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MATCHING THE SYNTACTIC STRUCTURE OF TEXTBOOK WITH THE ORAL
LANGUAGE PROFICIENCY LEVELS OF ENGLISH -AS -A -SECOND
LANGUAGE STUDENTS

University of Washington

PH.D. 1983

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MATCHING THE SYNTACTIC STRUCTURE OF TEXTBOOK
WITH THE ORAL LANGUAGE PROFICIENCY LEVELS
OF ENGLISH-AS-A-SECOND LANGUAGE STUDENTS

by

Muriel Henrietta Palmer

A dissertation submitted in partial fulfillment
of the requirements for the degree of

Doctor of Philosophy

University of Washington

1983

Approved by Nancy Hansen-Kroning, Ph.D.
(Chairperson of Supervisory Committee)

Program Authorized
to Offer Degree College of Education

Date May 25, 1983

Doctoral Dissertation

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TABLE OF CONTENTS

	Page
Chapter 1 - Introduction	1
Background to the Problem	1
Statement of the Problem	5
Importance of the Problem	7
Hypothesis	8
Operational Definition of Terms	9
Theory Underlying This Study	11
Summary.	13
Chapter 2 - Review of the Literature	14
Reading Comprehension Research	14
General Theories Regarding Reading	14
Psycholinguistics and Reading	17
Relationship of Psycholinguistics	17
and Linguistics	
Linguistics and Reading	20
Psycholinguistics and Reading	21
Oral Language and Written Language	24
Relationship Between Achievement	25
in Oral Language and	
Written Language	
Matching Language Patterns of	26
Reading Materials to	
Students' Oral Language	
Dialects and Reading	28
Syntax and Commprehension	35
The Systems of Written Language	35

<u>Table of Contents</u>	Page
Syntactic Complexity	38
Children's Syntactic Development of Language and Comprehension . . .	40
Syntax and Textbook Comprehension . . .	42
Academic Development in a Second Language .	45
Problems of Limited English	45
Proficiency Students in the United States	
Second Language Acquisition	46
First and Second Language Acquisition Compared	49
Effects of Social, Affective	53
and Cognitive Factors	
Input Hypothesis	54
Second Language Learning	55
in School Settings	
Language Proficiency and Academic	57
Achievement	
Second Language Learning and Reading	59
Vocabulary-Concept Knowledge	60
Metalinguistic Insights	62
Decontextualized Language	62
Chapter 3 - Methodology	66
Overview of Design and Preplanning	66
Choice of Population	67
Choice of Measurement Instruments	68
Pilot Study I	72
Pilot Study II	75

<u>Table of Contents</u>	Page
Field Study	78
Purpose of the Study	78
Implementation	79
Population	79
Test Instruments	81
Method of Data Collection	85
Method of Analyzing Data	90
Summary	92
Chapter 4 - Analysis of Data	94
Introduction	94
General Results	95
Pilot Study I	95
Pilot Study II	96
Field Study	96
Research Question One	99
Research Question Two	100
Chapter 5 - Summary, Conclusions and Discussion .	109
Summary	109
The Problem	109
Research Questions	110
Methods	110
Conclusions and Discussion	112
Limitations and Implications	116
Suggestions for Further Research	119

List of References	120
Appendices	133
Appendix A - Cloze Reading Comprehension Test	133
Appendix B - Oral Proficiency Level 4 Excerpt	137
Appendix C - Oral Proficiency Level 5 Excerpt	142
Appendix D - Consent Forms	149
Appendix E - Informal Questionnaire	154

LIST OF TABLES

	Page
Table 1 - Reading Comprehension Scores Experimental Treatment Conditions	98
Table 2 - Summary of Results of T-Tests	101
Table 3 - Distribution of Students by Grade Levels	103
Table 4 - Distribution of Students by Length of Time Studying English - Oral Proficiency Level 4	105
Table 5 - Distribution of Students by Length of Time Studying English - Oral Proficiency Level 5	106

ACKNOWLEDGEMENTS

The completion of this study and dissertation has been possible only because of the constant help, cooperation, and moral support of many persons.

My sincere appreciation and gratitude, therefore, are hereby extended to my Supervisory Committee Chairperson, Professor Nancy Hansen-Krening, and to all the other truly beautiful people who have served on my Supervisory Committee--Professors Peckham, Vasquez, Shaw and Banks. Their understanding, encouragement and constant support have been way beyond the call of duty.

To the principals, faculty members and Vietnamese students at Ballard, Franklin, and Ingraham High Schools in Seattle; and at Kent-Meridian High School in Kent, I wish to express special thanks. Without their cooperation it would have been impossible for me to carry out this study. Also my deep and sincere thanks go to Al Elwin, Chris Verretto, Vanessa Tolles and to Kim Van Becker for the invaluable assistance given during the administration of the tests. The staff at BESCAN has also done a very fine job in supplying technical assistance and encouragement.

My gratitude and appreciation also go out to Mavis Carpio, Becky Manring, Janet Fowler and Sally Fichet who have calmed my fears and anxieties by doing all the rush typing needed at different stages of this endeavor.

To my husband, Jonathan, who has given unfailing support and encouragement throughout the bright days and dark days of my doctoral program of studies I give ~~my~~ my deepest appreciation and love. To my dear children, Donne, Janine, Consuelo and Heather, I have nothing but high praise and thanks for the love, the tolerance, and the many ways in which they have helped me to carry on.

Special honor is given to my mother, Melvina Lawrence, who would have been proud of this accomplishment if she had been well enough at this stage to share in this endeavor. To all my brothers and sisters, I say thanks for understanding my silence as I became more and more involved in my studies and had less time for writing and for calling.

Chapter 1

INTRODUCTION

Background to the Problem

The written word is a message from the author to the reader. That message is frozen and held acquiescent in time and space so that the reader may read and re-read the message as often as desired.

Reading, then, is a communication process in which the author and the reader attempt to communicate with each other--the author offering his/her thoughts across time and space in some form of written discourse, and the reader seeking to receive, to comprehend, to make sense of the author's message.

Within this interaction between the language process of reader and the language process of author, we find readers approaching the reading of a piece of text solely on the basis of the control they have of language (Burke, 1976). The content and organization of the reader's language systems are the available tools for seeking meaning in the author's message. Authors, on the other hand, write their texts solely on the basis of their control of language and employ the content and organization of their language systems to get the message across to the reader. Inevitably, there are times when there is a mismatch between the language system of the author and the language system of the reader. When this happens, the

reader is unable to handle the unfamiliar structure (Burke, 1976, p. 17) and comprehension suffers.

The reader cannot obtain meaning without processing the author's written language (Goodman, 1976, p. 64). It is, in fact, impossible to process the author's written language and extract meaning when there is very little or no point of reference between the readers' language and the author's language (Carroll, 1964). Hence, grave reading problems develop when the language of school textbooks, for example, is so different from the language of the intended student audience that the students have difficulty in understanding what they read.

Carroll (1978) observes that:

[S]ome children seem to have much difficulty in learning to read, and there is well-publicized evidence that substantial numbers of people leave school, even graduate from high school, without being able to read at a satisfactory level of skill and understanding. These facts comprise what is often called "the reading problem."
(p. 11)

Within the last twenty or so years, because of the observed reading problems which are often encountered in classrooms, there have been arguments for (Stewart, 1969) and against (Bailey, 1970; Venezky, 1970; Weber, 1970) preparing reading materials with language patterns which are as similar as possible to the oral language patterns of students. Strickland (1962); Ruddell (1964); Tatham (1970) have concluded that matching the language patterns

of reading material with the frequently used oral language patterns of children does result in improved reading comprehension.

Stevens (1965) and Amsden (1964) found that children had problems with seeing the relationship between spoken and written language because of the "unnatural language" in their textbooks, where efforts are made at controlling the vocabulary but where there seemed to be little or no control over sentence structure (Strickland, 1962; Riling, 1965). On the other hand, it may be argued that there can be some very great differences between the written word (text) and the spoken word (e.g., dialects or "non-standard" English) which could render the written word "unnatural." The interpretation of these findings, therefore, can and has led to such practices as writing children's materials in "Black English" (Baratz, 1969a, 1969b, 1970; Johnson, 1971) presumably to provide a greater match between the children's oral language patterns and the language patterns of the written materials.

Although studies investigating the relationship between matching textual materials (making the materials as similar as possible) to the students' oral language patterns have been conducted with students who speak "standard" English (Tatham, 1972; Ruddell, 1964), as well as with speakers of "non-standard" or dialect English (Marwit and Neumann, 1974), there do not seem to be

similar studies done with students learning English in English-as-a-Second Language (ESL) classes. The author of the present study ordered several computer searches on the topic, but has not succeeded in finding replications of the studies done by Tatham, or even studies seeking to answer questions similar to those investigated by Tatham or other researchers with an ESL student population.

The United States has historically been a place of refuge for people of many countries and of many languages other than English. In addition, there are many children born here whose first language is not English. For those children, textual materials with obscure meanings and difficult syntax can present a definite problem. Thus in order to approach the problems of educational opportunity and educational equity for all students, it is crucial to examine the problems of comprehensibility of reading materials, especially for the limited English-speaking students in our schools.

Furthermore, there are research studies which have indicated that there are many children here today who, although their native, or first, language is English, are unable to comprehend certain syntactic structures in reading materials (Palermo and Molfese, 1972; Stotsky, 1975). Many researchers believe that it is important that developers of children's reading materials receive information concerning the acquisition of syntactic patterns in

children's language (Hocker, 1963; Loban, 1963; Morrow, 1977; Robertson, 1968; Templin, 1966) in order to ensure a closer match between the language of the textual reading materials which are being published and that of the intended student audience.

Statement of the Problem

It can be assumed that, if native English speakers experience difficulty in understanding reading materials (especially textbooks) written with syntactic structures (sentence patterns) which are not similar to, or do not "match," the oral sentence patterns they frequently use, then students with limited English proficiencies are likely to have even greater comprehension problems when given textbook reading tasks (e.g., reading a high school history book), which involve reading passages written with greater syntactic complexity than the students have as yet mastered.

The purpose of this study was, then, to investigate the effects that matching the syntactic structure of textual material with the English oral language proficiency levels of high school English-as-a-Second Language (ESL) students has on their reading comprehension of the materials.

More specifically, this study was designed to answer the following questions:

1. Does matching the syntactic structure of sentences in history textbooks with the syntactic structures frequently used at the fourth and fifth oral language proficiency levels of high school ESL students affect their English reading comprehension achievement scores?
2. Does the level of English (L₂)* oral language proficiency of high school ESL students affect their English reading comprehension achievement?

In current second language acquisition research literature, the Linguistic Developmental Interdependence Hypothesis proposes that the development of competence in a second language (L₂) is partially a function of the type of competence already developed in the first language (L₁) at the time when intensive exposure to L₂ begins (Cummins, 1979). There is also an established relationship between oral language and reading comprehension (Drumm, 1973; Granowsky, 1971; Loban, 1963; Strickland, 1972; Tatham, 1970) which will be further discussed in the Review of Literature section.

Oral English language skills of non-native English learners develop in a definite, sequential manner resembling quite closely that found in the language learning process of native English speakers (Dulay and Burt, 1974; Krashen, 1976; McLaughlin, 1977). The linguistic developmental stages of the learners are marked by the ability to

*(L₁ = native language; L₂ = any other language)

produce orally, certain sentence structures and word groupings.

These stages are frequently referred to as Oral Language Proficiency Levels (Dulay, Burt, Hernandez and Taleporos, 1980).

Importance of the Problem

Granted that reading comprehension is a very complex process, which cannot be entirely accounted for by any one theory, or by the examination of any one aspect of the process, still the view of comprehension as a syntactic process (Chomsky, 1965; Slobin, 1966) is valid enough to deserve investigation as a possible explanation of some of the reasons for reading difficulties among ESL students.

It would also be very helpful to the educators of ESL students, as well as to textbook publishers, to discover what are the effects (if any) of matching the syntactic structure of written textual material to the oral language proficiency levels of ESL students on reading comprehension. Such information, by extension, would conceivably be to the advantage of our "standard" and "non-standard" English-speaking students who have difficulty comprehending their textbooks. In addition, teachers would have less difficulty in finding a good fit between students and textbooks the students are required to read.

Hypothesis

The hypothesis tested in this study was that when the syntactic structure of textual material "matches," or is similar to, the English syntactic structures (or oral English language patterns) frequently used by high school ESL students who are at given oral language proficiency levels, then reading comprehension achievement is greater than when there is no "match," or similarity. (The developers of the Bilingual Syntax Measure II have identified frequency of use of structures common to students at six different levels.)

The independent variable was the structure of the reading material which was manipulated as "matched" or "unmatched." The "matched" value of the independent variable consisted of carefully constructed adaptations of two excerpts of approximately 400 words each from two high school history textbooks. These adaptations were written at oral language proficiency levels 4 and 5 (based on the Bilingual Syntax Measure scale). The "unmatched" value of the independent variable was the unadapted excerpts consisting of approximately 400 words from two history textbooks. The inclusion of the "unmatched" or "textbook" version was employed as a control measure for insuring internal validity in the study.

The moderator variable was the oral language proficiency levels of the high school ESL students. The

participants were Vietnamese ESL students from three Seattle high schools.

The moderator variable was used to control the effects of a selection bias by interacting with the independent variable on the dependent variable. The age and sex of the students were not taken into consideration in this study since the language proficiency levels were based on ability to produce language orally rather than on age or sex.

The dependent variable was reading comprehension achievement, which was determined by the scores on the post-test.

The assignment of subjects to experimental and control groups and the random assignment to the cells within the design acted as controls to most threats to internal validity.

The threats of history and maturation were controlled by the fact that the actual treatment and testing portion of the study lasted for only two days. The total length of this study was seven school days in which five of the days were used for preliminary testing for oral language proficiency placements and for ascertaining basic reading ability of students.

Operational Definition of Terms

Matching means "making as similar to as possible." A "matched" excerpt is adapted so that the syntactic structures (word order patterns) are very similar to those

frequently used by students at given oral proficiency levels.

Unmatched excerpts are unadapted textbook passages with syntactic structures which are, in general, of higher difficulty levels than those frequently used by the students at given oral proficiency levels. The terms "unmatched", "no match", and "not matched" will be used synonymously in this report.

ESL students are speakers of other languages who are in the process of learning English.

A language pattern is a basic arrangement of words in oral or written language that indicates the sequence of slots and movables (Tatham, 1970).

A frequent language pattern is based upon the list of oral language patterns produced by speakers at given proficiency levels.

A slot is an immovable unit in a language pattern (1 = subject; 2 = verb; 2b = passive verb, verb of the "to be" class, or copulative verb; 3 = indirect object; 4 = direct object; 5 = predicate nominative) (Tatham, 1970).

A movable is a unit of a language pattern that usually has no fixed position (e.g., M1 = adverb of place; M2 = adverb of manner; M3 = adverb of time) (Tatham, 1970).

Syntax is a set of processes which operate on a finite number of words to produce an infinite number of word order arrangements called sentences (Dawkins, 1975).

Syntactic structure refers to the ways in which various word order arrangements are used in oral or written language patterns of word order arrangements; sentence patterns (Dawkins, 1975).

Reading comprehension achievement is determined by scores on the reading post-test.

Oral Language Proficiency Levels are stages of development in the ability to orally produce appropriate speech. The levels will be determined by the Bilingual Syntax Measure II--a test for determining levels of proficiency in conversation. The measure also determines the language dominance of the examinee (Dulay, Burt, Hernandez and Teleporos, 1980).

Theory Underlying This Study

The materials which one reads are written with certain syntactic structures, or sentence patterns, of the language. The more similar these syntactic structures, or sentence patterns, are to those patterns most frequently used (orally) by the reader, the more meaning the reader gets from what is being read (Ruddell, 1964; Strickland, 1962; Tatham, 1972). The reader comprehends more because there is a "match" between the reader's oral language and the written language of the reading material. These assumptions are part of the psycholinguistic model of reading which views reading as a constructive, linguistic process which parallels the listening process. In this model, the reader is a language-user who constantly seeks to obtain the writer's meaning through the linking of cues found within the arrangement of the words in the written text and the cues found within his/her linguistic background and knowledge of the world (Goodman, 1976).

The three language systems used by authors of any reading material are 1) the graphophonic (letter/sound) system; 2) the syntactic (sentence patterns which signal grammar) system; and 3) the semantic (meaning) system (Goodman, 1976).

Although meaning is derived from the semantic relationship in language, these relationships are carried through the syntactic structure. (Y. Goodman and Burke, 1980, p. 86)

Y. Goodman and Burke (1980) further state that the aspects of syntax and grammatical function that apply to reading include the following:

1. Syntax is the vehicle through which language can be understood.
2. Syntax can only have meaning and grammatical function can only be assigned within the context of language.
3. Children are proficient language users (in their native language) by the time they come to school.
4. Every language-user tacitly knows how to use the syntax of language.
5. Reading demands the application of a language user's knowledge of syntax.

Thonis (1976) insists that as the oral language skills of the non-English speaker increase, so does the ability to understand written English. She maintains that reading comprehension "ultimately depends upon a knowledge of words, of groups of words, and of their order, according to the rules of the language" (p. 164).

Hence, congruence between the oral language patterns most frequently mastered and used at the different levels of English language development in the ESL student and the language patterns of the textual materials is of vital importance in reading comprehension.

In Chu-Chang's (1981) study verifying a model of monolingual versus bilingual reading, she demonstrated that even for a logographic language, such as Chinese,

reading involves the mapping of visual representation of the written language onto an oral language storage with or without an intermediary phonological recoding process (p. 47). Furthermore, the comprehension of prose passages in her study was much more dependent upon oral language repertoire than upon an isolated word list.

Summary

Reading is a communication process in which the author and the reader communicate with each other, the author writing on the basis of his/her control of language and the reader interpreting on the basis of his/her control of language. Whenever there is no match between the language used in the written material and the oral language of the reader, comprehension suffers. In the case of students whose native language is different from the language used in the written material, comprehension is, very often, extremely difficult to attain. Hence, it is hypothesized that when written textual materials intended for use by English-as-a-Second Language students have syntactic structures which are very similar to those frequently used by these students, comprehension will be maximized.

Chapter 2

REVIEW OF THE LITERATURE

This study will investigate the effects that matching the syntactic structure of written textual materials with English oral language proficiency levels of high school English-as-a-Second Language (ESL) students has on their reading comprehension of the materials.

The following five areas of related research, therefore, are considered significant to the understanding of this study:

1. Studies investigating or describing factors which influence reading comprehension.
2. Studies related to the relationship between oral and written language.
3. Studies investigating or describing the relationship between syntax and comprehension.
4. Studies describing first and second language acquisition and the interrelatedness of the two.
5. Studies related to learning to read in a second language.

READING COMPREHENSION RESEARCH

General Theories Regarding Reading

There seems to be no consensus among researchers in the field of reading concerning the nature of reading and of reading comprehension (Otto, 1970). This absence of universality in the conceptualization of the reading process is evident in teaching methods today, which, by and large, still show a behaviorist stimulus-response orientation (Harker, 1977).

Conceptions of "reading", then, range from extremely narrow to extremely broad; they are confined to the decoding of printed symbols and basic oral responses at one extreme and they move through the grasping of literal meaning and the interpretation of ideas to the inclusion of changes in behavior that result from decoding at the other extreme. (Otto, 1970, p. 224)

Zintz (1980) summarizes the popular theories concerning the nature of reading as follows:

1. Reading is decoding written words so that they can be produced orally.
2. Reading is understanding the language of the author of a printed passage.
3. Reading is the ability to anticipate meaning in lines of print so that the reader is not concerned with the mechanical details but with grasping ideas from groups of words that convey meaning.
4. Reading encompasses all of these things. The differences in current reading programs in use today lie mainly in the relative importance assigned to each of these three definitions (p. 5).

Harker (1977) contends that the ultimate goal in reading is in comprehending or getting meaning. He states that the degree of success which a student experiences in reading (and consequently in learning through reading) is dependent upon the extent to which he/she understands what is read (Harker 1977).

In spite of the evident importance of comprehension in all reading areas, reading comprehension remains one of the least understood aspects of reading (Harker, 1977, p. 2). Jenkinson (1970), in exasperation, it would seem,

comments that "our ignorance of reading comprehension is pervasive and abysmal" (p. 190).

In the early days of reading research the focus was not on comprehension, but rather, on such minutiae as eye movement behavior during the reading act (Buswell, 1972; Javal, 1879; Judd and Buswell, 1922); or the difference between speed of perception of letters versus words (Cattell, 1886); or what substrata factors accounted for individual differences in general reading ability of students (Holmes, 1953). Although some research was done in the content areas by Bond (1938), Strang (1942), and Robinson and Hall (1941), research in the field of reading (carried out by psychologists rather than by educators) limited their work mainly to visual perception and eye-movement behavior in reading (Singer, 1981).

After Chomsky's Syntactic Structures (1957) and his attack on the then popular stimulus-response (S-R) explanations of the reading process (Chomsky, 1959), many psychologists shifted their research to sentence comprehension with cognitive explanations to support their theories (Singer, 1981). As a consequence, during the 1960's psycholinguistics came to the forefront and soon started to influence the field of reading.

PSYCHOLINGUISTICS AND READING

The Relationship of Psycholinguistics and Linguistics.

The term psycholinguistics represents a union of the sciences of psychology and linguistics. Carroll (1978) defines psycholinguistics as "the psychological study of the way human beings learn and use language" (p. 12). He considers psycholinguistics to be a subspecialty of psychology rather than of linguistics. Psychology is a study of behavior while linguistics is a scientific study of the form, structure and function of language (Hall and Ramig, 1978), and the reading act incorporates the principles of both psychology and linguistics. Carroll (1978) further states that "Since psycholinguistics has to do with the learning and use of language, it must take full account of whatever is relevant from the field of linguistics, the scientific investigation of language and language systems" (p. 12).

In keeping, then, with Carroll's point of view, it seems necessary to consider, briefly, the history of linguistics and of its influence on reading. In addition, it seems very worthwhile to take note of the important implications for a better understanding of the reading process and of the pedagogy of reading which may be obtained from the accumulated body of knowledge found in the field of psycholinguistics.

In the seventeenth, eighteenth, and nineteenth centuries Western linguists concerned themselves with describing vernacular European languages and writing descriptive grammars for those languages. Those linguists paid very little attention to syntax because their primary interest was in the sound system (phonology) and the word-form constructions (morphology) of languages. The focus of linguists, however, has shifted over the centuries, in keeping with the interests and hypotheses of the times, so that, today the science of linguistics covers a very broad range of activities related to language (Hall and Ramig, 1978, p. 2). For instance, in the first half of the twentieth century what may be considered as the major achievement of linguistic science was the compilation of descriptions and the classification of the huge variety of language systems of the world, as well as a characterization of the general properties of those systems (Carroll, 1978 p. 12).

In the mid-twentieth century the "newer" school of linguistics, led by Chomsky and often referred to as the "transformational generative grammar", has been very much concerned with "variations in sentence structure and the explanation of these variations" (Carroll, 1978, p. 15). The transformational generative grammarians view any language system as a set of rules for generating surface structures from deep structures. When linguists describe

a language system they are, in fact, trying to discover the rules of the language. When native speakers of the language speak or understand the language, their behavior is governed in some way by those rules. However, speakers of the language (especially children) are often not conscious of the rules, yet they demonstrate their knowledge or "competence" by not usually uttering "ungrammatical" sentences in English, for instance, like

The teacher us books no given.

The speakers would also recognize this sentence as "ungrammatical" in the sense that it is not in agreement with the language system.

As Carroll notes, the principal insights about language that came out of the twentieth century linguistic investigations are as follows:

1. Spoken language is more basic and fundamental than its corresponding written form. All natural languages have, or have had, spoken forms, and whenever writing systems have developed for a language, they have functioned mainly as ways of recording and transmitting speech in a non-oral medium. In addition, although writing systems frequently tend to develop their own unique features, they are crucially dependent upon the spoken form of the language they represent.
2. Languages differ greatly in the wide variety of ways of expressing ideas, yet there are common underlying concepts and ways of relating the concepts, that are available in every language.
3. There has always been a potential for variation and change in language patterns. Although there have often been different

subgroups of a speech community which speak different dialects or versions of the language with differences in sounds, grammar and vocabulary, yet the language remains more or less mutually intelligible. Although some of these dialects of a language are more developed and prestigious than others, all dialects are essentially equal in their capability for expressing ideas.

Within the last twenty or so years, all aspects of language have come to be examined through the science of linguistics. Since reading is a language activity, it was by no accident that the science of linguistics eventually extended its influence into the study of reading and of reading instruction.

Linguistics and Reading

One of the first linguists to use a linguistic approach to the study of reading was Leonard Bloomfield, a founder of American structural, or "taxonomic", linguistics. In the early 1940's, Bloomfield and his partner, Barnhart, developed some reading materials based on linguistic principles, which did not gain support or popularity until 1961 (Olsen, 1968) when they finally found a publisher to publish their book, Let's Read: A Linguistic Approach. By this time, teachers were beginning to show an interest in applying linguistic principles to the teaching of reading (Rystrom, 1972). The introduction of this book led to

the development and appearance of other linguistic readers in the classroom.

For Bloomfield, the ability to recognize letters and to relate them to corresponding sounds was the most important factor in learning to read. In his way of thinking, a child needed only two skills in order to be able to read: 1) the skill of associating letters to sounds in his "Nan can fan Dan" variety of reading materials, and 2) the ability to use a left-to-right-eye movement in going across the page.

Fries (1963), another linguist, believed that when a student can "respond to the language signals represented by patterns of graphic shapes as fully as he learned to respond to the same language signals of his code represented by patterns of auditory shapes", then that student could "read" (p. 131). Hence, he attached much importance to the teaching of letter-sound relationships to beginning readers while giving very little attention to seeking meaning in written materials. His book, Linguistics and Reading, published in 1963, also strongly proposed a linguistic approach to the study of reading.

Psycholinguistics and Reading

Psycholinguistics goes much further than linguistics in its approach to the study of language. Psycholinguistics is concerned with the structure of language and its interaction with thought, as well as with how language is

acquired (Grove, 1981). The value of psycholinguistics to the field of reading lies in the insights it provides into the reading process (Clarke and Silberstein, 1977).

First of all, within psycholinguistics (or very closely allied to it) are a number of specializations, each providing insights into the reading process and implications which may be invaluable to teaching and to learning to read. For example, experimental psycholinguistics is concerned with the understanding of language. Within this specialty the "psychological reality" of grammar is sought through the study of variations in grammatical structure as they affect speed and accuracy of comprehension (Carroll, 1978, p. 16).

One of the insights gained from this specialty is that sentences in the active voice seem to be more easily and accurately understood than those written in the passive voice. In recent years, investigators in experimental psycholinguistics have been studying the processes in understanding stories, expository prose, and other forms of connected discourse.

Developmental psycholinguistics seeks to describe how children acquire their native language at various ages and developmental stages. Insights to be gained from this specialty are that children acquire most of their basic linguistic competence before they enter first grade--they have mastered most of the common grammatical structures and

their vocabulary is large enough to deal with the concepts and ideas encountered in their everyday lives. Children's mastery of grammatical constructions, however, is by no means complete when they enter school (C. Chomsky, 1969). Furthermore, even though they may have large vocabularies at entry to first grade, children's vocabularies are still severely limited while "progress in reading is intimately bound up with the development of the child's vocabulary toward adult levels of competence" (Carroll, 1978, p. 17).

Sociolinguistics, a subspecialty of psycholinguistics, and which is often called pragmatics, concerns itself with the social factors that accompany or surround interpersonal speech acts. Such factors include the social relations between speakers and hearers which would, for instance, cause a speaker to politely say, "Yes, ma'am", to some women sometimes and in other situations to impolitely say, "Yeah, broad." Pragmatics thus provides insights into the subtle meanings that children need to get out of their reading "over and above pure 'literal comprehension'" (Carroll, 1978, p. 18).

Because of these valuable cognitive/language-based insights into the reading process provided by the field of psycholinguistics it seems appropriate to apply a psycholinguistic model to the investigation of reading in a second-language learning situation. A combination of psycholinguistic theory and schema theory, then, will

constitute, to a great extent, the underpinnings of this study.

Goodman (1970), the chief proponent of the psycholinguistic model of reading, views reading as a "complex process by which a reader reconstructs, to some degree, a message encoded by a writer in graphic language" (p. 5)

ORAL LANGUAGE AND WRITTEN LANGUAGE

The process of acquiring a first language begins at so early an age that we tend to overlook the importance of language in the development of reading and other academic skills.

Language is the system for conveying meaning whether the meaning is transmitted in oral or written form. Reading depends upon the processing of printed language symbols to arrive at meaning in much the same way as listening depends upon the processing of acoustic language symbols. (Hall and Ramig, 1978, p. 11)

Furthermore, research studies which have focused on students' achievement in oral language and written language suggest that there is an interrelationship between achievement in oral language and written language (Braun, 1971; Chomsky, 1972; Loban, 1963; Strickland, 1962). Oral language is the primary form of language and written language is but a secondary form, with both forms seeking to convey meaning.

Nevertheless, meaning of sentences or of larger bodies of discourse cannot be obtained by decoding indi-

vidual words through the sound system of the language by applying meaning to each individual word; or even by trying to state the grammatical function of each word (Smith, 1982). The only way to find meaning is by bringing meaning, based on past experiences with language, to the written material. However, if there is no congruency between the meaning organization brought to the print by the reader and the organization of the sample of print, then no meaning can be obtained from the reading act.

Relationship Between Achievement
In Oral Language and Written Language

In Loban's (1963) longitudinal study of children's language from kindergarten through twelfth grade, he found that competence in oral language seems to be a "necessary base for competence in writing and reading" (p. 88).

Braun (1971), in his study done with monolingual and bilingual children, concluded that there appeared to be sufficient evidence to suggest a positive relationship between linguistic competence and reading performance.

Strickland (1962) investigated the relationship between the language of elementary school children in grades one through six and the language of their textbooks. She reported that "The quality of a child's speech appears closely related to the quality of his oral and silent reading" (p. 14). Strickland also stated that "the more clearly the reader understands the patterning of

his language, the better will be his oral reading interpretation and his silent reading comprehension" (p..14).

C. Chomsky (1972) noted the relationship between the rate of linguistic development in preschool children and the amount of exposure to written materials. She concluded that both preschoolers who had been read to frequently, and primary grade children who read independently had higher levels of language proficiencies than their peers who had not been extensively exposed to reading materials.

Ruddell (1966) and Tatham (1970) found not only a correlation between oral and written language achievement, but they have also identified specific factors which influence the correlation. Ruddell (1966) states that research "strongly supports the notion that facility in oral expression, particularly vocabulary knowledge and an understanding of sentence structure, is basic to the development of reading comprehension skill" (p. 492).

Matching Language Patterns of Reading Materials to Students' Oral Language

This identification of the need for similarity or a "match" between the oral language patterns of students and the language patterns of reading materials has led to arguments for and against the necessity for such a match. Accordingly, within the last twenty or so years, there have been arguments for (Ruddell, 1965; Stewart, 1969;

Strickland, 1962; Tatham, 1972) and against (Bailey, 1970; Venezky, 1970; Weber, 1970) preparing reading materials with language patterns which are as similar as possible to the oral language patterns of students.

Ruddell (1965) posited that fourth graders comprehend materials more readily when the written language patterns used are like the oral language patterns children frequently use. His conclusion at the end of his study was that "Reading comprehension is a function of the similarity of patterns of language structure in the reading material to oral patterns of language structure used by children" (p.408).

Tatham (1970) investigated the theory that children's reading materials should be structured more like the way children speak so that there can exist a closer relationship between the language the children bring to school and the language they encounter in written materials. The results of Tatham's study also strongly support the theory that there is a common underlying linguistic competence which influences oral language and reading comprehension. Tatham concluded that, for beginning readers, "it is logical and in keeping with linguistic knowledge to use children's patterns of language structure in written material to facilitate learning the concept that spoken and written language are related" (p. 424). She added that the findings of the study suggested that children

could benefit from "control over sentence patterns until they are readily able to untangle word relationships in any number of infrequent patterns" (p. 424).

Dialects and Reading

Part of the controversy concerning the need to match the language structure of reading materials with the oral language structure of the targeted student audience came out of the concern for the poor reading achievement observed among many black urban youths (Harber and Bryen, 1976). Low reading scores have also been evident among students who are speakers of other English dialects and of languages other than English (e.g., Spanish and American Indian languages). Cohen (1969) claims that 83% of "disadvantaged" black children and 45% of "disadvantaged" white children residing in New York City were reading three years below grade level by the time they reached grade three.

Several explanations have been suggested for the poor reading performance of black inner-city children (Harber and Bryen, 1976). These explanations have placed educators and psychologists in opposing camps referred to as the "deficit theorists" and the "difference theorists." The deficit theorists have suggested that these children have a cultural, cognitive, and/or linguistic deficit as a result of an inferior genetic inheritance (Jensen, 1969) or as a result of an impoverished living environment

(Beireter and Engelmann, 1966; Blank and Solomon, 1968; Deutsch, Brown, Deutsch, Goldstein, John, Katz, Levinson, Peisach, and Witeman, 1967).

Engelmann and Osborn (1970) and other educators and psychologists of the "deficit" school of thought maintained that many black children arrive at school with a deficient language system which makes academic achievement (especially reading) almost impossible. The DISTAR language program, developed by Engelmann, as well as other incentive language remediation programs, was introduced as a prerequisite to beginning reading, in an attempt to find a solution to this problem. Engelmann believed that students cannot learn to read until they have learned to speak the language well. The DISTAR program was developed with the express intention of using direct instruction as a means of teaching children the language of the classroom so that they could better understand and follow what they read.

Subsequent research conducted under more non-threatening social conditions has refuted the linguistic deficit theory (Horner and Gussow, 1970; Labov, Cohen, Robinson and Lewis, 1968; Houston, 1970). The refuters of this theory are often referred to as the "linguistic difference theorists" because they contend that urban black children do receive much verbal stimulation and, in fact, participate in a highly verbal culture (Labov, 1969).

Since these children's language community is different from the "standard American English" language community, there are linguistic differences evident in all aspects of their oral language (i.e., their sound, grammar, everyday vocabulary and their usage forms). Reports from research studies done by Baratz and Provich (1976); Goodman and Burke (1973); Stewart (1969); Stodolsky and Lesser (1967), and Wolfram (1970) agree that the black inner-city child's language is different, but that linguistically it is as highly structured and rule-governed as "standard American English."

Since reading and language are closely related, it can be argued that the reading problems of many black children are a direct result of the incompatibility between the language structure of Black English and the language system of standard English used in the schools (Harber and Bryen, 1976, p. 388).

Several alternative solutions to this problem have been suggested by linguists and educators. The suggestion most readily acted upon was that of writing textual materials in the "Black English Vernacular" for use in initial reading instruction (Baratz, 1969a, 1969b; Fasold, 1971; Johnson, 1971; Stewart, 1969). In this plan, the child would be introduced gradually to "Standard English" (through the use of transitional reading materials) after s/he had attained some fluency in reading the dialect reading books and had become sufficiently confident in his/her ability to read.

In his support of a proposal to use this strategy in teaching black children to read, Stewart (1969) cites the experimental work done by Österberg (1961) in the bidialectical Pitëa district of Sweden. Stewart also developed parallel reading textbooks in "Black English" and in "Standard English" for use in experimental and control classes in Washington, D.C. The dialect reading was based on language patterns commonly used by black children in the Washington, D.C. area. The transition, as demonstrated by Stewart, is as follows:

Stage One example - pure "Black English" patterns used:

'Darryl an Kevin, dey runnin.'

Stage Two example - most important features of "Standard English" introduced:

'Darryl an Kevin, dey are runnin.'

Stage Three example - sentences in "Standard English":

'Darryl and Kevin are running.'

Stewart maintained that beginning reading materials should be adapted to the patterns of the local "non-standard" dialect of children in any given area of the country. He averred that, instead of being ignored or made the target of an eradication program, Negro dialect should actually be used as a basis for teaching oral and written standard English (Stewart, 1969).

Many parents and community leaders, as well as school administrators and teachers, strongly objected to the use

of reading materials written in "Black English" (Wolfram, 1970). Stewart was heatedly attacked for introducing "a bad language that shouldn't appear in schools" (Downing, 1979, p. 141). Dale (1972); Downing (1979); Erickson (1969); Mitchell-Kernan (1972); and Schneider (1971) describe the controversy provoked within the communities for which these reading materials were developed. In many cases, community pressure brought about a cancelling of the experiments using the dialect readers (Schneider, 1971).

In the midst of this controversy, Wolfram (1970) cautioned educators against using beginning readers written entirely in "Black English." His concern was that in doing so a new type of mismatch between spoken and written English might be created. Some of the "Black English" reading materials, in Wolfram's opinion, characterized "Black English" as being far more divergent from "Standard English" in written form than it really is in spoken form.

Osterberg's (1961) experiment in the Pitëå district of Sweden was the model for Stewart's "Black English" reading experiment. The residents in the Pitëå district speak a very archaic dialect which has no literature and which is (like "Black English" and other "non-standard" dialects found in the United States), frowned upon by the teachers and are considered linguistically and socially inferior. These people are

likewise considered as having language difficulties. Osterberg's experimental group was given initial reading instruction in their home dialect (referred to as D_1), while the control group received parallel instruction in the "standard" language (referred to as D_2). After ten weeks, both groups were tested. D_1 students were tested in the home dialect, D_1 , and D_2 students were tested in the "standard" language (D_2). Group D_1 was significantly superior in oral reading, reading rate and comprehension.

For the next twenty-five weeks, both groups received instruction in D_2 . The D_1 group once again outdid the D_2 group. Österberg reports that the D_2 children, taught and tested in the "standard" language, showed uncertainty and insecurity which affected their performance in lettering, articulation and reading tempo. He further comments that the children had difficulty in seeing the relationships between their out of school life and the work they did in school. This "cognitive confusion" seemed to destroy the link between the children's experiences and their spontaneous observations, hence everything taught in school was never mastered, but instead was "barely learnt" (Downing, 1979). Österberg's recommendations were never used because of the poor attitudes of the elite towards the dialect speakers of Piteå.

In a more recent case--Martin Luther King Junior Elementary School Children v. Ann Arbor School District Board, 15 black low socio-economic status students from a low-income housing project filed suit against the school district. The plaintiffs charged that "school officials had improperly placed the children in learning disability and speech pathology classes" (Smitherman, 1981, p. 41) and had suspended, disciplined, and repeatedly retained the children at grade level without considering their social, economic, and cultural differences. The actions taken by the school officials had also failed to solve the academic problems of the children.

The trial proceedings established that the school district (specifically, the teachers) failed to recognize the legitimacy of the students' language and the "corresponding negative attitudes toward the children's language led to negative expectations of the children which turned into self-fulfilling prophecies. One critical consequence was that the children were not being taught to read" (Smitherman, 1981, p. 42).

In summary, children who experience a linguistic mismatch between their dialect and the favored dialect of the school environment often have great difficulty in their academic development, especially in the development of skills necessary for fluent reading. For this reason it has been argued that beginning reading instruction

should be approached through the use of the child's home dialect. However, if the social attitude towards the children's dialect is very negative, as in the case of mainstream American attitudes to "Black dialect" and in the case of the dialect speakers in Osterberg's study, then administrative and community power struggles may set up even greater blocks to the removal of the mismatch.

SYNTAX AND COMPREHENSION

Much of the knowledge which we try to impart to the students through the school curriculum is presented through the medium of the written language (Bormuth, Carr, Manning and Pearson, 1970). The assumptions, then, are that (1) students will become engaged in active learning through reading; and (2) that students are able to understand what they read.

Unfortunately, there are research reports on studies done with students at different grade levels which paint a grim picture. For example, Palermo and Molfese (1972) and Bormuth, Carr, Manning and Pearson (1970) note that many students, whose native language is English, do not understand some of the basic syntactic structures which signal meaning in written materials.

The Systems of Written Language

Written language consists of three systems, or components: the graphophonic (letter/sound) system; the semantic, or meaning system, and the syntactic system

(Y. Goodman and Burke, 1980). In the process of reconstructing the author's meaning, all readers make use of these three language systems. The clearer the relationship between the language and meaning of the reading material, and the language and world knowledge of the reader, the more predictable the textual material becomes. This is because the more the reading material reflects the whole, meaningful language the reader uses, the more proficiently the reader is able to apply his/her accumulated language knowledge and world view to the construction of meaning (Y. Goodman and Burke, 1980, p. 10).

The term syntactic system refers to the "interrelationships of words, sentences, and paragraphs" (p. 11). This includes the interrelationship of word order, tense (e.g., present, past), number (singular, plural), and gender (e.g., masculine, feminine). Grammar is the word frequently used to refer to syntax. In the context of this report, however, the terms syntax or grammar refer not to grammar book rules imposed on the language, but to "the rules people know intuitively by virtue of being language users" (Y. Goodman and Burke, 1980, p. 11).

Knowledge of the syntax or structure of one's language makes it possible to recognize whether a sentence heard or read is consistent or inconsistent with the accepted rules of that particular language (Lindfors,

1980). This knowledge also makes it possible for one to recognize ambiguities and stylistic variants of given sentences or word combinations; and to create and understand sentences which are entirely new in our experience (Lindfors, 1980). Put another way, syntax is a set of processes or principles which operate on (or govern) a finite number of words to produce an infinite number of word order arrangements (or patterns) called sentences.

The most crucial language information needed in order to understand spoken and written language is found in the patterning or arrangement of words in meaningful sentence units (Hall and Ramig, 1978). Rules of the language determine what are acceptable possibilities of word order in any given sentence in the language. However, there are some word orders or sentence patterns which are more complex than others, hence those patterns may be more difficult to understand if they happen to be unfamiliar to the listener or reader. According to Hall and Ramig (1978),

(P)roblems in interpretation of reading material can be due to wrong interpretation of syntactic patterns. When the language of children is quite different from the syntactic patterns of reading materials, the chance of interference in the language processing task is greater than when there is a close match between the language of the reader and the material. Not only the mismatch of oral and spoken language but the complexity of syntactic patterns can be an obstacle to comprehension (p. 67).

Y. Goodman and Burke (1980) suggest that although meaning is derived from the semantic relationship in language, these relationships are carried through the syntax of the language. Hence, syntax is the vehicle through which language can be understood (especially in English). Syntax links the deep structure, or covert meaning, with the surface structure, or visible, written representation of language through the word orderings and context clues which it offers.

Syntactic Complexity

Dawkins (1975) discusses the following elements of syntactic complexity as the basis for the development of his syntactic complexity formula.

The syntactic processes which produce variety and levels of complexity among sentences are:

1. Arrangement - word order arrangements of simple sentences.
2. Rearrangement - changing one form of a sentence to another without changing the elements, e.g., changing a statement to "yes" or "no" question; changing active voice to passive voice.
3. Addition - combining simple sentences in several ways to make complex sentences.
4. Deletion - omitting certain words or parts of sentences according to the rules of the language.
5. Substitution - replacement of one element by another, e.g., a pronoun replacing a noun or noun phrase.

6. Agreement - adjusting words to conform to others in the sentence, e.g., subject/verb agreement.

Bormuth, Carr, Manning and Pearson (1970) studied fourth grade children's comprehension of between- and within-sentence syntactic structures. The purpose of that study was to discover what structures ought to be taught in schools in order to improve reading comprehension. The most startling result of the study to the authors was the fact that many of the students were "unable to demonstrate a comprehension of the most basic syntactic structures through which information is signaled in language" (p. 355).

In Palermo and Molfese's (1972) review of the literature on language acquisition at and above age five, certain syntactic structures were characterized as being difficult or even absent, at different age levels. In the review, the main syntactic threats to comprehension found in the 5 to 7 year age group were the use of the auxiliary have; of participial complements (e.g., Mary appeared, eating an apple); use of nouns (John, Mary); pronouns (he, she, it); and conjunctions, including if and so.

The review of literature also revealed that difficulties in the identification of pronoun referents tended to persist into the junior and senior high school levels (Golub, Fredrick, and Johnson, 1970).

The use of the passive structure (e.g., The book was given to her) by children between the ages of 5 and 9 was minimal (Turner and Rommetveit, 1967a and 1976; Slobin, 1966; Hayhurst, 1967; Gaer, 1969). Comprehension of connectives such as because, then, therefore, but, although, (Katz and Brent, 1968), as well as cause and effect relations (Huttenlocher et al., 1968) seemed to be very difficult below grade six level. Even the difference between the meaning of such simple words as and and or was not mastered by students between grades 9 and 12 (Neimark, 1970).

These are all studies which demonstrate some of the kinds of difficulties native English-speaking children have with syntactic elements of written English.

Children's Syntactic Development Of Language and Comprehension

Within the last two decades, the syntactic development of children's native (L_1) language has aroused the interest of many linguists and educators (Morrow, 1970). The information obtained from language research about children's acquisition of syntactic patterns can be valuable to curriculum development, to textbook writing, and to classroom instructional practices. Within more recent years the field of second language acquisition and learning has added to the store of knowledge concerning children's syntactic development by

publishing exciting findings obtained from research studies in the area of syntactic development in second language learners (Burt and Dulay, 1973, 1974; Hakuta, 1974; Ravem, 1975; Butterworth and Hatch, 1978).

Educators have become increasingly interested in children's language processes as a possible clue to understanding and improving reading instruction. For this reason research has been done in an effort to determine the relationship between oral language development and reading development. Results from this type of research suggest that much written material has complex syntactic structures which render the materials too difficult for the audience for whom it is ostensibly written (Bormuth, 1969; Granowsky, 1971; Glazer, 1973).

In one such study, Morrow (1977) used the Botel, Dawkins and Granowsky (BDG) formula for syntactic complexity (1972) to study the syntactic complexity in the spoken language of six-, seven-, and eight-year-old children. The BDG instrument identifies the elements of syntax and assigns a weight of 0-, 1-, 2-, or 3- to show the relative difficulty of each language element. To calculate the syntactic complexity of a group of sentences, the counts for each element within the sentence are totalled. Then the average for the total counts designates the syntactic complexity of the sample of language.

The results from Morrow's (1977) study, using the Botel, Dawkins and Granowsky formula for syntactic complexity, showed that sentence patterns and syntactic elements assigned a 0- or 1- count by the BDG were used more frequently than the more complex 2- and 3- count elements. The most frequently used sentence patterns were the subject-verb; subject-verb-adverb; and subject-verb-object patterns.

Morrow suggests that in designing language development programs for this age group, 0- and 1- count elements may be introduced first. After these patterns become a part of the child's typical language pattern the 2-count and later the 3-count elements may be introduced. Morrow also suggested patterns of instructional materials which may be developed for increasing linguistic fluency among the children.

Since English-as-a-Second Language students go through the same hierarchical stages of syntactic development as native-English speaking children, Morrow's study has important implications for teaching language and reading to ESL students.

Syntax and Textbook Comprehension

In the psycholinguistic model of reading, the reader, a language user, makes use of the redundancy in language as a cue to meaning (Smith, 1977; Goodman, 1976). This

redundancy is found in the sound system of the language, but to a much greater extent in the syntactic structure of the sentences encountered in the piece of text.

Readers need to understand from very early in the process of learning to read, that whatever one thinks and/or says can be written, but that written language is not really "speech written down" (F. Smith, 1977). The reason for this is that although there may be situations wherein speech may be formal, yet, on a whole, speech is usually very informal and semantically abbreviated. The presence of contextual non-verbal clues, such as gestures, intonations, stress and pauses, as well as the commonalities of experience help to carry the message to the listener in a conversation. On the other hand, written language has very strict formal conventions which govern the way speech or thoughts are written down. In a way, written language may be thought of as a translated version of thought or of speech.

When readers approach the reading of a peice of written text, they do so solely on the basis of the control they have of language. The content and organization of the reader's language systems are the only available tools for seeking meaning in the author's message (Burke, 1976). Readers who have very little control of the language cannot use the redundancy cues found in the syntactic structure of the sentences, to help

them make the "psycholinguistic guesses" needed for obtaining meaning from the passage (Goodman, 1976).

Hence, textbooks should be written with sentence patterns which approximate the sentence patterns found to be frequently used by students at their various stages of linguistic development.

W. Smith (1971) concluded that, although the findings of his study did not offer definite conclusions concerning the appropriateness of using different syntactic levels of written materials for students at various grade levels, there are indications that the "productive level may determine the best receptive level" (p. 59). His study was done with students from grades four through twelve.

W. Smith suggested as a result of his findings that "As a student matures, he comprehends best the material which is written near his own productive syntactic level, provided the vocabulary and content are not foreign to him" (p. 58). This brings us to a consideration of the problems of second language learners as they learn to read English and have to contend with the syntax, the vocabulary, and the content which are "foreign" to them.

ACADEMIC DEVELOPMENT IN A SECOND LANGUAGE

Problems of Limited English ProficiencyStudents in the United States

Secretary of Education, T.H. Bell's report to the President and to Congress on "The Condition of Bilingual Education in the Nation, 1982", stated that "(T)he potential target group for programs under the Bilingual Education Act consists of approximately 3.6 million school age children, aged 4 to 18, whose home language backgrounds are other than English and who are limited in the speaking, understanding, reading and writing skills in English needed to succeed in the English medium school" (Forum, 1982, p. 1).

Only 2.5 million LEP (Limited English Proficiency) children age five to fourteen receive any bilingual or English-as-a-Second Language instruction. Only one-third of this number receives help from a combination of state and federal funding, according to a National Institute of Education study (the Children's English and Services Study --CESS) cited in the biennial report. One of the highlights of the report is that in spite of efforts at the federal, state, and local levels, "schools in general are not meeting the needs of LEP (Limited-English-Proficient) children." Another highlight is that there is a major shortage of teachers with bilingual education qualifica-

tions--67,500 to 72,500 below what would be needed to provide full bilingual services to all LEP children (p. 3)

The foregoing information highlights the plight of the children in the United States whose home language is not English. This situation warrants a more intensive search for better ways of helping these students to overcome their problems which have roots in, among other things, their lack of mastery of English.

According to Chamot (1981), some teaching practices still used in classrooms are contrary to current second language acquisition research findings concerning the second language learning process. She urges teachers and administrators to avail themselves of current research information and to apply some of the recent research findings to the bilingual classroom where English is a second language.

Second Language Acquisition

This section presents an overview of research findings in second language acquisition.

Most of the early studies done in the area of second language acquisition were influenced in their approach by the methods used in first language acquisition research. As the conception of language and language learners changed over the years (starting from about the early 1940's), so have the approaches to the examination of

second language acquisition (Hakuta and Cancino, 1977).

The four main phases of approaches are:

1. The contrastive analysis phase (early 1940's to 1960's) when interference from the learner's first language was expected to occur because of differences between the two languages (Fries, 1945/1972).
2. In the error analysis phase (early 1960's to 1970's) all the learner's systematic deviations from the target language were analyzed and classified. All errors were considered part of the active hypothesis-testing of the learner that the new language is just like his/her own native language (Corder, 1967). The most frequent errors found were those of simplification and over-generalization of the rules of the second language. These errors were referred to as 'intralingual' errors (Dulay and Burt, 1974b).
3. The performance analysis phase. During this phase, researchers focused on the search for universal orders of acquisition of language structures among all second language learners, regardless of what first language they spoke (Milon, 1974; Cazden et al., 1975).

Longitudinal studies (Hakuta, 1974a, 1976; Gillis, 1975; Rosansky, 1976) and cross-sectional

studies (Bailey, Madden and Krashen, 1974; Dulay and Burt, 1973, 1974a, 1974c; Larsen-Freeman, 1976) were carried out in the quest for substantiation of the hypothesis that there are universal orders of acquisition of language structures. This plethora of studies was triggered off by interest and excitement over the results of Klima and Bellugi's (1966) study on the acquisition of negation in first language learners, and Brown's (1973) study on the acquisition order of grammatical morphemes in first language learners. The importance of these two studies to the second language researchers lay in the fact that both studies were based on longitudinal studies of children's spontaneous speech and that these studies documented regularities across children in the acquisition of grammatical morphemes and negation.

Although the acquisition of routine formulas learned as wholes (e.g., "What's this", or "I don't know") through imitation have been reported by Huang (1971), and acquisition of prefabricated utterances (which are variants of routine formulas) have also been reported

(Huang, 1977; Hakuta, 1974; Wong-Fillmore, 1976), until recently, very little notice has been given to these L_2 learning strategies.

4. The discourse analysis approach focuses on the social context of language acquisition. Studies dealing with the way second language learners initiate and carry on conversation (Huang, 1971; Wong-Fillmore, 1976) through use of prefabricated utterances and routine formulas, have been reported. The importance of input (Krashen, 1980) in discourse analysis has only recently been publicized.

In reviewing the literature on second language acquisition, four major research areas which seem to be of import today and which hold the greatest promise of classroom application are (1) the comparison of first and second language acquisition; (2) the effects of social, affective and cognitive factors; (3) the importance of second language input, and (4) second language learning in school setting.

First and Second Language Acquisition Compared

The $L_1 = L_2$ hypothesis is widely accepted today. After Klima and Bellugi's (1966) study on the acquisition of negation in first language learners, and Brown's (1973) study on the acquisition order of grammatical morphemes in first language learners, many second

language acquisition researchers began using the same type of methodology in an effort to find out if the second language learner went through similar stages of development.

Milon (1972) observed the acquisition of negatives by Ken, a seven-year-old Japanese child learning English in Hawaii. Milon's hypothesis was that there would be significant similarities between first and second language acquisition because of universal learning strategies used by children in acquiring language. Milon applied Klima and Bellugi's stages to his data by dividing the protocols into three stages roughly similar to the first-language stages. Milon's conclusion was that Ken had used what is assumed to be a universal set of language learning strategies to acquire English. Also, that Ken's manner of learning was very similar to what he would have used had he been a native English-speaking child just learning his first language.

Ervin-Tripp (1974) studied all the English-speaking children between the ages of four and nine in an area in Geneva, Switzerland. These children attended schools where French was the language of instruction. The children had been in the school for nine months. Ervin-Tripp's research questions were: Is second language learning like first language learning? Is there a change in learning rate or process with age?

Most of the tests used in Ervin-Tripp's study involved the comprehension of syntax and morphology, rather than production. Ervin-Tripp found many similarities between the sentence forms produced and understood by children learning their mother tongue and children learning a second language. She notes the following: That second language learners, like first language learners, remember best the materials which are predictable, and interpretable; the basic preference for language learners at first is for a principle of one meaning - one form in an effort to avoid meaning clutter. In other words, they felt more secure in learning and using just one meaning for any word encountered.

Ravem (1974), Dulay and Burt (1974) and Krashen, Madden and Bailey (1975) all agree that second language learning is like first language learning in that the second language learner uses the same strategies as the L₁ learner and makes the same types of transitional errors (e.g., omissions of inflected endings and minor word classes and overgeneralizations of rules).

Chamot (1981) summarizes the similarities, between L₁ and L₂ acquisition based on a review of literature, as follows:

1. Children remember and use language that is meaningful.
2. They learn through a creative construction process (Dulay and Burt, 1974) of putting

together bits of rules they know about the language, rather than by exact imitation of adult models.

3. Language acquisition is gradual, with learners using whatever language they can manage for the purpose of communication.
4. There are definite stages of language proficiency as the language learners advance towards mature control of the language, starting with very incomplete and grammatically incorrect sentences.
5. The acquisition of language features is ordered and hierarchical.
6. First and second language learners go through an initial silent period (Krashen, 1980) or delay in the onset of speech. They need to listen to the language and try to make sense of it before they can attempt to speak.
7. Another similarity between first and second language acquisition can be found in the commonality of the uses to which language is put--to request, to get information, to express fear, joy, and other emotions.

Although there are many similarities between L_1 and L_2 acquisition, there are also differences which are sometimes overlooked in the presence of the many existing similarities (Wong-Fillmore, 1976).

The most obvious difference between first and second language acquisition is the age difference. A second language learner is older, more cognitively and emotionally mature than a one-year-old child, for instance. For example, Ervin-Tripp (1973) found in her study in Geneva that the older children learned phonology, morphology and syntax faster than the younger children. She attributed

this to the fact that the older children's experience in learning a first language, as well as their command of more sophisticated learning strategies, were beneficial in learning the new language, French.

The older learner's knowledge of a first language helps the second language learner to learn by, first of all, borrowing from the first language, and then discarding the borrowed items as soon as the correct expression is learned in the new language.

Effects of Social, Affective and Cognitive Factors

Social and affective factors, as well as the variances in learning styles, have been found to affect second language learning significantly. The learner's attitude toward the second language cultural group and his/her level of desire to participate in that group has as much effect on the learner's success in acquiring the new language as do his/her aptitude and verbal ability (Lambert, 1981). Lambert states that a favorable set of attitudes and motivation can compensate for a lack of natural aptitude for acquiring a second language and can predict successful learning of that language.

Schumann (1976b; 1978a, 1978b) compared the degree of second language acquisition among six learners--two children, two adolescents, and two adults. The student who made the least amount of progress in learning English was the one most socially and psychologically distant from

the English speaking community. This student, Alberto, was a Costa Rican immigrant worker who made no effort to meet English-speaking people, and who associated almost entirely with Spanish-speaking friends.

Wong-Fillmore (1976) also found that Nora, the most social, most outgoing child in her study, was the one who learned English most quickly.

Nora constantly and actively sought opportunities for interaction with her English-speaking peers. By always choosing to become involved in activities that "involved constant verbalization--play-acting, arguing, complaining, gossiping, and general chit-chatting" (Wong-Fillmore, 1976, p. 573)--Nora learned more of the language than her more reticent companions in the study.

Input Hypothesis

Language learners need input from others in order to learn a language. However, it is only recently that the subject of language input has been given close scrutiny.

Krashen (1980) has proposed an Input Hypothesis, which states that one acquires a second language by understanding linguistic input that is a little beyond one's current level of proficiency. The learner arrives at an understanding of unfamiliar words and concepts by using clues available from the verbal and nonverbal contexts, as well as from the learner's knowledge of the world (schema) and of language, in general. Oral input that is too far

beyond the learner's current language level will be heard as "noise" (Smith, 1977), while input that is at or below the learner's level will provide no new information, hence it will not aid the acquisition process.

Another component of Krashen's Input Hypothesis is that language acquisition is based on meaning rather than on an analysis of grammatical structures of the language. Natural language is redundant enough to present the grammatical structures of the language. Appropriate input in a wide variety of communication situations will provide these structures on a functional basis which meets the communication needs of the learner. In other words, structured drills are practically useless as a means of helping the learner to acquire a new language.

Second Language Learning in School Settings

There are differences between language-learning in natural settings and in school settings. Krashen (1978) makes a distinction between language acquisition and language learning in his description of the Monitor Model of adult second language performance. Language acquisition, according to Krashen, is an unconscious process for internalizing the rules of a target language. Language acquisition is very similar to the process children use in acquiring first and second languages. For acquisition to take place, there should be much meaningful interaction in the target language--natural communication--in which

speakers are allowed to speak without undue concern for the "correctness" of their utterances, but only for the messages they are conveying and receiving.

Language learning, on the other hand, involves an explicit, formal study and application of the rules of a language. This is the situation usually found in classrooms.

Krashen claims, also, that the acquisition process accounts for practically all one's oral proficiency in a language whereas the learning process serves the function of a monitor or self-checking device. Furthermore, the monitor is used only by those learners whose cognitive style encourages an analytic approach to language development and then only when a specific task demands it for improved accuracy. Implications from the Monitor Model are that most students do not become proficient through drills, corrections of their errors, or by formal teaching in grammar but by hearing and using language in meaningful situations.

On the other hand, the development of oral language proficiency required for social, face-to-face communication is not enough for academic success (Cummins, 1980; Wong-Fillmore, 1982). Cummins describes two types of language proficiencies: (1) BICS, or Basic Interpersonal Communicative Skills, which encompasses accent, oral fluency, and sociolinguistic competence; and (2) CALP, or Cognitive/Academic Language Proficiency, defined as those

aspects of language proficiency needed for the development of cognitive and conceptual knowledge.

Cummins argues that second language learners who do not have the necessary CALP in the second language are not equal to the academic demands of school work. Yet, in schools, students are often exited from bilingual or ESL-only programs because they communicate reasonably well in social situations.

LANGUAGE PROFICIENCY AND ACADEMIC ACHIEVEMENT

According to Cummins' (1979) Linguistic Developmental Interdependence Hypothesis, the Cognitive/Academic Language Proficiency (CALP) acquired in the first language (L_1) is transferable to the new language (L_2). The Linguistic Developmental Interdependence Hypothesis proposes that the level of competence in L_2 that a bilingual child attains is "partially a function of the type of competence the child had developed in L_1 at the time when intensive exposure to L_2 begins" (Cummins, 1979, p. 233; Skutnabb-Kangas and Toukamaa, 1976). If the students' out-of-school linguistic environment strongly promotes the usage of certain functions of L_1 language, vocabulary, and concepts (as in the case of middle class children in immersion programs), then the intensive exposure to L_2 is likely to result in high levels of L_2 competence with no negative effects on L_1 competence.

The presence of an initially high level of development in L_1 makes it possible for the student to develop a high level of L_2 proficiency. However, if the student's L_1 skills are low, intensive exposure to L_2 in the early grades is likely to impede growth in L_1 . This will, in turn, hinder the development of L_2 .

In short, the Linguistic Developmental Interdependence Hypothesis proposes that the language of instruction and the type of L_1 competence developed prior to entrance into school interact strongly, and, together, act upon the student's academic achievement.

Also, because of the transferability of CALP from one language to another, the knowledge and concepts acquired in L_1 , for example, whether they be in the area of grammar, reading, writing, mathematics, social studies, or any other academic subject, can be transferred as soon as the learner reaches what Cummins calls the threshold level (Chamot, 1981).

Cummins (1979) discussed the threshold level hypothesis as a complement to the developmental interdependence hypothesis. The assumption of the threshold hypothesis is that those aspects of bilingualism which might positively influence cognitive growth are unlikely to come into effect until the student has attained a certain minimum or threshold level of competence in the second language (p. 229).

Similarly, if that child attains only a very low level of competence in either the first or second language, interaction with the environment through the language (L_1 or L_2) both in terms of input and output will suffer.

The available research data according to Cummins (1979) and Toukamaa and Skutnabb-Kangas (1977) suggest two thresholds. The lower threshold (equivalent to BICS level) is necessary for lower level learning, while the second, or higher level of bilingual competence (e.g., CALP level) is necessary for advanced or accelerated cognitive growth. Learners are at the threshold level of CALP when they have acquired the appropriate vocabulary for expressing concepts already learned in L_1 (Chamot, 1981).

SECOND LANGUAGE LEARNING AND READING

According to Cummins (1979), the primary school task for the child is to learn how to obtain meaning efficiently from printed text. Subsequent academic progress largely depends upon how well the child accomplishes this task. Three general aspects of children's knowledge of language which have been hypothesized as important for the acquisition of fluent reading skills are vocabulary-concept knowledge (Becker, 1977); metalinguistic insights regarding the nature of printed text (Smith, 1977); and facility in using and assimilating language which is taken out of context of an immediate interpersonal communication

situation (Elsasser and John-Steiner, 1977; Olson, 1976, 1977; Vygotsky, 1962). Cummins (1979) adds that "Although these three aspects can be distinguished conceptually, all are determined by the child's linguistic experiences prior to school and are likely to be strongly related to one another empirically" (p. 237).

Vocabulary-Concept Knowledge

Becker (1977) defines vocabulary-concept knowledge as the child's understanding of the concepts or meanings which words represent. He argues that the DISTAR language program failed to significantly improve the reading comprehension skills of the students for whom the program was designed because reading comprehension largely depends on the child's vocabulary-concept knowledge. Becker points out that vocabulary and concept-learning involve a "linear additive set" wherein the learning of any one element provides no help in the learning of another element. This phenomenon is in contrast with the learning process in other areas such as spelling or math, where specific strategies for problem-solving can be successfully taught.

Morris (1971) notes that a possible reason why minority language children perform so poorly on reading comprehension tests is that knowledge of vocabulary and the grammatical functions of words are so important in reading. He further suggests that the purpose of teaching

reading in secondary schools is to help students explore, interpret and extend the concepts which are represented by the written symbols. However, although minority language children can often recognize and pronounce the word, frequently the word "fails to trigger anything because the concepts it represents to us and to the author simply do not exist for the child, or they exist in a limited, vague form" (p. 162).

If the reader does not understand the concepts to which the words refer or if the reader has never developed the conceptual basis for abstraction in English, then efficient prediction of information and fluent reading comprehension may never be possible.

Cummins (1979) proposes that "If a child on entry to school does not have access to the semantic meaning assumed by beginning reading texts and culturally-different schools the early search for meaning in printed texts is likely to be futile" (p. 238).

Kaminsky (1976) argues that bilingual children who have not had the opportunity to develop native-like command of the syntactic structures and vocabulary of both L_1 and L_2 may fail to develop fluent reading skills in any of the two languages. The reason for this failure is that their knowledge of syntactic rules and vocabulary of each language may be insufficient to make

the accurate predictions necessary for receiving information from the text.

Metalinguistic Insights

Smith (1977) maintains that for children to learn to read, they must acquire two insights. The first is that print is meaningful; the second is that written language is different from speech. If children do not understand that the differences they see on a printed page have a specific function they will have no motivation to learn to read. Also, if they do not understand the differences between spoken language and written language, their predictions regarding the meaning of the written text are likely to be inaccurate. Hence although comprehension of written text is dependent upon oral language referents, it is crucial for beginning readers, especially those learning English as a second language to understand the conventional differences between spoken language and written language.

Decontextualized Language

Written texts, as Olson (1977) points out, represent meaning exclusively through the use of linguistic cues. This abstract representation of language presents difficulties in the acquisition of reading skills except when students have developed facility in processing language which is devoid of non-verbal interpersonal cues.

Cummins (1979) hypothesizes that for students whose knowledge of their native language (L_1) is well advanced prior to their exposure to another language (L_2), the medium of instruction is irrelevant. However, in the case of second language learners who are illiterate in their own language the medium of instruction "may be vitally important" (p. 239). In such a case, the students' vocabulary-conceptual knowledge may be meager. There may be difficulty in understanding and assimilating decontextualized language. There may also be little or no insight into the meaningfulness of print, nor into the differences between the conventions used in written language and those used to carry meaning in oral language. There may be no conceptual basis in either the native language or in English for the vocabulary they encounter in English.

If reading instruction, in such a case is introduced in English (L_2), as in English-as-a-Second Language classes, learning to read may become considerably more difficult because it is practically impossible for that student to relate the written symbols to his/her knowledge of language. Hence, in order to develop reading fluency, L_1 illiterate students may be required to develop or expand their conceptual knowledge via a language for which they have very little or no understanding (Cummins, 1979, p. 240). In such cases, the students may become "semi-

literate", in that they may develop low proficiency levels of literacy in both languages (L_1 and L_2).

Middle-class majority language children enrolled in an "immersion" program (wherein all instruction is given in the target language), have little knowledge of the syntax and vocabulary of the target language at the time that reading instruction in that language begins. However, it is very likely that the middle-class majority language children have developed some degree of ease in processing decontextualized language as well as some insights that written language is different from speech (Cummins, 1979, p. 240).

Furthermore, because middle-class children usually have wider L_1 background experiences than low socioeconomic status children, it is likely that the former have already developed the concepts they will meet in the target language reading class. Having learned the concepts in their own language first, the task in the target language (L_2) is essentially one of "learning a new label for an existing concept" (Cummins, 1979, p. 240). Thus, although middle-class majority language "immersion" students initially have but little knowledge of the target language, this knowledge grows and expands in the process of learning to read in L_2 because the task is meaningful (since the concepts are already understood) and the students are likely to be highly motivated to learn L_2 .

since there is security in being from the prestige language group.

The students who are literate in their own language (L_1) bring to the reading task in learning to read a second language (e.g., English), certain strategies which facilitate, to some extent, the acquisition of literacy in the target language (Thonis, 1978). From their experience in learning to read in their own language, comes the self-confidence in the ability to read. In some cases, the graphic form (letters, paragraph division, etc.) may be the same as that used in written English. The directionality might be the same in both languages (left-to-right; top-to-bottom of the page). The necessary association between speech and print is already established. According to Thonis (1978) the pre-literate skills are there for learning to read English. Nevertheless, learning to read English might not always be very easy for all students who are literate in their own language because they need to learn new structures and new oral language forms to match the new written forms.

Chapter 3

METHODOLOGY

Overview of Design and Preplanning

The procedures used in this experimental study were for the purpose of investigating the effects that matching the syntactic structure of written textual materials with the oral language proficiency levels of high school English-as-a-Second Language (ESL) students will have on their reading comprehension achievement.

A 2 (structure) x 2 (English oral proficiency levels) factorial design was planned for answering the research questions:

1. Does matching the syntactic structure of sentences in history textbooks with the syntactic structures frequently used at the fourth and fifth oral language proficiency levels of high school ESL students affect their English reading comprehension achievement scores?
2. Does the level of English (L_2) oral language proficiency of high school ESL students affect their English reading comprehension achievement?

This design was built around three variables--a nominal (categorical) independent variable; a moderator variable; and an interval dependent variable. The independent variable was the structure of the textual reading material which was manipulated as "matched" or "unmatched." The moderator variable was the oral English language proficiency levels of the high school ESL students who were participants in the study. The fourth and fifth proficiency levels were

observed in this study. The dependent variable was the reading comprehension achievement which was determined by the scores on the post-test.

Choice of Population

The research design included the initial participation of at least 80 high school English-as-a-Second Language students with one to two years of English instruction and who are currently enrolled in history classes.

The reasons for establishing the above-mentioned parameters for choosing the population sample for this study were that:

(a) From a sample of 80 high school ESL students who have had one to two years of English instruction there is a greater probability of finding 20 students at the fourth oral language proficiency level than if a much smaller initial population were to be used.

(b) All high school students are required to take history classes (especially American history) for graduation. For the ESL students, the textbooks being published are often very difficult because of complex sentence structures and unfamiliar vocabulary used to describe abstract concepts.

(c) Very few ESL students with less than one year of English instruction are likely to be enrolled in a history class, and would probably not be able to read a history book with any comprehension whatever.

Upon making inquiries in school districts in and around the Seattle, Washington area, the investigator discovered that there is a large Vietnamese-speaking population in the area. Hence, high school Vietnamese students were chosen as the target population for the study.

Choice of Measurement Instruments

The procedures built into the design required the use of a testing instrument which would determine the oral proficiency levels of the students; a cloze reading test to ascertain the students' ability to read in English; and, finally, materials for determining reading comprehension achievement of the students.

After much research in the Buros Mental Measurement Yearbooks (1972, 1978, 1980) and in the Oral Language Tests for Bilingual Students (1976) as well as other test location manuals, the investigator inspected five language proficiency tests for second language learners. The Bilingual Syntax Measure II was chosen for use in this study for determining the oral language proficiency levels of the students.

I. Bilingual Syntax Measure II

The Bilingual Syntax Measure II (BSM II) assesses the oral proficiency levels of students in grades 3 to 12 in English and in Spanish. There is an English and a Spanish

version of the test (Burt, Dulay, Hernandez and Taleporos, 1980). The administration of the test "approximates a real conversation with a student about cartoon-like pictures" (p. 3), the questions allowing for a range of responses which the examiner can use to maintain a flow of everyday conversation (p. 3), in English, in this case.

The test is built upon two psycholinguistic concepts about language development, namely, that "children acquire language largely through a process of 'creative construction'; and that "language structures are acquired in an ordered, hierarchical fashion" with certain grammatical structures being learned prior to other more complex structures.

BSM II identifies six levels of linguistic proficiency. The scoring system is based on a scale arranged according to the order of mastery of syntactic structures found in learners.

The authors of BSM II examined the test for internal consistency and for test-re-test reliability. The alpha coefficient for the total scores (N = 500) was .90. For the 3/4 levels subcluster the coefficient was .86 and for the 5/6 levels subcluster, .80. On the test-re-test comparisons there was a high degree of agreement. The Technical Handbook (1980) gives more information about the reliability of the test.

II. Cloze Reading Test

In order to ascertain the students' ability to read English, a cloze reading test was developed by the investigator. First, a passage titled "Spread of a Culture--the Hoabinhians" was adapted in simpler language from a unit on Southeast Asia found in the textbook The Human Expression: A History of Peoples and Their Cultures by Welty (1977). Next, a cloze reading test was developed from the passage by deleting every fifth word in the text. (A copy of the cloze test may be found in Appendix A.) The cloze passage was written at a 7th grade readability level.

The passage was culturally relevant since it dealt with information about Southeast Asia. Findings from a study done by Reynolds, Taylor, Steffenson, Shirey and Anderson (1982) suggest that culturally relevant content is more easily comprehended than subject matter which deals with concepts from other cultures.

Both the Bilingual Syntax Measure II and the cloze reading test were used for preliminary testing of the students prior to random assignment to experimental and control conditions within this study.

III. Reading Comprehension Materials

The reading materials used for experimental and control conditions within this study represented the independent (treatment) variable of the design. A 400-word passage was taken from The New Exploring Our Nation's

History, a history textbook with a fifth to sixth grade readability level. This textbook is used in some of the nearby high schools with the less fluent ESL students enrolled in history classes. The passage was simplified by using simple sentence structures which closely matched the structures found to be frequently used and understood by students at the fourth oral proficiency level (see Appendix B).

A passage was also taken from The American Experience: Our Nation's Story (1979), a history textbook used in the regular history classes of some of the nearby high schools. The advanced ESL students who are enrolled in those classes also use this textbook. This 400-word excerpt was also adapted by using simple sentence patterns to more closely match the patterns found to be used and understood by the fifth proficiency level students (see Appendix C).

Comprehension questions found at the end of the chapter in the textbooks were used to obtain reading comprehension achievement scores.

After the testing materials were gathered, two pilot studies were carried out before the actual field study was done.

PILOT STUDY I

Purpose of Pilot Study I

The purpose of the first pilot study was (1) to determine if the cloze test and the "matched" (adapted) versions of the textbook excerpts were appropriately written for the intended audience; and (2) to get the students' reactions to these instruments.

Population Used

The participants in the first pilot study were two ESL classes in a nearby high school (25 students total). The students all had between one and two years of English instruction. They were all pleased to be part of a "try-out" team, so they were very cooperative and helpful.

Implementation

In March, 1983 arrangements were made to "try out" the testing materials in a nearby high school. The ESL teacher willingly gave permission for the investigator to come in on two days during the period when the advanced students would be in his room.

On each day, the classroom teacher first explained the purpose of the tests. The investigator then introduced herself and placed a copy of the test booklet face down on each student's desk. After all students had received a copy, they were directed to turn over the test booklet and look at the directions given on the white

page. These were the directions for the cloze reading test.

The investigator then read the written directions for the cloze test orally while the students followed the reading silently. The example given on the directions sheet was done orally, with the students helping to supply the missing words for the sample blank spaces.

At the end of 20 minutes they were stopped. They were directed to read the passage on the green page (the level 4 adapted version of the test), then answer the questions found at the end of the passage and after they had finished answering the questions on the green page, they could go on to the passage on the blue page (the level 5 adapted version). The investigator showed them the passage and questions to be answered for the test on the green page and on the blue test. They were then asked if they understood what to do and they said "yes."

Four students on the first day completed both the level 4 (green) test and the level 5 (blue) test before the end of the period.

Six students on the second day completed both levels.

Scoring on the cloze test was done by hand with answers scored as "correct" or "incorrect." Synonymous answers were also accepted as "correct."

Scoring on the comprehension (levels 4 and 5) tests was also done by hand. The means were computed on each test.

General Observations and Conclusions

The students were obviously unaccustomed to taking cloze reading tests. Although the directions were read and explained carefully and although they were able to give correct answers for the blanks in the sample test, when they were ready to start the actual test some of them seemed to think that they should take words from the lead-in paragraph of the cloze test to fill the blanks. Some of them said they prefer tests with all the words present in the paragraph.

All the students seemed to be happier when given the fully-worded passages for the levels 4 and 5 adapted versions reading tests. Some of them said it was easier to read the fully-worded passages. However, they also said they liked the challenge of trying to find words in their heads to fill in the blanks in the cloze test. The students seemed to be very pleased at being part of the "try-out" team so they were very cooperative and helpful.

Modifications

In order to make the cloze test easier, the directions were re-written with easier steps to follow. A new sample was given on the directions sheet. This sample was developed from a history topic so that the practice sample

would deal with concepts from the same conceptual discipline (history).

The lead-in paragraph was made more explicit and set off through the use of single line spacing from the body of the test. Some sentences were also simplified to make it easier for the students to "guess" the correct answers for the blanks.

PILOT STUDY II

Purpose of Pilot Study II

The purpose of the second pilot study was (1) to determine the maximum length of time needed to carry out each segment of the field study; and (2) to see if the adjustments in the cloze test made it more comprehensible.

Implementation

During the first week of April, 1983, six Vietnamese students who had had one to two years of English instruction were located in another school district in a nearby town. Then a trial run of the entire study procedures was carried out. This lasted for three days.

The ESL teacher at the school screened the students for participation and explained the nature and purpose of the pilot study. Arrangements were made for the investigator to carry out all testing in the school's Bilingual Education Office.

On the first day, the students were sent to the examination room one at a time. When each student came to

the examination room, the investigator introduced herself, conversed briefly about the purpose of the study and received the student's oral consent to participate in the pilot study. The student was then asked to fill out an Informal Questionnaire (see Appendix E). A number was assigned to the student on the Informal Questionnaire.

The Bilingual Syntax Measure II was administered according to testing directions, to determine the student's level of oral proficiency. At the end of the day the tests were scored manually and the results showed that four students performed at the fourth proficiency level and two performed at the fifth level.

On the second day, the cloze reading test was group-administered (the six students were all tested at the same time) in the same examination room. First, they were told that it was a reading test and that, while writing the passage, which was taken from a history textbook, the investigator left out every fifth word. Their task would be to try to think of what words were missing and write the missing words in the blank spaces. The written directions were then read orally and all necessary clarifications were given to the students.

Before the six students came into the examination room on the third day, they were randomly assigned to experimental and control groups. First, each student number was written on a slip of paper and then the paper

was folded. Next, the word "matched" was written on three slips of paper and the word "unmatched" was written on three other slips of paper and each was folded. Then the numbers were placed in one box and the words were placed in another box. Each time a number was randomly chosen, a word from the other box was also randomly chosen.

After the students settled down in their seats on the third day, the investigator handed each of them either a "matched" or "unmatched" version of the excerpts (either the green - level 4 version or the blue - level 5 version) according to their random assignments.

The investigator then read the directions orally and also showed the students what to do. They were instructed to read through the whole passage first and then start answering the questions afterwards. They were also reminded that the results of the tests would not, in any way, affect their grades on their report cards, and, in fact, had nothing to do with their regular classroom work, so they should do their best without any fears. The students were allowed to leave the room when they completed the test.

General Observations and Conclusions

The cloze reading test procedure seemed to be unfamiliar to these students, also, but they did not ask for any help. They seemed anxious to take on the challenge of the unfamiliar.

The Bilingual Syntax Measure II took approximately 30 minutes to be administered to each student. The cloze reading test took a maximum of 40 minutes to be completed.

The level four students took a maximum of 35 minutes to complete the treatment (reading and comprehension) tasks. The level five students took a maximum of 25 minutes to complete their treatment (reading and comprehension) tasks.

In Pilot Study II, the participants who received the level four "matched" version (N = 2) had a mean score of 85. Those who received the "unmatched" version (N = 2) had a mean score of 60.

The participants who received the level five "matched" version had a score of 98 while the participant who received the "unmatched" version had a score of 70.

Although the population in Pilot Study II was so small, the tendency was towards higher mean scores for the participants who received the "matched" version than for those with the "unmatched" version.

FIELD STUDY

Purpose of the Study

The purpose of the field study was to investigate the effects that matching the syntactic structure of textual material with the English oral language proficiency levels

of high school English-as-a-Second Language (ESL) students has on their reading comprehension of the materials.

The hypothesis tested in this study was that when the syntactic structure of textual materials "matches" or is similar to the English syntactic structures (or Oral English language patterns) frequently used by high school ESL students at the given oral language proficiency levels, then reading comprehension achievement is greater than when there is no "match" or similarity.

Implementation

After inquiring about the ESL high school student population distribution by languages in the Tacoma, Highline, Seattle, Kent and Bellevue School Districts, the investigator decided that there was a large enough Vietnamese population in the Seattle School District to satisfy the requirements of the research design. Accordingly, an application for permission to carry on the experimental study in the Seattle School District Number One was made. Permission was granted and after contacting the principals of the schools and making the necessary arrangements, the study was undertaken in April, 1983, in three urban high schools--Ballard, Franklin, and Ingraham High Schools.

Population

The investigator had hoped to be able to locate initially at least 80 Vietnamese-speaking students who

had had from one to two years of English instruction and who had been enrolled in history classes. However, the ESL departments at the three high schools screened a total of only 64 ESL students who fell within the specified categories. There were 40 students from Ballard High School, 8 from Franklin High School and 16 from Ingraham High School.

This group of students represented a cross section of ESL students as far as academic and social school experiences are concerned. For example, the physical environment of each of the three schools is very different. Ballard and Franklin are two older schools, one in a predominantly white Irish neighborhood, the other in a predominantly black neighborhood, while Ingraham is a newer, more modern school which is located where the city limit and a suburban area merge.

The group was representative of all high school ESL populations as there were 24 ninth graders, 14 tenth graders, 18 eleventh graders and 8 twelfth graders. They all reported that they could read their own home language on the Informal Questionnaire but, on a whole, expressed insecurity about their ability to read English.

By the final stage of the study (the treatment stage), there were 36 students remaining in the experiment.

Test Instruments

Three testing instruments were used in this study, namely the Bilingual Syntax Measure II-E, a cloze reading test, and two comprehension tests based on the reading passage used in the treatment conditions.

The Bilingual Syntax Measure II-E was used to determine the oral language proficiency levels of the students. This test was determined to be appropriate for the study mainly because of its informal nature; because it was designed upon psycholinguistic principles; and because it was designed to measure the presence of syntactic structures which are produced by students at different levels of English language acquisition or learning. Students who performed at the fourth and fifth oral language proficiency levels were chosen for participation in the study.

After the students' proficiency levels were identified, a Cloze Reading Comprehension Test, developed by the investigator, was administered for the purpose of ascertaining the students' ability to read English. The cloze reading test also indicates the reader's comprehension of the reading material because the reader demonstrates his/her understanding of the structure of the language by the choice of words used to fill in the blank spaces. Cloze tests have been successfully used in reading comprehension research (Ruddell, 1964; Oller, 1973; Propst and Baldauf, 1979).

The investigator adapted a passage from a high school history textbook, then deleted every fifth word in the passage. The deleted words were replaced by underlined blanks of equal lengths. The Cloze Reading Comprehension Test had a short lead-in paragraph to introduce the topic and the cloze portion of the passage had 279 words and 40 deletions.

Greater reliability and discriminative power was obtained in the test through deleting every fifth word (Taylor, 1953; Bormuth, 1967) than if either a less frequent or a more frequent word deletion was employed. MacGinitie (1961) found that patterns with less than every fourth word deleted or with more than every tenth word deleted are either very difficult to take or impractical to construct. Bormuth (1967) found that the deletion of every fifth word and the utilization of an exact-word scoring procedure offered a high level of reliability and discriminative power to the cloze passage and to the obtained scores. The Cloze Reading Comprehension test, titled "Southeast Asia" was pilot-tested in both pilot studies. Because of absenteeism of some of the students, the lower limit of 20% correct answers for participants to be included in the treatment conditions was removed. Also, the investigator decided that since those students were enrolled in classes in which they had to read, anyhow, including them in the treatment condi-

tions would help to show the effects of matching the reading materials with the students' oral proficiency levels.

The reading comprehension tests used with the treatment passages were taken from the textbooks from which the passages were taken.

The "matched" version of the level 4 passage was simplified so that of the 30 sentences in the passage, 24 are of the S V O (subject-verb-object) pattern with extensions which amplify the ideas expressed. For example, look at the two versions which follow:

"Unmatched" (textbook) version: Only
a few workers are needed to check dials and
see that the machines are working properly.

"Matched" version: The machines need only a few
workers to check the dials. The workers
check to see if the machines are working
properly.

In the preceding example the explicit S V O pattern is used in the "matched" version and two sentences are used in place of the one sentence used in the "unmatched" version. In addition, the passive voice is replaced by the active voice in the "matched" version in order to lessen the number of occurrences of the passive voice in the passage.

Paragraphs taken from the textbook version were broken into two or more short paragraphs in the "matched" version. This was done in order to lessen the idea

density of the original paragraphs as well as to help the students to focus more clearly on specific concepts, expressed in the paragraphs. The paragraphs were also made shorter in order to reduce the anxiety of the participants as they see smaller chunks of information to be processed in the shorter paragraphs. For example, the first paragraph of the "unmatched" version was simplified and written as three short paragraphs in the "matched" version.

Some sentences in the "matched" version were long, rather than short and choppy. Those particular sentences showed cause/effect relationships, which would have been lost in short sentences. For example:

The stories amazed people who read them because the robots are machines that are almost as smart as human beings.

If this sentence had been written as short sentences they might have appeared as follows:

The stories amazed people. The people read them (the stories). The robots are machines. The machines are almost as smart as human beings.

The students would have lost the meaning in the proliferation of sentences while the use of the word "because" (a word they used very often during the oral test) pointed out the reason why the stories amazed the people.

The investigator deliberately used the word "surprise" in the sentence which followed in order to

give an idea of the meaning of the word "amazed."

The few times that sentences with inverted word order were used, the introductory words were familiar phrases which made it easier for the students to understand the rest of the sentence. For example,

"matched" version--

A few years ago, some science fiction stories were written about robots.

"unmatched" version--

It was not very long ago that readers of science fiction were amazed by stories about robots, machines with almost human intelligence.

Method of Data Collection

For four school days, from 8:00 a.m. till 2:15 p.m. the Bilingual Syntax Measure II (English version) was administered to the pre-screened students (a total of 64). One graduate student and two university seniors were trained to administer the test in order to assist the investigator in this task.

On the first day the investigator alone tested students at Franklin High School. On the second day two of the trainees assisted in testing the students at Ballard High School. The investigator emphasized the importance of writing the students' answers verbatim on the student response sheets. On the third day two of the trainees assisted in testing at Ingraham High School. On

the fourth day testing was done at Ballard High School again with one trainee assisting from 8:00 a.m. till noon and the investigator continuing alone after lunch.

An English-as-a-Second Language contact person was assigned to assist the investigator in each building (e.g., a Vietnamese teacher or instructional aide) by the vice principal or by the department head. The contact person, in each situation helped to collect the list of names of students. They also helped by sending out "Request to Report Forms" for students to attend the testing sessions. At Ballard the instructional aides also helped to actually get the students from the classrooms by making contact with the teachers on the intercom and by trying to locate students who did not show up at the right time.

At each building the contact person explained to the students in Vietnamese what the study was about. In addition, as the participants came in for individual oral language testing the examiners gave them a consent form written in Vietnamese which explained the purpose and conditions of the study (see Appendix D for copies of the consent form written in Vietnamese and in English). Each participant was asked if s/he would like to participate. Then s/he was asked to fill out the Informal Questionnaire (Appendix E).

Each participant was told that the examiner wanted to know how much English s/he can speak. S/he was shown the picture story booklet and told that the pictures tell a story and that after s/he had looked at the pictures the examiner would ask questions. The answers given would give an idea of how much English s/he can speak.

Next, the Bilingual Syntax Measure II (English version) was administered strictly according to the directions given in the Manual and in the Student Response Booklet. Each student was thanked at the end of the testing session. At the end of each day the investigator scored the responses and indicated the level of oral proficiency on the Student Response Booklets.

On the fifth day, the investigator administered the Cloze Reading Comprehension Test at three schools--during first period, during third period, and during fifth period.

The participants were told that they were going to do a reading test in order to show how well they can read English and understand what they read.

The construction process was then explained to them--that the investigator took a lesson from a history textbook and wrote the lesson in easier language; then every fifth word was taken out, leaving blank spaces in place of the words. They were told that, as they read they would have to think about what words might have been

taken out according to what words would make sense in the sentences. The directions were read orally by the investigator and the example was explained and completed with the students' help.

Example

Samuel Slater opened the first cloth
factory in America. The first nine people
he _____ to run the machines were
_____ less than twelve years old.
_____ Slater hired the children
because _____ machines did not need
_____ with much skill or experience
_____ operate them.

The participants were told to try to do their best in filling in the blanks but that they should not worry about it because most of the words were easy words. They were also encouraged to try to go through the whole passage just thinking about the words that might have been left out, then when reading through for the second time they could start writing in the words they think are missing from the sentences.

On the sixth and seventh days the treatment conditions were presented in which the participants were tested on their comprehension of excerpts from history textbooks given them to read.

The participants were randomly assigned to treatment conditions ("matched" or "unmatched") in the following manner: After the participants entered the examination room and sat down, the investigator passed out the examination booklets which were previously arranged in alternating order. Each odd-numbered booklet (1, 3, 5, etc.) had the "unmatched" version of the excerpts and each even-numbered (2, 4, 6, etc.) booklet had the "matched" version. In that way no two students sitting beside each other or in front of or behind each other had the same version of the excerpts.

All scoring of tests was done by hand. The Cloze Reading Test was scored by the synonym count in which either the exact word or a suitable synonym was acceptable.

Synonyms were considered acceptable if they met the following criteria used by Ruddell (1964);

1. The word must complete the original idea or thought expressed in the context of the sentence.
2. The word must be grammatically correct in terms of number agreement.
3. The word must fit the original syntactic pattern of language structure (Ruddell, 1964, p. 65).

Ruddell (1964) concluded that there was no significant difference in results when either the synonym count or the exact word count was used for scoring.

The comprehension tests in the treatment conditions were scored according to literal answers taken from the excerpts or accurate interpretations of the text of the excerpts.

Method of Analyzing Data

An Analysis of Variance was initially used to test the research hypothesis that when the syntactic structure of textual material "matches", or is similar to, the oral English syntactic structures (or oral English language patterns) frequently used by high school ESL students who are at given oral language proficiency levels, then reading comprehension is greater than when there is no "match" or similarity.

The null hypothesis tested in this study was:

1. There is no difference in the reading achievement scores of high school ESL students, at given oral language proficiency levels, who read written textual materials with syntactic structures (sentence patterns) which "match" their oral language proficiency levels, and high school ESL students who read written textual materials which are not similarly "matched."

A two-way Analysis of Variance was first used for testing the hypothesis in this study because the study

employed a factorial design. Analysis of Variance is used for studies which have more than one independent variable. An Analysis of Variance was first utilized because it would determine the probability that the means of the scores of the students who received "matched" versions of the history textual material deviated from the means of the scores of those who received the "unmatched" version merely by sampling error.

The Analysis of Variance also concurrently indicates relations and interactions present within an experiment which makes it more flexible to use than a t-test. It is a "single composite test to compare all sample means simultaneously and to tell us whether or not a statistically significant difference exists somewhere in the data" (Isaac and Michael, 1981, p. 182). Isaac and Michael further state that the Analysis of Variance (ANOVA) has the additional advantage over the t-test procedure of being a more accurate estimate of the population variance because it can "base this estimate on all the sample data taken together, rather than just two samples, as in the case of the \bar{z} or t-test."

The Analysis of Variance as a statistical tool discovers whether the variability between groups is large enough when compared with the variability within groups to justify the conclusion that the means of the groups come

from different populations and that there is a statistically significant difference in the data. The statistical test used within the Analysis of Variance is the F-ratio:

$$F = \frac{\text{Between Group Variance}}{\text{Within Group Variance}}$$

In spite of the economy found in the use of the Analysis of Variance in factorial designs, because a different comprehension (criterion) test was given to match each oral proficiency level in this study, the investigator decided that it would be inadvisable to combine the scores from both proficiency levels when analyzing the data. Hence, the investigator first examined only the global direction of effects and interactions of "structure" and "proficiency levels" as revealed in the Analysis of Variance. Then one-tailed t-tests were applied to examine the significance of the difference between means of the groups at each proficiency level. This was done in order to ensure more specificity of information received from the analysis of data.

Summary

A 2 (structure) x 2 (English oral proficiency levels) factorial design was planned for answering the research questions. The independent variable was the structure of the textual reading material which was manipulated as "matched" and "unmatched." The moderator variable was oral English proficiency level, and the dependent variable

was the scores on the post-test. The Bilingual Syntax Measure II (English version) determined the students' oral proficiency levels. A Cloze Reading Comprehension Test ascertained their ability to read English and the treatment conditions at the fourth and fifth levels determined their scores (reading comprehension achievement). T-tests were used for analyzing the data.

Chapter 4

ANALYSIS OF DATA

Introduction

This chapter serves the purpose of presenting and discussing the results of the analysis of data collected in this study. General results of the analysis are offered in the first section and a discussion of specific answers to the research questions follows in the second section.

The data collected were in the form of raw scores obtained by the participants on the test instrument used in each phase of the study. The scores from the Bilingual Syntax Measure II (English version) determined the oral language proficiency levels of the students. Twenty-seven students performed at the 4th oral language proficiency level and eighteen performed at the 5th proficiency level. The other nineteen students were eliminated because they performed below the 4th proficiency level.

On the Cloze Reading Comprehension Test developed by the investigator for the purpose of ascertaining that the participants can read English, raw scores were obtained by use of a correct answer count as well as a synonym count on each participant's paper. Seven students at the 4th oral language proficiency level were eliminated because of absenteeism and poor scores on the Cloze test.

The raw scores collected for the treatment conditions were obtained as total points earned out of a possible one

hundred points on the reading comprehension test which accompanied the reading passages.

The data obtained from the treatment conditions were examined only globally by the use of the analysis provided by a two-way Analysis of Variance with an acceptable significance level of $p \leq .05$. T-tests were then used to test the research hypothesis by testing the significance of the difference between the means of the groups of participants who received the "matched" reading material compared with those who received the "unmatched" reading material.

As a point of added a posteriori interest, the investigator looked informally at the distribution of participants by grade level and by the length of time the students have been studying English. These two factors were not included in the research design because they were not of major importance in this study. However, a cursory look at these factors may uncover mildly interesting artifacts of this study.

GENERAL RESULTS

Pilot Study I

Pilot Study I was for the purpose of "trying-out" the "matched" excerpt and the Cloze test. The mean score for the 25 students who completed the "matched" version of the fourth proficiency level comprehension test was 60.80. Eleven of those students also completed the "matched"

version of the fifth proficiency level comprehension test with a mean score of 57.73. The mean score on the Cloze Reading Comprehension test was 6.

Pilot Study II

The purpose of Pilot Study II was (1) to determine the maximum length of time needed to carry out each segment of the field study; and (2) to see if the adjustments made on the Cloze Reading Comprehension test made the test more comprehensible. Six students participated in this pilot study.

Two participants received the level four "matched" version. They had a higher mean score (85.0) than the two participants who received the "unmatched" version (60.0). The participant who received the "matched" level five version also had a higher score (98.0) than the participant who received the "unmatched" version who had a score of 70.0.

The Bilingual Syntax Measure II-E took approximately 30 minutes to be administered to each student. The Cloze reading test took a maximum of 40 minutes to be completed. The students took a maximum of 35 minutes to complete the level four treatment tasks and 25 minutes to complete the level five treatment tasks.

Field Study

Statistical subprograms were utilized through the Statistical Package for the Social Sciences (SPSS) for

VAX/VMS, Version M, Release 9.1 (1982) for inputting and analyzing the data on a Zenith computer. The frequencies subprogram showed that the overall mean score of the participants was 61.528, with a variance of 425.599, a standard error of 3.546, a standard deviation of 21.274 and a range of 90.00. The mean grade level of the students was 10.028 and the mean length of time they have studied English is 18.417 months. The crosstabulation subprogram crosstabulated the number of students by proficiency levels and structure of reading material read. The information received from this procedure showed that 55.6% of the participants were at the 4th proficiency level (n=20) and 44.4% were at the 5th proficiency level (N=16).

Table 1 shows a comparison of total raw scores and means for each group at both the fourth and fifth proficiency levels.

The raw scores from the groups showed a total of 795 for the level 4 "matched" group and a mean score of 79.5 (N=10). The level 4 "unmatched" group had a total of 480 with a mean score of 48.0 (N=10). The level 5 "matched" group had a total of 480 and a mean score of 60.0 (N=8) while the level 5 "unmatched" group had a total of 460 with a mean score of 57.5 (N=8).

A closer, more specific and more appropriate test of the hypothesis for this situation was needed because two

TABLE 1
 READING COMPREHENSION SCORES
 EXPERIMENTAL TREATMENT CONDITIONS

<u>ORAL PROFICIENCY LEVEL 4</u>			
Students	Matched	Students	Unmatched
1	60	1	40
2	100	2	70
3	100	3	60
4	70	4	80
5	90	5	10
6	90	6	40
7	65	7	20
8	80	8	30
9	60	9	70
<u>10</u>	<u>80</u>	<u>10</u>	<u>60</u>
N= 10	795	N= 10	480
Mean = 79.5		Mean = 48.0	
<u>ORAL PROFICIENCY LEVEL 5</u>			
Students	Matched	Students	Unmatched
1	40	1	50
2	60	2	60
3	40	3	60
4	70	4	80
5	70	5	30
6	90	6	70
7	60	7	50
8	50	8	60
<u>8</u>	<u>480</u>	<u>8</u>	<u>460</u>
N= 8		N= 8	
Mean = 60.0		Mean = 57.5	

different criterion tests were used, one for each proficiency level. Hence, t-tests were used to test the significance of the difference between the means of the groups at level 4 and at level 5 separately.

A discussion of the answers to the research questions follows.

RESEARCH QUESTION ONE

Does matching the syntactic structure of sentences in history textbooks with the syntactic structures frequently used at the fourth and fifth oral language proficiency levels of high school ESL students affect their English reading comprehension scores?

The null hypothesis to test this question, in effect, says that there will be no difference in reading comprehension achievement scores between students who receive the "matched" version and those who receive the "unmatched" version of the reading material.

Findings:

In general, the results show that reading comprehension is greater when there is a match between the syntactic structure of the textual material and the oral language proficiency level than when there is no "match." However, at the fifth proficiency level this difference is not significant.

Two t-tests were run to test the significance of the difference between the means of (1) the level four "matched" and "unmatched" groups; and (2) the level five

"matched" and "unmatched" groups. The results of the t-tests showed a significant difference between the means of the "matched" group and the "unmatched" group ($p < .01$). The means of the "matched" and "unmatched" groups at level 4 were 79.50 and 48.00, respectively. With a t-value of 3.55 and 15.51 degrees of freedom, for the separate variance estimate, the difference was significant ($p < .01$). At the fifth level the means of the two groups were 60.00 and 57.50, respectively. With a t-value of 0.31 and 13.78 degrees of freedom for the separate variance estimate, the difference was non-significant ($p > .05$). See Table 2 for a summary of the results of the t-tests.

RESEARCH QUESTION TWO

Does the level of English (L_2) oral language proficiency of high school ESL students affect their English reading comprehension achievement?

Findings:

For this study, there was a definite difference in performance between the two oral language proficiency levels. The sum of the scores at the fourth proficiency level was 1275 and the mean was 63.7, while the sum of the scores at the fifth proficiency level was 940 with a mean of 58.7. Hence, inference may be made that the proficiency level of the participants affected their English reading comprehension achievement. Nevertheless, since the participants at each level received a different comprehension (criterion) test to match the level of the

TABLE 2
SUMMARY OF RESULTS OF T-TESTS

ORAL PROFICIENCY LEVEL 4						
Number of Cases	Mean	Standard Deviation	Standard Error	Separate Variance Estimate		
				T-Value	Degrees of Freedom	One-tailed Probability
Matched	79.50	15.36	4.86	3.55		
Unmatched	48.00	23.48	7.42		3.55	0.002
ORAL PROFICIENCY LEVEL 5						
Matched	60.00	16.90	5.96	0.31	13.78	0.76
Unmatched	57.50	14.88	5.26			

excerpt read, it is not possible to assign statistical judgments to this comparison. It may well be that certain conditions operating at the fifth proficiency level were not present at the fourth proficiency level.

After looking at the results as they come to bear upon the hypothesis and as they provide answers to the research question, the investigator decided to have an informal look at the distribution of participants by grade level and by the length of time the participants have been studying English. This examination added insights for looking at the difference between the fourth level performance and the fifth level performance.

The findings of this informal examination of data suggested that neither grade level nor length of time studying English had any advantageous effects upon the scores of the groups. Table 3 shows that at the fourth level the percentage of participants by grade in the "matched" group was: ninth graders, 25%; tenth graders, 10%; eleventh graders, 10%; and twelfth graders, 5%. The percentages in the "unmatched" group were: ninth graders, 29%; tenth graders, 5%; eleventh graders, 15%; twelfth graders, 10%.

In other words, 15% of the participants in the fourth proficiency "matched" group consisted of a combination of eleventh and twelfth graders. On the other hand, 25% of the participants in the fourth proficiency "unmatched"

TABLE 3
DISTRIBUTION OF STUDENTS BY GRADE LEVELS

ORAL PROFICIENCY LEVEL 4				
	Grade 9	Grade 10	Grade 11	Grade 12
Matched	25%	10%	10%	5%
Unmatched	20%	5%	15%	10%
ORAL PROFICIENCY LEVEL 5				
Matched	20%	10%	10%	0%
Unmatched	15%	10%	10%	5%

group consisted of a combination of eleventh and twelfth graders. What effect this ought to have had in terms of scores if grade level affected performance will be discussed later.

In making similar comparisons at the fifth proficiency level, the table shows that percentages of participants, by grades, in the "matched" group were: ninth graders, 20%; tenth graders, 10%; eleventh graders, 10%; twelfth graders, 0%. For the "unmatched" group the percentages were: ninth graders, 15%; tenth graders, 10%; eleventh graders, 10%; twelfth graders, 5%. In other words, 10% of the "matched" group consisted of eleventh and twelfth graders and 10% of the "unmatched" group consisted of eleventh and twelfth graders combined.

The length of time the students have been studying English seemed, in general, to affect the scores in unexpected ways (see Tables 4 and 5). For example, although the average length of time for the fourth level "matched" group was 15.1 months, while the average time for the "unmatched" groups was 20.7 months, yet the mean score for the "matched" group was higher than that of the "unmatched" group (79.5 vs. 48.0). At the fifth level the average length of time for the "matched" group was 18.75 months while the average length of time for the "unmatched" group was 19.37 months and the mean scores were 60.0 and 57.5, respectively. Bearing in mind the fact

TABLE 4
 DISTRIBUTION OF STUDENTS
 BY LENGTH OF TIME STUDYING ENGLISH
 ORAL PROFICIENCY LEVEL 4

	12	13	14	18	20	21	22	23	
	months	months	months	months	months	months	months	months	
Number of Students (Matched)	5	1	0	3	0	0	0	1	105
Total Months (151)	60	13	0	54	0	0	0	24	
Average months for 10 students =	$151 \div 10 = 15.1$								
Number of Students (Unmatched)	1	0	1	1	0	1	1	5	
Total Months (207)	12	0	14	18	0	21	22	120	
Average months for 10 students =	$207 \div 10 = 20.7$								

TABLE 5
 DISTRIBUTION OF STUDENTS
 BY LENGTH OF TIME STUDYING ENGLISH
 ORAL PROFICIENCY LEVEL 5

	12	13	14	18	20	21	22	23	
	months	months	months	months	months	months	months	months	
Number of Students (Matched)	2	0	0	3	0	0	0	3	
Total Months (150)	24	0	0	54	0	0	0	72	106
Average months for 8 students = $150 \div 8 = 18.75$									
Number of Students (Unmatched)	1	0	0	3	1	1	0	2	
Total Months (155)	12	0	0	54	20	21	0	48	
Average months for 8 students = $155 \div 8 = 19.37$									

that at both proficiency levels there were differences in total scores between the "matched" and "unmatched" groups, the implications are that the participants who have been learning English for a longer time did not, necessarily, and on a whole, do better than those who had less time learning English. What did seem to make the difference in this situation was the structure of the reading material that was read. Those who had the "matched" version at both levels did have higher reading comprehension scores, on a whole, which support the research hypothesis.

In fact, for the "matched group at the fourth proficiency level, the lowest score was 60 and the highest score was 100, while for the "unmatched" group ~~the lowest~~ score was 10 and the highest score was 80. At the fifth proficiency level the lowest score for the "matched" group was 40 and the highest score was 90, while the lowest score for the "unmatched" group was 30, and the highest score was 80.

In summary, two pilot studies and one field study were carried out in order to finally test the hypothesis that when students read textual materials with syntactic structures which "match" their oral language proficiency level, their reading comprehension scores are higher than those of students who read materials which are not similarly "matched." The results of the t-test analyses

supported the hypothesis although at the fifth proficiency level the difference between means were not significant.

Chapter 5

SUMMARY, CONCLUSIONS AND DISCUSSION

This chapter presents a review of the problem, research questions, methodology followed, and the findings of the study conducted. The limitations, conclusions, implications and recommendations for further research are also discussed.

SUMMARY

The Problem

In order to lessen the occurrence of reading comprehension problems in the classroom, there have been arguments urging the matching of language patterns of reading material with the frequently used oral language patterns of Children (Strickland, 1962; Ruddell, 1964; Tatham, 1970).

Since English-as-a-Second Language students are very likely to have problems comprehending their content area textbooks, the purpose of this study was to investigate the effects that matching the syntactic structure of textual material with the English oral language proficiency levels of high school ESL students has on their reading comprehension of the materials. This study attempted, therefore, to gather evidence pertinent to this problem in the area of reading comprehension in a second language; to test hypotheses concerning the problems; and to draw implications which may be helpful to Bilingual Education teacher trainers, to ESL teachers, and

to classroom teachers of children learning to read in a non-native target language. The implications may also be helpful to textbook publishers, and, by extension, to teachers of "standard" and "non-standard native English-speaking students who have reading comprehension problems.

Research Questions

The study was designed to answer the following research questions:

1. Does matching the syntactic structure of sentences in history textbooks with the syntactic structures frequently used at the fourth and fifth oral language proficiency levels of high school ESL students affect their English reading comprehension achievement scores?
2. Does the level of English (L_2) oral language proficiency of high²school ESL students affect their English reading comprehension achievement?

The research questions were transformed into hypotheses in order to be statistically addressed in the study.

Methods

Sixty-four Vietnamese English-as-a-Second Language students from three Seattle, Washington high schools were selected on the basis of their having had one to two years of English instruction, and their having been enrolled in history classes. The Bilingual Syntax Measure II (English version) was administered to them by the investigator and three trainee examiners. This test determined the students' oral language proficiency levels. Twenty-seven

students performed at the fourth proficiency level and eighteen at the fifth proficiency level. The other twenty-one students were eliminated because they performed below the fourth oral proficiency level.

A Cloze reading comprehension test was developed by adapting a passage from a high school history textbook and then by deleting every fifth word in the adapted passage so that there were 40 deletions in all. This test was pilot tested twice before the field test took place, and was administered in order to ascertain the students' ability to read English.

Next, the participants were randomly assigned to treatment conditions. Ten level four students were assigned to read an adapted ("matched") version of a passage from a history textbook which is used by the low proficient ESL students in some high schools. Ten were assigned to read the original ("Unmatched") version, then all of them answered the accompanying comprehension questions. Eight students at the fifth proficiency level were assigned to read the "matched" version of a high school history textbook which is used by advanced ESL students in regular, mainstreamed history classes in some high schools. Eight students were assigned to read the "unmatched" version. The "unmatched" version in each case had sentences with syntactic structures which were more complex than those frequently used by the students. Two

level 5 students were absent, bringing the original number of eighteen down to sixteen.

CONCLUSIONS AND DISCUSSION

The results of the t-test supported the research hypothesis that English-as-a-Second Language students who read written textual materials with syntactic structures which match their oral language proficiency level would have higher reading comprehension achievement scores than those who read textual materials which are not similarly matched. The t-test analysis suggested that "matching" is in general superior to "not matching", therefore, "matching" does affect reading comprehension achievement.

This was very clearly shown at the fourth proficiency level because there was a significant difference between the means of the "matched" and "unmatched" groups. At the fifth proficiency level there was a difference also. There was a difference of 2.50 points between the means of the "matched" and "unmatched" groups but this difference was statistically insignificant. Nevertheless, the participants in the "matched" group at each proficiency level did outperform or receive higher total scores than the participants in the "unmatched" group.

In answer to the second research question concerning the effect of proficiency levels on reading comprehension achievement the conclusion is that for this study, there was a definite difference in performance between the two

oral language proficiency levels. A breakdown by proficiency levels revealed that the fourth proficiency level outperformed the fifth proficiency level by a difference of 3.35 points on the total scores (1275 vs. 940) and 5.0 points on the mean score (63.7 vs. 58.7)). The fact that the statistical significance of the difference between the scores and between the means of the two levels is not verifiable, ought not to detract from the reality of the arithmetical differences in scores.

The participants at the fourth proficiency level showed greater variability and a wider range in scores than the participants at the fifth proficiency level. For example, at the fourth proficiency level the combined scores ranged from 10 to 100 -- a range of 90 points. Even if a scaled sampling had been used in which the lowest and highest scores were omitted in the analysis of the data, even then the scores would have run from a low of 20 to a high of 90 (a range of 70 points).

These wide differences observed between the scores of the "matched" and "unmatched" groups at the fourth proficiency level and between the combined scores at the fourth proficiency level and those at the fifth proficiency level lead us to ask more questions.

First of all, what are the reasons for these differences? The answer could possibly lie within a combination of the theories concerning language acquisition/language

learning and learning to read. Within the fourth proficiency level there is likely to be a larger number of students who are at different stages of mastering the new language because this is such a transitional proficiency level. Some of these students may well be still trying to use comprehension strategies from their native language to understand written English. Others within the same group in comparison may be further along the way, individually, to understanding and applying the strategies which are most useful and efficient in comprehending written English. As Omark (1981) points out, "language is a continuously evolving dynamic process" (p. 108) and there seems to be greater levels of evolution at this intermediate stage.

At the fifth proficiency level (also referred to as Proficient English I in the Bilingual Syntax Measure II) there is more likely to be an equalization of abilities within the group as they try to actually apply more of the structural rules of English in their attempts to comprehend written English. At the same time, students at the fifth proficiency level, because they are so much closer to mature English proficiency, may be dealing with higher concept loads than they are truly ready for. In keeping with Cummins' (1981) threshold hypothesis, these students have probably not reached the second threshold level which would make it easier for them to understand what they read.

Several other alternative explanations of the existent differences may come to mind, including the possibility that (1) the comprehension test given at the fifth proficiency level may not have been discriminative enough to show real differences between the "matched" and "unmatched" groups and/or (2) there may not have been enough difference between the difficulty levels of the "matched" and "unmatched" versions of the level five excerpt; and/or (3) the concepts encountered in the level five excerpt may have been too difficult, even when expressed in familiar sentence structures. One alternative explanation which should not be overlooked is discussed by Bakan (1969):

"the statistical procedures used to test for significance have the rather strange quirk built into them that the larger the N the greater will be the chance that a difference between populations will be significant. In reality, if two groups of a large size are tested, absolutely trivial differences between the groups will be significant" (p. 108). In this study the groups were small.

At any rate the "matched" version affected reading comprehension at both proficiency levels by making it easier for the participants to understand the concepts written in familiar structures. Tatham (1970) also found one grade level (grade 4) performing better than the other grade level (grade 2) in her study, though she used the same "matched" and "unmatched" reading for both grade

levels. One observation she made, however, is that although the fourth graders performed better than the second graders, "a significantly greater number of them obtained higher scores" on Test A ("matched") than on Test B ("unmatched") (p. 422).

Limitations and Implications

One limitation of this study was that the testing situations were not all exactly alike at the three schools, but were dependent, to some extent, upon other conditions existent in each school on any given day. For instance, in some of the participants' regularly scheduled classes there were math tests in one instance and an interesting basketball game in P.E class, or other forms of distractions which could directly or indirectly affect performance on the test.

Another limitation of this study was that although the Bilingual Syntax Measure II-E is a standardized test, it, like all other oral language proficiency tests, cannot adequately measure a person's proficiency level with one hundred percent accuracy because it measures proficiency in a limited (testing) situation. According to Omark (1981) "It should not be a priori expected that any nationally normed test or regionally normed test upon a different group will be adequate to reveal the linguistic characteristics of the local groups." He added, "Because language is a developmental phenomenon, initial testing

should reflect the language of comparable second language peers" (pp. 110-111).

A third limitation was that since a different comprehension (criterion) test was used to match the level of the passage used, it was not possible to statistically compare performance at the fourth and at the fifth proficiency level.

Another limitation may well be that the results are applicable only to Vietnamese students who have had only one to two years of English in the Seattle area. However, because grade level was not taken into consideration, this might make the results generalizable across grade levels in high schools elsewhere.

Implications for textbook writers and for teachers who undertake to adapt difficult textbook passages for ESL class use are that they should acquaint themselves with current second language acquisition/learning theories in order to understand how to make reading materials more comprehensible. For classroom teachers, especially teachers involved only in the regular, mainstream or content area classes there is clearly the need to teach concepts in comprehensible language, especially when new concepts are being introduced. The specialized structures and vocabulary needed to express ideas and concepts in different subject areas need to be specifically taught orally first before they are introduced in written form.

In assigning textbooks or chapters to read, teachers might find it advisable to know the students' oral proficiency levels. Not only the Basic Interpersonal Communication Skills (BICS), which is the kind of linguistic skills used for everyday, face-to-face social communications, need to be appraised (Cummins, 1981), but the students' level of CALP, the Cognitive/Academic Language Proficiency, also needs to be assessed as they need both sets of skills in order to understand and to learn the abstract concepts which come with literacy. Teachers also need to carefully examine the reading materials they intend to give their ESL students and determine whether the students in question have control of the kind of language necessary to meet the linguistic demands of the reading material. For example, if the students in question have command over very simple sentence structures, then assigning them reading materials written in very difficult structures which rely on the reader's ability to "read between the lines" is defeating the purpose of the assignment and causing frustration also.

If the linguistic demands of the reading material are great in terms of sentence structure, vocabulary, concept load, then a multi-media approach and/or an adaptation to match students' proficiency levels are suggested.

Suggestions for Further Research

First of all, more research in this area of proficiency level testing is needed. Also research is needed in the area of matching reading materials (especially textbooks) with the proficiency levels of ESL students in order to establish some guidelines for this task. Studies such as the present one need to be done at all grade levels in order to more rigorously test the hypothesis that matching sentence pattern structure of reading materials to the students' oral language abilities will maximize reading comprehension achievement.

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APPENDIX A
CLOZE READING COMPREHENSION TEST

APPENDIX A

CLOZE READING COMPREHENSION TEST

DIRECTIONS:

1. First, try to read everything on the yellow page. While you are reading, try to think of the best words to put in the blanks so that the sentences make sense.

2. Next, go back to the beginning and start reading again. This time start writing in the words which fit into the blanks to complete the sentences.

3. Here is an example of what you will do. I will read aloud while you follow. Then we will put in words in the blank spaces. Think of words to put in the blanks.

Samuel Slater opened the first cloth factory in America. The first nine people he _____ to run the machines were _____ less than twelve years old. _____ Slater hired the children because _____ machines did not need _____ with much skill or experience _____ operate them.

4. Let us put in the words now. Do you understand how to do this now?

5. Turn to the yellow page now and start reading and thinking. Then fill in the blank spaces with the words which are missing.

SOUTHEAST ASIA

Southeast Asia is made up of nine modern nations. These nations are Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, Singapore, Indonesia, and the Philippines. Some of these nations spread out along a peninsula. Some are islands in the South China Sea. A peninsula is a long piece of land stretching out into the sea. An island is a piece of land with water all around it.

India and China are to _____ north of the peninsula. To _____ west is the Indian Ocean, _____ the Pacific Ocean is found _____ the east and south of _____ peninsula. The Indonesian and Philippine islands _____ separated from each other and _____ the mainland by many seas _____ straits. At one time the _____ may have been joined to _____ mainland by land bridges.

The political development of Southeast _____ in its connection with Western _____, has been in the news _____ often since World War II _____. However, not much attention is _____ given to the peoples of _____ region. Very little attention is _____ to their history, their cultural _____, or their social structure.

In modern times, the Japanese, _____ Chinese, and other Asians have _____ many ideas from Western countries. _____ they borrowed ideas or products _____ modern technology, the Asians have _____ borrowed the names or words _____ to talk about those ideas _____ products. When ideas and words are _____ and spread about from one _____ to another culture, this is _____ "cultural diffusion".

Some scholars, while studying Asian _____ have found that the Chinese _____ has many words that came _____ Southeast Asian Languages. Southeast Asian _____ for plow, seed, kiln, and boat _____ brought into the Chinese Language _____ ancient times.

When a word _____ borrowed, the thing named by _____ word is usually borrowed, too.

For many years people thought _____ the people in the Middle _____ were the first to plant _____ around 10,000 B.C. However, some _____ now think that the Hoabinhians _____ among the first people to plant seeds.

APPENDIX B
ORAL PROFICIENCY LEVEL 4 EXCERPT

"MATCHED" VERSION

ORAL PROFICIENCY LEVEL FOUR

Read the following passage silently, then answer the questions.

WHO ARE THE POOR?

A few years ago, some science fiction stories were written about robots. The stories amazed people who read them because the robots are machines that are almost as smart as human beings. The stories do not surprise us today because many industries now use such machines every day. The machines are called electronic computers or "mechanical brains".

Computers can do some jobs faster and better than people. Computers can even control other machines. The machines need only a few workers to check the dials. The workers check to see if the machines are working properly.

When machines perform, or do work by themselves, this is called automation. Automation is part of the new industrial revolution. When machines do most of the work, some economic problems are solved. Some economic problems are caused, too, when machines do the work.

This new industrial revolution has caused some good things to happen. Since more machines are used now, the workers get higher wages (more money). The workers have a shorter working day. Some of the very hard and dangerous jobs are performed by machines, also.

Some bad things are also happening at the same time. Machines are causing people to lose their jobs. So, one of the first results of automation is unemployment.

Appalachia is in the hills of West Virginia. There are many coal-mining towns in Appalachia. Most of the people who live there work in coal mines. During the last thirty years, automatic coal-cutters and other machines

have done the work that men used to do. Many men lost their jobs in the coal mines because the machines have taken away their jobs. Many people in that region are very poor because so many people are unemployed. Appalachia is called "depressed area" because so many of the people there are very poor now. The federal government has to give them special help.

Many of the people who lose their jobs move to the cities to look for work. Very often these people have very little education and no job skills for working in the cities. They often find that they can get only low-paying jobs in the cities.

There are many "depressed areas" all over the United States. Sometimes machinery cause the workers to lose their jobs. Sometimes employer close down factories or stores and move away.

"UNMATCHED" VERSION

ORAL PROFICIENCY LEVEL FOUR

Read the following passage silently, then answer the questions:

WHO ARE THE POOR?

It was not very long ago that readers of science fiction were amazed by stories about robots, machines with almost human intelligence. These stories do not impress us today because we already have such machines. They are known as electronic computers or "mechanical brains." Computers can perform some jobs faster and more accurately than humans and can even control other machines. Only a few workers are needed to check dials and see that the machines are working properly. The use of machines to perform work by themselves is called automation. This method of performing tasks is causing changes in our economic life, solving some problems and creating new ones.

This new industrial revolution has brought some advantages. Wages are higher. Hours of work are shorter. There are new industries and new jobs. Some difficult and dangerous jobs have been eliminated. However, there is a price that is being paid for such progress. Workers are losing their jobs because of automation in this country. Other Americans are losing jobs. Thus, one of the first results of automation is unemployment. Without jobs, workers face poverty.

The story of coal-mining towns in the hills of West Virginia gives us a picture of what technological (machine-made) unemployment means. Much of this region, known as Appalachia, has needed special help from the federal government. Because of its widespread poverty, it has been called a "depressed area."

The reasons for the poverty of Appalachia can be traced to automation. During the last thirty years, workers in the coal mines have been replaced by automatic coal-cutters and other machines. Younger workers were laid off first. When most moved elsewhere to look for jobs, other businesses had to close down because they had so few customers. Their workers also moved away--most to the crowded cities.

Many towns all over the United States have gone through this experience. They may have gone downhill for different reasons. Sometimes it was caused by machinery. Sometimes employers found it cheaper to move to new locations. Sometimes employers found they were not selling enough goods because foreign goods were cheaper. So they closed their stores or factories. But whatever the reason, these towns are facing the problem of widespread poverty. What happens to miners, farmers, and other victims of automation who go to the cities? If their education has been limited, they most likely do not have skills that industries need. The newcomers find their best chances for jobs in service occupations as salespeople in small stores, restaurants, and gas stations and as workers in hospitals. In these occupations, wages are usually low, and hours of work are long.

APPENDIX C
ORAL PROFICIENCY LEVEL 5 EXCERPT

"MATCHED" VERSION

ORAL PROFICIENCY LEVEL FIVE

Read the following passage, then answer the questions.

THE DEPRESSION

The stock market crashed in 1929. This caused many economic problems. President Hoover thought that the economic problems would last for only a short time. Many other Americans thought that the hard times would go away very soon. The President thought that American business was strong and that soon all businesses would be prosperous again. But, everything got worse instead of better as time went by. American business was not strong.

In the 1920's many Americans were buying goods on credit and they could not afford the goods. The rich manufacturers kept producing more of the consumer goods. They also kept using the profits (the extra money they got from selling the goods), for themselves. They could have used the profits to make the prices lower instead. They could have raised the workers' wages, too. That would have helped the workers to have more money to spend.

When the stock market fell, people who had money stopped buying. They held onto what money they had. Many industries had goods that they could not sell, so they had to lay off workers. Everybody had money problems and this caused the Great Depression.

Most Americans lived in cities and worked in factories and businesses in the 1930's. They depended on wages to pay their bills. Many people lost their jobs during the depression, so they had no money. They had to search in garbage dumps for food. Some waited outside restaurants to fight for leftover food. Millions of people suffered because they needed food, clothing, and shelter. At the same time, farms and industries had many,

many goods that they could not sell. Many factor workers and farmers lost their homes.

The farmers had very difficult times. The farmers had to sell their food for very low prices when the depression began. Their goods would spoil if they, the farmers, did not sell quickly. The farmers did not have much money, so they could not wait for good prices. They sold for just any price they could get.

THE DEPRESSION

Answer the following questions in the space provided:

1. Why did consumer demand in the United States remain high during most of the decade of the 1920's? _____

2. How did businessmen react to a sharp decline in consumer buying after the stock-market crashed? _____

3. Why did farmers have to lower the prices on their products? _____

4. Where did most Americans live and work in the 1930's?

5. Many Americans had to search garbage dumps during the depression because _____

6. What could the rich manufacturers and industrialists have done to help prevent the Depression? _____

7. How do you think the people felt during the Depression? _____

"UNMATCHED" VERSION
ORAL PROFICIENCY LEVEL FIVE

Read the following passage, then answer the questions.

THE DEPRESSION

When the stock market crashed in 1929, President Herbert Hoover, like most Americans, expected the economic dislocation to be short-lived. He considered American business to be fundamentally sound and predicted that once speculators and stock-market gamblers had faded away, the normal workings of the free enterprise economy would bring a return of prosperity. But as time passed conditions grew worse instead of better.

What Hoover and others failed to realize was that the American economy was not sound. As long as credit was easy to obtain, Americans who otherwise would have done without were able to buy consumer goods on credit and keep the level of demand high. But profits from increased sales were not used to lower prices or to increase workers' wages substantially so that they could afford to buy more and thus keep demand up. Instead profits went largely into the pockets of the wealthy industrialists or into business expansion.

When the stock market fell, consumption immediately fell as those with money held onto it, waiting for the economic situation to look brighter. And industries, faced with over-stocked shelves, began to lay off workers. The result of the economic imbalances in American society was the worst depression ever experienced by this nation.

What made this depression an economic calamity was the fact that by 1930 the majority of Americans lived in cities and worked in factories or businesses for a living. Life for most Americans depended on a wage, and in the 1930's millions of men and women had ceased receiving wages. For many unfortunates the main source of food was the garbage dump. Some waited outside restaurants to

fight for the leftovers being thrown out. While millions suffered for lack of food, clothing, and shelter, the nation's farms and industries were faced with large surpluses. But rather than reduce prices in an attempt to sell their surplus merchandise, most businessmen cut production, forcing the layoff of many workers.

The situation was no better for farmers, who had experienced difficulty making a decent living in the 1920's. Much of the farmers output was perishable and had to be sold upon harvesting regardless of agricultural prices. In addition, farmers lacked the financial reserves of many industrialists, so they could not wait for favorable market conditions to sell their crops. The poverty of factory workers and farmers resulted in losses of homes and farms.

THE DEPRESSION

Answer the following questions in the space provided:

1. Why did consumer demand in the United States remain high during most of the decade of the 1920's? _____

2. How did businessmen react to a sharp decline in consumer buying after the stock-market crashed? _____

3. Why did farmers have to lower the prices on their products? _____

4. Where did most Americans live and work in the 1930's?

5. Many Americans had to search garbage dumps during the depression because _____

6. What could the rich manufacturers and industrialists have done to help prevent the Depression? _____

7. How do you think the people felt during the Depression? _____

APPENDIX D
CONSENT FORMS

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

College of Education

CONSENT FORM

MATCHING THE SYNTACTIC STRUCTURE OF TEXTBOOK WITH THE ORAL LANGUAGE
PROFICIENCY LEVELS OF ESL STUDENTS

Investigator: Muriel H. Palmer, Ph.D. Candidate in Educational Curriculum
and Instruction
Telephone #: (206) 543 -6636

The proposed study is for the purpose of finding out if matching the types of sentences used in a textbook with the ESL students' level of ability to speak English will help the ESL students to better understand what they read. This study is being run by a teacher who is presently completing a Ph. D. degree in Reading and Language Arts. The findings of this study will help educators to find added ways of helping bilingual students have a better understanding of the lessons they are required to read in English. One way of helping the students is by looking at the way textbooks are written and trying to find ways that the textbooks may be written so that they may be more easily understood.

Bilingual students, teachers, administrators, book publishers and parents will benefit from the knowledge gained from this study.

Procedures

Vietnamese students who have had one to two years of English instruction may take part in this study. About 80 students are required for testing of their oral language levels. The Bilingual Syntax Measure II will be used to find out how much English they can speak. Twenty of those students who speak at the 4th level and twenty at the 5th level who can read English will be chosen for the study. A simple reading test will be given to see if the students can read in English.

The forty students will be chosen randomly, twenty at the 4th language proficiency level. These 20 students will then be randomly placed in two groups. One group will be given a reading passage taken from a history textbook which they will read. They will then answer some questions about what they read. The other group will read an easier version of the passage and answer questions about the passage.

The 20 students at the 5th proficiency level will be placed in two groups in the same way. They will also read and answer questions about what they read.

The scores for the groups will be compared to see if any group understood what was read better than the other groups. If you decide to take part in this study, your name will not be on any of the tests and the questions asked will not invade your privacy.

This study will take only about three hours of your time. The three hours total will extend over a period of two weeks.

Investigator: _____ Date _____

The study described above has been explained to me, and I consent voluntarily to take part in the study. I have had an opportunity to ask questions and understand that future questions I may have about the study or about students' rights will be answered by the investigator or one of her helpers.

Student's signature: _____

Date: _____

I agree to have my son/daughter take part in this study.

Parent signature:(if necessary) _____

Date: _____

SU LIÊN HỆ GIỮA CÁCH HÀNH VĂN TRONG SÁCH VÀ
TRÌNH ĐỘ NÓI ANH NGỮ CỦA CÁC HỌC SINH TRONG
CHUỖNG TRÌNH SONG NGỮ.

Mục đích của việc khảo cứu này là tìm hiểu về sự liên hệ giữa cách hành văn trong sách học và trình độ nói Anh ngữ của các học sinh trong chương trình song ngữ. Sự khảo cứu này được thực hiện bởi giáo sư đang học để lấy bằng Tiến sĩ về ngôn ngữ học. Khi hoàn tất nó sẽ giúp các giáo chức dạy các em học dễ dàng hơn các bài học bằng Anh ngữ, và cũng giúp các em hiểu bài đọc của mình dễ dàng hơn khi thay đổi cách hành văn trong sách.

Hơn nữa sự khảo cứu này sẽ mở rộng kiến thức của các học sinh, các giáo chức, các viên chức giáo dục, các nhà xuất bản sách và ngay cả các phụ huynh.

Phương pháp khảo cứu

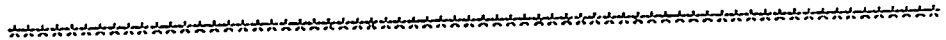
Các học sinh Việt Nam đã theo học tại các trường học ở Hoa Kỳ từ một tới hai năm được mời tham dự việc khảo cứu này. Chúng tôi chọn 80 em sẽ được lựa chọn để thử khả năng nói Anh ngữ. Phương pháp đo lường cú pháp II sẽ được dùng để đo lường khả năng nói Anh ngữ của các em. Hai mươi em ở trình độ thứ tư và hai mươi em ở trình độ thứ năm có thể đọc được tiếng Anh được lựa chọn để khảo cứu. Một bài đọc ngắn viết bằng tiếng Anh được dùng cho các em đọc.

Bốn mươi em được chọn trong số tám mươi em gồm hai mươi em ở trình độ thứ tư, và hai mươi em ở trình độ thứ năm. Hai mươi em ở trình độ thứ tư đó sẽ được chia làm hai nhóm. Một nhóm sẽ đọc một đoạn văn trong sách sử ký rồi trả lời câu hỏi về đoạn đó. Nhóm kia sẽ đọc một đoạn để rồi trả lời câu hỏi.

APPENDIX E
INFORMAL QUESTIONNAIRE

Informal Questionnaire

What is your name? _____
What grade are you in? _____
How long have you been learning English? _____
What is your home language? _____
Can you read English? _____
Can you read your own language? _____



VITA

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Birthplace: La Boca, Canal Zone, Panama
Parents: Mr. & Mrs. Alva McLean Lawrence

EDUCATION

Ph.D., Educational Curriculum and Instruction:
Language Arts/Reading, Bilingual - ESL Emphasis
June 1983, University of Washington,
Seattle, Washington

M.Ed., Reading Consulting, August, 1975,
Western Washington State College,
Bellingham, Washington

State of Washington Standard Teaching Certificate,
(Elementary and Secondary) 1975

B.A., English (Secondary School Emphasis),
August, 1971, University of Washington.

Provisional Teaching Certificate completed
August, 1971 (issued 1972)

Jamaican Teacher Certificate, Elementary
School Emphasis, Honors Graduate,
December, 1954 Shortwood Teacher
Training College, Jamaica, West Indies.

School Certificate (issued by University
of Cambridge Local Examination Syndicate),
with honors in Geography and French, December,
1949 at Westwood High School, Jamaica,
West Indies.

FELLOWSHIP

U.S. Department of Education Title VII
Bilingual Education Fellowship (Teacher
Trainer), 1981-1983.

PROFESSIONAL ORGANIZATION MEMBERSHIPS

Association for Supervision and Curriculum Development
 International Reading Association
 National Council of Teachers of English
 Black Professional Educators of Puget Sound
 Pi Lambda Theta
 National Writers Club

SELECTED WORKSHOPS AND PRESENTATIONS

Paper presented at Reading Expo '83 by IRA and W.O.R.D. in Seattle, Washington--"Schema, Reading Comprehension, and the ESL Class"

Washington Association Fifth Annual Bilingual Education Conference, 1982--"Developing Communicative Competence in High School ESL Students".

Summer Reading Conference, Western Washington University, 1980--"An Eclectic Approach To Teaching Reading in the Intermediate Grades (4-6)".

Regional Reading Research Seminar, sponsored by Puget Sound Area International Reading Association Council, March, 1975--
 "The Effects of Instruction on Intersentence Relationships on the Reading Comprehension of Seventh and Eighth Grade Students".
 (Research Report)

EXPERIENCE

The author has had a wide variety of teaching experiences both in Jamaica, West Indies, and in the Seattle, Washington area. Her experiences range from pre-school classroom teacher for 3-year olds to elementary, middle and high school teacher to University ESL Reading Methods Teaching Associate.