SECONDARY, MULTILINGUAL, MULTILEVEL ENGLISH AS A SECOND LANGUAGE PROGRAM

The purpose of this study was to examine the effectiveness of the thematic instruction approach in a secondary, multilevel, multilingual English as a Second Language (ESL) classroom. The effectiveness of the approach was measured by the comparison of reading comprehension scores of fourteen students enrolled in a secondary, multilevel, multilingual ESL class.

The reading comprehension skills of the ESL students were assessed using the reading comprehension portion of the California Achievement Test (CAT) and the Test of Academic Proficiency (TAP) in December, 1996. The students' essential skills in reading were also assessed using the district published versions of the appropriate grade level Arizona Student Assessment.

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ABSTRACT

The purpose of this study was to examine the effectiveness of the thematic instruction approach in a secondary, multilevel, multilingual English as a Second Language (ESL) classroom. The effectiveness of the approach was measured by the comparison of reading comprehension scores of fourteen students enrolled in a secondary, multilevel, multilingual ESL class.

The reading comprehension skills of the ESL students were assessed using the reading comprehension portion of the California Achievement Test (CAT) and the Test of Academic Proficiency (TAP) in December, 1996. The students' essential skills in reading were also assessed using the district mandated versions of the appropriate grade level Arizona Student Assessment Program (ASAP). From January, 1997, to May, 1997, students received ESL instruction in thematic units. Students were then retested with the same instruments in May, 1997. The raw scores of the tests were examined and compared. The written responses from the reading ASAP were informally evaluated as well.

The scores of the CAT showed overall improvement, while those of the TAP showed an overall decline. The results of the ASAP, in general, showed improvement or no change. An informal assessment of the written responses on the reading ASAP showed improvement in verb tenses and sentence structure. There appeared to be no correlation between the reading comprehension scores and the thematic instruction approach. This researcher recommended further study.
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CHAPTER 1

THE PROBLEM

Introduction

The education of students in the United States whose first language is not English is not a new phenomenon. In colonial times English, more often than not, was not the native language of the students. According to historian Heinz Kloss, “more than 600,000 American children (or about 4 percent of the elementary school population at the time, public and parochial) were receiving instruction partly or exclusively in the German language” (cited in Crawford 1991, 20). Other languages, such as Swedish, Norwegian, and Irish were also prominent. Not surprisingly, as the colonies moved towards unification, a conflict between culturalism and nationalism emerged. During the 1870's, William Torrey Harris, superintendent of St. Louis schools, believed that “the schools must ‘Americanize’ language-minority children” but at the same time preached “cultural tolerance, arguing that ‘national memories and aspirations, family traditions, customs and habits, moral and religious observances cannot be suddenly removed or changed without disastrously weakening the personality’” (cited in Crawford 1989, 21). Bilingual instruction, that is instructing students in both their first language and in the second language (for the purposes of this paper, English), seemed the most effective way to maintain a student’s culture and, at the same time, prepare him to become a part of a new, developing nation. Yet by the 1930’s bilingual instruction was “virtually
eradicated throughout the United States” (Crawford 1989, 24). Political and economic forces, in the name of nationalism, fostered the idea of an English only society, and immigrants who did not learn English were not accepted into American society. “In 1915 the National Americanization Committee launched an ‘English First’ project in Detroit . . . Employers like Henry Ford made attendance at Americanization classes mandatory for their foreign-born workers” (Crawford 1989, 22). New immigrants were sent to school without English proficiency and expected to sink or swim.

The renewal of bilingual education came as a result of Cuban refugees who fled to Miami in 1959. In response to this sudden influx of non-English speaking students, the Dade County Public Schools sought to provide students with an appropriate and meaningful education. It provided English as a Second Language (ESL) instruction, Spanish-for-Spanish-speakers courses, and bilingual education (BLE) for both native and non-native speakers. “It was anything but a compensatory program: the objective was fluent bilingualism for both” (Crawford 1989, 28) English and Spanish speakers.

Since that time, the issue of how best to service students whose first language is not English has grown from a gracious gesture to a hotly debated, legal mandate. The Lau Regulations of 1980, a result of inequitable education for non-native speakers in Los Angeles, required “bilingual education [to] be mandated in schools where at least twenty-five Limited English Proficient (LEP) children of the same minority language group were enrolled in two consecutive elementary grades (K through 8)” (Crawford 1989, 42). In Fairfax County, Virginia, where officials were faced with students representing fifty language groups, administrators argued that bilingual programs were impractical and ineffective. ESL programs, programs which utilized specialized second
language learning strategies in classes taught in English, gained prominence, and often preference, nationwide. In Fairfax, federal officials approved the use of intensive ESL programs instead of bilingual programs. "ESL, a necessary component of bilingual education, was now popularized as a promising 'alternative method'" (Crawford 1989, 42) to bilingual programs. It is the multilingual, multilevel ESL settings, similar to those of Fairfax on which this research focused.

Development of the Problem

The Paradise Valley Unified School District, in northeast Phoenix, is currently faced with a situation similar to that of Fairfax County. Of the 32,035 students enrolled in Paradise Valley in 1995, 4% did not speak English as a first language (PVUSD Student Enrollment Statistics 1996). Only recently has Paradise Valley begun to experience a growing number of non-native speakers.

The growth in the district is neither proportionate among all schools, nor among all languages. Specifically at the high school level, the number of ESL students and the diversity of language varies greatly from school to school. For example, North Canyon High School currently enrolls 136 ESL students (close to 10% of its total student population), 95% of whom speak Spanish as a first language. They are enrolled in sheltered classes geared towards their level of proficiency and focused on content as well as language (PVUSD Student Enrollment Statistics 1996). On the other hand, Horizon High School enrolls only fourteen students in ESL, less than 1% out of a total population of 2773 (PVUSD Student Enrollment Statistics 1996). However, these fourteen students come from eleven different countries and speak ten different languages. Some students have had English education in their home country, others have not.
Some have attended school on a regular basis, others have not. While the students at North Canyon are offered courses tailored to their proficiency in English, the students of Horizon meet together as one group for two hours a day, and they are in mainstreamed classes the rest of the day. The researcher, who is the ESL teacher at Horizon High School, faces the problem of how to best serve such a diverse group.

Methods and strategies which are most effective in teaching second language learners in a single level, monolingual setting, have been the focus of controversy, research and debate. The problem this researcher faced was how best to teach non-native English speakers in a secondary, multilevel, multilingual setting. According to Babbitt (1996), in order to provide a successful learning program, effective second language acquisition teaching techniques and strategies need to be identified. Reading comprehension is a key to success in all subject areas and therefore should be a strong focus of second language learning. Because of the varied levels of native language fluency, second language fluency, cultural backgrounds, ages, and exposure to formal education, a strategy for improving reading comprehension includes group learning, which encourages students to learn from one another, as well as from the teacher.

The current issues and subsequent controversies surrounding the teaching of English as a Second language date back to August 11, 1975, when United States Commissioner Terrel Bell announced guidelines which were to help specify the earlier, but somewhat general guidelines, resulting from the Supreme court decision in Lau vs. Nichols. While the Lau case fell short of mandating bilingual education it did declare that non-native speaking children “were entitled to special assistance to enable them to participate equally in the
school program. . . . Sink or swim was no longer acceptable" (Crawford 1991, 36). The Lau remedies identified English as a Second Language as a necessary component of bilingual instruction at the elementary level but said that alone "an ESL program is not appropriate" (Crawford 1991, 37). However, at the secondary level, it was agreed that such "compensatory instruction would usually be permissible" (Crawford 1991, 37). That decision has left high schools with the flexibility to develop their own ESL programs as they see fit and to employ a variety of methodologies with varying levels of success. The variations may have as much to do with the make up of the classroom as with the methods themselves.

In a secondary, multilevel, multilingual setting, methods which are student-centered, as opposed to teacher-centered, tend to be more successful. According to Russian psychologist, Lev Vgotsky, "the personal activity of the student must be placed at the base of the educative process" (Davydov 1995, 17). Therefore, a successful strategy for teaching reading will reflect processes which involve students at a very basic level. "Reading is much more than decoding symbols on a piece of paper. It is the interrelationship between a reader and a writer involving personalities, experiences, and effect" (Transacting n.d., 42).

English as a Second Language methodology was originally developed in order to teach English to foreign diplomats and university students. These learners were fluent in their first language, were greatly motivated to learn a second language, and were able to continue content studies in their native language. Later, this ESL methodology was incorporated as a component of bilingual education and used with students in transition between the bilingual and the mainstream settings. Like the diplomats and university students, these
students continued to receive some instruction and reinforcement in their native language. More recently, ESL has been used as an alternative method to bilingual education. Delivery may include pull-out programs, full-time sheltered classes, or just one or two ESL classes per day, but instruction is delivered in English, with no effort to maintain the first language. Yet, first language literacy plays an important role in the success of an ESL student. A six-year study by Collier and Thomas showed the ESL method of instruction worked better with 8-11 year olds rather than younger or older students because the 8-11 year olds had been able to achieve some first language literacy prior to immigrating (Crawford 1989, 123). This phenomenon has been attributed to the quicker pace and higher cognitive demands of the upper grades. In mathematics achievement, newly arrived 8th graders scored consistently above the 50th percentile, reflecting the transfer of skills back home...[but] over the next three to four years - the time it took these students to acquire English - they slipped steadily behind. (Crawford 1989, 123).

What then will foster successful improvement in reading comprehension in high school students if ESL is the only program available?

A successful reading program will apply the research of the last twenty years which has focused on the theory of how one acquires language and then how to effectively apply that theory in the classroom. Certain theories have been key in developing second language learning methods. Language need not be taught in isolation of other content. Meaningful messages in the second language regarding geography or biology are as much language learning as are messages about literature. Furthermore, research indicates that language is learned in particular orders. Krashen’s Natural Order Hypothesis “postulates that students...who are exposed to language will acquire grammatical features in a relatively fixed and predictable order” (cited in Cross 1985, 76). Thus,
methodologies will include ordered structures. Jim Cummins’ interdependence hypothesis “predicts that a child who has mastered the basics of reading and thinking in the first language will perform well on entering a second language environment” (cited in Crawford 1989, 106). Therefore, continued study of the first language should be encouraged and, especially in a multilevel, multilingual setting, be used to enhance the second language learning. An approach for a secondary, multilevel, multilingual classroom would have to consider the order of language acquisition and provide sufficient, meaningful and comprehensible input.

**Need for the Study**

In order for second language learners to be successful in acquiring English, and therefore successful in their content area, instructors must identify the most effective teaching methods, specifically in the reading discipline. The Paradise Valley Unified School District has a growing population of non-native speakers. Students at the high school level are currently serviced in an ESL setting; however, the very general guidelines set down by Lau have allowed the particulars of the programs to vary from school to school. Schools with a large ESL population are able to provide day-long, sheltered classes and therefore, are able to offer one-on-one assistance with language acquisition and academic content. Other schools, with fewer students, are more limited in the number and types of course offerings. Instead these schools may offer pull-out programs or only one or two ESL courses and place students in mainstreamed classes the rest of the day.

**Purpose of This Study**

The purpose of this study was to examine the effectiveness of the thematic unit teaching strategy in a secondary, multilevel, multilingual ESL
At Horizon High School, ESL students are enrolled in a two-hour ESL English-reading block. The purpose of this block is to help students acquire English and improve reading comprehension as quickly and as effectively as possible. The students are in mainstream classes the rest of the day, with little content assistance outside of the ESL classroom. Therefore, methods employing content, language acquisition, and reading strategies are favored. The fourteen students enrolled for the 1996-97 school year range in age from 14-19, represent eleven different countries, speak ten different languages, and range in fluency from non-English proficient to almost fluent. An additional challenge lies in the fact that their native language fluency also varies. Instructors in this multilingual, multilevel setting search for the methods which most effectively promote reading comprehension. Research indicates that “a whole language approach gives developing readers the framework they need to achieve high levels of comprehension and competence with reading” (Transacting n.d., 43). In addition, reading comprehension is tied to the possession of sound reading strategies because limited language abilities seriously limit the student's ability to transfer knowledge and skills from his native language to the second language (Kember and Gow 1994). A student may have effective reading strategies in his/her native language, but be unable to employ them in the second language; therefore, the effectiveness for teaching reading should be accounted for.

Purpose of This Study

The purpose of this study was to examine the effectiveness of the thematic unit teaching strategy in a secondary, multilevel, multilingual ESL setting as measured by changes in reading comprehension scores.
Research Question

Is the thematic unit process an effective teaching strategy in a secondary, multilevel, multilingual setting as measured by changes in reading comprehension scores for ESL students at Horizon High School?

Definition of Terms

BICS : Basic Interpersonal Communication Strategies (surface knowledge of language.

CALPS : Cognitive Academic Language Proficiency Strategy (ability to operate academically in the second language)

ELL : English Language Learner

L1 : primary language

L2 : second language

Multilevel : academic setting in which students have varying degrees of proficiency in the second language

Multilingual : academic setting in which students have a diversity of native languages
CHAPTER 2
LITERATURE REVIEW

Introduction

In order to determine the effectiveness of thematic instruction in terms of reading comprehension, it was necessary to examine the ways in which language is acquired. Current research on both first and second language acquisition was reviewed because this process is the foundation for the methodology being evaluated. Current literature on thematic instruction and related strategies which promote second language acquisition and reading comprehension was also reviewed in order to identify a strategy to measure the change in reading comprehension scores.

Theories of Language Acquisition

According to Lazear (1991) "there may be no more formative event in our species' long journey to human development than the emergence of language" (1). Language allows one to think, evaluate, problem solve, communicate and create new situations in one's life. Theories of language learning developed over the last thirty years have gone from seeing the brain as a sponge into which language is poured to the understanding of language as an innate, predictable, and necessary part of one's human development.
Stages in language acquisition. In a 1992 review of the Ramirez report, Cummins notes that there are very different time periods required for second language learners “to attain peer-appropriate levels in conversational skills in English . . . as compared to academic skills” (95). That time difference may be anywhere from four to nine years, during which various levels of language learning and acquisition occur. According to Krashen (cited in Amato 1988, 332), there are two levels of language learning: surface knowledge (learning) and acquisition. Zobl (1995) says that learning which relies on memorization and problem solving leads to explicit, conscious knowledge about the second language; acquisition operates incidentally to learning and results in implicit, intuitive (proficient) knowledge of the second language (35). Furthermore, “learned language has a relatively restricted function, serving only to edit what has been written or what will, after due hesitation, be said” (Cross 1985, 75). Therefore, learned language is the ability to construct verbal and written word on a conscious level, while acquired language is the ability to think and function on an unconscious level. Although a second language learner may appear to communicate quite well, true language acquisition, the unconscious and intuitive use of the second language, may take as long as nine years and will follow a predetermined learning process. Learned language is the immediate need, while acquired language is the ultimate goal.

Noam Chomsky (1988), a major contributor to the field of applied linguistics, asserts that humans are genetically programmed to learn language, and he also claims that “we are designed to learn languages based upon a common set of principles, which we may call universal grammar” (287). This universal grammar is defined as “the inherited genetic endowment that makes it possible for us to speak and learn human languages” (Chomsky 1988, 287).
Typically, first language learners acquire simple grammatical structures first, building upon these with general rules, and then later applying rule exceptions. Recent research shows these same principles apply to second language learners as well, that "UG [universal grammar] is in fact...available to second language learners and that their resulting grammar is shaped by its principles" (Larsen-Freeman 1991, 324). Krashen's Natural Order Hypothesis "postulates that students...who are exposed to language will acquire grammatical features in a relatively fixed and predictable order" (cited in Cross 1985, 76). Effective second language instruction should then follow an orderly and sequential process and account for both language learning and language acquisition because "natural speech itself is arranged sequentially in highly predictable ways" (Amato 1988, 45).

**Language acquisition device.** According to Chomsky, there is an "unconscious mechanism that makes(s) human speech possible" and that "a genetically programmed language organ in the brain [primes] the human infant to master the intricacies of the mother tongue" (Chomsky 1988). This language organ, know as the language acquisition device, exists in all humans, making language learning automatic and inevitable.

**Theory of language proficiency.** According to Cummins (cited in Amato 1982, 382), language proficiency can be viewed from two perspectives. The first is a surface level proficiency used for basic communication between individuals. This Basic Interpersonal Communication Strategy (BICS) is the first to develop and may do so in as quickly as one year. Known as social language, its purpose is to foster interaction within social settings. The deeper proficiency known as Cognitive Academic Language Proficiency (CALP) takes longer to develop, anywhere from five to nine years. The slow development of these
skills is what often causes a discrepancy between how well students can communicate and their academic success.

The cognitive demands of the tasks for which academic language is used, and the fact that academic language is frequently not supported by the rich array of non-verbal and contextual clues that characterize the language of face-to-face interaction, make academic language more difficult to learn. (Cummins cited in Chamot and O'Malley 1994, 7)

**Cognitive learning theory.** The cognitive model of learning describes learning as an active process in which the learner selects information from the environment, organizes the information, draws on prior knowledge to help understand the information, retains what is deemed important, uses the information in appropriate contexts, and reflects on the success of his learning efforts (Chamot and O'Malley 1994, 13).

**Methods for Teaching the Reading Process**

**Thematic units.** Thematic units are an integration of language learning activities with subject area activities. "A thematic approach to learning combines structured, sequential, and well-organized strategies, activities, children's literature, and materials used to expand a certain concept . . . is responsive to the interests, abilities, and needs of children . . . [and] offers a realistic arena in which the student can pursue learning using a host of contents and a panorama of literature" (Thematic approach, 6). Students explore themes of their choosing, explore related topics, all the while acquiring language.

Thematic units foster second language acquisition because they rely on the student's prior knowledge, provide comprehensible and meaningful input, and lower the student's affective filter. Furthermore, in a multilevel, multilingual
setting, thematic units allow for participation of all students, regardless of L2 proficiency. While there are various ways in which to structure a thematic unit, generally the following will be true: students will help to choose a theme based on their personal interests, the class will brainstorm what is known about the topic and what information they hope to learn and students will participate in choosing activities and evaluations for the unit (Thematic Approach, 6).

Snow, Met, and Genesee (1989) explore four rationales for the integration of language and content instruction. The first is “for young children, cognitive development and language development go hand in hand; language is a tool through which the child comes to understand the world” (Snow, Met, and Genesee 1089, 27). Thematic units allow ESL students to learn language and content matter simultaneously. The second rationale for the integration of language and content instruction is that “... language is learned most effectively in meaningful, purposeful social contexts” (Snow, Met, and Genesee 1989, 28). According to Cummins (1984), “The more initial reading and writing instruction can be embedded in a meaningful communicative context ... the more successful it is likely to be” (Cummins 1984, 21). The more the teacher can use subject matter to teach language, the more successful the student will be in acquiring language. Furthermore, “The more context-embedded the initial L2 input, the more comprehensible it is likely to be, and paradoxically, the more successful in ultimately developing L2 skills in context-reduced situation” (21), so that by keeping the information meaningful and comprehensible in the classroom, students are able to handle less comprehensible situations outside the classroom. Thematic units, by design, require use of the student’s prior knowledge.
The third rational for the integration of language and content area according to Snow, Met, and Genesee (1989), is that “... the integration of content with language instruction provides a substantive basis for language teaching and learning” (28). If the content is meaningful, students will be motivated to learn the language in order to access the information.

Finally, the integration of a language and content recognizes the difference between language used for communication purposes and content area terminology. Content area language is taught in order to make the subject matter comprehensible. Accordingly, “... an integrated approach ensures that language skills learned in the ESL class will be useful and usable in content classes, since it effectively obviates the need for transfer” (Snow, Met, and Genesee 1989, 36).

One advantage of the thematic approach is that it fosters cooperative learning among the students. “There is less emphasis on the competitiveness of learning and more on learning as a cooperative venture of sharing, discussion and mutual purpose” (Thematic Approach, 8). Additionally, “the integrative approach is particularly successful with LEP learners... any strategy based on dissecting language into mutually exclusive components jeopardizes second language acquisition by not drawing on prior knowledge and strengths of the learner” (Bermudez, T26).

Blanton (1992) also supports the idea of using a thematic approach in ESL teaching. She notes the advantage of integrating language and content over a skills approach. “The skills model is inadequate for a number of reasons: it deprives students of the linguistic and intellectual immersion necessary for language acquisition and cognitive development to take place, and it particularly hampers refugee and immigrant students... from developing...
the deep literacy on which their academic success depends” (285). While her focus is more on the ESL college students, there are strong implications for the secondary level as well. Most secondary and college ESL students study English as a means to an end, specifically as a way to access content information (Mohan 1986). According to Krashen (1981) it is that focus on subject matter which promotes language acquisition (cited in Blanton 1992, 288). Therefore, “as a minimum, students need to work with complete texts as opposed to disconnected paragraphs and unrelated exercises; as a maximum, these texts need to be thematically or topically connected” (cited in Blanton 1992, 288). In the whole language approach “students to become knowledgeable about something; and as their knowledge grows, vocabulary and linguistic forms grow with it” (Blanton 1992, 291). A whole language approach also shifts the focus from the text to the reader and the reader begins to make connections between himself and the text and develop his own ideas about reading (Blanton 1992).

**Cooperative learning.** According to Cohen and Kagan (1986) Observers and critics of education have long noted that competitive classroom environments do not promote learning for all students equally; where only those perceived as most academically able consistently meet traditional achievement goals and, thus, further confirm their own sense of competence, other students may... lose interest and withdraw from the intellectual exchange in the classroom. (cited in Amato 1992, 58)

Students learn when they feel successful and confident that they are able to meet the expectations of the classroom. The confidence results from successful interaction with both the material and other students.

The students in a multilevel, multilingual class are painfully aware of ability differences. While the goal is to learn English, “competitive learning
approaches run the further risk of rewarding mainly those students who know English best” (cited in Amato 1992, 59). “Cooperative learning strategies significantly improve students’ achievement and productivity for a wide range of subjects and grade levels. This approach also improves self esteem and respect for others” (Bermudez, T26). The use of cooperative learning methods in a multilingual classroom offer the same advantages found in linguistically homogeneous settings, namely they increase... student exposure to and practice of relevant skills; improve interaction and language development; increase feasibility of use in several content areas; provide greater possibilities for task variety, and improve affective relationships for all in the classroom. (McGroarty 1989, 59)

Horowitz (1986) found that cooperative groups not only benefited multilingual settings, but that cooperative learning models also follow current second language instruction trends (cited in Amato 1992, 61).

McGroarty (1989) cites six benefits of cooperative learning in multicultural settings. The first is “cooperative learning as exemplified in small-group work provides frequent opportunity for natural L2 practice and negotiation of meaning through talk” (cited in Amato 1992, 61). This idea supports Terrell's natural approach the foundation of which is that the purpose of language is to communicate meanings and messages (cited in Richards 1993, 129). The second benefit of cooperative learning is that it can help students draw on prior knowledge and first language resources as they develop second language skills” (McGroarty 1989, 62). In groups, students are encouraged to communicate to one another in whatever language works best. In this way, cooperative learning also helps to maintain and validate native languages. Other benefits include the opportunity to incorporate content areas into
language instruction, the use of a variety of activities and materials, redefinition of the role of the teacher, and the need for students to become active learners.

All in all, the strong general agreement show in disparate research settings indicates that cooperative language learning facilitates functional L2 proficiency, does not retard formal mastery of the language, allows for creative integration of primary language skills, content areas, and materials, and give teachers and students experience with new roles that enhance social climate as well as linguistic skills. (McGroarty 1989, 68)

Cognitive academic language learning approach (CALLA).

Thematic units and cooperative groups are included as strategies in the CALLA model. CALLA, as designed by Chamot and O’Malley “fosters the achievement of ELL students by integrating content-area instruction with language developments and explicit instruction in learning strategies” (Chamot and O’Malley 1996, 262). Furthermore, “the model incorporates what current research and practice identifies as effective instruction for all students, and is therefore a practical approach that subject matter teachers with mixed classes of native and non-native English speakers can adopt” (Chamot 1991,12). A multilingual, multilevel classroom fits such a description.

The model is based on the cognitive learning theory, which describes the learner in terms of active mental processing.

Learners select information from the environment, organize that information, relate it to what they already know, retain what they consider to be important, use the information in appropriate contexts, and reflect on the success of their learning efforts. (Chamot and O’Malley 1996, 262)

A second theory on which the CALLA model is based is Bandura’s theory of motivation. “In this theory, motivation is described in terms of the value that learners place on a task, their expectations for success in performing the task,
and the extent to which they attribute responsibility for learning to internal rather than external sources” (Chamot and O’Malley 1996, 263). The CALLA model and thematic units provide such value to students because they recognize their academic success balances on content. The content itself is often interesting and intrinsically motivates the students (Chamot and O’Malley 1996, 263). In a multilevel, multilingual class, beginners often feel intimidated by the more advanced students. Although CALLA is aimed at the intermediate and advanced levels, the strategies used, such as thematic units and cooperative groups, could be adapted to a multilevel, multilingual class.

One component of CALLA is the use of content subject matter to teach language. “Our rationale for the emphasis on content subjects is... language, as the medium of communication, permeates all aspects of curriculum” and “to become genuinely strategic, students must experience authentic content with which they will subsequently use strategies” (Chamot and O’Malley 1996, 263). In a multilevel, multilingual class, where students are more apt to quickly become frustrated and give up, authentic and meaningful learning will keep them motivated. Another component of the CALLA model is the teaching of learning strategies.

Trying to deal with both content and academic language at the same time is daunting to second language learners, yet simultaneous processing of both content information and language is required in general education classrooms. Techniques for more effective learning can help students cope with this double demand. (Chamot and O’Malley 1996, 264).

In a multilevel, multilingual class, students are more often left to their own devices to learn material. Teaching learning strategies provide the students with ways to become successful independent learners.
Theory of multiple intelligences. According to Dr. Howard Gardner, director of Harvard’s Project Zero, “An intelligence entails the ability to solve problems or fashion products that are of consequence in a particular cultural setting” (Lazear 1991, xi). This ability to problem-solve or create is not a singular property, but rather a “set of human potentials that exists largely inside the head of the isolated individual” (Lazear 1991, v). Gardner has identified seven ways in which learning occurs, seven intelligences, and believes there are more. It is his belief that learners possess all seven intelligences and “when we have a problem to solve... all of our intelligences work together in a well-orchestrated, integrated way” (Lazear 1991, ix). These intelligences include: verbal/linguistic, logical/mathematical, visual/spatial, body/kinesthetic, musical/rhythmic, interpersonal, and intrapersonal. These intelligences have been identified according to properties which are testable and scientifically based. They are universal, regardless of language, race, or culture. Although one may be more outstanding in a particular culture, all are accessible to ESL students. In a multilevel, multilingual setting, allowing opportunities for language learning in various and diverse ways will not only result in language learning, but also in developing a student’s confidence in the learning process. Ultimately the student is empowered. With language learning we are no longer merely victims of our given situation. We can, through language, step outside of our situation, think about it, discuss it with each other, make plans for improving it, then step back into the situation and change it. We become co-creators of the world. (Lazear 1991, 1)
Summary

The process of second language acquisition is a predictable, orderly one. Second language proficiency is greatly dependent on first language proficiency. While verbal skills may be quickly acquired, actual cognitive processing abilities may take several years. Instructors in a secondary, multilingual, multilevel setting often do not have the necessary time in which to help students become proficient, therefore, the most effective methods and strategies for second language learning must be identified. Thematic units which employ the cognitive learning theory, cooperative learning and the theory of multiple intelligences, may be one effective way to help students improve reading comprehension in order that they become more proficient in their second language.
CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study was to examine the effectiveness of the thematic unit teaching strategy in a secondary, multilevel, multilingual ESL setting as measured by changes in reading comprehension scores. The reading comprehension scores of students enrolled in a secondary, multilevel, multilingual ESL class were assessed in December, 1996, using the California Achievement Test, the Test of Academic Proficiency and the Arizona Student Assessment Program. Students were then taught for seventeen with the thematic instruction approach. Student reading comprehension scores were then reassessed in May, 1997, and the scores were compared.

Research Design

The research design chosen for this study is a descriptive design. According to Merriam and Simpson (1995), a descriptive design is "(1) a collection of facts that describe existing phenomena; (2) identification of problems or justification of current conditions and practice" (61). This design was appropriate for this study because in order for Horizon High School to determine the effectiveness of thematic instruction in its particular ESL setting, information needed to be collected on the thematic instruction method and then
measured for its effectiveness in a multilevel, multilingual setting. Pre and post test reading results were used to assess the change in reading comprehension scores following seventeen weeks of thematic units.

Sample and Population

The subjects in this study were fourteen ninth through twelfth grade ESL students at Horizon High School during the 1996-1997 school year. These fourteen students were identified as ESL and placed in ESL English and reading. The students ranged in age from fourteen to nineteen, represented eleven different countries, spoke ten different languages, and varied in second language (L2) fluency from non-English-speakers to nearly fluent. These students represented one hundred percent of the ESL population at Horizon High School, but less than one percent of the entire school population. A factor which may have impacted the students’ progress is the level of prior education in both L1 and L2. At least two students were known to have received infrequent education in their home countries. Three students were third-year ESL students, four were second-year students and the remaining seven were first-year students. All students participated in the same activities.

The Paradise Valley Unified School District classifies ESL students in the following way: If the student’s first language is other than English, the student’s Test of Academic Proficiency scores are evaluated. Students whose language score is above the 31st percentile are classified as English proficient and mainstreamed. Students below the 31st percentile are given the IDEAS oral language proficiency test (IPT). If the student is identified as Non English Proficient or Limited English Proficient, his reading and writing skills are also assessed and he or she is placed in ESL. Students who are found to be
English proficient on the oral language test are also given the state reading and writing assessments. If the student tests above state standards (75%) he is identified as Fluent and mainstreamed; if the student tests below standards, he is given a primary language assessment, identified as Limited English Proficient and placed in ESL.

**Instrumentation**

**Arizona Student Assessment Program (ASAP).** ASAP's are performance based tests which measure student essential skills competencies. Developed in partnership by the Joint Legislative Committee on Goals for Education Excellence, the State Board of Education and the Arizona Department of Education, the tests require students "to apply their understanding of the interrelationship of concepts and the connections to real problems" (ASAP 1993, 2) in written form, as opposed to selecting an answer from a list of choices. While standardized tests compare student scores to that of other students (norms), the ASAP measures student performance against predetermined standards. Assessment forms A, B, and C have been developed as "practice" tests for all grade level and are used for reading and writing assessment for purposes of placement and exit in ESL classes. Rubrics are designed to identify specific concepts in the student's responses, not necessary specific grammatical skills. Students must analyze pieces of literature and explain, in writing, its significance. Levels A, B, and C are administered and graded by the classroom teacher (ASAP 1993, 9).

The ASAP testing process encourages a learning environment in which a variety of teaching strategies are used. Students learn to apply what they are learning through the use of collaborative groups, discussions, and manipulative
materials. "Units may be developed around themes, enabling students to make meaningful connections in what they are learning . . ." (ASAP 1993, 4)

On the other hand, the ASAP tests seek to measure a student’s mastery of the Arizona State essential skills, not language development in particular. The tests, administered to all students, are not available in any language other than English and Spanish. First year ESL students may receive some mediation from the teacher, but all others, even those who have not acquired second language fluency, are required to take the test unaided. It would appear that the validity of the scores would be questionable.

The tests are graded by classroom teachers, familiar with the skills and abilities of their students, and therefore, there may be some question as to the objectivity of the score. Furthermore, the tests were designed to measure the essential skills, not necessarily the language development of the student. Therefore, it is questionable that the results are true measures for ESL students (Rodriguez 1997).

The tests were introduced to the fourteen ESL students in this study as a way to measure the development of their skills over the previous semester. The students were told that it was expected that some parts would be more difficult than others, but to attempt everything to the best of their ability. The students were allowed to ask for clarification of the directions and allowed to work at their own pace. They were assured that the tests were not tied to their class grade and that the results would be shared with them if they desired. The tests were then graded by the researcher using the rubrics provided by the state department. Standard scores were compared for change. Because the standard scores only account for responses to content centered questions, an informal evaluation was also done to compare the overall writing skills of the pre
and post tests. It was understood that while a standard score might remain unchanged, improvement in reading comprehension might be seen in the students' ability to respond to what was read.

**California Achievement Test (CAT).** This is a normed test used to measure student achievement in reading comprehension, vocabulary, language, and math. Horizon High School uses the 30-minute, 40 question reading portion of the test to evaluate student reading comprehension and requires mastery at the ninth grade level for graduation. Students who score two grade levels or more below ninth grade are placed in remedial reading. Although the district does not use the CAT reading comprehension as an entrance or exit criterion for ESL students, this researcher felt it added a valuable comparison to the reading scores of the Arizona Student Assessment Program and the Test of Academic Proficiency scores which are mandated by the district and used for ESL placement and exit. The CAT provides standard scores as well as a grade level equivalent by which to measure a change in reading comprehension skills compared to the 75% mastery level (a pass/fail concept) of the ASAP. While a student may not master the ASAP, he/she may have shown improvement. Use of the CAT results showed to what extent the grade level improvement occurred.

**Test of Academic Proficiency (TAP).** This is a normed test used to measure student achievement in areas such as reading comprehension, mathematics, written expression, social studies and science. The reading comprehension component is 40 minutes and comprised of 57-63 questions. Prior to the 1996-1997 school year, students scoring in the 31st percentile of the TAP were considered for exit from the ESL program. In April, 1997, the Stanford Achievement Test-9 was administered to the entire student
population, and results from that test will be used to determine exit from ESL for the 1997-98 school year. For several reasons this researcher chose to examine the results of the TAP rather than the SAT-9. The results of the SAT-9 were not available during the study, however scores from the TAP were available both in December and in May. Several students in the study had TAP test scores from prior years which could also be used to compare progress between the time of the study and previous years. Finally, the purpose of the study was to measure for change in reading comprehension scores which the TAP did.

Procedure

Students’ reading comprehension levels were assessed in December 1996, using the reading comprehension portion of the CAT as well as the reading portion of the TAP. Student reading essential skills were assessed using district-mandated ASAP test appropriate for each grade level.

From January, 1997 to May, 1997, students received ESL instruction in thematic units, incorporating cooperative learning and CALLA theories.

In May, 1997, students’ reading comprehension skills were reassessed using the CAT and TAP tests. Students’ reading skills were also reassessed using grade level appropriate version of the ASAP. Scores were then compared to those from December, 1996, and for those available, to previous years.

Assumptions and limitations

It was assumed that the students completed the assessments to the best of their abilities.
It was assumed that the students desired to learn English and were anxious to improve their reading skills.

It was assumed that the tests were appropriate for measuring a change in reading comprehension scores of the students.

One limitation of the study was that the students' exposure to language learning, both first and second language, varied greatly. None of the assessments account for varied levels of exposure to the second language, nor various levels of literacy in the first language. Therefore, changes in reading scores may not be equally significant for each student.

Another limitation was that the ASAP test was not written with ESL students in mind. While the student may possess the skill being measured in his or her first language, he or she is not, necessarily, able to transfer the knowledge into written English.

A third limitation is that the students vary in age, prior knowledge, and grade level which, again, might cause the significance of changes in reading scores to vary from student to student.

A fourth limitation is the transient nature of the class. During the study period, three students transferred in and two transferred out. In addition, some students have been part of the program for several years, others were new. Some students received formal education in their home country; others received only periodic and sometimes haphazard instruction.

A fifth limitation is that at least two of the students in the study were being evaluated for learning disabilities. It is unclear whether their data is appropriate for this study, as the change, or lack of change, in reading comprehension scores may be a result of the learning disability, rather than the effectiveness or ineffectiveness of the teaching strategy.
Method of Analysis

Pre and post test reading comprehension scores from the CAT, TAP and the ASAP were examined for change. Scores from the CAT and TAP that improved half a grade level were considered appropriate improvement for seventeen weeks of study. ASAP reading scores which rose by one point were considered appropriate improvement. The appropriate improvement levels were determined based on interviews with education professionals who agreed that the expected grade level improvement for a native speaker would be one year, therefore, a half a grade level for an ESL student in seventeen weeks would be appropriate. (Brown 1997, Loughrin 1997, and Rodriguez 1997). Jose Rodriguez, the director of Bilingual Education for the Paradise Valley Unified School District noted that the progress of second language learning is impacted by several factors including first language fluency, exposure to the second language outside of the classroom, and the type of second language program offered (Rodriguez 1997).

In the reading ASAP the student was required to demonstrate his understanding of the written text by writing responses. Therefore, the written responses of each student were informally analyzed to assess a change not necessarily accounted for in the standard score. Based on the researcher’s ESL instructional experience the writing skills of the students were assessed for changes in vocabulary, verb tense, and sentence construction. The student’s English oral fluency as measured by the IPT, the student’s academic experience, and his or her first language fluency were considered in determining the significance of any change. The student’s prior knowledge, that is, life experience, was also considered.
CHAPTER 4

PRESENTATION AND ANALYSIS OF THE DATA

Demographics

The fourteen students in the Horizon High School ESL program were assessed for changes in reading comprehension scores. Students were tested using the CAT, TAP, and the reading ASAP in December, 1996, and again in May, 1997. In addition, the written responses on the reading ASAP were informally assessed. TAP scores for seven students were available from May, 1996. Results from May, 1995, were available for two of the seven students. Both sets of scores were also considered in the analysis of data. Students were given tests appropriate for their grade levels, in English, without mediation. Testing took place over a two-week period. The CAT and TAP were both timed test; students worked at their own pace on the ASAP’s.

The students in the study were high school students ages fourteen to nineteen. The group was comprised of thirteen males and one female. The pretests were given to thirteen students in December. A fourteenth student entered the program after the pretest. However, the scores from the added student have been included as he was tested upon entering the program and took the post tests. The students represent the countries of Haiti, South Africa, China, Sudan, Taiwan, Korea, Hong Kong, Ecuador, Spain, Iraq and Angola. Their first languages include French/Creole, Afrikaans, Mandarin Chinese, Arabic, Taiwanese, Korean, Cantonese Chinese, Spanish, Portuguese, and
Dinka (a Sudanese tribal language). As of December, 1996, students had been in the United States anywhere from one month to four and one-half years. Their exposure in an ESL program ranged from one month to four and one-half years.

**Results of the CAT (Table 1).** Fourteen students were tested. The scores, overall, showed improvement in reading comprehension, although to varying degrees. Nine standard scores (S) showed improvement, one showed decline, two remained unchanged, and for two comparisons were not available. Improvement in scores averaged 5.5 points and the average grade level improvement based on the 8 comparisons available was 2.4. One student tested at the post high school level both times. Students improved their scores between .4 and 5.5 grade levels. Based on a standard improvement of .5 for six months, the results indicate students have shown appropriate improvement.

**Table 1**

<table>
<thead>
<tr>
<th>Student</th>
<th>December 1996</th>
<th>May 1997</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grade 9</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
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<td>8</td>
<td>4.1</td>
</tr>
<tr>
<td>B</td>
<td>NA</td>
<td>8</td>
<td>4.1</td>
</tr>
<tr>
<td>C</td>
<td>16</td>
<td>18</td>
<td>7.8</td>
</tr>
<tr>
<td><strong>Grade 10</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td>E</td>
<td>6</td>
<td>6</td>
<td>3.1</td>
</tr>
<tr>
<td>F</td>
<td>13</td>
<td>16</td>
<td>6.5</td>
</tr>
<tr>
<td>G</td>
<td>16</td>
<td>20</td>
<td>7.8</td>
</tr>
<tr>
<td><strong>Grade 11</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>0</td>
<td>2</td>
<td>*</td>
</tr>
<tr>
<td>I</td>
<td>3</td>
<td>13</td>
<td>2.0</td>
</tr>
<tr>
<td>J</td>
<td>19</td>
<td>31</td>
<td>8.6</td>
</tr>
<tr>
<td>K</td>
<td>30</td>
<td>36</td>
<td>PHS</td>
</tr>
<tr>
<td><strong>Grade 12</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>18</td>
<td>28</td>
<td>8.3</td>
</tr>
<tr>
<td>M</td>
<td>16</td>
<td>16</td>
<td>7.8</td>
</tr>
<tr>
<td>N</td>
<td>15</td>
<td>6</td>
<td>7.0</td>
</tr>
</tbody>
</table>

* = no score  
+ = improvement in score  
NA = score not available  
± = decline in score  
NC = no change in score  
P = post high school
Results of the TAP Test (Table 2). Fourteen students were tested. The results of the TAP contrast those of the CAT. Three students showed improvement in their standard scores on an average of 6.3 points and showed improvement in their grade level equivalent (GE) by two grade levels. The remaining eleven students declined on average by 4.8 points and 1.5 grade levels. The three students who did show improvements also showed improvement on the CAT.

### Table 2

**TAP Reading Comprehension Scores**

Scores given are raw scores and grade equivalents.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Grade 9</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>NA</td>
<td>NA</td>
<td>20 7.3</td>
<td>11 4.2</td>
<td>-9    -3.1</td>
</tr>
<tr>
<td>B</td>
<td>NA</td>
<td>NA</td>
<td>15 5.7</td>
<td>9 3.4</td>
<td>-6    -2.3</td>
</tr>
<tr>
<td>C</td>
<td>NA</td>
<td>NA</td>
<td>37 13.2</td>
<td>28 9.5</td>
<td>-9    -3.7</td>
</tr>
<tr>
<td><strong>Grade 10</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>NA</td>
<td>3 2.6</td>
<td>7 3.6</td>
<td>3 3.0</td>
<td>-4    -1.6</td>
</tr>
<tr>
<td>E</td>
<td>NA</td>
<td>NA</td>
<td>6 3.4</td>
<td>5 3.3</td>
<td>-1    -1.1</td>
</tr>
<tr>
<td>F</td>
<td>NA</td>
<td>9 3.4</td>
<td>17 6.5</td>
<td>14 5.5</td>
<td>-3    -1.0</td>
</tr>
<tr>
<td>G</td>
<td>NA</td>
<td>NA</td>
<td>23 8.2</td>
<td>26 8.8</td>
<td>+3    +1.0</td>
</tr>
<tr>
<td><strong>Grade 11</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>NA</td>
<td>NA</td>
<td>13 4.8</td>
<td>7 3.0</td>
<td>- .6 +1.8</td>
</tr>
<tr>
<td>I</td>
<td>NA</td>
<td>7 3.6</td>
<td>15 6.4</td>
<td>9 4.1</td>
<td>- 6 -2.3</td>
</tr>
<tr>
<td>J</td>
<td>13 4.8</td>
<td>17 7.6</td>
<td>25 8.8</td>
<td>36 12.3</td>
<td>+11 +3.5</td>
</tr>
<tr>
<td>K</td>
<td>6 5.8</td>
<td>37 12.5</td>
<td>42 14.4</td>
<td>+ 5 +1.9</td>
<td></td>
</tr>
<tr>
<td><strong>Grade 12</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>NA</td>
<td>NA</td>
<td>32 10.7</td>
<td>30 10.0</td>
<td>- 2 -.7</td>
</tr>
<tr>
<td>M</td>
<td>NA</td>
<td>8 3.9</td>
<td>13 5.7</td>
<td>8 3.9</td>
<td>-5    -1.8</td>
</tr>
<tr>
<td>N</td>
<td>4 2.7</td>
<td>5 3.4</td>
<td>11 4.6</td>
<td>4 3.3</td>
<td>-7    -1.3</td>
</tr>
</tbody>
</table>

NA = scores not available  
+ = improvement in score  
- = decline in score
Results of the Reading ASAP (Table 3). Fourteen students were tested. Scores improved for seven students by an average of 2.36 points. Scores for students A, F, H, and I remained unchanged. Scores for students E, J, and N declined by an average of three points. Students C and K did not master the pretest, but did master the post test. Student J did master the pretest but did not master the post test.

Table 3

<table>
<thead>
<tr>
<th>Student</th>
<th>12/96 Raw Score</th>
<th>5/97 Raw Score</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grade 9</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>0</td>
<td>0</td>
<td>NC</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>7</td>
<td>+1</td>
</tr>
<tr>
<td>C</td>
<td>11</td>
<td>16*</td>
<td>+5</td>
</tr>
<tr>
<td><strong>Grade 10</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>3</td>
<td>+1</td>
</tr>
<tr>
<td>E</td>
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<td>2</td>
<td>-1</td>
</tr>
<tr>
<td>F</td>
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<td></td>
</tr>
<tr>
<td>H</td>
<td>0</td>
<td>0</td>
<td>NC</td>
</tr>
<tr>
<td>I</td>
<td>0</td>
<td>0</td>
<td>NC</td>
</tr>
<tr>
<td>J</td>
<td>8*</td>
<td>5</td>
<td>-3</td>
</tr>
<tr>
<td>K</td>
<td>4</td>
<td>7*</td>
<td>+3</td>
</tr>
<tr>
<td><strong>Grade 12</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>9*</td>
<td>10*</td>
<td>+1</td>
</tr>
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<td>M</td>
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<td>+3.5</td>
</tr>
<tr>
<td>N</td>
<td>6</td>
<td>1</td>
<td>-5</td>
</tr>
</tbody>
</table>

* = mastery  
NC = no change in score  
NA = score not available  
+ = improvement in score  
- = decline in score
Summary

Reading comprehension scores from December, 1996, and May, 1997, were compared. The scores of the CAT show a general improvement in reading comprehension scores. In contrast results from the TAP test showed an overwhelming decline in scores. Students averaged a decline of 1.5 grade levels. In general, scores from the reading ASAP increased or remained unchanged.
CHAPTER 5
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to examine the effectiveness of the thematic unit teaching strategy in a secondary, multilevel, multilingual ESL setting as measured by changes in reading comprehension scores.

Current literature and research was reviewed and theories of second language learning were identified. Researchers have shown that language is acquired in a systematic, sequential manner and is done so more readily when information is presented in a comprehensible, meaningful way. A student will use first language competencies and prior subject knowledge to understand and acquire a second language. The ability to speak and understand a language is not evidence of its acquisition. Second language acquisition is a five to nine year process, whereas verbal fluency may be achieved in two years.

Approaches which incorporate strategies such as cooperative groups and whole language have been shown to foster language learning and acquisition through improvement in reading comprehension. Such strategies are thus appropriate in a multilevel, multilingual setting. Thematic instruction incorporates both whole language and cooperative learning by integrating content and language learning.
Reading comprehension scores of fourteen ESL students in a secondary, multilevel, multilingual setting were measured. Students then were instructed using the thematic approach for seventeen weeks after which reading comprehension scores were measured again. Both sets of scores were examined in order to determine whether change had occurred.

It was expected that the scores would change to some degree. It was unknown whether the change would positive improvement and, if so, if it would be more improvement than expected. It was also unknown if it would be reasonable to conclude that any improvement was a result of the thematic instructional approach. TAP reading comprehension scores over a two-year period were also available for seven of the students and used in a general way in an attempt to identify patterns demonstrating reading comprehension improvement.

The results showed reading comprehension scores for twelve students improved on at least one of the three tests given. Eight of the twelve students showed improvement on both the CAT test and either the TAP or the ASAP. Two of the eight students showed improvement on the CAT, the TAP and the ASAP. Only one student showed decline consistently on all three tests. The degree to which students showed improvement varied from student to student and from test to test. No patterns were found as to predict on which test any particular student might do best. Ten students declined by an average of 1.69 grade levels on the TAP test even though in the past scores have shown consistent growth. The four students who did show improvement improved by an average of 1.69 grade levels, while the average improvement on the CAT was 2.4 grade levels. Several conclusions might be drawn from this data.
Conclusions

The data is inconclusive regarding the effectiveness of the thematic unit instructional approach. While there was a positive change in reading comprehension scores, the degree of improvement varied among students and among the CAT, TAP, and ASAP assessments. The researcher found that establishing a correlation between the change in reading scores and the teaching method was not possible due to a number of factors.

The first factor was that the students varied in their abilities in both their first and second languages. According to Jose Rodriguez and Pat Loughrin of the Paradise Valley Unified School District, assessing the levels of reading comprehension in ESL students is a complex process. For each student, the test must take into account the first language literacy of the student, the student’s exposure to the second language outside the classroom, the type of language learning program available, the student’s attendance and attitude, and the student’s current second language proficiency (Rodriguez 1997; Loughrin 1997). The early learning stages of language learning are often slower and more tedious with students showing marked improvement in oral skills, but not reading. While the expected growth in a native speaker is one grade level per year (Brown 1997), an ESL student may very well progress at a much slower level for the first year or two and then jump multiple grades after that (Rodriguez 1997).

In this study, three students entered the program with very little prior second language instruction, and one had no written skills at all. Their reading comprehension scores show only marginal improvement, however, an informal assessment of their written responses on the reading ASAP showed progress.
The CAT, TAP and ASAP assessments used were designed to measure the skills of a native speaker, not a second language learner, and therefore, may be less than accurate assessments.

While the levels of improvement varied among the students, it appeared that there was a discrepancy between the CAT and TAP tests. Grade level equivalents differed between the tests as much as five grade levels. For example, in December student C tested at the 7.8 grade level on the CAT, but at the 13.2 on the TAP. In May the same student tested at the 8.3 level on the CAT (an improvement of .5), but declined by 3.7 grade levels to a 9.5 on the TAP. On the other hand, in December student N tested at the 7.0 grade level on the CAT, but 3.4 on the TAP. In May, his reading level had dropped below a 7.0 on both tests. The scores of the TAP, overall, showed decline, but there was no pattern to explain the differences between the grade level results. Therefore, it would appear that the CAT and TAP tests may not be reliable in identifying the grade level equivalent for ESL students.

TAP test scores from May, 1995, May, 1996 and December, 1996 show a pattern of consistent improvement for students D, F, I, J, K, M and N. In this study the majority of the students, including D, F, I, M, and N showed an average decline of 1.69 grade levels on the TAP test. The trend seems to indicate that extenuating circumstances may have caused variations in the TAP tests results for May, 1997.

Two important factors that may have affect the results were the time and condition under which the May, 1997, assessment were given. The student body as a whole spent three days taking the Stanford Achievement Test. The assessments for the study were given less than a month later. As a result, the students may have felt overwhelmed and not attempted to do their best.
Students were assured that their class grade would not be affected by their assessment results and perhaps felt no internal motivation for doing well. Secondly, the assessments were given during the second to last week of school. Two of the three 12th graders showed a decline or no improvement on two out of three scores. Again, neither their graduation status, nor their class grade, would be affected by their scores, and, therefore, they may not have performed at their best. Finally, there had been a number of racially motivated, hostile verbal exchanges between three of the students. Tension in the class was high and, quite possibly, raised the affective filter of the students.

Any correlation between the use of thematic instruction and change in reading scores seems, at best, uncertain. May, 1996 TAP scores were available for students D, F, I, J, K, M, and N. The average improvement from May, 1996, to December, 1996, was 2.54 grade levels, with the greatest improvement being 6.7. However, scores from May, 1997 showed an average decline of 1.4 grade levels for students K, F, I, M, and N. Students J and K showed an average improvement of 2.7, and student J actually showed a 3.5 grade level improvement, 2.3 grade levels higher than the period from May, 1996, to December, 1996. The data is insufficient for determining the impact on the rest of the students and may even indicate regression for some. Therefore, further testing is seems that further study is needed.

Recommendations

Several recommendations are made to find more conclusive results. The first is for the study to continue over a twelve-month period. In this way data will be more sufficient. Secondly, it is recommended that a comparative study between the thematic instructional approach and a more traditional approach
be done. Thirdly, student progress could be measured on an individual basis. A standard could be set for each student based on factors such as first and second language literacy. Research should be done to develop a criterion referenced assessment appropriate to the second language learner. Both an individual standard and an appropriate reference would allow student reading comprehension improvement to be measured more accurately.
References


Appendix A
Thematic Units

Unit 1: Desert Life and Survival Skills

Objectives:
To identify desert plants and animals.
To explain how deserts are formed.
To identify major world deserts.
To identify and describe desert survival techniques.
To take notes from a text.
To identify and use the steps in the scientific method.
To identify animal and plant adaptations to the desert.
To calculate and compare the heat retention of various elements.
To continue using research techniques.

Activities:
Read about desert life, formation, plants, and animals in Deserts and Dry Lands by Steve and Jane Parker.
View video on the SQ3R note taking method.
Use SQ3R to take notes on readings.
Conduct experiment of heat retention in soil, rock, sand, and water.
Create chart recording findings.
Write a paragraph describing and comparing the findings.
Build a model to demonstrate how deserts are formed.
Listen to guest speaker on desert survival techniques.
Present hypothetical desert emergencies and have students act out solutions.
Plan a field trip to the Phoenix Zoo and Botanical Garden.
Build a mini desert and chart the change in environment week by week.
Recreate a desert storm; measure the distance from the storm.

Evaluation/Culminating Activity
Students will choose a desert plant or animal to research. A poster will be made showing the animal, its environment, food and water sources, and special adaptations. This information will be presented to the class. The student will write a one-paragraph summary of findings which will become part of the class “Desert Handbook.
Unit 2: The Newspaper

Objectives:
To identify persuasive techniques used in advertising.
To summarize a news story.
To identify purpose in writing.
To identify and locate information in a newspaper.
To compare news writing to that of fiction or biography.
To take notes on news articles.
To differentiate between subjective and objective news.
To identify job requirements of news caster, journalist, and editor.
To conduct an interview.
To practice letter writing skills.

Unit Activities
Use Everyday English unit 6 packet to learn about the newspaper.
Have a newspaper “treasure hunt”.
Read and discuss as a class news articles in local and school newspaper.
Take notes on information in local and school paper.
Summarize, in writing, news articles in local and school paper.
Evaluate newspaper and magazine advertisements for persuasive techniques used both as a class and in small groups.
Have students write their own ads.
Have students bring in examples of advertisements using persuasive techniques.
Watch news broadcast. Compare information presented in newscast to that presented in the paper.
Write a letter to the editor.
Interview a classmate about “big event” for class paper.

Evaluation/Culminating Activity
In small groups students will create an original newspaper or newscast complete with national news, local news, weather, sports, health, and advertising.
Unit 3: World Travel

Objectives:
To plan a trip.
To create a travel budget.
To find and compare travel prices.
To choose activities for vacation based on budget and purpose of travel.
To evaluate different destinations for expense, activities and culture.
To use the library to find information.

Unit Activities:
Brainstorm a list of questions about planning a trip.
Ask questions of guest speaker from local travel agency to discuss
considerations in planning a vacation.
Choose a vacation spot.
Choose a mode of transportation and call for prices from at least two
different companies.
Go to library to find travel books.
Peruse travel books/brochures for vacation activities.
Create a map of country of destination.
Describe or illustrate climate of destination; include landmarks and major
cities.
Find the population of destination.
Use 1-800 numbers to get rates on hotels; chart comparison.

Evaluation/Culminating Activity: Create a travel notebook.
Unit 4: Heroes

Objectives:
To identify life events on a time line.
To differentiate the elements of biographical writing.
To take notes on biographical information.
To present information on the life of someone else orally and in writing.
To write using the 1-2-3 paragraph formula.
To write and speak correctly using the past tense, did not + past, used to, and past perfect.

Unit Activities:
Read biographies of immigrants' stories.
Do vocab and grammar exercises from text both as a class and individually.
Take notes on stories.
Write summary from notes.
Brainstorm characteristics of a hero.
Identify personal heroes of class and heroic characteristics.
Choose a personal hero and make a time line of his/her life.
Find biography/autobiography of hero
     OR conduct interview with personal hero.

Evaluation/Culminating Activity: Create a pictorial summary of hero's life complete with time line and pictures. Write a 1-5 paragraph essay on hero and present to class.