The identification of the components requisite for the teaching of English to primary school Navajo students: guidelines for English as a second language in Navajo/English bilingual education.

Barbara Jean Murphy
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THE IDENTIFICATION OF THE COMPONENTS REQUISITE FOR THE TEACHING OF ENGLISH TO PRIMARY SCHOOL NAVAJO STUDENTS: GUIDELINES FOR ENGLISH AS A SECOND LANGUAGE IN NAVAJO/ENGLISH BILINGUAL EDUCATION

A Dissertation Presented

By

Barbara Jean Murphy

Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of

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May 1978

School of Education
THE IDENTIFICATION OF THE COMPONENTS REQUISITE FOR THE TEACHING OF ENGLISH TO PRIMARY SCHOOL NAVAJO STUDENTS: GUIDELINES FOR ENGLISH AS A SECOND LANGUAGE IN NAVAJO/ENGLISH BILINGUAL EDUCATION

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ABSTRACT

THE IDENTIFICATION OF THE COMPONENTS REQUISITE FOR THE TEACHING OF ENGLISH TO PRIMARY SCHOOL NAVAJO STUDENTS: GUIDELINES FOR ENGLISH AS A SECOND LANGUAGE IN NAVAJO/ENGLISH BILINGUAL EDUCATION

May 1978

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Bilingual education, emerging as a viable means of meeting the educational needs of Navajo children, is still in the process of formation: there are no precedents for the content of Navajo instruction, and controversy exists over the pedagogical principles involved in teaching English as a second language (ESL) to children. Guidelines for ESL instruction are amplified, however, from recent research which strongly supports the notion that learning any language involves using it.

Specifically, the research offers evidence that second language learners intuitively construct the grammatical rules of the second language as they conceptualize with it. Moreover, their construction of grammar appears to follow a developmental progression. They work through, as it were, a number of logically consistent, but grammatically unacceptable, rules before they arrive at the accepted ones.

Second language learners must, of course, be exposed to the correct patterns of English in order to begin creatively hypothesizing syntactical rules. This factor applies not only to their acquisition of the patterns of language, it also applies to the manner in which they experience those patterns as they are employed in interpreting and responding to their social/linguistic environment.

When ESL is thus conceived, guidelines for teaching ESL to Navajo children recognize the necessity of providing for both the cognitive and affective aspects of language learning. If learning a second language involves an unconscious hypothesizing of rules
from language information in the environment, then curriculum must be designed so that children have a great deal of guided and meaningful experiences in hearing and using English to explore the world about them.

These experiences, concerned with academic tasks, include the language of learning. And, because that language is inseparable from the language of living, ESL curriculum should provide many positive ways of exploring in English, from self-expression and social interaction to the heuristic language of logical investigation.

Children learning English in this way progress through developmental stages of syntactical use as they learn. It is necessary that tests on the acquisition of academic skills must allow for this process of their second language development.

Instructional materials and teaching strategies, examined through the premises of the guidelines, provide teachers with both content and methodology which correlates with the notion that language learning involves an affective/cognitive, creative construction of syntax and its use.

Evaluation of the guidelines in terms of specific instructional goals can be achieved through noting student progress in syntactical development with informal diagnoses and with existing instruments designed for that purpose. Specific cognitive tasks can be measured through such devices as recorded teacher observations of student performance, informal Reading Miscue Inventories, and criterion referenced tests based on delineated instructional objectives.

The ESL component of Navajo/English bilingual education is constructed through guidelines based on sound theory and research. It only remains to implement it and evaluate it through comparative and longitudinal studies to measure its worth in teaching English as a second linguistic tool for interpreting experience, a tool for living and learning in a multicultural world.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>INTRODUCTION</th>
<th>THE DEFINING CHARACTERISTICS OF LANGUAGE</th>
<th>THE APPLICATIONS OF THE CHARACTERISTICS OF LANGUAGE TO CURRICULUM DESIGN: GUIDELINES FOR ESL IN NAVAJO/ENGLISH BILINGUAL EDUCATION</th>
<th>TEACHING STRATEGIES AND MATERIALS FOR IMPLEMENTING THE GUIDELINES FOR ESL IN NAVAJO/ENGLISH BILINGUAL EDUCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Purpose of this Study</td>
<td>Chomsky’s Challenge to Bloomfield’s and Skinner’s Definition of Language</td>
<td>Rationale Preparatory to Constructing Guidelines for ESL in Navajo/English Bilingual Education</td>
<td>Materials which Promote Conceptualizing in the Second Language</td>
</tr>
<tr>
<td></td>
<td>Method</td>
<td>Language as Externalized Thought</td>
<td>Guidelines for ESL in Navajo/English Bilingual Education</td>
<td>Strategies for Involving ESL Navajo Students in the Functions of Language</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Language Development through Society</td>
<td></td>
<td>Teacher Preparation Strategies</td>
</tr>
<tr>
<td>II.</td>
<td>THE DEFINING CHARACTERISTICS OF LANGUAGE</td>
<td>Part II</td>
<td>Summary of the Defining Characteristics of Language</td>
<td>Toward a Realistic Assessment of the Guidelines for ESL in Navajo/English Bilingual Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research in Support of the Defining Characteristics of Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Part III</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Implications of Theoretical Premises which Define Language as Thought</td>
<td></td>
</tr>
<tr>
<td>III.</td>
<td>THE APPLICATIONS OF THE CHARACTERISTICS OF LANGUAGE TO CURRICULUM DESIGN: GUIDELINES FOR ESL IN NAVAJO/ENGLISH BILINGUAL EDUCATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV.</td>
<td>TEACHING STRATEGIES AND MATERIALS FOR IMPLEMENTING THE GUIDELINES FOR ESL IN NAVAJO/ENGLISH BILINGUAL EDUCATION</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 1

THE IDENTIFICATION OF THE COMPONENTS REQUISITE FOR THE TEACHING OF ENGLISH TO PRIMARY SCHOOL NAVAJO STUDENTS: GUIDELINES FOR ENGLISH AS A SECOND LANGUAGE IN NAVAJO/ENGLISH BILINGUAL EDUCATION

INTRODUCTION

Statement of the Problem

The Lau v. Nichols Supreme Court Decision (1974) ruled that failure to meet the linguistic needs of children who "cannot understand the language of the classroom" (Justice Blackmun) is unlawful. This decision and the 1968, 74 Bilingual Education Acts have focused attention on several groups in the United States for whom English is a second language. Whereas, once instruction conducted in English assumed the assimilation of minority groups into the dominant culture, now protagonists of bilingual education would have it that instruction in English must enable minority group members to function in the dominant culture when they choose to, while they maintain their own cultural heritage, including their first language.

The term, bilingual education, is variously interpreted. It is defined in the Bilingual Education Act of 1974 as

instruction given in, and study of, English and to the extent necessary to allow a child to progress effectively through the educational system, the native language of the children of limited English speaking ability. (Chap. VII)

An early America was guided by a dream of merging many divergent cultures into the creation of one. Bilingual education notes the unsuitability of "melting" minority cultures into a dominant culture. In recent decades, minority groups have found political avenues to articulate their grievances. The call is now for pluralism, a vision dubbed the "salad bowl" (Cardenes, 1974; Saville-Troike, 1976) as opposed to the earlier culinary metaphor of the "melting pot". Certainly the new vision has its own inherent problems but, to its advocates, it represents a humane alternative to a failed dream.
The development of bilingual programs, and particularly the manner of English instruction within them, varies from situation to situation as much because specific procedures are not mandated by law as because there are no long standing precedents for such instruction in this country. Where the language of a particular minority group contains a structural and semantic relationship to English, instruction in two languages may be just that. But for those groups whose culture and language embody a manner of thinking inconsonant with the academic concept formations in the dominant culture, both subject matter and the teaching of the second language present special problems.

The Navajos are such a group. The Navajo Nation, as the reservation is called, comprises some 130,000 Navajos. Navajo is the principal language spoken on the reservation; most Navajo children arrive at primary school speaking little or no English (Spolsky, Holm, 1971). The history of Navajo education has not fostered a healthy coexistence of two languages and cultures; it is a history resplendent with evil deeds and good intentions. The congressional investigations of the late 20's testify to the atrocities visited on the Navajo children in Bureau of Indian Affairs (BIA) schools (Terrell, 1970). The documented records of the BIA show a scattered history of education officers whose humane and intelligent policies were destroyed by budget cuts and school personnel, who had no intention of following BIA directives, and who could act out their rebellion or disdain with the safety of distance and isolation (Szasz, 1974)

The acquisition of English has always been difficult for the Navajo speaker, as Navajo has always been difficult for the English speaker (Kluckohn, Leighton, 1962). During the period in Navajo education when they were forbidden to speak Navajo in the school environment, Navajos did not master English. Boarding school children, living in a totally English speaking world for nine months of the year, maintained language dominance in their native tongue (Kluckohn, Leighton, 1962). Immersion in a second language fails when that language cannot offer its learners the fulfillment of expression which is culturally inspired. This dictum, culled from the Navajo's past, is still applicable today. And
equally pertinent to Navajo education today are the linguistic studies cited by Paulston (1976), which indicate that children immersed in a language they cannot comprehend, and cut off from development begun in their native language, can become semilingual, unable to articulate adequately in either tongue.

For the Navajos, bilingual education holds a promise of maintaining their culture through the continual development of their own language in the school setting, while they learn the concepts of the dominant culture through acquisition in both Navajo and English. English fluency remains essential, however. Without it, the Navajo, or any minority language group member, is denied equal opportunity in the dominant culture. If bilingual education is to succeed, proficiency in English must be guaranteed and the difficulties Navajo speakers encounter in learning English must be carefully assessed in terms of many contributing variables.

Some of the difficulty Navajos encounter in acquiring English is found in the differences between English and Navajo. Contrastive analysis of the two languages reveals that they have little in common in phonological, morphological, and syntactic features (Kluckhohn, Leighton, 1962; Cook, 1974; Young, 1974). The differences in the physical features of the two languages hold keys to the views of reality expressed in and governed by each, and point to deeper, even more imposing problems for Navajo speakers of English (Sapir, 1949; Whorf, 1956; Saville-Troike, 1974).

The views of reality expressed by different languages and controlled by different languages have been largely ignored in the past. It is the implied aim of bilingual education to help the Navajo speaker live comfortably with two divergent modes of thought. The role of instruction in English takes on formidable dimensions, for both student and teacher, when it is seen as “teaching another culture” (Saville-Troike, 1974). Nonetheless, it is preferable to that state of Navajo education in which no recognition is made in the curriculum to the fact that Navajo students are not native speakers of English.

Where reservation school administrators have recognized English as a second
language (all have not done so) for Navajo students, training for classroom teachers in second language teaching techniques has been sparse and inadequate (Hines, 1976). Moreover, the field of English as a Second Language (ESL) has, until recently, been concerned with drill and pattern practice as methodology. As a profession, ESL began in the heyday of Skinner's behavioristic theory of language learning as a matter of habit formation based on stimulus, response, and reinforcement (Skinner, 1957). Early ESL acknowledgement of N. Chomsky's opposing theory of language as a cognitive, developmental process (Chomsky, 1965) merely urged pattern practices in transformations of "kernel sentences". However, since the 70's more and more ESL studies reveal a concern with applicable theoretical insights from anthropology, developmental psychology, and socio-linguistics (McLeod, 1976; Jonz, 1976; Kachru, 1976; Thomas, 1976; Jacobson, 1976; Holmes and Brown, 1976; Fathman, 1976; Hunstman, 1976). Muriel Saville-Troike's book, *Foundations for Teaching English as a Second Language: Theory and Method for Multicultural Education* (1976), cited by Paulston (1976) as the first of its kind, is based on scholarship from the disciplines mentioned. Theoretical assumptions on the nature of second language learning have begun to change but, as Ornstein notes in his assessment of bilingualism in the Southwest (1973), the need for integrating knowledge from various disciplines is still great. And, as is the case with any research and change in theoretical development, implementation in the classroom follows slowly and sporadically.

The lag between theory and research has proven to be detrimental to ESL in bilingual education, however, for the "Office of Civil Rights Guidelines" (1975), specifying remedies to "eliminate past educational practices ruled unlawful under Lau v. Nichols", define ESL as "a structured language acquisition program designed to teach English to students whose native language is not English". And most damaging to the development of ESL programs in bilingual education is the "Guidelines" recommendation that ESL has no place in a bilingual program until secondary school.

The efforts of ESL organizations to assert that another definition of ESL has, and
does, exist in fact and in practice, and to point out that the 1974 Bilingual Education Act itself stresses ESL as essential to bilingual education (Twaddle, 1976; Hines, 1976) may eventually close the gap between theoretical developments, research, and practice, but the debate itself underscores the intensity of minority groups' desire for an end to Skinnerian inspired methodology. Organizations, such as CACTI (Cultural Awareness Center Trilingual Institute), formed to implement the "Guidelines" recommendations, are adamant in their refusal to recognize programs which adhere to the definition of ESL cited in the "Guidelines" (March, 1977). Clearly, what is mandated by protest, if not specifically by law, is a rationale and guideline or framework for language programs which recognize that language and thought are intimately related, and that second language acquisition must be linked to cognitive and affective development.

General guidelines are being developed, particularly in the area of teacher training (TESOL, 1975), but certified teacher training programs are few (Knapp, 1976), research is scattered, and, for Navajos, ESL programs which demonstrate the results of research are nascent and isolated (Willink, 1973); Wilson, 1973). Moreover, in the case of the Navajos, the reservation school systems so operate that no one program, no matter how relevant, will be adopted by all schools.

In an official monograph, Strengthening Navajo Education (1973), the Navajo Tribe Division of Education notes that no unifying system is found among the 22 mission schools, 53 Federal-BIA schools, 30 public schools, and 4 community controlled schools with BIA contracts, which serve the Navajo Nation. Each of the schools operates "within and is responsible only to its own organization structure" (p. 22). The Division of Education, formed in 1971, is fully aware of the inadequacy of the schools in meeting the special linguistic needs of Navajo children. Long range plans for unification are part of the Division of Education's purpose. But, until the day when Navajos control their own schools, they will be dependent upon individual school administrators' interpretations of legislation and need.

The Bilingual Education Acts provide an opportunity for the development of
English as a second language in a bilingual setting. The Lau v. Nichols Supreme Court Decision is prophetic of the kinds of pressures which may be used to force individual school systems to comply with the law. Need and legislation, however, precede means. Bilingual programs for Navajo children are in the earliest stages of formation, and are not yet based on a comprehensive rationale relating the particular linguistic needs of Navajo speakers of English to broad but sound pedagogical theory. If ESL programs in Navajo bilingual education are not to be half-heartedly started and abandoned after a year or so of trial, as is so often the case (Rosier and Farella, 1976), then a firm rationale and guideline for originating, implementing, and evaluating such programs are essential.

**Purpose of this Study**

The purpose of this study is to identify the components of successful second language teaching to Navajo children, and to construct guidelines for the establishment, implementation, and evaluation of ESL in Navajo bilingual programs.

The formulation of a theoretical framework for identifying the components in successful teaching of ESL to Navajo students is an important requisite of the study and will be based on a definition of language as a thought process, as it has been formulated by Chomsky, 1968; Langer, 1956; Piaget, 1955, 1970, 1974; Sapir, 1949; Vygotsky, 1962. The delineation of the particular linguistic needs of Navajo speakers of English is also an important aspect of this study and will be based on a contrastive analysis of English and Navajo.

The methodology employed in the study will consist of formulating a definition of language as a process of thought, and relating it to the structuring of knowledge in two languages, Navajo and English. The definition will then be applied to research in first and second language development to extract the necessary components for teaching English to Navajo children. The components will be used to construct guidelines for implementing and evaluating ESL programs in Navajo bilingual education.
The questions this study will address in pursuit of the objectives are:

What are the philosophical, psychological, and linguistic foundations for the definition of language as a process of thinking?

How does the structure of a particular language inform the nature of thinking?

What explicit knowledge of language development in children can be utilized to teach a second language whose structural organization is vastly different from the first language?

What data from second language learning research is applicable to ESL programs in Navajo bilingual education?

Significance of the Study

The study will utilize research in first and second language acquisition, and the ways of perceiving and structuring reality which are reflected in language, to provide guidelines for teaching English to Navajo children in a bilingual setting. The guidelines will also serve as a standard for evaluating ESL materials and teaching strategies in bilingual education.

Delimitations of the study. The study will not prescribe a particular program or curriculum organization for teaching ESL to Navajo children. It is limited only to guidelines for developing and assessing the role of ESL in bilingual education.

Method

Chapter I will discuss the background of ESL in Navajo education and the implications for ESL programs which have resulted from recent legislation. A need for the study will be established through the examination of present practices and the goals of the Navajo Division of Education.

Chapter II will review the literature in three areas central to establishing guidelines for ESL in Navajo/English bilingual programs: 1) the relationship of language to thought,
2) the development of first and second languages in children, and 3) the conceptual differences expressed in the syntactical features of Navajo and English.

Chapter III will propose guidelines for the teaching of English as a second language to Navajo children. The guidelines will be based on the assumptions developed from the review of the literature in Chapter II.

Chapter IV examines specific strategies and materials which correspond to the guidelines and proposes instruments and methods to assess the validity of the guidelines.
CHAPTER II
THE DEFINING CHARACTERISTICS OF LANGUAGE

Scope and Purpose

This chapter presents a definition of language from which guidelines for ESL for Navajo children in a bilingual educational setting can be derived. The chapter is divided into three sections. Section I is an examination of the epistemological premises and their implied methodology which have guided ESL programs in the past. The argument is presented that this definition of language is responsible for the condemnation of ESL for children stated in the Office for Civil Rights' Task Force Findings Specifying Remedies Available for Eliminating Past Educational Practices Ruled Unlawful Under Lau v. Nichols (1975).

A definition of language, derived through its characteristics, is proferred which more adequately accounts for first and second language acquisition, and speaks to the charge of the Civil Rights Guidelines by encompassing the cognitive and affective development of children, which the authors of the Guidelines claim are currently lacking in ESL programs.

The characteristics of language are derived from various theoretical inquiries and discussed in terms of their implications to second language acquisition. Where pertinent, the characteristics are illustrated by comparisons between Navajo and English. The characteristics of language are discussed in theoretical terms in this section and research is noted only if it serves to explain how a particular premise is formulated.

Section II of this chapter contains a summary of the characteristics of language which compose its definition. Each defining characteristic is examined in terms of the research which validates it.

Section III contains a discussion of the implications of the theory and research outlined in the first two sections.
The Need for a Definition of ESL Which Encompasses the Cognitive and Affective Development of Children

The explicitly stated indictment of ESL in the “Office for Civil Rights Guidelines” on bilingual education that

Because an ESL program does not consider affective nor cognitive development of students in this category (elementary school) and time and maturation variables are different here than for students at the secondary level, an ESL program is not appropriate. (1975)

has elicited a great deal of furor in the field of ESL. Most of the protestations to the charge center upon the notion that ESL is a component in a total education program, and defend its existence in terms of its necessity in an approach to education which comprises the use of two languages (Buckingham, Haskell, 1976).

This defense of ESL, like the charge, assumes a separation of the content of ESL from the cognitive and affective development of children. But the “Guidelines” actually imply that it is the nature of ESL, itself, to run counter to or ignore cognitive and affective development. If that charge is to be effectively dismissed, it must be done so by defining the content of ESL as one which encompasses the cognitive and affective development of children.

There is no way that a second language can be defined except in terms of defining language itself. It is that definition which must prescribe the content and skills to be taught in an ESL program, and it is that definition which will determine the soundness of pedagogical practices. However, ESL is a field which must apply the theory and research from related disciplines in order to structure its own. ESL’s definition of language derives mainly from the theoretical premises in linguistics and psychology.

The Nature of Language as Defined by Structural Linguistics and Behaviorist Psychology

This chapter will bring those premises to light through an examination of the epistemological positions of the schools of linguistics and psychology which were dominant
at the inception of ESL as a profession, and which still vie in applied fields, such as ESL, as well as in their own disciplines, with conflicting epistemological positions. This author will contend that the epistemological premises in structural linguistics and behaviorism account for ESL content and practices which do not speak to the cognitive and affective development of children, and will further argue that the contending epistemological positions in generative linguistics and developmental psychology so define the nature of language that cognitive and affective development is not only considered, it is inherent in the definition itself.

Bloomfield’s structural linguistics. Since the twenties, the dominant school of linguistics in this country has been one form or another of structural linguistics. Leonard Bloomfield’s *Language* (1933) is considered the classic exposition of its approach despite the refinements and changes in the school which have ensued since his time. For Bloomfield, the elements of language lie in sound patterns and in the systematic changes which can be discovered in those patterns through a strict process of analysis. The structure of any language constitutes that language; it is the task of the linguist to describe the structure.

Bloomfield’s definition of meaning in language. Structural linguistics defines language as a system of sound relationships. The sound relationships do not embody meaning. Meaning is assigned to the situation in which the speech-sounds are uttered:

> ...speech-sounds are uttered as signals. We have defined the meaning of a linguistic form as the situation in which the speaker utters it and the response it calls forth in the hearer. (Bloomfield, p. 139)

Language, then, can be described and studied without reference to meaning. All the features of a language can be delineated and broken into patterns and segments. Such a definition of language implies a methodology for teaching language. Sound patterns can be related to students and then practiced by them for mastery. ESL texts based on structural linguistics present material in just this way.

Skinner’s Behaviorist Psychology. The structural linguists share a common view of language
and meaning with the behaviorist school of psychology. B.F. Skinner's work, which has greatly influenced ESL practices, refines the methodology for teaching language to the level of science, just as Bloomfield's work refined the examination of language to verifiable facts of sound-relationships. In the terminology of behavioristic psychology, language is verbal behavior, learned through a complicated process of stimulus, response, and reinforcement.

**Skinner's definition of meaning.** Skinner's definition of meaning is a paraphrase of Bloomfield's:

> Meaning is not a property of behavior as such but of the conditions under which behavior occurs. Technically meanings are to be found among the independent variables in a functional account, rather than as properties of the dependent variable (language). When someone says that he can see the meaning of a response, he means that he can infer some of the variables of which the response is usually a function. (Skinner, p. 13-14)

**Skinner's definition of language learning.** Skinner defines various languages as “the reinforcing practices of verbal communities” (ibid., p. 461). In a large verbal community, stimulus, response, and reinforcement are not easily controlled, and

> The subtle contingencies of reinforcement arranged by a verbal community easily miscarry. (ibid., p. 461)

But, in the small laboratory-like verbal community of a classroom, control is more possible. Sound patterns can be learned as responses to appropriate stimuli. Reinforcement can be consciously applied by the instructor in subtle or unsubtle form. If a student produces a desired sound pattern at a given stimulus, the instructor may assume that the sound pattern has been learned. If the student does not produce the proper sound pattern, more reinforcement is required.

Most ESL programs are based on the Skinnerian formula for learning. Reinforcement in the form of drills is included in all ESL methodology courses so that any one drill may be chosen by a teacher to reinforce a particular language pattern. Some of the language programs used in ESL, such as Distar, have so refined stimuli and reinforcement
techniques that students are trained to respond to a particular twist of the teacher's hand. Reinforcement in Distar often comes in the form of praise or candy, as well as in repetition drills. Tests on information acquired through such programs usually reveal success because the tests do not go beyond the style or limitations of the lessons.

The limitations of structural linguistics and behaviorist psychology. Structural linguistics and behaviorism represent the extremes of empiricism precisely because both will permit only what can be observed and verified into their theoretical considerations. The formulation of their questions determines the achievements and aims of their studies. The goal of the structural linguists is

...the preparation of objective, nonmentalistic descriptions of as many languages as possible, each one described in terms of its own phonological, morphological, and syntactic structure.
(Waterman, p. 100)

The aim of the behaviorist is "to predict and control behavior" (Skinner, p. 12). Both aims can be achieved. However, Noam Chomsky, the linguist who challenges both the structuralists and the behaviorists, admonishes wisely that,

...for those who wish to apply the achievements of one discipline to the problems of another, it is important to make very clear the exact nature not only of what has been achieved, but equally important, the limitations of what has been achieved.
(Chomsky, 1972, p. 100)

Chomsky's Challenge to Bloomfield's and Skinner's Definition of Language

The limitations of defining language only as sound patterns or verbal behavior speak directly to the indictment in the "Civil Rights Guidelines", for language so defined is divorced from the human beings who use it. Within this limited definition, cognitive or effective development are entities which must somehow be artificially imposed from outside of language and its use. Chomsky's challenge to the structural linguistic and behaviorist definitions of language consists in his insistence that a language cannot be fully characterized unless its definition involves the human beings who grasp and use it.
Chomsky’s opposition to the behavioristic view of language begins with an observation characterized by common sense. If language is no more than learned responses, how is it, he asks, that a mature speaker of a language can produce a sentence (s)he has never heard before and be understood by other native speakers who also have never heard the sentence before? The question can not be satisfactorily answered by a behavioristic theory of verbal behavior.

Chomsky’s view of language as creative. Chomsky asserts that the normal use of language is creative and cannot be accounted for by a stimulus/response explanation.

It is important to bear in mind that the creation of linguistic expressions that are novel but appropriate is the normal mode of language use. If some individual were to restrict himself largely to a definite set of linguistic patterns, to a set of habitual responses to stimulus and configurations, or to “analogies” in the sense of modern linguistics, we would regard him as mentally defective, as being less human than animal. (Chomsky, p. 100)

Deep structure. Chomsky’s attempt to account for the creative use of language led him to postulate the theory that all languages have a deep structure from which all surface structures are derived. He asserts that the grammar of any language must

...specify, for each sentence, a deep structure that determines its semantic interpretation and a ‘surface structure’ that determines its phonetic interpretation. (Chomsky, 1965, p. 16)

It is Chomsky’s contention that deep structure is innate, and, therefore, a property of all languages. The term, deep structure, is not easily understood by its definition, however. In Aspects of the Theory of Syntax (1965), the first major work in Aspects of the Theory of Syntax (1965), the first major work in which Chomsky discusses the term, he compares it to the “inner form” of language, a term used by the philosopher-linguist, Humboldt, in the 18th century, (ibid., p. 199). However, when citing the deep structure for the sentence, “I persuaded a specialist to examine John.”, Chomsky identifies the deep structure as “Noun Phrase-Verb-Noun Phrase” (p.136). From this example, one might infer that ‘deep structure’ or ‘inner form’ refers to a stringing together of nouns and verbs in a
process of categorization. And this, in part, is what Chomsky is saying about deep structure when he asserts that all natural languages have universals, and that these probably are nouns, verbs, and adjectives. (Leiber, p.133) Certainly, Chomsky does not claim a universality in the particular ordering of nouns, verbs, or adjectives.

**Universal grammar.** If Chomsky’s deep structure refers to an ordering, a syntax of nouns and verbs and adjectives in some way that is not contingent upon a precise placement of the words, then the concept of deep structure becomes even more abstract than the simple Noun Phrase-Verb-Noun Phrase example cited above. Chomsky also refers to deep structures as part of a universal grammar and this term may more properly describe the quality he wishes to define. He defines universal grammar as:

A certain subsystem of rules that provides a skeletal structure for any language and a variety of conditions, formal and substantive, that any further elaboration of the grammar must meet. The theory of universal grammar, then, provides a schema to which any particular grammar must conform. (Chomsky, 1972, p. 88)

Chomsky bases the existence of universal grammar on the observation that human beings are really exposed to very limited experiences with the data of speech. However, the normal use of language is to continually construct sentences which are creative and appropriate.

To be appropriate, a sentence or utterance must adhere to a logic, an ordering, which makes its meaning recognized. A sentence need not be proper by the standards of agreed upon grammatical rules, nor need a sentence be true in the sense of accepted, logical truths. In English, for example, it is possible to construct the sentence “He don’t know”. By a standard of surface rules, the sentence is ungrammatical, but by a grammar, an ordering of experience which flows beneath surface rules, the sentence is understood in terms of its logic. By the same token, one can say “the cow jumped over the moon” and be stating a decided untruth. It is not the proposition which constitutes the communicable knowledge possessed by humans; the innate knowledge or universal grammar rests in the form of the proposition, in the fact that words can be so structured as to make the
proposition. It is in this fact that Chomsky’s definition of deep structure is revealed; it is a propensity, a set of subrules built into the human psyche which govern the ordering of reality with words. Deep structure and universal grammar are defined, not so much by the particular arrangement of words -- that belongs to the surface rules unique to each language system; but by the ubiquity of ordering itself.

The restrictiveness of grammar. The propensity to order, the abstract subset of universal rules, is restrictive; there are definite limitations on the grammars of any language. Chomsky argues that the rules of ‘universal grammar’ are so restrictive that, in reality, few grammars which conform to the schema are available. This restrictiveness is the tool of the language learner, who must form a hypothesis from the data supplied.

This innate restriction is a precondition, in the Kantian sense, for linguistic experience, and it appears to be the critical factor in determining the course and result of language learning. The child cannot know at birth which language he is to learn, but he must know that its grammar must be of a predetermined form that excludes many imaginable languages. Having selected a permissible hypothesis, he can use inductive evidence for corrective action, confirming or disconfirming his choice. Once the hypothesis is sufficiently well confirmed, the child knows the language defined by this hypothesis; consequently, his knowledge extends enormously beyond his experience. (ibid., p. 91)

Unconscious hypothesizing. In no way is Chomsky asserting that the hypothesizing is a conscious act. Leiber (1975) points out that though Chomsky has revised many aspects of his original theory, he maintains the notion of unconscious hypothesizing:

Chomsky again and again insists that ordinary speakers of English “internalize”, or “know”, the transformational-generative rules of English, even though, as Chomsky freely admits, we are not conscious, and very likely cannot become conscious, of these rules. (Leiber, p. 149)

Skinner’s behavioristic theory also rests on the notion of unconscious learning; human beings are not conscious of responding to stimuli nor, indeed, are they conscious of the varied reinforcements which secure a response. Chomsky, however, is talking about an active disposition to conceptualize within a restricted realm. Skinner’s theory implies little or no abstract activity on the part of the learner; Chomsky postulates that a great deal
of innate, individuated, abstract -- albeit unconscious -- activity takes place in the psyche of the learner.

Chomsky's theory of grammar is reflected in his construction of transformational grammar, and, because he begins from different assumptions about the nature of language, his grammar is decidedly different from that of the structural linguists. Chomsky's grammar begins with a set of rules which are responsible for generating an infinite number of sentences from deep structures. The rules allow for simple sentences to be rewritten into more complex ones. His aim is to list the transformational rules, while the aim of the structural linguists is to analyze the constituents of sample sentences from any language.

The conflict between transformational grammar and structural linguistics. Had Chomsky merely provided a set of transformational rules, however, his quarrel with the structural linguists would be reconcilable; it is his theory of transformational grammar which marks his departure from the structuralists as one that is not reconcilable. It is a cause of consternation to Chomsky that his work in grammar has been misunderstood or deliberately shorn of its theoretical context and implications. Grammarians who cannot accept the premise of Chomsky's arguments accept, instead, the transformational rules as models.

Chomsky, of course, is aware that transformational grammar can be conceived as a model and he consistently cautions against the practice:

To avoid what has been a continuing misunderstanding, it is perhaps worthwhile to reiterate that a generative grammar is not a model for a speaker or a hearer. It attempts to characterize in the most neutral possible terms the basis for knowledge of the language that provides the basis for actual use of language by a speaker-hearer...the generative grammar does not, in itself, prescribe the character or functioning of a perceptual model or a model of speech production. (Chomsky, 1965, p.9)

Chomsky's concern is based on his premise that language is not learned through imitation of patterns. In his view, to teach transformational grammar as a model is to negate its purpose. Nonetheless, despite Chomsky's published protestations, the practice of teaching transformational grammar as a drill and model persists. (Long, 1975; Smith, 1975)
Limitations to the theory of transformational grammar. The misapplication of Chomsky's theory of grammar suggests a lack of convincing completeness in the nature of the theory. Chomsky is no less aware of the limitations of his theory than he is of its misuse. Grammatical studies such as his own, he says, reveal only "the mechanisms that make possible the creative use of language" (Chomsky, 1972, p. 103). Understanding the use of the mechanisms must be derived from those perspectives in human psychology which examine the premise that language use is creative. The examination of the premise from diverse perspectives raises even more questions about language learning and second language acquisition, but it is in the formulation of the questions and in the attempt to answer them that the postulates of Chomsky's theory of grammar can be made both more explicit and more applicable.

Universal grammar and the nature of thought. The notion that universal grammar is a propensity to order experience according to a restricted system of innate rules really touches upon the nature of thought. If language were somehow to be removed from Chomsky's theory, it might be restated in terms of the process of thought. When thought or thinking is inferred from wordless problem-solving tasks, it is characterized by abstraction, categorization, and synthesis, and these are the very properties which govern deep structure. If such elements make up the thought process, then language, by its very nature, would appear to be an externalization of thought and not a mere representation of it.

Language as Externalized Thought
Symbolization. The argument that language is an externalization of thought is examined by Susanne Langer in her work, Philosophy in a New Key, (1942) and her thesis provides an insightful perspective to the idea of universal grammar and the creative use of language. Langer defines thought as "symbolization". Symbols, derived from the act of symbolization are not to be conceived of as signs for objects; rather they are "vehicles for the conception of objects" (p. 61). Conceptualization (thinking) involves abstraction and an
organization of stimuli or data. Like Chomsky, Langer postulates that the tendency to symbolize is innate, human, and unconscious. Symbolization is an unconscious, spontaneous process of abstraction which goes on all the time in the human mind. (Langer, p.72)

In Langer’s scheme, language is a high form of symbolization, and is to be distinguished from other forms of symbolization which adhere to different modes of expression.

The nature of grammar and its role in meaning. Grammar, or syntax, is integral to her contention that language is externalized thought. Grammar is not technically a symbol, it is integrated with symbols so that it is the tool by which symbolization can occur. Grammar...ties together several symbols, each with at least a fragmentary...connotation of its own, to make one complex term, whose meaning is a special constellation of the connotations involved. What the special constellation is, depends on the syntactical relations within the complex symbols. (ibid., pp.67-9)

Grammar therefore involves patterning, organizing, and meaning, for, in Langer’s scheme, meaning is defined as “a pattern in relation to other patterns” (p.56). In effect, meaning becomes the product of syntactical relations, or grammar.

Langer maintains that all languages derive from a basic pattern of abstraction, and all grammars must conform to that basic pattern. The conformation is in the nature of language:

All language has a form which requires us to string out our ideas even though their objects rest one within the other; as pieces of clothing that are actually worn one over the other have to be strung side by side on the clothesline. This property of verbal symbolism is known as discursiveness; by reason of it, only thoughts which can be arranged in this particular order can be spoken at all; any idea which does not lend itself to this projection is incommunicable in words. (ibid., p.82)

The property of logical form, or discursiveness, inherent in language precludes certain kinds of thinking, and Langer amends the Kantian challenge of ‘What can I know?’ by positing that the nature of language binds us to yet another question, ‘What can I ask?’

Syntactical relations. Langer’s analysis of language may, thus far, be restated in Chomskian
terms of universal grammar and universal constraints, but her definition of meaning as
"a pattern in relation to other patterns" more clearly points to the role of syntactic rela-
tions, or patterns, in surface structures as well as in deep structures from which surface
structures derive.

It is obvious that syntactical arrangements differ in different languages. Does the
question 'What can I ask?' go beyond an innate and universal grammar and rest, instead,
in the rules of surface structure and restrictions?

In answer, Langer, like Chomsky, insists first that the innate system of rules con-
stitutes the essence of any language; differences in surface syntactical features prove rather
than deny the power of innate form because the propositions of any language can be trans-
lated into those of another. If the process of ordering information were different, no trans-
lation would be possible.

The argument that basic intellectual structures in language are universal is not miti-
gated by the recognition of powerful differences in surface structures; it is rather enhanced
by it. Nonetheless, a theory of language use which does not explore surface structures in
terms of their influence on innate processes will remain incomplete and, certainly, will be
inadequate as a working definition in second language teaching.

Surface structures and meaning. The power of surface structures has been analyzed by
Benjamin Whorf and Edward Sapir, both of whom studied Native American languages.
The Sapir-Whorf hypothesis concludes that the structure of any language determines the
shape of thought of the individuals who speak the language:

> Formulation of ideas is not an independent process, strictly rational in the old sense, but is part of a particular grammar, and differs, from slightly to greatly between different grammars. We dissect nature along lines laid down by our native languages ...We cut nature up, organize it into concepts, and describe signi-
ficance as we do, largely because we are party to an agreement to organize it this way--an agreement which holds in the pattern of our language. (Whorf, 1956, p. 212)

Contrast in Navajo and English surface structures. Just how particular languages
organize reality is best discovered through a contrastive analysis of two languages. In the case of Navajo and English, the different perspectives of reality, the different manners of organization, are abundant and stark. For example, the word, 'give' in English is, in Navajo, the transitive correspondent of 'come'. The English 'to give something to someone' in Navajo, 'to handle such an object, to cause it to come to another. (Kluckhohn, Leighton, p. 267)

All Navajo verbs contain a precision of action in their form and reflect a different emphasis on categorization than do corresponding verbs in English. On the other hand, many nouns in Navajo express a broad organization of data. 'Flint', 'metal', and 'knife', are all represented by one word in the Navajo language. Kluckhohn and Leighton speculate that the categorization exists because all three items came into Navajo society at the same time (ibid., p. 279). The speculation is an interesting one and suggests that the way experience is categorized in a particular language is dependent upon shared historical and environmental experiences. Whatever the case, it is difficult to find any similarity of surface organization between Navajo and English.

It is pertinent here to apply Langer's test for the universality of languages, and to ask whether the differences in Navajo and English are insurmountable, whether the mode of categorization in one precludes understanding the mode of organization in another. Those who have worked with the Navajo and English languages are emphatic in stressing that translation is difficult, often ungraceful and tedious, but possible:

Almost anything which can be said in Navajo can be said in English and vice versa, though a translation which gets everything in may take the form of a long paraphrase which sounds strained and artificial in the second language. (ibid., p. 275)

The cultural perspectives embodied in the syntax of one language can be translated to the syntax of another, even though the second language does not embody the perspective in its own surface structure.

Translating surface structures. The definition of language through its characteristics
takes an interesting turn with the acknowledgement that cultural perspectives can be translated from one language to another. If the surface structures, which embody cultural perspectives, can be translated, then it might well be supposed that learning a language, other than one’s native one, consists of translating surface structures through the medium of deep structures, or universal grammar. The supposition is misleading, however, for it confuses translating with speaking other languages.

Translating is a conscious activity. At its best, it is academic and arduous. Moreover, much that is translated is inaccurate because it fails to convey the nuances and connotations of words in one language to those of another. Accurate translating requires knowing all the complexities involved in the organization of both languages, requires, therefore, a knowledge of the cultural perspectives manifest in both languages.

Translating is, of course, a useful means of formal communication between two cultures, and it remains a substantial proof that the meaning inherent in syntactical relations is not solely a property of inner structures, it resides in surface structures as well. Universal grammar governs the human psyche by systemitizing experience and phenomenon so that they are not helter-skelter bombardments without meaning; surface grammar refines the systemitization process to accord with the historical and environmental experiences of a culture or group.

Culture and surface structures. The refinements imposed upon inner structure by surface grammar are powerful. The very manner in which reality is to be experienced in a culture is transmitted to its members through the surface systemitization of language. Sapir (1931) likens the language of any given culture to a mathematical system operating within certain formal limitations. Meaning, for individuals within a given culture, is “not discovered by experience”: rather, Sapir says, “meaning is imposed upon experience through language” (p. 578).

When the formidable influence of surface grammar is linked to deep structure and universal grammar, as it is in the Sapir-Whorf hypothesis, then Chomsky’s assertion that
language study cannot be divorced from the human beings who use it takes on new dimensions, in terms of the creative use of language. It is not only individuals who create with the language of their culture, the language of any culture reflects the culture's creativity in shaping universal grammar to unique historical and environmental conditions. And if, as the Sapir-Whorf hypothesis contends, “the content of a culture is expressable in its language”, (Sapir, 1949, p. 56), then the ‘content’ of an ESL course is nothing less than the content of another culture. The student in any second language class is learning to systematize knowledge in a different way. In bilingual education, the new method of systematization should not dispel the first and still developing method embedded in the native language, it is to be learned as an additional manner of organizing experience.

Language Development through Society

The definition of language thus far presented is that language is externalized or conceptualization -- an act, which, in its most simple form, requires an abstraction of attributes from impressions, and an ordering of the attributes in some manner of categorization. Language, thus defined, must encompass those characteristics pertinent to all human conceptualization: it must encompass first, the notion that the process of conceptualization is developmental, and, second, that the process takes place in and through society. An examination of these aspects of language distinguishes affective and cognitive development as components of the language (conceptualization) process.

A first language is learned, Chomsky (1967, 1972) says, because children possess an innate propensity to categorize experience. From the language data presented to them, they unconsciously construct the grammar of their native language. The construction of the grammar is an act which takes place within the individual’s psyche, but it is not an act which can be performed alone; language data is presented by others, and the hypothesis which the child forms is tested in the society of others.
Conceptualization and socialization. The development of conceptualization and its relationship to socialization -- that process whereby an individual develops the self through interaction in a community -- is central to the cognitive developmental psychology of Jean Piaget. Piaget’s theory of cognitive development is very close to Chomsky’s theory of language syntax, and both men have commented on the other’s work to that effect. Chomsky (1972) expresses difficulty in understanding Piaget’s notion of stages and how an individual progresses from one stage to another. And Piaget (1970) interprets Chomsky’s notion of innate grammar in a strict Platonic sense, even though Chomsky (1967) claims this is not so. Despite their differences in interpretations, the two scholars expound compatible theories, and Piaget’s work can be viewed as an attempt to explain how the language mechanisms, described by Chomsky, work.

Piaget’s structuralism. Piaget defines his theoretical position as Structuralist, but the term should not be confused with that of the structural linguists, for Piaget in no way links his stance to a behavioristic or strict empiricist view of learning and he takes great pains to disassociate himself from those schools (Piaget, 1970). The terminology of Piaget’s structuralism closely resembles that of biology, his first field of inquiry. According to Piaget, the human organism has so evolved that it develops in accordance with its functional structures -- structures, here, meaning physical and mental apparatus.

The structures of the human organism develop and each development is contingent upon the functioning of the previous development. In the case of cognitive structures, development takes place when new information in the environment is actively accommodated to the organization of established information, forming an assimilation of new information and old, which changes both. A realistic assimilation or understanding of experience cannot take place unless the cognitive structures of the mind are prepared to do so. The preparedness of the mind, or more accurately, readiness, follows a sequential pattern, and Piaget ascertains that there are four main stages of normal cognitive development:

1. acquisition of perceptual invariants (infancy to two years of age)
2. preoperational intuitive thinking (two to seven years of age)
3. concrete operational thinking (seven to eleven years of age)
4. formal propositional thinking (eleven up)

Once begun, the stages do not end. They are ongoing, so that even in the stage of formal propositional thinking, an individual is still acquiring perceptual invariants (Piaget, 1970).

Thought begins in sensory-motor activities. According to Piaget, thought has its beginnings in sensory-motor activities. Through a series of developmental sensory-motor explorations, the infant learns to differentiate itself from the world about it, to gain a 'body knowledge' of space. But the beginnings of thought are not thought itself, they are only an embryonic prerequisite:

Sensorimotor intelligence is an adaptation of the individual to things or to the body of another person but without socialization of the intellect as such; whereas conceptual thought is collective thought obeying common laws. (Piaget, 1954, p. 406)

Language, objectivity, and society. Collectiveness, or society, stimulates the individual mind to thought. Language is the source of stimulation. The function of language is to state the truths of "common laws", and to arrive at an objective representation of reality. But, Piaget maintains, that objectivity can only be ascertained through others:

It is by cooperation with another person that the mind arrives at verifying judgments, verification implying a presentation of an exchange and having in itself no meaning as regards individual activity. Whether conceptual thought is rational because it is social or vice versa, the interdependence of the search for truth and of socialization seems to us undeniable. (ibid., p. 407)

The spur to thought, its intellectual foundation, is in action, but conceptualization belongs to language and is intertwined with the social nature of language. It is the social aspect of language which enables the child to move away from egocentricism -- a state whereby the individual is unable to differentiate the self from the world. On the sensory-motor plane of intelligence the child achieves a differentiation between self and objects; language begins the process at more complicated and subtle levels. The process of differentiation is called 'decentralization' by Piaget and he describes it as life-long, involving self-perception and an increasing ability to understand the view of others. It is with the
social patterns of thought (that the individual leaves) his own personal point of view...to enter that of others to arrive at an objective view. (ibid., p. 409)

Decentralization, achieved through socialization, is the crux of cognitive development. Piaget’s experiments demonstrate that children are unable to make accurate judgments about phenomenon until they attain a certain ability to differentiate their feelings from the phenomenon. Accurate judgment depends upon innate development and social intercourse; the two are inseparable:

...a deductive structure on the plane of reflective thought presupposes a mind freed from the personal point of view by methods of reciprocity inherent in cooperation or intellectual exchange. (ibid., P. 421)

**Action and language.** The life-long process of decentralization is dependent upon another factor as well. It must be remembered that Piaget’s stages are cumulative and ongoing. Action, the first basis for thought, plays a continual role in the social reciprocity which accompanies conceptualization. Piaget’s observations of young children lead him to conclude that play or situations involving sensory motor activity aid “in the acquisition of language” (Piaget, 1968, p. 91). Indeed, Piaget’s analysis of action and language concurs with Sapir’s notion that action is a vital part of conceptualizing with language. Language and action are intertwined in the socialization process:

In those sequences of interpersonal behavior which form the greater part of our daily lives speech and action supplement each other and do each other’s work in a web of unbroken pattern. (Sapir, 1961, p. 9)

The notion that activity accompanies and aids verbal conceptualization is so important to Piaget’s epistemological theory that he proposes conceptual development in any subject should be accomplished by activity, in the form of manipulating concrete materials, or in moving through, acting through, simulated situations. He states that,

...concrete activity must be developed and enriched constantly during the entire elementary education. (Piaget, 1973, p. 104)

and he stresses that the activity cover
languages, geography, history, natural sciences, etc. That is every field where knowledge of facts has no value except in relation to the processes of discovery that enable it to be absorbed. (ibid., p.106)

If the nature of geography is the categorization of environmental aspects, then the only way to know geography is to actively engage in the process of categorization and discover the relationships involved oneself. If the nature of language is conceptualization, then the only way to know a language is to conceptualize with it. Facts do not become part of the human repertoire of knowledge until they are assimilated, absorbed. And this is done through action:

Knowledge is derived from action, not in the sense of simple associative responses, but in the much deeper sense of the assimilation of reality into the necessary and general coordination of action. To know an object is to act upon it and to transform it...To know is therefore to assimilate reality into structures of transformation and these are the structures that intelligence constructs as a direct extension of our actions. (Piaget, 1970 b., pp. 28-29)

Piaget's definition of action, then, is not to be solely interpreted as movement, mental transformations are action as well. Chomsky claims that transformational grammar reveals the mechanisms of language; Piaget's work describes the process of the mechanism as the active involvement of the individual with reality. Passive repetition and drill do not enable knowledge, they fall only into the category of "simple associative responses".

Differences in conceptualization. Piaget's developmental model, steeped in the disciplinary structures of biology, allows for natural differences within the basic scheme. It is not expected that every individual will develop in the same way in all of the stages. Nonetheless, excepting variation, it is the innate tendency of the human organism to so progress. The conditions for developing innate structures are social; cognitive development can be hindered or swayed by the kind and quality of social linguistic opportunities:

...there can be fixations at certain stages: there can be delays and accelerations. But I would go even further. Within the formal operational level, it is entirely possible that some people, for instance, those in manual professions, specialized laborers of various sorts, may reach formal operational levels
Piaget is not suggesting that those who engage in specialized manual work do so because they are incapable of logical formal mental operations. He is suggesting that societal experiences, and these include educational procedures, may be so limited and limiting that some individuals never encounter the conditions necessary to develop their capacity for logical mental operations. Piaget is concerned with the politics of education on an international level and he strongly believes that all children should be presented with the conditions for their optimum development. For him, the issue is as much connected to politics and social theory as it is with education and epistemology for he says that, even governments dedicated to democracy must provide ways for the populace to understand and make decisions or those decisions will be made and imposed by an elite (Piaget, 1973).

Social reciprocity, cognitive development, and learning a second language. The relationship of social reciprocity, embodied in a society’s system of formal education, to the cognitive development of that society’s members should be an important consideration in teaching a second language. It should be an especially crucial consideration in teaching ESL in Navajo/English bilingual education programs where the fate of a culture may well depend upon pedagogical practice. If learning a second language is equated with learning to conceptualize in that language, then the conditions for conceptual development must be provided. It cannot be presumed, for example, that concepts can be grasped in a second language unless they are commensurate with a child’s cognitive development, nor should it be presumed that young children can omit stages of conceptual development in a second language. Indeed, concept development in a second language should follow concept development in the first, regardless of when the second language is introduced. Adults will move through the stages of concept development quickly in the second language since they have already gone through those stages in the first, but children cannot be expected to progress further than their developmental capabilities allow.
Affectivity in cognition. Piaget’s structuralist theory of human development has been discussed thus far only in terms of cognitive development. However, Piaget includes affective development in all cognition. The whole process of decentralization, that growth toward an objectivity which involves understanding the feelings of others by distinguishing one’s own, partakes of emotional maturity. And that maturity is, like the cognitive process to which it is linked, intertwined with social experiences. Piaget rarely speaks in terms of affectivity precisely because it is so much a part of cognition. He states unequivocally:

...affectivity certainly is central. Affectivity is the motor of any conduct. (Evans, p. 9)

Affectivity pervades the conceptualization process because it pervades the social experiences through which, and in which, human conceptualization develops. There is no way that affectivity can be separated from language unless language can be separated from socialization, from the shaping, as it were, of each individual.

Vygotsky’s theory of language development. The process of socialization as it acts upon and intertwines with cognition is explored by Lev Vygotsky (1962) and, because his work is increasingly mentioned in language studies in general and in ESL for Navajos in particular (Willink, 1973; Wilson, 1973), his thesis is examined in some detail here.

Vygotsky’s work stresses the societal nature of language and the creative capacity of the individual psyche as it develops through language. He views the creative capacity of the individual as an innate trait and argues that the human mind must create meaning by simplifying and generalizing experience even before any expression occurs in symbols. Like Chomsky, Langer, and Piaget, Vygotsky asserts that the ability to simplify and generalize is innate in human beings, and that the capacity only unfolds in the society of others:

Human communication presupposes a generalizing attitude, which is an advanced stage in the development of word meanings. The higher forms of human intercourse are possible only because man’s thought reflects conceptualized activity. (Vygotsky, p. 7)
Vygotsky stresses that verbal conceptualization is a developmental process, so much so, that certain concepts cannot be conveyed to children even though they use the words with which the concepts are stated. Words, which he says are themselves generalizations, go through evolutions in meaning for the child. The evolutions, which may be said to comprise levels of understanding, develop through community, through the reciprocity inherent in language:

Thought development is determined by language, i.e., by the linguistic tools of thought and by the sociolinguistic experience of the child...the development of logic...is a direct function of socialized thought. The child's intellectual growth is contingent on his mastering the social means of thought, that is language.
(ibid., p. 50)

According to Vygotsky, the evolution of conceptualization requires many stages. True conceptualization occurs roughly around adolescence. Like Piaget, Vygotsky maintains that the previous stages in the evolution never disappear, and that the human mind reverts back to them throughout life. His notion of ‘true conceptualization’ is similar to the formal operations stage described by Piaget. Vygotsky describes ‘true conceptualization’ thusly:

To form a true concept it is necessary to abstract, to single out elements apart from the totality of the concrete experience in which they are embedded. In genuine concept formation, it is also necessary to abstract, to single out, unite and to separate. Synthesis must be combined with analysis. (ibid., p. 76)

True conceptualization is the natural culmination of human thought, so contingent upon developmental processes that Vygotsky boldly asserts:

The direct teaching of concepts is impossible and fruitless. A teacher who tries to do this usually accomplishes nothing but empty verbalism, a parrot-like repetition of words by the child, simulating a knowledge of the correspondence but actually covering up a vacuum. (ibid., p. 83)

Teaching vs. learning. Vygotsky does not suggest that children should not be taught, nor does he suggest that concepts can be drawn out of children in some socratic fashion once the children evidence signs of readiness. To teach concepts which “cannot be taught”
is the paradoxical dilemma of education: concepts are taught since their formation is dependent upon the communal exchange of language, but they cannot be learned, even though the child possesses the words to convey them, until the child can create the concepts from the developmental structures of intelligence.

Readiness is crucial. Vygotsky believes that there is an optimal time in the developmental process to teach certain kinds of concepts, but he is aware that the optimal times must vary from individual to individual so that there can only be rather broad guide posts as to when certain concepts are presented. In educational practice, concepts must be taught whether or not individual children are able to grasp them by creating them, or whether they can only simulate them.

The difference between scientific concepts and spontaneous concepts. Vygotsky’s attempt to examine the paradox involved in the very notion of education is a paramount contribution to the psychology of learning. He explores the paradox by analyzing two different kinds of concepts: spontaneous concepts and nonspontaneous concepts. Spontaneous concepts are those developed by children through their own efforts. Nonspontaneous concepts or, as Vygotsky calls them, scientific concepts, are those gained through instruction.

In a series of experiments, Vygotsky found that second and third graders demonstrated an understanding of a scientific concept involving the use of ‘because’. The children were able to finish the sentence fragment “Planned economy is possible in the U.S.S.R. because” The same children, however, had difficulty finishing a fragment sentence such as “the boy fell off his bike because”

Vygotsky concludes that the children were able to demonstrate an understanding of ‘because’ in the scientific example because they had learned it as a system, had been led through instruction to see the relationships in the concept:

Why is he capable of performing the operation in this case? Because the teacher, working with the pupil, has explained, supplied information, questioned, corrected, and made the pupil
explain. The child’s concepts have been formed in the process of instruction, in collaboration with an adult. In finishing the sentence, he makes use of the fruits of the collaboration, this time independently. (ibid., p. 107)

In time, of course, the children are able to correctly engage in spontaneous conceptualization and it is Vygotsky’s contention that they are aided in this because they are led to generalize and to see the relationships in scientific concepts.

The relationships between scientific conceptualization and spontaneous conceptualization. Vygotsky sees a strong relationship between scientific conceptualization and spontaneous conceptualization. The scientific concept, initiated in the highly systemitized and rigid social environment of the school, is merged, in time, with spontaneous concepts learned in a more fluid social environment. The individual is able to separate the concepts, but each is enriched by attributes from the other, so that a more mature and meaningful generalization takes place. And, in that more mature generalization is embedded a stronger objectivity, the pivot of the decentralization process.

From Vygotsky’s examples of spontaneous and scientific conceptualization, it may be assumed that spontaneous conceptualization evolves from undifferentiated activities in which there is a great deal of both cognitive and affective involvement, whereas, scientific conceptualization is more cognitive and presumably involves less of the self. In a very real sense then, it is the experiential aspect of spontaneous conceptualization which is brought to bear on scientific conceptualization to make it more meaningful. However, Vygotsky makes very clear that he interprets the more cognitive aspect of scientific conceptualization as forcing an awareness beneficial to the maturity of spontaneous concepts:

School instruction induces a decisive role in making the child conscious of his own mental processes. Scientific concepts, with their hierarchial system of interrelationships, seem to be the medium within which awareness and mastery first develop, to be transferred later to other concepts and other areas of thought. Reflective consciousness comes to the child through the portals of scientific concepts. (ibid., p. 92)

In Vygotsky’s scheme, scientific concepts go down from abstraction to the concrete,
while spontaneous concepts rise from the confines of the self and the immediacy of experience to the abstractive realm of generalization. Each type of conceptualization is necessary to the other. The scientific concept may bring a level of awareness to the spontaneous concept but,

The development of a spontaneous concept must have reached a certain level for the child to be able to absorb a related scientific concept. (ibid., p. 108)

For example, instruction did not aid the children in Vygotsky’s experiments with scientific conceptualizations involving ‘although’. Vygotsky concludes that this is so because the adversative relation does not appear until later in the child’s spontaneous thinking, and, therefore, guided instruction cannot instill or promote an understanding of it.

**Scientific conceptualization and foreign language study.** Vygotsky compares scientific conceptualization to foreign language study and asserts that a child must have some degree of maturity in his/her native language before a foreign language can be successfully presented. It is his contention that foreign language study enhances understanding of one’s native tongue (as scientific conceptualization enhances spontaneous conceptualization, but that a foreign language can only be grasped when some system of meanings in the native tongue is well established.

Vygotsky’s discussion of conceptual development and the role of school instruction must be carefully scrutinized before it can be seen as relevant to ESL in bilingual education. It must first be understood that his analysis of scientific and spontaneous concepts refers to conceptualization in a single language. His mention of foreign language study refers to a formal, analytical process and not to speaking or thinking in the foreign language. He is most explicit in noting that proficiency in the latter requires years of practicing the foreign language.

**Vygotsky’s theory of conceptualization and ESL.** In applying Vygotsky’s theory of conceptualization to ESL in bilingual education, it is also necessary to recall that the mode of conceptualization differs from language to language; it cannot be assumed that
school instruction in a second language builds from spontaneous conceptualization in the first. For example, in the Navajo language, verbal conceptualization involves noun ranking:

...all nouns are ranked by their ability to think or on their power over other nouns...certain passive sentences cannot be considered in Navajo...if one of the nouns is capable of planned action and the other is not, or when one noun has more power than the other or is bigger. (Platero, p. 7)

The use of the passive voice, that is, conceptualization in the passive voice, appears to be a later acquisition for children who speak English as their native tongue (Fraser, Bellugi, and Brown, 1963; Slobin, 1966; Turner and Rommetveit, 1967) and, moreover, appears to follow an order in development (C. Chomsky, 1969). If the manner of conceptualization in Navajo does not allow for that order of development then, it stands to reason, that it would be impossible to build from Navajo conceptual verbalization in the instruction of scientific concepts requiring the use and comprehension of the passive voice in English. What would be more appropriate, especially in the case of young children, would be to make spontaneous conceptualization in English a part of the ESL instruction. If everyday concepts are formed from a “face-to-face meeting with a concrete situation”, (Vygotsky, 1962, p. 108) then such situations should be provided as part of ESL instruction.

Vygotsky’s work with conceptualization adds fresh insights to the characteristics of language because he focuses on the interaction between the innate developmental process of logical thinking and formal instruction received in society. In so focusing on the role of school instruction, his work extends beyond the materials of his experiments to the possibilities inherent in the reciprocity of the instructional process, and points to the limitations of instruction which does not build from the innate, developmental process. Equally important, his work leads the way to developing instruction which provides both the experiential, affective basis for spontaneous logical development — that is, the “face to face encounter with concrete situations”, and for scientific conceptualization, wherein instruction builds from spontaneous logic to abstraction, where,

...we impart systematic knowledge to the child we teach him many things he cannot directly see or experience. (Vygotsky, p. 86)
The relationship of inner speech to affectivity. Vygotsky’s theory of ‘inner speech’ yields still another characteristic of language which speaks to the individuality of each human mind. As noted earlier, Vygotsky asserts that words are, themselves, generalization, and that they go through an evolution in meaning for each individual. The first meanings of words do not partake of the logical construct of thought, but are, instead, presentational. They are, he says, like works of art; images, actions, and feelings cling to a word, belong to it in a symbolization process which does not partake of the rational aspects of language. The powerful innate trait of logic is not yet apparent in the first use of words; instead, there is a complex grouping of objects, acts, sensations, and feelings, and an identification of the self with the whole of the complex. As children develop in the discursive mode cited by Langer, or the objectivity cited by Piaget, Vygotsky would have it that the psyche clings, in inner thought, to the presentational, to the more personal identification, or merging of the self with object, feeling, sensation, or experience. Vygotsky maintains that the continual process of socialization, whereby the self separates from the world, as in Piaget’s notion of decentralization, depends upon a transposition of inner speech or thought to external speech.

Inner speech, that is, the unverbalized speech of the self, is created from the external world of speech, but the act of transposing that inner speech to the logic of syntax is, in fact, the process of decentralization. Inner speech does not develop along the lines of the logic inherent in syntax; it deals in pure meanings, embracing all attributes of an experience, including those which cannot be placed in the syntax of logic or rationality. The process of decentralization is not only sequential, it is continual, for in our inner speech, the speech of the self, our sense of oneness and identity with things is retained. Only in our communal dealings, in interaction with people and the ideas of society, must we abstract and generalize, move toward an objectivity where minds can meet in an objective recognition of the same reality. According to Vygotsky then, we work with the innate process of generalization and abstraction to transpose inner speech to externalized thought.
The phenomenon of inner speech as described by Vygotsky is similar to Cassier's (1946) analysis of the beginnings of language and thought. Cassier maintains that the first use of words in evolving humans was probably presentational, evoking an identification between the word, the object and the speaker. He maintains that the logic of grammar, the rational development of language, is a later occurrence in the history of humankind, and it is a development which imposed another order on the symbolization with words. Cassier asserts that the presentational symbolization did not disappear, it finds continual development in ritual, in poetry, and in the mysticism of religion.

Langer's study of the symbolization process follows much the same route as Cassier's and she maintains that the logic of discursive thought or speech cannot encompass the symbolization of the non-logical. But, ritual, music, and dance can and do embody that symbolization. Langer asserts that the presentational is rational, it is simply not logical:

Rationality is the essence of mind, and symbolic transformation its elementary process. It is a fundamental error, therefore, to recognize it only in the phenomenon of systematic, explicit reasoning. That is a mature and precarious product. (Langer, p. 99)

For Langer, the nature of language permits only a certain grammatical scheme of expression and non-discursive thought must find other expression. Vygotsky, however, would maintain that the non-logical, the presentational, is at the basis of language. He maintains that the logical conceptualization inherent in the syntax of language is but a "mediating system" (Vygotsky, p. 6), which touches the pure meanings of inner speech and brings them to the surface of communicability. Nonetheless, he maintains that even the text of discursive, external speech embodies a hidden text:

In our speech, there is always the hidden thought, the subtext. Because a direct transition from thought to word is impossible, there have always been laments about the inexpressibility of thought... (Vygotsky, ibid., p. 150)

The relationship of inner speech to second language education. Vygotsky's exploration of inner speech and the process of conceptualization presents special considerations for defining both the content and the methodology of ESL programs in bilingual education,
for his definition of inner speech touches, not only on the uniqueness of each person's perceptions, it touches most powerfully on the affective, on feeling and motivation. In doing so, it points dramatically to the responsibility of educators to consider both in language programs. It is, perhaps, too facile to speculate that ESL as pattern drill can hardly allow young children to attach perceptions and feelings of much worth to the words they repeat. It is more difficult and more pertinent to wonder at how a quality of pure meaning -- that conglomeration of perception, feeling, association, and volition, from which conceptualization proceeds -- can be deliberately planned for in any program.

Once the more difficult question is posed, however, answers can be submitted. Exactness of feeling cannot, of course, be planned for in any education endeavor. Nor can particular feelings be taught. To attempt to do so would be arrogance and folly. But, the attitudes of the teacher and the attitudes embedded in educational goals and methodology can be scrutinized, and they can be controlled to the extent that they can be measured and analyzed in terms of criteria known to foster positive affective growth.

Attitudes held by the teacher and embedded in curriculum have not been given much concern in the past, nor indeed, is there much indication that they are given due emphasis in planning today:

...the typical school feels that it is its responsibility not to teach skills, but to impress the 'alien' Indian with values of the dominant culture...(from the report of the 1969 Senate Subcommittee on Indian Education, quoted in Strengthening Navajo Education, 1973, p. 33)

Surely the values expressed by the 'typical school' cannot but bode ill to all that Vygotsky says is involved in forming the inner speech which informs externalized thought and action. Vygotsky's analysis of inner speech places Piaget's assertion that 'affectivity is central' in the realm of language itself. When language is defined, as it has been here, through the characteristics which meet Chomsky's specification that language study must include the human beings who use it, the definition of both first and second language learning is altered to the extent that any ESL program which derives from that definition cannot be said to
ignore the affective and cognitive development of students, as the “Civil Rights Guidelines” claim existing ESL programs do. Only programs which follow from the conception of language as a system of regulated sounds and patterns can, and do, fall under the “Civil Rights Guidelines” indictment.

Summary of theoretical arguments. The theoretical arguments discussed above serve to illuminate the inadequacy of the behavioristic theory of language by pointing out that it does not correspond to the linguistic fact that human beings consistently create with language. The examination of the theoretical positions of generative linguistics and developmental cognitive psychology indicate that these positions provide an explanatory hypothesis for that fact.

Necessity of empirical verification for language defined through its characteristics. Explanatory adequacy, however, is insufficient unless the positions can be justified on external grounds; they too must correspond to linguistic facts. There can be no convincing mandate for change in language instruction unless the theoretical assumptions defining language in terms of human cognitive and affective development can meet the test of empirical research. Part II of this chapter examines the theoretical assumptions in terms of empirical verification: the essential features of language are extracted from the arguments presented in section I, and examined in the light of recent research in order to substantiate their claim as viable components of language and, hence, as viable components of language programs.

PART II: Summary of the Defining Characteristics of Language

The characteristics of language as derived from the theoretical premises of generative linguistics, Langer’s studies of symbolization, and cognitive development psychology are:

1. All languages manifest the innate human tendency to abstract and categorize experience. Thus, children in any given culture
learn their native language by constructing an unconscious hypothesis of syntactical rules from information supplied in their environment.

2. Language acquisition is a developmental process.

3. Not only is language governed by an innate tendency to abstract and categorize experience, the process of abstraction, categorization, and generalization is embedded in the syntax of language, so that language itself becomes externalized conceptualization.

4. Conceptualization in language, especially in its earliest formations, is linked to action.

5. While the syntax of all languages direct perceptions into abstractions, they are not directed in the same manner. Learning a second language involves learning a different method of abstraction or conceptualization, involves, therefore, hypothesizing different rules from the new information provided.

6. Conceptualization is highly dependent upon human intercourse and the reciprocity of human minds. Externalized language involves a transformation of an individual's inner speech to the level of communicability. Inner speech is first formed from hearing spoken speech and assimilating it to a myriad of impressions and experiences. Once formed, inner speech is ever present and in a continual process of formation. The kind of inner speech formed in any individual is dependent upon that individual's unique psyche make-up as it combines with experience. While it is not possible to express the full texture of inner speech in the syntax of externalized speech, it nonetheless is attached to the process of conceptualization with words.

Research in Support of the Defining Characteristics of Language

Research in each of the above assumptions involves an interpretation of data, or collecting a body of data which can be interpreted as supporting one or more of the assumptions. In the case of some of the assumptions, the research was specifically designed to test the validity of the premises, and represents a departure from established empirical method.

Research in support of the first characteristic.

1. All languages manifest the innate human tendencies and categorize experience. Thus, children in any given culture learn their native language by constructing an unconscious hypothesis
of syntactical rules from information supplied by the environment.

Research in support of this assumption is a direct response to the challenge of Chomsky’s theory of transformational grammar. The research method as described by McNeil (1970) is one in which linguists study the various stimuli presented to young children and, then, analyze the children’s language productions (use of grammar) to provide evidence that rote learning, or stimulus-response association cannot account for children’s use of language.

Children do not imitate adult grammar. The longitudinal study of Brown and Bellugi (1964), for example, indicates that children do imitate adults, but in their ungrammatical combinations, as well as in many of their grammatical ones, no adult model can be perceived. Moreover, analysis of the same longitudinal study (Brown, Fraser, Bellugi, 1963) reveals that young children cannot even correctly imitate grammatical constructions unless they understand them in some way.

Brown’s (1970) later analysis of the same data concludes that it is the interaction between adults and children which supplies the information from which children generalize rules. Lenneburg’s (1966) study concurs with those of Brown, Bellugi, and Fraser. One of the stimuli Lenneburg studied was that of ‘expansion’ -- a term used to describe the adult’s role in expanding out loud on a child’s cryptic utterances, thereby providing the child with a corrective model. Lenneburg, like Brown and Bellugi (1964), concludes that expansion does not greatly influence the grammatical constructions a child makes.

A departure from traditional methodology. McNeil (1970) points out that the studies cited above represent a departure in method from those which focus only on children’s responses which can be classified as repetition of adult constructions. By studying errors or, more properly, nongrammatical constructions made by children, research indicates the presence or existence of an innate tendency to generalize.

Research of the 60’s. It should be noted that Chomsky published a version of his theory of transformational grammar in 1957, though he did not use the term, transformational grammar, until Aspects of a Theory of Syntax, published in 1965. His 1957 thesis,
Syntactic Structures, however, also asserts the notion of a 'universal grammar',

...which provides the linguist and the child learner with
'simplicity' evaluation measures for choosing the most
economical system of rules to account for linguistic data.
(Greene, p. 49)

The linguist's choice is conscious; the child's choice is intuitive and unconscious. But,
neither Chomsky's 1957 work nor his 1965 thesis suggest that the child must attain some
measure of cognitive development in order to acquire certain aspects of grammar. Neither
does the research cited here consider development in that sense. The age of the children
studied, and the grammatical constructions examined in the research of the 60's, preclude
interpreting the data in the light of cognitive development.

For example, Menuyk's (1963) analysis of talk samples from nursery school and
kindergarten children concludes emphatically that children incorporate or internalize the
basic rules of grammar by the age of three. The inference drawn from her study is that the
development of language skill after age three relies on a child's use and need to make trans-
formations from the basic grammatical structures.

Research in support of the second and third characteristics of language. The linguistic
research of the 60's then, based on the premises of transformational grammar, offers no
interpretive evidence for the assumptions that,

2. Language acquisition is a developmental process.

and

3. Not only is language governed by an innate tendency to
abstract and categorize experience, the process of abstraction,
categorization, and generalization is embedded in the syntax of
language, so that language itself becomes externalized conceptu-
alization.

It may well be, as Noam Chomsky's wife, Carol Chomsky, suggests (1969) that
early work in transformational grammar had not yet provided insights into the complexi-
ties of language constructions which would foster their examination in terms of develop-
ment. Her own work is based on more complicated grammatical structures, and is one of
the first to link the notion of cognitive development to the theory of transformational, or generative grammar.

However, as Leiber (1975) points out in his definitive study of N. Chomsky’s work, the aspect of cognitive development changes the original tenets of transformation grammar only by expanding it. Chomsky had originally asserted that,

...one ought to understand the child as trying to construct the grammar of the language it is exposed to by trying various hypotheses, presumably on the basis of various innate principles. (ibid., p. 159)

Carol Chomsky’s (1969) research expands that notion by asserting:

...children have innate development patterns; hence, they are only able to grasp certain kinds of syntactical structures at a certain level of development and it makes comparatively little difference how much exposure a child receives...children do not seem to learn the grammar of their native language as fully and as nearly as was initially thought. (ibid., p. 159)

**Carol Chomsky’s research on the developmental aspect of language acquisition.**

Carol Chomsky’s research, linking generative grammar to the assumptions that language is developmental and is, itself, externalized conceptualization, appeared in 1969 with the publication of her book, The Acquisition of Syntax in Children from 5 to 10. In it she records her experiments with school children which reveal that certain syntactic structures are neither used nor understood by young children under 10.

In analyzing the data of her experiments, C. Chomsky concludes that, though there is a variation for the rate of acquisition of these grammatical structures, there is a common order to their acquisition. Children who do not demonstrate an understanding of the second level of difficulty will not demonstrate an understanding of the third.

Carol Chomsky’s study is credited with having altered the earlier premises of the theory of transformational or generative grammar by introducing the notion that acquisition of syntactical structures is developmental (Smith, 1975; Leiber, 1975). Her study has other implications as well, for it strongly supports the premise that language is not only
governed by an innate tendency to abstract and generalize, it is, itself, a means of abstraction and generalization. It is only by combining the notion that language is externalized conceptualization with the notion that language acquisition is developmental that one can understand the developmental aspect of language use. It is unfortunate that Carol Chomsky does not explicitly make the connection in her narrative, though she does compare some of her analysis to research findings dealing solely with cognitive development (C. Chomsky, p. 75).

If the syntactical structures used in C. Chomsky’s experiment are viewed as conceptualizations, or, even as structures representing conceptualization, they may be seen to embody an intricate set of attributes which a speaker/hearer must mentally manipulate. The manner in which the sentence, “John is easy to see.” is used in the experiment serves to illuminate the point: the children were shown a doll with a blindfold over its eyes, and asked, “Is the doll easy to see?” Some children were unable to rely on the verbal structure of the question and would answer, “No”. When asked to make the doll easy to see, they would remove the blindfold. Children who understood the syntactic structure of the question would answer “Yes” to the same question, and, when asked to make the doll hard to see, would hide it under a table or chair.

Carol Chomsky’s research related to Piaget’s. The experiment is reminiscent of those of Piaget which deal with the conservation of liquids and solids, and it can be interpreted in much the same way: the children who answer incorrectly are dependent upon visual information, and have not yet reached the point in mental development which allows for logical abstraction and inference beyond concrete appearance. Piaget has a very similar experiment in which young children are asked to tell what a doll would see if it had eyes which could see. No matter where, or in how many positions the doll is placed, young children inevitably describe what they, from their positions, can see. Piaget accounts for the phenomenon thusly:

The child, by taking appearance for reality, links all displacements to himself, instead of locating them in an objective system that
includes his own body without being centered on it.
(Piaget, 1954, p. 416)

In both the Chomsky and Piaget experiments, it is not that the children cannot say or pronounce the words involved; it is that they cannot fully understand them. C. Chomsky's data on the "John is easy to see." construction can, like Piaget's doll experiment, be interpreted in terms of cognitive development as it interacts with the process of decentralization. And both experiments can be linked to those of Vygotsky, with the same conclusion drawn: children use certain words and syntactic structures without complete or accurate reference to the conceptualization involved in them.

The third syntactical construction in C. Chomsky's experiment, "John asked Bill what to do." yields a number of insights in the development of language use. The construction was approached in a number of ways. One involved distinguishing between ask and tell: "Ask Kenny who this is?" (picture of Mickey Mouse) and "Tell Kenny who this is?" (picture of Mickey Mouse).

The youngest children in the group had no difficulty with the 'tell' construction, but they invariably told the answer when they were requested to ask it of someone else. If the task required asking someone information unknown to them, the children still answered, "I don't know". Older children, however, often responded incorrectly to some of the 'tell' constructions and to some of the 'ask' constructions.

The younger children's correct responses to 'tell' and their inability to interpret 'ask' may be interpreted as the doll experiments are. That is, the children have not the ability to comprehend the request objectively and so, link it to their ability to answer the question.

When the children reach that stage in decentralization whereby they can make the distinction, they become confused because they are aware of the differences in the constructions but have not yet mastered the distinction. Contrary to appearance then, the errors of the older children reflect their awareness and their progress. According to Chomsky:
The transitional period of learning, before the new knowledge has been fully mastered, seems to be characterized by a disruption of the former workable system which results in temporarily increased error. (Chomsky, C., p. 75)

Chomsky sees the linguistic and cognitive task involved in her research as that of taking a single set of linguistic constructions and dividing it into two sets. Older children make errors in both camps because they have just begun a new process of refining categories. Younger children make less errors because the process is not yet available to them.

By the ages of 9 and 10, most of the children in the experiment had mastered the ‘ask/tell’ constructions, but some 10 year olds, even with prodding, could not perform the linguistic task. In further investigations, C. Chomsky applied the task with adults and found,

...that many adults are getting tangled up in their complement subject assignment in our test construction following ask...Perhaps they (the children) have reached adult competence for this structure, perhaps not. Some of them will almost certainly remain at stage D. (ibid., p. 102)

She speculates that,

Perhaps there is a critical learning period during which deliberate exposure to these constructions could result in acquisition which might otherwise never take place for certain children. (ibid., p. 102)

All of the constructions in C. Chomsky’s study embody concepts children already know and use. Their difficulty lies in the inexplicatedness of their formation. A three year old, for example, responds without difficulty to “go ask your mother what time it is”.

The structures in the experiment, however, are not explicit and require a greater degree of inferential thinking than do constructions where all the syntactic relationships are clearly stated in the surface structure, or aided by action or appearance. It is clear that Chomsky's research illuminates the process of generalization which is embedded in externalized conceptualization.

Syntax development related to cognitive tasks. Her study does not correlate the developmental use of syntactical structures with other cognitive tasks, however, Van Metre (1972) found that monolingual and bilingual children who were poor readers at the end of
their third grade year consistently confused all of the constructions in the Chomsky research, and also evidenced difficulty with instructions which included pronouns. Her findings lead Van Allen (1975) to speculate that guided talk in the classroom may provide the opportunity for such children to develop the competencies necessary to reach the more abstract use of familiar concepts.

Research in cognitive psychology, especially that of Piaget (1954, 1955) and Bruner, Oliver and Greenfield (1966), also support the premises that language acquisition is developmental and that language becomes externalized conceptualization. Piaget’s research with Swiss children lead him to conclude that conceptual development universally follows the same pattern.

Genetic differences as opposed to developmental preferences. Jensen (1969) argues, on the basis of his research, that certain groups are genetically incapable of conceptualization which requires certain transformations of materials or ideas from one area to another.

The implication of Jensen’s research is especially crucial to education in a second language, for it might well be assumed that the absence of a particular cognitive trait in one culture may mean that individuals in that culture are genetically unable to conceptualize in a particular mode. Educational goals could then be set for minority groups which would deny them opportunity to acquire proficiency in particular cognitive tasks.

However, cross-cultural studies indicate only that some cultures emphasize different developmental tasks and, therefore, some children engage in these tasks longer, and sometimes earlier, than children in other cultures. (J.J. Goodnow, 1969; D. Price-Williams, G. Gordon, M. Ramirez, 1969)

Research in support of the fourth characteristic of language. Piaget’s scheme of cognition is concerned with verbal conceptualization. Assuredly, certain problem-solving tasks can be performed without words; the person solving the task may not even be able to verbally
relate the processes used to solve it. Indeed, a kind of intuitive knowledge may be manifest in a great deal of manipulative tasks. For Piaget, such intuitive knowledge and action anticipate verbal conceptualization, and aid it. (Piaget, 1968)

The fourth assumption drawn from the theoretical considerations in part I that,

4. Conceptualization in language, especially in its earliest formations, is linked to action.

is explored in Piaget’s analysis of young children’s talk and play (Piaget, 1968), in the works of Maslow (1968), and Britton (1970).

The claim of research which relates action to language is more than a claim that direct manipulation of objects leads to an understanding of the objects. More importantly, the claim is that a wide variety of experiences, of actions in the arts as well as the sciences, aids the process of conceptualization. Experiential activity is said to aid the depth and quality of conceptualization (Maslow, 1968).

Research in such a claim can hardly follow the path of direct correlation. But Williams (1977) reports on several innovative school programs which have taken the importance of experience in the arts seriously and boast of tangible correlations in higher SAT scores and increased reading levels for students who have participated in the programs.

Research in support of the sixth characteristic of language.

5. While the syntax of all languages direct perceptions into abstractions, they are not directed in the same manner. Learning a second language involves learning a different method of abstraction or conceptualization, involves, therefore, hypothesizing different rules from the new information provided.

The first part of this assumption is formed from the research of Sapir (1949) and Whorf (1956). Recent research in contrastive analysis (Cook, 1973; Mathiot, 1973; Hoijer, 1974; Platero, 1977) supports the Sapir-Whorf hypothesis that the mode of categorization, inherent in the syntax of languages, differs from culture to culture.

The second part of the assumption follows logically from the first. However, research in the later has been nonexistent until recently. That learning and using a second
language involves learning and engaging in another mode of conceptualization can be inferred from interviews with adult second language students who comment on the fact that they are aware of ‘thinking’ in the second tongue (Lambert, Garner, Barik and Tunsdall, 1963). Lambert (1965) also records that young adults in an intensive second language program reported experiencing a feeling of anomie at the point where they had mastered the second language enough to begin thinking and dreaming in it. The dramatic change in ordering perceptions may be assumed to be at least one cause of their anomie. But such inferences provide slender evidence for the assumption that learning a second language actually requires hypothesizing new rules of grammar. Evidence of the act of hypothesizing must be ascertained before the assumption can be validated. Duly and Burt (1975), in reviewing the literature for their studies in this area, note that research in this vein did not begin until 1971.

**Departure from traditional research methodology.** Like the research cited earlier in this section on first language acquisition, research, aimed at ascertaining the act of hypothesizing rules in a second language, is directly influenced by N. Chomsky’s theory of transformational or generative grammar. The methodology employed is the same as that of the transformational linguists studying first language acquisition; the data examined are the grammatical errors produced by second language learners.

Prior to this method of analysis, errors were assumed to be the result of interference from the first language. The student was assumed to be transferring linguistic concepts from the first language to the second. For example, the difficulties young Navajo speakers often have with the plural form of nouns would be attributed to the fact that Navajo nouns do not have plural endings. Thus, Navajo speakers who omit the plural endings from nouns would be said to be transferring Navajo linguistic information (no designation of plurality through noun endings) to English. However, research since 1971 in this area indicates that transfer may account for only a small portion of such errors and, then, only in the beginning stages of second language acquisition (Taylor, 1975).
Evidence that second language learning requires generalizing. The evidence for generalizing rules in the second language is impressive. Ravem (1974), working with English 'where' questions with Norwegian children, finds that their errors are the same as those of the English native speakers in the Brown and Bellugi (1964) study. Ravem notes that, if the Norwegian children were transferring Norwegian syntax to English syntax, their errors would replicate the Norwegian syntax already known to them.

Milon’s (1974) study of the use of negatives by a Japanese child learning English also indicates that the errors the child produced correspond to the errors produced by the American children in the Brown, Bellugi (1964) study. Reviewing Milon’s work for resemblances of the English structures used by the Japanese child to those in the Japanese language, Duly and Burt (1975) find no evidence of transference in form from the Japanese to the English.

Natalico and Natalico (1971), studying the acquisition of English plurals in Spanish speaking children find no evidence that Spanish plural endings are reflected in the errors made by the children. However, Taylor (1975) analyzing the errors of elementary and intermediate school children in an ESL class, did find evidence of transfer. His data show that beginning students tend to analyze and systemitize the target language immediately, but they still rely on the linguistic system of their native tongue. As the students increase in proficiency in the target language, they proportionately rely less on their native grammar, and tend to generalize from the information presented by the target language. According to Taylor, the strategy of generalizing appears to be a natural learning style once the student has opportunity to use the target language, and to experience some measure of success in using it.

Duly and Burt (1975) point out that not all of the errors produced by second language speakers appear to correspond to those made by young native speakers of a language. Errors made by second language learners are often more exaggerated, generalizations from base sentences seem to be more numerous.
In interpreting data on extravagant generalizations, Duly and Burt suggest that what is transferred from first language acquisition to second is the mature habit of generalizing itself. They argue that second language learners are intuitively aware that language has "frills", and they tend to be generous in providing those "frills" to the second language.

(Duly, Burt, p. 28)

Recent research, then provides ample evidence that learning a second language involves learning a different mode of abstraction, and, more importantly, indicates that the manner in which the mode is acquired is the same, though more extravagant, as the manner in which young children acquire their first language. Both manners consist in forming a hypothesis about grammatical rules from the available linguistic information.

Evidence that second language acquisition is developmental. There is also some recent evidence that the tendency to generalize in the second language is governed by the same sort of sequential development which C. Chomsky’s (1969) study indicates characterizes first language acquisition. In their study of English acquisition patterns in Chinese and Spanish students from eleven states, Burt and Daly (1975) ascertained the same order of English acquisition for all but 6% of the population.

Burt and Duly make no claims that the order of second language acquisition is the same as that of first language acquisition; there is not yet enough data to establish a definite hierarchy in either first or second language acquisition. What data is available, however, indicates that some developmental order of acquisition does exist. The existence of an order provides evidence that cognitive development, and a tendency to hypothesize or generalize grammatical rules from one’s linguistic environment, governs the acquisition of second language as it does first:

Findings such as these provide the kinds of support we need to affirm with confidence the major role of the creative construction process in second language learning, that is, that children gradually reconstruct rules for the speech they hear, guided by innate mechanisms which cause them to use certain strategies to organize linguistic input, until the mismatch between the language system they are exposed to and what they produce is resolved. (Duly, Burt, p. 35)
Research in the sixth characteristic of language. The theoretical definition of language expounded in this paper asserts that language embodies affectivity, or affective development, as well as cognitive development. Language is viewed as a creative process in which all facets of human development intertwine. The inference drawn from the theoretical definition is that affective development cannot be considered apart from language, nor considered as an aspect imposed on language use. Research relevant to this inference speaks to the notion that affectivity is embedded in the language process through the formation of inner speech. The research, thus, provides evidence for the 6th characteristic of language delineated from the theoretical considerations in part I of this chapter:

6. Though conceptualization is an innate human trait, and proceeds in developmental order, it is highly dependent upon human intercourse and the reciprocity of human minds. Externalized language involves a transformation of an individual’s inner speech to the level of communicability. Inner speech is first formed from hearing spoken speech, and assimilating it to a myriad of impressions and experiences. Once formed, inner speech is ever present and in a continual process of formation. The kind of inner speech formed by any individual is dependent upon that individual’s unique psyche make-up as it combines with experience. While it is not possible to express the full texture of inner speech, it, nonetheless, is attached to the process of conceptualization with words.

Evidence for the existence of inner speech. The term, inner speech, though used by others before him, including the behaviorist, Watson, is used by Vygotsky to describe what he calls ‘speech for oneself’. Recording the speech of children from ages 3 to 7, Vygotsky finds that what Piaget calls egocentric speech -- the early speech of children characterized by a lack of differentiation between the self and surroundings, and therefore, highly personal, connotative speech -- increases at the age of 7, when the child is able to differentiate it from the more objective logic of social speech:

Inner speech branches off from the child’s external speech simultaneously with the differentiation of the social and egocentric functions of speech. (Vygotsky, p. 61)

After its increase, however, Vygotsky notes that egocentric speech becomes inner speech because there is no necessity to communicate it to others; proficiency in social speech
becomes a better tool of communication. Thus, the social function of speech is manifest in external speech, and the egocentric function of speech is manifest in inner speech.

According to Vygotsky, inner speech is formed by and continues to depend on “outside factors” and is, in turn, transposed by the individual to social or external speech. The inward turn of egocentric speech to silent speech for oneself represents a developmental plateau in cognition:

The decreasing vocalization of egocentric speech denotes a developing abstraction from sound, the child’s new faculty to “think words” instead of pronouncing them. This is the positive meaning of the sinking coefficient of egocentric speech. The downward curve indicates development of inner speech. (Vygotsky, p. 135)

Empirical evidence for the root of inner speech, that is, vocalized speech for the self, rests upon observations which delineate egocentric speech from social speech (Britton, 1970). Once egocentric speech becomes silent, however, its existence is more difficult to establish. The existence of inner speech can be inferred from examining children’s writing. This method of interpretation is based on Vygotsky’s contention that the act of writing requires a deliberate structuring of inner speech into an objective form:

Written speech is a separate linguistic function, differing from oral speech in both structure and mode of functioning. Even its minimal development requires a high level of abstraction. ...The change from maximally compact inner speech to maximally detailed written speech requires what might be called deliberate semantics -- deliberate structuring of the web of meaning. (ibid., p. 98 and 100)

Because of the need for deliberate structuring, young children are more likely to reveal the undifferentiated quality of inner speech in their writing even after it has seemingly disappeared from their talk. And, indeed, scrutiny of children’s writing does reveal that it is characterized by an unwitting identification of the writer with objects and surroundings, even when the young writer’s aim is objectivity (Britton, 1970; Connie and Harold Rosen, 1973).

But for the most part, linguists and psycholinguists do not use the term inner
speech nor do they attempt to uncover examples in social speech or writing which might indicate its existence. What is more often employed by them is the term used by John Carroll (1964), "thought which follows verbal patterns" (p. 77). Carroll uses this term because he feels it makes a clearer distinction from what he recognizes as other, non-verbal thought patterns. The function of verbal thought patterns is, however, the same as that ascribed to inner speech by Vygotsky, that is:

...it serves mental orientation, conscious understanding; it helps in overcoming difficulties; it is speech for oneself, intimately and usefully connected with...thinking.
(Vygotsky, p. 133)

Much of the field of psycholinguistics is concerned with the degree to which individual verbal thought patterns are influenced by social linguistic experience, and, in turn, with the degree to which verbal thought patterns direct an individual's responses to, and interaction with, environment. Research in this area is not based on a stimulus/response deterministic view of verbal thought formation. It is guided by the creative construction view inherent in the theory of transformational grammar, and stems from the research initiated by that theory.

The research of Ervin-Tripp (1974), and McNeil (1970) established that imitation alone cannot account for children's construction of grammatical utterances. Burt and Duly (1975) offer substantial evidence that creative construction from information in the linguistic environment, not imitation, is responsible for the acquisition of second languages as well as first.

Meaning derived from the functions of speech. Halliday (1969) argues that the same process, creative construction, is involved in the functional use of language. In his work, Halliday sorts out various uses of language in broad categories: 'the instrumental, the regulatory, the interactional, the personal, the heuristic, the imaginative, and the informative' (1973, p. 353). His diagnosis of children's conversations with adults and peers is directed toward demonstrating that the attitudes and actions which permeate the manner in which
children are exposed to the various functions of language, determine the meaning potential they are able to assign to them:

The social functions which language is serving in the life of the child determine both the options which he creates for himself and their realization in structure. (ibid., p. 353)

Cook (1973) phrases Halliday’s argument in terms of socialization. In analyzing the data of psycholinguistic research, she concludes that social rules are not given to a child in talk, they are, instead, practiced in talk by children and adults. From talk, children and adults gain the information by which they interpret social rules to guide their perceptions, and to govern their behavior in accordance with those perceptions. Cook thus sees socialization as a generative process embedded in socio-linguistic experiences:

Socialization is not a matter of learning the ‘rules’ and applying them, but of developing a set of taken-for-granted assumptions that enables the members (of a group) to see the rules in the first place. (Cook, p. 313)

What children acquire from their social linguistic experience is,

a developmental generative understanding of the social structure and other activities. (ibid., p. 332)

by which they can interpret social phenomenon, and act on their interpretation.

Sociolinguistic experiences as restrictive boundaries for meaning. Sociolinguistic experiences thus serve the same function as do the restrictive surface rules of a particular language’s grammar, that is, they provide specific boundaries for perceiving and interpreting reality; they restrict the information from which individuals can generate rules of behavior and feeling. Research in this area, such as that cited by Halliday and Cook, attempts to place the affectivity, which Vygotsky claims is the basis of all verbal thought, within the parameters of empirical investigation and analysis.

Vygotsky analyzed the texts of plays and novels to illustrate his final analysis of verbal thought which is that:

Thought itself is engendered by motivation, i.e., by our desires and needs, our interests and emotions. Behind every thought there is an affective-volitional tendency, which holds the answer
to the last "why" in the analysis of thinking. A true and full understanding of another's thought is possible only when we understand its affective-volitional basis. (Vygotsky, p. 150)

Bernstein's analysis of language codes. Basil Bernstein, who acknowledges the influence of Vygotsky on his own work, goes beyond literature to social institutions to discover the ways in which affectivity is affected by language use. Bernstein calls himself a sociolinguist, rather than a psycholinguist, and he is concerned with language as it pervades the whole fabric of a society through its social institutions and structures.

Bernstein's research, conducted by himself and colleagues, at the Sociological Research Unit at the University of London Institute of Education, involves a variety of data and methodology. It includes logitudinal studies comprising interviews with parents, the observation of parents and children, and controlled experiments with the same children some two years later. His work also involves observing and analyzing instructional content in the British schools.

Bernstein codes his linguistic data in terms of the various attitudes and social perspectives revealed in language function and pattern. He then predicts the linguistic behavior which will emanate from exposure to a code, and tests the prediction in controlled experiments.

On the basis of interviews with parents (mostly mothers), he has devised two main linguistic codes: elaborate and restrictive. Elaborate family codes tend to be context-free, that is, they tend to go beyond the particular situation which elicits them, and to verge toward universalistic generalizations. A restricted family code tends to deal with the context of a situation and to enforce established role-positions in the family.

The codes are best illustrated by an example of disciplinary measures. If a child in a restricted code family asks "Why must I do this?", the answer might be, "Because I said so", or make reference to the fact that the chore or task must be done. In a family where elaborate codes are prominent, the answer to "Why must I?" might revolve around exploring the need of children to do certain tasks in a family, or the consequences of
leaving tasks undone. Bernstein maintains that the use of the elaborate code is often conscious and reflects the parent’s philosophy. Use of the restricted code relies on implicit, rather than explicit, linguistic grounds (Bernstein, 1971, Vol. I, p. 195).

Bernstein and his colleagues match the two codes cited here to a number of variables in family composition, such as “strong-weak role definitions of family members”, “strong-weak linkage with neighborhood and local community” (ibid., p. 249). Using such variables, Bernstein finds that, in general (and he is most careful to point out exceptions), restricted language codes are more common in British working-class families, and elaborated codes are, in general, more common in middle-class British families.

The elaborated code orients a child toward “receiving and offering universalistic meanings” (ibid., p. 196), while the restricted code orients a child toward receiving and offering particularistic meanings. Bernstein maintains that institutionalized education is necessarily concerned with the transmission of

...universalistic orders of meaning, the school is concerned with the making explicit and elaborating through language, principles and operations, as these apply to objects (science subjects) and persons (arts subjects). (ibid., p. 196)

Because of this, Bernstein predicts that the child whose functional use of language is particularistic will have more difficulty adjusting to the demands of education than will the child whose functional use of language complements the goals of education.

Studies carried out by Bernstein and his colleagues strongly indicate that this is the case. An example from Hawkins’ (1973) research data illustrates the point, and also indicates some specific areas of difference between the elaborated and restricted language codes. In a research project with 291 British children from working-class families and 148 children from British middle-class families, each child was asked to perform six different tasks involving language. Hawkins records the results as follows:

Middle-class children do not simply use more nouns, they also exploit the possibilities of elaborating the nominal group more widely. Their speech is...more differentiated. The working-class children, on the other hand, tend to use pronouns instead of
nouns as 'head', which reduces the possibilities of both modification and qualification, and they rely on the listener's awareness of the situation to achieve comprehension. These findings substantiate the predictions derived from Bernstein's theory of restricted and elaborated codes...(Hawkins, p. 91-92)

Other similar research (Turner and Pickvance, 1973; Bernstein and Henderson, 1973; Henderson, 1973; Robinson and Creed, 1973), also support Bernstein's thesis as well as that of Halliday (1973) and Cook (1973), that the functional codes of speech, to which an individual is exposed, direct the individual's cognitive and affective use of language by limiting the experiences from which the individual can generate the rules of sociolinguistic conduct.

Bernstein argues that there is nothing genetic in language codes; they are only perpetuated by the structures of society. He calls for a diffusion in codes. If certain children are at a disadvantage in school because their language code is at variance with the language of institutionalized education, and, if the language of institutionalized education is desirable, at times, then measures can be taken, within the educational setting, to enable those children to engage in a functional code suited to education.

**Implications of Theoretical Premises which Define Language as Thought**

**Conflicting Evidence.** The theoretical premises which define language and language acquisition in terms of a process of thought involving both cognition and affectivity can be substantiated by empirical analysis. The research in this area does not negate earlier or conflicting research which proffers that language is habit; rather, it offers evidence that the latter data is insufficient and based on inadequate assumptions.

**In defense of recognizing human creativity in teaching language.** Human beings are assuredly creatures of habit, and language, or any discipline, can be acquired through memorization of facts, words, and phrases. To learn only in this way, however, is to deny the creative capacity which also characterizes human knowing. Piaget, whose work is concerned with defining the human trait of creativity and its relationship to knowledge, aptly summarizes the
concept in the title of one of his works: To Understand is to Invent (1973). But Piaget also asserts that memory, passivity, and imitation are human traits and capabilities. He maintains that educational methods can work toward their maturation to the detriment of invention and creation (Piaget, 1970, (b.) p. 138). And John Dewey, whose inquiries into epistemology are a prelude to those of Piaget's, also concludes that imitation and passivity are human traits, whose maturation limits the quality of learning, thinking, knowing. He speculates:

How many students were rendered callous to ideas, and how many lost the impetus to learn because of the way in which learning was experienced by them? How many acquired special skills by means of automatic drill so that their power of judgment and capacity to act intelligently in new situations was limited. (Dewey, p. 508)

Dewey says that when knowledge is acquired through imitation alone, or by repetition of facts and phrases, the real structure of knowledge, that is, the process of knowing, becomes a kind of 'magic' in the control of an elite. When a second language is acquired in such a way that students can neither create with it, nor control their environment with it, then the power of that language remains in the realm of 'magic' and does not belong to them.

The contention argued in this chapter is that language, defined by those characteristics which take into account human inventiveness and creativity, implies guidelines for second language teaching which offer students the opportunity to become involved in their knowledge and use of the second language, and, thus afford them the opportunity to use it as an instrument for controlling and understanding their environment. In Chapter III, the implied guidelines for ESL for Navajo children are presented.
CHAPTER III

THE APPLICATION OF THE CHARACTERISTICS OF LANGUAGE TO CURRICULUM DESIGNS: GUIDELINES FOR ESL IN NAVAJO/ENGLISH BILINGUAL EDUCATION

The Correlation of the Characteristics of Language with ESL Curriculum Provisions

Language learning features ascribed by the characteristics of language. The characteristics of language delineated (see pp. 38-39) from the theory and research discussed in Chapter II ascribe certain features to the process of language learning. The features are listed below. (The language characteristics from which the features derive are noted after each feature with the letters LC followed by the numbering used in listing the language characteristics on pp.

1. Individuals learn any language by hypothesizing and generalizing rules from the language they hear (LC1) (LC5)

2. Language learning is developmental (LC2)

3. Action and manipulative activity aid language development. (LC4)

4. Learning a language involves using language to conceptualize. (LC3)

5. Cognitive and affective development are inherent in language acquisition and use. (LC6)

6. Learning a language involves generalizing rules about the social function of language from models of language use in the environment. (6)

7. Language is developed through interaction in society. (6)

Program provisions derived from features of language learning. If these features are to be incorporated into an English as a second Language program, teaching strategies and content materials must be used which will

1. provide Navajo children with second language data and the opportunity to generalize from the data (LC1) (LC5)

2. account for the developmental aspect of language acquisition (LC2)
3. provide manipulative materials and experiential activities for aiding language development (LC4)

4. provide opportunity for students to conceptualize with language

5. account for the cognitive and affective developmental aspects of language learning (LC6)

6. provide adequate models of language functions so that students can form English verbal-thought patterns from which to interpret and express experience in a meaningful way (LC6)

7. provide opportunity for pupil/pupil and pupil/teacher verbal interaction (LC6)

In this chapter, the language learning characteristics and their program implications are applied to programmatic considerations to construct guidelines for ESL in Navajo/English bilingual education.

**Practices, Resources and Trends in Navajo/English Bilingual Instruction**

Guidelines for ESL in Navajo/English bilingual education can not be the same as those for ESL in a situation where Navajo is excluded as a language of instruction. Certainly, both guidelines should share similarities, and should draw upon knowledge of cognitive and affective development. But ESL in a bilingual educational system must be concerned with timing, quantity, and coordination with Navajo instruction in a way that ESL as the sole language of instruction need not.

The Lau decision which inspired the “Civil Rights Guidelines” for eliminating the practices leading to the Lau case, is based on the premise that bilingual education is one way to foster instruction in the dominant language. The legal basis for instructing in Navajo is to enable the Navajo child to learn basic educational concepts and skills so that they will not be lost in the difficulty of learning them in a second language. It is presumed that the skills will be transferred to English once the child has mastered the vocabulary and syntax of that language well enough to make the transfer.

There is no successful precedent for how much or how long instruction in Navajo
should be. Considerations of bilingual education, beyond the legal one, would aim at some instruction in Navajo throughout the child's education life, especially in subjects which do not rely on a particular English terminology in advanced education. If material and teachers are available, social studies, Navajo culture and history, government and art, can conceivably be conducted in Navajo until the end of the twelfth grade.

**Difficulties of instructing in Navajo.** Organizing curriculum in Navajo, particularly in mathematics, even at the elementary level, is sometimes difficult, for Navajo, like many languages of the world, developed for purposes other than instruction in those disciplines which comprise much of formal western education. Educators, working with bilingual education in the southwest, comment that it is difficult to find Navajo teachers or aids who are accustomed to instructing in Navajo (Holm, 1973; Willink, 1973).

The comment reflects only a partial truth however. Navajo is an old language, the instrument of a culture which has, like any other, instructed its young through and with language. But it is not a language which has developed the syntax and vocabulary of the sciences, for example. Nor is it a language which, until very recently, could be written or read. It is not that Navajo teachers have difficulty instructing in Navajo, it is that they have difficulty in finding the vocabulary for statements which have no similar counterpart in Navajo.

**English terminology and Navajo equivalent terminology.** The case is illustrated by recent efforts at the Native American Curriculum Development Center to develop a kindergarten curriculum which could be conducted entirely in Navajo. The curriculum covers those areas generally covered in kindergarten, including experience with geometric shapes, such as triangles, squares, rectangles, and the like. The developers of the curriculum found that names for these figures do not exist in Navajo, at least do not exist with any ubiquity. They were able to arrive at a Navajo equivalent for most of the figures, however, and the guide gives the Navajo vocabulary for Navajo teachers who do not have these words in their
vocabulary. But the developers were unable to arrive at an equivalent for the word, triangle. As a result, the triangle is not included in the curriculum kit, which is, at this writing, being tested in several Navajo schools.

The point could be, and doubtless was, argued that Navajo contains several loan words from both English and Spanish, and that the inclusion of the English word, triangle, would not be inappropriate. The decision, however, was made by non-Native American educators on the staff of the Center, and may reflect their concern to avoid tampering with the Navajo language.

Problems in translating test material from English to Navajo. Similar problems are encountered in translating tests from English to Navajo. For example, the Boehm test of basic concepts (1966) was translated into Navajo and administered to kindergarten children at the Rock Point Boarding School in Arizona. The Boehm test deals with 50 basic concepts which have been deemed necessary for performing basic school tasks. Test items concern such concepts as "below", "after", and "in front of".

The test was translated by four fully bilingual Navajos whose work was assisted by the Navajo linguist, Robert Young. The assumption behind the translation is that proposed by most linguists that,

natural languages are capable of providing a sentence to express any thought a speaker might wish to communicate. (Katz, p. 12)

Rosenbluth (1976), reporting on the test results, notes that the assumption proved to be valid only for the four bilingual translators; the responses of the children revealed that many of the concepts are developed in a different way in Navajo, and that young children are unable to make the same corresponding inferences regarding meaning which adult speakers can.

In the translation, the Navajo sentences are much longer and demand more listening attention on the part of the young children than do the equivalent sentences in English. Even so, some of the English concept words used in the test are expressed by only one
concept word in Navajo. "At the top", "over", and "above" test a verbal knowledge of different words in English; in Navajo, only one word, "bikáa", pertains to all three.

The concept, "different", also proved difficult for Navajo children. "Different", translated into the Navajo, "t'ásahdii", means unique and by itself. The Boehm pictures for this item on the test show three sets of blocks. One of the block sets is different because it contains less. But the set is not unique nor is it set off by itself. Young Navajo children could not respond to the item in the terms provided by their language (Rosenbluth, 1976).

The test may have been a more successful indicator of concept knowledge if the translators had worked only with the concepts as they understood them to be used in Navajo, for the translated Boehm test appears to test conceptualization in English rather than in Navajo.

**Conceptual development in two languages.** It is difficult to assess the Navajo child's conceptual development in terms of English language conceptualization translated to Navajo. To bend the Navajo language to English language concepts is to change the Navajo language as it exists for children. The adult bilingual translators had no difficulty in understanding the concepts in both English and Navajo because they had developed the broader nuances of meaning, the more complicated rules of syntax, in both languages. For them, the correlations were clear. The children, of course, had not evolved the same depth of meaning in the Navajo terms and they were unaware of the English equivalent; therefore, they could not make the desired correspondence of the word to the picture.

If Navajo children are to make the same kind of inferences which the translators of the Boehm test were able to make, they must be allowed ample development in both languages. And this is the real impetus for bilingual education, and the real rationale for instruction in Navajo. The Navajo teacher must be allowed to instruct in the Navajo mode of conceptualization. Such instruction will not alter subject matter so much as it will develop Navajo conceptualization in the subject matter. The hope of bilingual educators is that the
result will be a more broadly educated bilingual student, one whose depth of understanding is increased by two modes of insight.

Navajo bilingual education is so new and so untried that there is no way to say that ESL will begin at one point or another. The notion that instruction should begin in Navajo rests on Vygotsky’s thesis that development in one’s native tongue is not at all complete at age six or seven, and that the introduction of concepts in another language may seriously hinder conceptual development in any language. It is presumed that conceptualization in English, introduced at the ‘right time’ will not interfere with the conceptualization developing in the first language. This is the reasoning behind the creation of the kindergarten curriculum by the Native American Materials Development Center. English, in such a curriculum, may be inserted as a separate subject or activity.

Curriculum designs in Navajo/English bilingual education. The Center’s model for bilingual education is not, however, the only one. Some proponents of bilingual education for Native Americans propose that pre-school programs, even before kindergarten, be conducted in both English and Navajo (Zintz, 1969). At the primary school level, Wilson (1970) apparently advocates duplicate lessons in all subjects. Willink (1973) advocates follow-up lessons in English, rather than duplicate ones. For the most part, instruction in Navajo decreases, so that by the second or third grade, Navajo is used only for Social Studies or Navajo literacy classes.

Modiano’s (1968) study of Native Indians in southern Mexico indicate that children who are first taught reading in their native language are significantly more able readers in a second language. Accordingly, some Navajo/English bilingual programs, (Rock Point, Ganado), now teach reading first in Navajo. This particular aspect of Navajo/English bilingual education is difficult, for few Navajo teachers have had the opportunity to learn their language in its written form. Navajo teachers in such bilingual programs must be especially trained in the written form of Navajo and must pass a Navajo literacy test as proof of their accomplishment.
The Native American Programs division of the Southwest Bilingual Education Training Resource Center records that there are now only fourteen Navajo/English bilingual programs in the one hundred and nine schools which serve the Navajo population. Each of these programs operates in a different way, and some are still in the planning, not operation, stage (Wilcox, 1977). While it is not now possible to speak of a typical Navajo/English bilingual program, these elements appear to be emerging as a trend: 1. content is taught in both languages in the very early grades, 2. instruction in English is conducted as a separate subject, 3. reading instruction begins in Navajo. Children are taught the Navajo letter-sound relationships, the Navajo alphabet, and begin reading in that language. Reading instruction in English ideally occurs when the child is ready. In practice, it begins at various times, depending upon the program, but usually at the end of the first grade or the beginning of the second. At this point, much concentration is given to reading skills in English and, unless the school has enough Navajo staff to go beyond the early grades, reading in Navajo ceases.

Through such programs the Navajos hope to preserve the Navajo language by allowing children to continue their development in it within the formal education environment, and to insure acquisition of English by using both languages to explore concepts at the earliest levels of disciplinary inquiry. In the educational system, however, English is to supplant Navajo as the major language of disciplinary inquiry. It stands to reason that how English is introduced and used in the classroom will determine how Navajo students perceive their education in relation to themselves.

Rationale Preparatory to Constructing Guidelines for ESL in Navajo/English Bilingual Education

Since curriculum design varies according to the organizational structure of the learning program, the following structures will be considered separately: 1. English as a separate subject, 2. ESL as a medium of instruction in subject areas, 3. reading,
4. writing, 5. the functions of language, 6. accommodation to the learning styles of young Navajo children, 7. teacher preparation. These divisions, to be used in the guidelines, are employed in discussing the rationale preparatory to the guidelines.

**English as a Separate Subject:**

Problem solving activities. The introduction of English into the curriculum should come in the form of content activities. Content activities for young children are not to be conceived in the strict terms of subject matter. Rather, they consist of those activities which cut across subject matter and engage children in the skills and processes of problem-solving necessary for any discipline.

The activities should be concerned with the following scheme of cognitive skills:

**SEQUENCE:**
The linking and ordering of action, thought, and word. Following a process through successive stages to completion (as a recipe). Observing a longer-term development (as plant growth, seasonal change, or building construction).

**CLASSIFYING:**
Sorting and grouping by a variety of criteria: perceptual, linguistic, and through reasoning.

**VISUAL PERCEPTION:**

**AUDITORY PERCEPTION:**
Attending to auditory stimuli. Focusing on specific detail within the stimuli. Following directions when issued as multiple commands. Discriminating differences such as pitch, volume, tempo, and rhythm. Recalling previously heard stimuli, i.e., developing auditory memory. Rhyming.

**CONCEPT FORMATION:**
GENERAL INFORMATION
Information about the child's world, particularly in the areas of: Physical Science, Natural Science, Social Studies.

REASONING STRATEGIES:

SELF-IMAGE
The blooming of the "I".

Judith Pasamanick, Talkabout Overtones, guide to activities listed in Talkabout: an early childhood development resource. 1976, p. 3.

Each content activity which utilizes any of the problem-solving skills should contain its own vocabulary and syntax construction. These may be practiced before the activity, if necessary.

Group size. Activities which engage young children in the language of problem-solving should be small group sessions so that each child has the opportunity for oral expression. Each activity should be concerned with action so that the children engage in the meanings of words through acting upon them, so that prepositional phrases, such as “in the”, “around the”, “between the”, and the like, are understood through manipulations which correspond to the words.

Sequencing the presentation of syntactical patterns. Most ESL theorists and practitioners are concerned with the structure and sequencing of the second language skills, and, to avoid introducing syntactical structures which are beyond the capabilities of young children, sequential structuring of the second language should be observed. All ESL guide books present syntactical patterns in order of complexity and can be used to develop the presentation of sequence in the classroom. Sequential structuring of language patterns and vocabulary will enable the teacher to keep track of those language patterns which have been introduced.

This does not mean that the teacher and the students must confine themselves only
to those patterns and words which are a part of the structured ESL lesson. It does mean that those patterns and words will be paid special focus, and that during the activity, they will be produced by the children, or, depending upon the situation and time, the children will demonstrate a listening comprehension of them.

Any action-learning guide may be used for the ESL content activity, and any set of sequenced linguistic material may be used by the teacher in planning the syntactical patterns to be presented. The crucial point is that children should experience the second language through the manipulation of material and situation, and they must engage in using the second language from the beginning.

**Record keeping.** The small group activities enable accurate record keeping for the teacher. Not only will the teacher be able to check patterns and vocabulary presented and used, (s)he will also be able to note the rapid generalizations the children employ.

As noted, pronunciation and practice of particular vocabulary should be presented briefly before each activity. It should be noted that perfect pronunciation, even good pronunciation, are not an immediate goal; the immediate goal is to provide the Navajo student with a working vocabulary in the English language. Pronunciation and syntax control take time.

**Recording children’s developmental use of language.** It should also be remembered that a child’s ability to imitate a correct syntax pattern in practice before an activity indicates some understanding of that pattern’s syntactical meaning (Brown, Fraser, Bellugi, 1963). The child who correctly states a syntactical pattern in the presentation or practice before an activity and who spontaneously misuses that syntax within the activity may be revealing the natural process of generalization, rather than ignorance of the meaning of the pattern. (C. Chomsky, 1969)

**Correction and language development.** The question of correct oral production of syntax is of great concern in ESL methodology. There are those (Willink, 1976; Wilson, 1975)
who maintain that incorrect generalizations are reinforced or assumed to be correct by the child if an immediate correction is not proffered by the teacher. Another school of thought (Smith, 1976 (a); Goodman, 1976) asserts that a child's attempts at generalization are stifled if a teacher constantly and consistently corrects.

When and how to correct should ultimately depend upon situations and a teacher's style of teaching, but no teacher should develop or adhere to a style which ignores the research indicating that second language use develops like first; that is, children hypothesize and generalize, and that some of the generalizations are, of necessity, incorrect in terms of accepted surface structure (C. Chomsky, 1969; Burt, Duly, 1975). Hearing and using the second language, over time, provides the child with more data from which to make correct generalizations. There are few incorrect utterances which do not change with the opportunity to hear the correct form in meaningful contexts, though there are some which a teacher may judge as becoming needlessly habitual.

**Modelling syntax.** In the beginning of content activities, the teacher may be doing more demonstrating than hearing, and the children may be exhibiting more listening comprehension skills than oral production skills. For example, the child may respond to “let’s put all the yellow blocks in the large circle”, rather than saying, “I'm putting all the yellow blocks in the large circle”. Listening comprehension precedes oral production, but oral production should be encouraged before it is required of the student. Content activities, geared to a young child's interests and abilities, motivate oral production and needed generalization or hypothesizing, deciding upon content activities and materials for ESL instruction. He maintains that all ESL instructional materials and activities should be:

(i) realistic, i.e., capable of being used by the teachers and learners; capable of being learned from; cheap enough to be available; actually in hand, not empty entries in an official list which never reaches the learners;

(ii) relevant to the particular point in the learner's progress; to his aims and age-group;
(iii) interesting, i.e., varied; on topics of interest to the learner; intellectually satisfying;

(iv) encouraging, i.e., having the quality of making the learner feel he is making progress, or at least enjoying his learning;

(v) compatible with the approach being follows; with the teacher’s attitudes.

(Peter Strevens, *New Orientations in the Teaching of English*, 1977, p. 27)

**English as a Medium of Instruction in Subject Areas**

Any subject taught in English in a Navajo/English bilingual classroom, whether the subject is also taught in Navajo or not, is taught through the medium of ESL. Teachers in such classes should be consciously aware of the particular vocabulary and syntax in each lesson. Saville-Troike (1976) suggests,

...a conscious effort should be made to keep instruction and explanations in a consistent form. If the pattern **Two plus two equals four** is used one time, it should be used consistently, e.g., **Three plus three equals six**, and not varied as **Three and three are six**...(p. 91)

According to Saville-Troike,

...equivalent structures are usually not learned until children are well along in their second language acquisition and add needless linguistic confusion. (ibid., p. 91)

Children should be encouraged to produce the vocabulary and syntax as they work in class. If a teacher does not hear a child say “two and two equals four”, there can be no assurance that the child can use the words which accompany the mathematical manipulation in English.

As in the content and activity based ESL lessons, subject areas taught in English, whether they are presented in Navajo first, or duplicated in the same lesson in Navajo, should deal with manipulative activities which correspond to the language of the discipline. If the lessons are also taught in Navajo, manipulative activity should be used there as well.
And, in both, children should be encouraged to talk about their actions and to summarize what happened in the activity.

Talk. The characteristics of language make axiomatic that a great deal of talk must be elicited in bilingual classrooms. If a second language is learned through hypothesizing from linguistic information, then the opportunity to generalize must be guaranteed, and the data of the language must be supplied in a form commensurate with children's interests and abilities.

Action. At the same time as there must be talk, children talk, in the classroom, the characteristics of language and language learning also indicate that there must be action and experiential activity which, of itself, requires no speech. Concepts must be represented and expressed in movement and in visual experiences. The experiential aspect of language development, the notion that a variety of modes of expression gives depth to conceptualization, must be constantly planned for in any ESL program for children. There should be a healthy balance between articulation in nondiscursive forms of symbolization such as movement, ritualistic play, art forms, and in discursive forms of symbolization such as discussion, verbal problem-solving, conversation.

Reading

Linguistic prerequisites for reading in English. Whether a school system elects to teach Navajo reading in the primary grades or in the middle grades should affect when reading is begun in the second language. But an equally important factor to consider in teaching reading in English is the level of oral proficiency attained by the Navajo child in that language.

If a youngster does not use and have some working knowledge of English words and syntax patterns, that child will not be able to read them. It is not necessary that the Navajo child speak in perfect sentences or that s(he) use correct syntax (Y. Goodman,
Watson, 1977); it is necessary that the child understands some developing form of English.

The characteristics of language which designate it as a thinking process are applicable to reading as well. Reading, no less than speech, is a process of thinking in language. The recent work of Smith (1975) and Kenneth and Yetta Goodman (1977), who have applied psycholinguistic research techniques to the study of reading, demonstrates that the act of reading is an act of making meaning, of anticipating and interpreting the author’s train of thought. If a child has no conceptual understanding in English of ‘in the box’, or ‘the whole thing’, these words, and others like them, make no sense, and will hinder the child from making sense of any of the text, even if the child has mastered a phonic decoding skill.

Yetta Goodman (Dec., 1977) reports that her research with Navajo children’s reading confirms that a lack of conceptual understanding of English is the root of Navajo children’s present difficulties in reading in English. Her data reveals that, though Navajo children produce less phonological errors than other second language readers in the experiment, they also produce less sentences which make sense to themselves or to the researcher.

Where careful attention is not paid to children’s oral language production, children learning content through a second language often remain at the initial, limited stage of comprehending oral instructions, and of making their needs known. They hear and use nouns and only basic verb forms. For example, “Go store” can encompass “I am going to the store”, “I went to the store yesterday”, and even, “I went to that store about a year ago”.

Children who fail to hear connecting words and clauses are often excellent observers of actions, and they are good guessers. Should a teacher say, “Put the pencils in the box, please”, they pick up the noun, perhaps the verb, and make the common-sense assumption that the pencils should go in the box, rather than by it or under it. For some children, prepositional phrases are not only not used by them, they are, in fact, not heard as distinguishable sounds which make sense.

This author administered the Boehm Test of Basic Concepts to a group of Navajo children who had had two to four years of subject matter instruction in English. All of the
children had received instruction in reading and all were considered to be poor or non-readers. Most of the children did poorly on the Boehm test, indicating a lack of receptive comprehension in English of such concepts as ‘on’, ‘ever’, ‘few and several’, ‘part and ‘whole’.

Reading in English should not be attempted until a child demonstrates an ability to understand such basic concepts in English. Again, proficiency is not to be based on a use of grammatical constructions. For example, the child who says, “I goed to some store” is better able to begin reading than the one who says, “Store-Me”.

In an ESL program where English is spoken by the children in a variety of meaningful contexts, the level of proficiency for individual children can be easily diagnosed. Specific games and situations can be devised to help the children learn and use basic concepts in English.

Readiness for reading in English then, consists of speaking and hearing English in a variety of situations. It is especially important that children listen to stories and become familiar with picture books and oral story telling. If reading is a thinking process, then preparation in that process must be part of reading readiness. Children should be given a great deal of oral practice in sequencing events and summarizing stories, and relating those stories to their experiences.

Reading approaches: the basal and LEA. When reading begins will likely be different for each child, and for this reason the basal reader approach to reading is not recommended. Nor is it recommended in terms of content; beginning reading material for Navajo students should be such that they can make meaning out of it.

In 1966, Evvard and Mitchell analyzed the themes of stories they found in Scott-Foresman Basic Readers and contrasted them with the sociolinguistic experiences and values they perceived in the Navajo children whom they taught. Their dichotomotic chart indicates that Navajo children would have much difficulty in making sense out of the themes:
<table>
<thead>
<tr>
<th>Values and Beliefs in Scott-Foresman Basic Reading Series</th>
<th>Navajo Values and Beliefs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pets have human-like personalities.</td>
<td>Pets are distinct from human personality.</td>
</tr>
<tr>
<td>Life is pictured as child-centered.</td>
<td>Life is adult-centered.</td>
</tr>
<tr>
<td>Adults participate in children’s activities.</td>
<td>Children participate in adult activities.</td>
</tr>
<tr>
<td>Germ-theory is implicitly expressed.</td>
<td>Good health results from harmony with nature.</td>
</tr>
<tr>
<td>Children and parents are masters of their environment.</td>
<td>Children accept their environment and live with it.</td>
</tr>
<tr>
<td>Children are energetic, out-going, obviously happy.</td>
<td>Children are passive and unexpressive.</td>
</tr>
<tr>
<td>Many toys and much clothing is an accepted value.</td>
<td>Children can only hope for much clothing and toys.</td>
</tr>
<tr>
<td>Life is easy, safe, and bland.</td>
<td>Life is hard and dangerous.</td>
</tr>
</tbody>
</table>


Most basal series have changed since 1966, and some of the Navajo values and beliefs listed by Evvard and Mitchell have undergone changes as well, but Navajo children will still find most of the themes in any basal reader exotic, and divorced from their world.

It is recommended that reading be approached through the Navajo child's own stories and dictation. As the children become familiar with different ways of life and viewpoints, from stories read to them and from various media, the basals may be used along with numerous trade books.

The use of a Language Experience Approach (LEA) is thus most suitable for teaching reading to Navajo children. It is an approach which involves the children in extensive oral use of English, provides a familiarity with the purposes and skills of reading, and allows them to begin reading when they are ready. Most importantly, the LEA adapts itself to the child's use of syntax, so that beginning Navajo readers of English are not confused by syntactic patterns that as yet have no meaning for them.
Standardized Reading Tests. The length of the Navajo child’s education in English is not at all comparable to that of first language speakers of English. Reading evaluation in an ESL program in Navajo/English bilingual education should not be measured by performance on standardized tests which assign children to this grade level or that.

Despite the varied populations who partake of the educational system, some states require standardized achievement testing. And some Navajo/English bilingual programs use the standardized tests as a means of evaluating the programs, even though teaching for such tests can only be detrimental to the bilingual child’s development in the second language.

Proponents of bilingual education must be cognizant of the research which inspires their programs. Since bilingual programs are funded under Title VII (Bilingual Education Act), a rationale for appropriate means of evaluating reading progress should be part of the proposals submitted to Washington each year. Spokespersons from bilingual programs should be appointed to appeal to individual state departments of education to waive testing procedures which are more damaging to self-concepts than they are adequate instruments of measurement:

Many non-English speaking children have been humiliated by the unreasonable demands of a test program completely unsuited to their backgrounds. If a reading test is used to evaluate reading instruction, its content must be comparable with the objectives of the instructional program. If speak-of other languages are included in a program which stresses listening comprehension, speaking fluency, and some beginning sound-symbol correspondence in English, then a reading achievement which demands extensive reading vocabulary, and other advanced skills is a very unfair evaluation of either the worth of the instructional program or the achievement of the learner. (Thonis, p. 239-40)

Reading Miscue Inventory. The Reading Miscue Inventory (RMI) is the best diagnostic instrument available for testing readers in a second language. The RMI involves a procedure in which students read an entire story. Their miscues (oral responses which differ from expected responses) are marked and later analyzed by the teacher to determine the nature of the miscues (Y. Goodman and Burke, 1972). For example, substituting ‘bad’ for ‘wicked’ indicates that the child is making sense of the reading, just as ‘those apple’ instead of
‘those apples’ indicates that a child is experiencing difficulty, not in comprehension, but in the pronunciation of plural endings, especially if the child indicates knowledge, through later discussion, that more than one apple is involved.

The RMI, far better than a standardized test, provides the teacher with data which can be recorded to measure progress. More importantly, it provides diagnostic material to plan next steps, which might, for example, include a language experience activity with selected media, or discussion to provide knowledge of a particular concept, or strategy lessons in recognizing pronouns (Y. Goodman, Watson, 1977).

Children who are receiving instruction in a second language cannot be expected to perform as native speakers of that language in reading for some time:

It takes time to learn a language. If bilingual children learn two languages in the time monoglot children learn one, then both their languages suffer. (italics in text) (Wilkinson, 1971, p. 100)

Bilingual programs should be based on the recognition of this time factor and provide testing measures which will evaluate and aid reading progress. It is not only a matter of avoiding unfair testing procedures; it involves the deeper concern of bilingual education to enable children to learn and maintain two languages without destroying either.

Writing

Navajo historical experience with writing. The goals for writing in a Navajo/English bilingual program must take into account the fact that both reading and writing are new to the culture of the Navajo. Many Navajo children do not come from families or environments where writing is used for any purpose. Accountability for this factor does not mean that an ability to write is undesirable or unnecessary for the Navajo child. It does mean, however, that Navajo children do not have historical experience in which writing is used to communicate or record.

Writing, like reading, is an especially crucial aspect of Navajo education. Both represent cognitive skills necessary for the Navajos to control their reality in a world where,
without those skills, they remain not only isolated but powerless. Elasser and John-Steiner (1977) note that more is involved in the poor writing skills exhibited by Navajo students than the fact that writing is not a part of their historical experience. These authors maintain that early and undue emphasis on rules of grammar and the mechanics of writing are responsible for the Navajo students' feeling of an "apparent inability to intervene and transform their reality" (p. 357).

**Inner speech and writing.** With Vygotsky, they maintain that writing has its original source in inner speech, or verbalized thought, formed from an individual's feelings and perceptions in interaction with sociolinguistic experience. The quality and kind of the Navajo child's experiences in English are vital contributions to writing skills.

Noting the success of Freire's (1970) work with literacy programs in Chile, Elasser and John-Steiner stress that two factors are essential to developing writing ability:

> ...mutual respect and understanding must flow between educators and students...curriculum must be built upon the "here and now of the learners". (ibid., p. 362)

The importance of the first factor cannot be underestimated; it is fundamental to the total curriculum. The "here and now" for Navajo children who are learning a second language should mean that the tasks of writing in English are not imposed until the children have attained that degree of oral proficiency in English which would make writing meaningful.

**The LEA and writing.** The LEA approach to reading offers the same programmatic advantages to writing because it is an approach which engages children in composition skills such as sequencing, describing, and expressing experience with words. Children do a great deal of dictating in a LEA approach to reading. Their narrations are recorded by the teacher and the children see their words translated into written symbols, though they do not take up the physical act of writing themselves until they are able.

In the LEA approach, then, children "write" stories, records, lists, reports, and
questions by dictating. In so doing, they engage in the purposes of writing, and become familiar with the way writing looks. Readiness for writing is as crucial as readiness for reading. Both include the development of speech-thought in English through hearing stories and developing concepts in interaction with peers and adults. It is in this interaction that the mutual respect between teachers and students must be initiated and sustained.

Writing as a thinking process. Writing is an active thinking process (Vygotsky, 1962) and is therefore concerned with meaning. Composition skills are best fostered by providing children with thinking skills in the second language. Smith, Goodman, and Merideth (1976) argue that all children, if they are to become competent writers, must be helped to describe and categorize their environments by adults who encourage elaboration in language, and who model the processes of interrelating and hypothesizing with language (p. 210). Elasser and John-Steiner (1977) argue that teachers of minority students and students who are learning in a second language must be especially adept in guiding children to elaborate thoughts and questions, for unless these cognitive skills are developed orally in the second language, they cannot become part of the writing of that language (p. 363).

On the basis of these arguments, the main concern of writing programs in Navajo/English bilingual education is to be the fostering of cognitive skills which aid in helping the Navajo child express meaning in writing. It must be assumed that a child can express meaning before all of the mechanics of writing are mastered. It must also be assumed that a child will produce grammatical surface errors in writing which correspond to his/her stage of oral mastery of the second language. Examination of the errors in terms of expected responses (as in miscue analysis for reading) provides the teacher with knowledge of what areas might successfully be remediated in planned activity, and which errors will be served by time, maturation, and continued linguistic experience (Smith, Goodman, Merideth, 1976, p. 257).

Mechanical skills of writing. The mechanics of written composition can be taught in the
sequential order that they are taught to all children, but children must be encouraged to
write before they have mastered the mechanical skills of punctuation and spelling.

Correcting mechanical skills. Mechanical skills can be taught separately or they can
be taught to individual children or groups of children as their writing indicates a need. If,
however, the children's writing indicates many miscues, as most young children's writing
does, it is important that teachers take no more than one or two of the miscues to remedy
at a time.

Many teachers are concerned that if mechanical writing errors are not corrected,
children will assume that the errors are correct and therefore their errors or incorrect hypo-
thesesing will be reinforced. Some teachers are concerned that, where writing is displayed,
other children, perceiving the errors with the acute awareness often demonstrated by second
language learners, will assume their correctness and incorporate them into their own reperto-
ire of writing skills.

Whether or not either of these concerns is valid is a matter of controversy. The
issue is easily solved, however, if children are assured that their writing is valued, and that
mechanical skills, including those of the syntax of surface grammar, will be acquired
through time. Children's writing can be edited by the teacher when it is to be publically dis-
played. Private writing may be corrected, especially if the children understand that they
are not expected to know how to rewrite all of the errors correctly, that the teacher's
corrections are simply an editorial function. And, certainly, recognition of mechanical as-
psects achieved by the students should be noted so that each child has a sense of accomplish-
ment about those skills which are mastered.

Correlating reading and writing. Finally, it is important that teachers correlate reading with
writing, and recognize the inter-relationships between the two for,

...both tasks depend on a speech base...They are the main modes
for the everyday presentation of an individual's symbolic life
and his only means of encountering the day to day symbolic
presentation of others. The way to learn to "read" in the sense
of understanding the presentations of others, is to prepare one's own presentations so that they can be more easily "read" by others. (Smith, Goodman, Merideth, 1976, pp. 212-13)

The historical present demands that the Navajo child learn to "read" and to "present" in the symbols of the written word. The Navajos are acutely aware of this demand in terms of their survival as a people:

I would like to see the younger Indian people to get a good education so they can compete against the palefaces. I don't want my kids to go far away to take up a career which won't be of benefit to the Navajos. I prefer that they stay around here..and become the Indian leaders of tomorrow. (quoted from A Navajo Community develops its own high school curriculum, by R.A. Norris in "Interactionalist Approach", Elasser and John-Steiner, 1977, p. 361)

The mutual respect, established between teacher and student, necessary to the achievement of the goals set by Navajo parents implies a mutual respect between two culture. It becomes axiomatic, at the earliest levels of school that both presenter and receiver should deal with things of concern to both. Relevant reading, talking, and writing need to be a vital part of every child's school day, especially writing since it is so often neglected. (Smith, Goodman, Merideth, 1976, p. 213)

Teachers need remember that writing flows from oral presentation, and to begin that process immediately in the second language as well as in the first.

**Functions of Language**

Meeting cognitive/affective development through language function. Providing for experience in the functions of language constitutes a new dimension of programmatic concern in Navajo/English bilingual settings. It is a dimension which cuts across disciplines and, therefore, represents a competency to be exercised by all teachers in the bilingual community. It is through understanding language as functional, and by deliberately providing opportunities to engage in its range of uses, that the ESL component of bilingual education can meet cognitive and affective demands inherent in second language learning.

The functional aspect of language is separate from the generalizing or hypothesizing
process which characterizes acquisition of syntactic structures. There is ample evidence that second language learners engage in a creative process whereby they construct grammatical generalizations from basic linguistic information provided them (Burt, Duly, 1975).

Learning to mean through engaging in all language functions. Sociolinguistic data on the functional aspects of language, however, indicate that unless an individual has opportunity to engage in all aspects of a language’s functions, there can be no guarantee that (s)he will develop the capacity to do so through generalizing (Halliday, 1973, p. 18). The functional aspects of language are learned only through experience with them:

Language is not learned independently of function. For a language to be learned, instances of the language must make sense to the learner...Meaning and functions are learned, as language is learned, largely through efforts to make sense of the linguistic environment and to produce language which accomplishes one’s intentions. That is, the learning process is natural and internal, beyond the teacher’s direct control, but it is influenced by available examples and by the learners need and opportunity to use and make sense of language for various purposes (Filion, Smith, Swain, p. 743)

If meaning and function are so intertwined, if, indeed, the functions of language constitute the meanings of language as Halliday asserts in his study of language development, Learning How to Mean (1975), then there must be no question that the functions of language must be fully recognized and incorporated into every discipline in Navajo/English bilingual programs whose raison d’etre is to provide Navajo students with the linguistic tools to successfully function in two cultures.

Language use and non-language alternatives. To Halliday’s (1973) list of language functions, Smith (1977) appends three more, and to each of these aspects he notes a non-language counterpart:

LANGUAGE USE

1. Instrumental: “I want”. (Language as a means of getting things, satisfying material needs)

2. Regulatory: “Do as I tell you.” (Controlling the behavior, feelings or attitudes of others)

NON-LANGUAGE ALTERNATIVE

Pantomime, facial expressions, screaming, pointing, grabbing.

Pushing, pulling people around; modelling behavior for others to copy.
3. Interactional: “Me and you”. (Getting along with others, establishing relative status. Also, “Me against you”. (Establishing separateness)

Waving, smiling, linking arms, holding hands, shaking fist, sport.

4. Personal: “Here I come”. (Expressing individuality, awareness of self, pride)

Art, music, dress, cosmetics, ornamentation.

5. Heuristic: “Tell me why?” (Seeking and testing knowledge)

Exploration, investigation, experimentation.

6. Imaginative: “Let’s pretend”. (Creating new worlds, making up stories, poems)

Play, art, mime.

7. Representational: “I’ve got something to tell you”. (Communicating information, descriptions, expressing propositions)

Pointing, rituals, diagrams, maps, mathematics.

8. Divertive: “Enjoy this”. (Puns, jokes, riddles)

Games, puzzles, magic.

9. Authoritative/contractual: “How it must be”. (Statutes, laws, regulations, agreements, contracts)

Roles, rituals, regalia, uniforms, architecture.

10. Perpetuating: “How it was”. (Records, histories, diaries, notes, scores)

Photographs, sculpture, monuments, memorials.


The uses of language, as delineated here, are, of course, interrelated and overlapping. The divisions, nonetheless, serve awareness of the functional aspect of language and its relevancy to meaning, and to learning how to mean.

The need for skill in all aspects of language function. Fillion, Smith, and Swain (1976) point out that skill gained in one or some functions of language cannot mean that an individual will possess skill in the other functions. If a child, learning a second language, engages in only the heuristic function, for example, there is no guarantee that the child will be able to use or understand the divertive or the authoritative functions.

On the other hand, employment of all functions of language is important to the successful use of each. Halliday (1973) points out that the relationship of at least two
functions, the personal and the heuristic, are crucial to a child's academic success:

In order to be taught successfully, it is necessary to know how to use language to learn; and also, how to use language to participate as an individual (italics in text) in the learning situation... the ability to operate institutionally in the personal and heuristic modes is, however, something that has to be learnt; it does not follow automatically from the acquisition of the grammar and the vocabulary of the mother tongue. (Halliday, 1973, pp. 18-19)

Halliday’s observation is no less pertinent to second language learning than to first.

English taught as grammar and vocabulary partakes of neither meaning nor function. In bilingual education, conscious employment of the functions of language must be a part of both first and second language instruction.

Implementing the functional uses of language in Navajo/English bilingual education involves more than simply making sure that all the functions of language are dealt with in the curriculum. There are several options or modes of expression and meaning which might be utilized within each function. For example, regulating the behavior of others might be done by threats (do as I tell you or else), concern for the safety and welfare of the other (if you do that, you will catch cold), appeal to pity (my feelings will be hurt if you do that) and the like. The heuristic function may be met with closed answers or invitations to ask more questions and discover new relationships.

Bernstein’s codes and language functions. It is in these areas that Bernstein’s codes of particular and restrictive vs. universal and elaborative modes are to be considered. Teachers must be aware of their questions and teaching strategies; they must train themselves to ask “and then what” and “why”, and they must help the child to do the same.

The importance of non-language counterparts. In addition to the verbal alternatives within each language function, Smith (1977), in keeping with the developmental theory of Piaget, stresses that language acquisition in terms of function and meaning may be based on involvement in non-language counterparts:

The way to promote in children the different representational or description functions of language...might lie in the simultaneous
or even prior encouragement of alternative forms of representation, such as drawing, model building, or play generally. (Smith, 1977, p. 643)

The experiential activity recommended for the development of concepts on levels other than the discursive is much linked to meaning as it derives from, and is a part of, language function. Understanding language as function, then, adds impetus to the notion that silence and action, engaging in what Smith designates as “non-language alternative”, serve students in learning to mean in a second language.

Teacher awareness of language functions and modes. It is important that teachers be aware of, and able to distinguish among, the many verbal and non-verbal modes of language functions such as the elaborative and restrictive modes described by Bernstein in Chapter II. And it follows that teachers must be aware of their own use of language, of the responses which they give, of the verbal thinking they display:

The implication for a teacher is that his own model of language should at least not fall short of that of the child. If the teacher’s image of language is narrower and less rich than that which is already present in the minds of those he is teaching (or which needs to be present, if they are to succeed), it will be irrelevant to him as a teacher. (Halliday, 1973, p. 19)

Teacher preparation in awareness of and implementation of the options in language functions is crucial; for it is from the learning environment that the Navajo student will surmise the kinds of language appropriate for different situations. The perspectives offered the students in the classroom will be those upon which they draw outside of the classroom, for,

...using language to learn is so bound up with using language to live that it does not make sense to treat them in isolation from one another. (Doughty, Thorton, 1973, p. 20)

Learning language, learning how to mean, through the functions of language offers Navajo students the means of viewing English as useful and valuable to their education and to their lives; it affords them the means of interacting in, and with, the dominant culture effectively. Yet, it must be remembered that achieving this goal depends upon the teachers’ desire to implement it, as much as on the teachers’ informed knowledge of how to implement it.
Accommodation to the Learning Styles of Young Navajo Children

Field sensitive and field independent styles. In *New Approaches to Bilingual, Bicultural Education* (1975) Castaneda, Herold, and Ramirez argue that Mexican American children approach learning tasks in a different way than do Anglo-American children (the term Anglo or Anglo-American, is used throughout this paper as it is used by the educators in the study cited above, and by Mexican Americans and Native Americans, to refer to those who belong to the dominant American society). The same argument is expounded by Ten Houten (1971) in reference to Black children and Native American children. Castaneda, Herold, and Ramirez place the different learning styles in a framework of Field Independent and Field Sensitive behaviors. In their view, Native American children are characterized as Field Sensitive learners.

Field sensitive behaviors. Some of the features of Field Sensitive learners are listed below. Zintz (1963) and Roussal (1971) also comment upon these behaviors as typical of Native American children, though they do not discuss them in the same framework:

1. Field sensitive children are not strongly competitive.
2. They are sensitive to the feelings and opinions of others.
3. They prefer cooperative learning.
4. They seek guidance and demonstration from the teacher.
5. They learn best when performance objectives and global aspects of curriculum are carefully explained.
6. They prefer to have concepts be presented in humanized or story format.
7. They learn best when concepts are related to personal interests and experiences.


It is not remarkable that Blacks, Native Americans, and Mexican Americans share this initial approach to school tasks. They share, not so much similar backgrounds, so much as a sense of difference from the schools’ expected patterns of behavior, and an unsureness, which
can be manifest in many forms, must accompany that sense of difference. Nor is it remarkable that a teacher's failure to approach learning tasks through the preferred learning behaviors of minority children can frustrate those children to the point where they turn away completely from the learning environment of the schools.

Children learning in a language which is not their own must need more guidance and demonstration than would children who are familiar with the syntax and vocabulary of instruction. Children learning in a language which is not always understood by them must assuredly need a great deal of support in their endeavors, and they will feel much more comfortable when they know the goals and the procedures for reaching them.

Field Sensitive behaviors are hardly inferior behaviors, they are simply strategies for learning. Castaneda, Herold, and Ramirez point out that Field Independent behaviors are not more desirable, though certain of them -- the ability to work independently, concern with the details of concepts, and the ability to use the discovery method of learning -- mark the Field Independent learner as better able to adjust to much of the school environment, and, certainly, some Field Independent behaviors are part of the American educational goals.

Strategies for field sensitive teaching. School tasks for young Navajo children should be planned with the assumption that the children are Field Sensitive or Field Dependent learners. Ramirez, Castaneda, and Herold suggest certain teaching strategies to be observed. They are listed here with the corresponding strategies for Field Independent teaching:

<table>
<thead>
<tr>
<th>Field Sensitive Teaching</th>
<th>Field Independent Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. openly warm and affectionate</td>
<td>formal and serious</td>
</tr>
<tr>
<td>2. social rewards used to strengthen personal ties and group spirit</td>
<td>nonsocial rewards given in recognition of individual achievement</td>
</tr>
<tr>
<td>3. lessons prefaced with supportive assurances from teacher and detailed overview of objective</td>
<td>lessons prefaced with factual information and reminders of individual effort</td>
</tr>
<tr>
<td>4. problem-solving strategies modeled by teacher who then stresses application of general rules to particular problems.</td>
<td>solutions to problems often left to imagination of students who use teacher more as a resource person than model</td>
</tr>
</tbody>
</table>

(Ramirez, Castaneda, Herold, *New Approaches to Bilingual Education*, 1975, p. 72)
Once the children experience and exhibit confidence in their ability to perform school tasks, by gaining proficiency in their control of the language and concepts, a teacher may move toward those Field Independent strategies which are desirable. The fourth Field Independent strategy, for example, represents an expressed desired goal in American education. Teachers can consciously move toward being resource persons after the children demonstrate confidence in problem-solving strategies which have been modelled.

It might be argued that many young children, regardless of cultural background, need to learn how to learn before they are comfortable enough to tackle problems on their own, or that most young children would benefit from learning in an atmosphere where personal ties and group spirit are an integral part of the learning experience.

These arguments are not in dispute. Field dependent strategies are recommended for early Navajo education for reasons which extend beyond those that might be cited for all children.

**Navajo traditional views.** By tradition, the Navajo child has learned from modeling. The Navajo girl, for example, spends many hours, spreading to years, watching her mother or female kin weave a rug, and, then, she begins to weave. By tradition, as well, Navajo society views the nature of knowledge in a certain way:

Traditionally, in Navajo society, the acquisition of knowledge involved rote learning and practical experience. The process of rote learning was predicated on the premise that the answers to all philosophical questions are already contained in the body of folk literature (Mythology, as it is often termed) and one has only to seek it out; while adequate methods relating to such practices as animal husbandry, and agriculture had already been developed in Navajo culture, and therefore had only to be learned by experience. The learner was not expected to question the body of facts of the traditional methodology. (Young, p. 42)

**Navajo traditional views and education.** Young sees the traditional Navajo views as antithetic to those of American education. He maintains that even though rote learning is, and has been a part of American education, it is deemed defensible on the grounds that it provides tools for initiative thinking, and that, in general, American students are expected
to question knowledge and test hypotheses.

Scholars of American education, inspired by Dewey or Piaget, might argue that the expressed goals of American education are not those held by a large majority of the American population, nor are they the goals seen in practice in many years. Nonetheless, Young’s statement needs to be seriously considered, especially since other knowledgable observers of modern Navajo society (Roussal, 1971) maintain that, in every Navajo school community, there are many families for whom the traditional view of knowledge greatly influences their attitudes toward the school and its curriculum.

**Bridging Anglo and Navajo traditions.** Field Sensitive strategies tend to bridge the antithesis, to make possible the entry into a realm of inquiry which encourages questioning and testing knowledge transmitted in the classroom, without destroying patterns of acquiring knowledge established by tradition. Change may take place in traditional values because students accept the Anglo-American method of inquiry. That possibility cannot be denied or changed; but it is hoped that such changes will ensue because because students choose to apply certain perspectives to the beliefs of their tradition, rather than have those perspectives imposed upon their traditional beliefs. It is also possible that many Navajo students will hold each perspective in separate space, as scientists of particular religious persuasions, for example, hold religious beliefs which appear to conflict with the premises of scientific investigation.

The risks to traditional Navajo beliefs have already been undertaken. Dissolution of many values accompanied the imposition of Anglo schooling from the beginning, for Navajo children were forced to leave their homes where all the mores, beliefs, styles, and traditions were transmitted. That the Navajo tribal policy is now one of accepting formal education, and preserving Navajo values through formal education via use of the Navajo language and curriculum dealing with Navajo history and culture, indicates that a path for co-existence of varied values can exist, and that cultural change can be mediated by the Navajos themselves.
Adjusting curriculum. Roussel (1971), whose work centered on establishing the first community controlled school on the reservation, also urges teachers to be knowledgeable about the status of the school population so that curriculum offensive to traditional Navajo families can be avoided. Many Navajos hold the religious belief, for example, that certain dead animals must not be touched. Dissecting a frog in biology classes still causes great moral consternation to many students, for they believe it will bring great harm in their later life. Many teachers thoughtfully discover which of their students hold these beliefs and do not insist that frog dissection be a part of their scientific experience. Knowledge of Navajo beliefs, and knowing which students adhere to particular values, aids in developing alternative strategies for curriculum goals.

Teacher Preparation

The guidelines for ESL in Navajo/English bilingual education are highly dependent upon teachers prepared to execute them. Teacher preparation is vital to the success of the guidelines, and that preparation differs in both degree and kind from most preservice and inservice teacher preparation programs.

Language studies. The recommendations for teacher preparation in language study are designed for the regular classroom teacher and not for the ESL specialist. The recommendations are based on the premise that “All teaching done in English when it is a second language is ESL”. (Saville-Troike, 1976, p. 133)

All teachers who teach subject matter in English must be prepared with the necessary skills and knowledge to approach content through the medium of the second language. They must be cognizant of the natural progression of development in first and second languages. They must be aware that proficiency in listening comprehension precedes oral proficiency (Fillion, Smith, Swain, 1976), that children will generalize grammatical syntax in the second language, and that their generalizations will often be incorrect in terms of surface structure (Burt, Duly, 1975).
Specific areas of difficulty. Teachers must be aware of specific areas of difficulty for Navajo speakers of English. Willink (1976) notes that Navajo speakers of English experience difficulty in five areas of grammar: 1. Number (plural form of nouns), 2. Gender (personal pronouns), 3. Past tense, 4. Articles (the, a, an), and 5. The past participle. These particular aspects of grammar have no corresponding similar formulation in the Navajo language. It often appears that young Navajo children do not seem to hear the cues for them in English. It is important that teachers be aware of these areas of difficulty and provide ample and guided opportunity for Navajo children to hear and use these features in meaningful linguistic situations.

Developmental factors. But teachers need also be aware of the developmental factors affecting acquisition of the difficult areas in grammar. The past participle, for example, is generally not acquired in the beginning stages of language learning. More importantly, early stress on the difficult areas may be fruitless. Ervin-Tripp (1974) and John and Souberman (1977) provide data that older children (8 and 9) apply more powerful strategies for learning second languages than do younger children. Ample opportunity to gain skill in the troubled areas cited by Willink, then, will not mean that young children are corrected for their misuse of these features, or that they will be subjected to drills in them. It will mean that they will hear the features in a variety of situations. It is imperative that teachers have background knowledge of first and second language development, and training in specific strategies to augment language development.

Relating linguistics to practice. It is neither desirable nor realistic to expect classroom teachers to have extensive course work in linguistics. Saville-Troike (1976) points out that a course in linguistics, or even several courses in linguistics, will not automatically be of any service to teachers who use English as the medium of instruction.

More useful and more appropriate for preservice and inservice preparation for teachers are courses which present the information gained from linguistic studies in terms of
classroom teaching strategies and environment, and child language development and use.

**Language for learning.** Sharp (1973) suggests that courses on "language for learning" be a part of all initial teacher training. These courses should include discussions on language functions and the alternatives within the functions. He especially recommends that inservice training be on-going and in the form of small study groups or run-on seminars where practical experience can be related to the language concepts under discussion (p. 85).

**Second language development.** Teachers must also have training in second language development as it relates to reading and writing. They must have a working knowledge of analyzing children's reading readiness and reading progress in terms of language development.

Since much of this information is new in the field of language study (Watson, Goodman, 1977), it cannot be presumed that even newly certified teachers will have had such training as a part of their teacher preparation. Inservice programs in this area should be arranged by school districts and continued in the manner suggested by Sharp.

**Navajo language and culture.** It is desirable but not necessary, and hardly always possible, that the English speaking teacher should also speak Navajo. But some knowledge of the Navajo language is essential, if only to gain insight into the tremendous achievement of Navajo children who manage both languages. The growing practice of offering Navajo language and culture courses should not only be continued, the courses should become a mandatory requirement of inservice participation.

**Cultural anthropology and Sociology.**

**Understanding culture.** The purpose and nature of bilingual instruction demands that teachers of both languages have an understanding of the cultures the languages represent. A teacher's knowledge of the Navajo culture must be broadly informed. It is not enough to know the customs of the Navajos. Too often, knowledge of customs different from one's own simply means that those customs are judged by the bias of one's own
culture. In the case of the non-Navajo teacher, such judgement can only be destructive to the aims of ESL in Navajo/English bilingual education.

Knowing and accepting. Modiano (1969) pinpoints the difference between knowing another’s culture and accepting it by admonishing that teachers must not only know where a child is, they must also accept where the child is. And Saville-Troike stresses that no second language program can be successful unless minimum qualities are exhibited by teachers. According to Saville-Troike, to demonstrate the minimum qualities, a teacher must:

- Be genuinely interested in the education of students regardless of their linguistic and cultural background
- Be supportive of the goals and processes of multicultural education
- Be understanding and accepting of linguistic and cultural diversity
- Be respectful of students; personal, family and community identities
- Be sensitive to individual and group needs and feelings

And unequivocably, she adds, teachers without these qualities should not be teaching bilingual students. (Saville-Troike, p. 138)

Changing life styles. Teachers, then, must not only have an understanding of Navajo history and tradition, they must also possess sociological principles for understanding the effects of a culture in transition. They must be aware of the problems of alcoholism, for example, and of the inadequate health facilities which serve their students, for these affect learning styles, attendance, and motivation. Teachers must be cognizant of these conditions and how they interact with traditional values. It is important to understand not only the traditional patterns and practices of the Navajo, but also the attitudes and life styles which are formed through existing economical and social conditions (Harn, et al, 1975)

Self-awareness. In addition, teacher preparation for non-Navajo teachers should include training in recognizing the attitudes, values and opinions which they hold as
members of the dominant culture. Only if teachers are willing to accept their own cultural bias, as a bias, can they avoid imposing that bias on the Navajo child.

Meeting these needs of teacher preparation is difficult but not impossible. Sindler (1963) suggests that cultural anthropology should be included as a course in preservice training, and that anthropologists be asked to contribute inservice seminars. Velard (1976) recommends that, in addition to college level Indian education courses, all teachers attend a tribally conducted orientation program. Cultural awareness may also be achieved through the seminars in language study mentioned earlier.

Cultural awareness and sensitivity to cultural differences are so paramount to the success of bilingual education that interview procedures to ascertain a prospective teacher's ability to deal with both should be carefully planned, and, where possible, teachers who cannot benefit from instruction in these areas should be counselled out of reservation teaching.

The programmatic considerations of the language learning characteristics outlined on page 86 of this chapter yield guidelines for ESL in Navajo/English bilingual education. In the guidelines, the language learning characteristics and their correlating program implications are designated where they apply. The following code will be used to indicate which language learning characteristic or program implication is met by a particular guideline: language learning characteristic = LLC (numbered as on page 59), program implication = PI (numbered as on page 59-60).

**Guidelines for ESL Instruction in Navajo/English Bilingual Education**

I. **English Taught as a Separate Subject**

A. The introduction of English into the curriculum should be through problem-solving activities involving manipulative materials, action, and pupil/teacher, pupil/pupil verbal interaction.
   LLC: (1), (3), (4), (5), (7)
   PI: (1), (3), (4), (5), (7)
B. Classes should be small to allow for teacher/pupil interaction and to provide students with the opportunity to hypothesize language rules.
   LLC: (1), (4), (6), (7)
   PI: (1), (4), (6), (7)

C. Particular language patterns may be introduced at the beginning of a session or during a session if appropriate. Student practice in the correct formation of a designated syntactical pattern should not exceed ten minutes.
   LLC: (1), (5)
   PI: (1), (5)

D. Record keeping should be based on classroom observation. Students' use of the second language should be assessed in terms of developmental stages.
   LLC: (2)
   PI: (2)

II. English as a Medium of Instruction in Subject Areas

A. Manipulative materials and experiential activities should be used in teaching concepts.
   LLC: (3), (4), (7)
   PI: (3), (4), (7)

B. Children should be encouraged to produce vocabulary and syntax as they work with manipulative materials.
   LLC: (1), (2), (3), (4), (5)
   PI: (1), (2), (3), (4), (5)

C. Teachers should employ consistent vocabulary and syntax in presenting new concepts.
   LLC: (1), (2)
   PI: (1), (2)

D. Teachers and children should engage in talk as they explore subject matter.
   LLC: (1), (2), (4), (5), (6), (7)
   PI: (1), (2), (4), (5), (6), (7)

III. Reading

A. Children should be able to understand basic concepts in English before reading instruction begins.
   LLC: (2)
   PI: (2)

B. The LEA should be used to insure sufficient reading readiness.
   LLC: (1), (2), (3), (4), (5), (6), (7)
   PI: (1), (2), (3), (4), (5), (6), (7)

C. Variations of the RMI should be used to diagnose reading progress.
   LLC: (1), (2)
   PI: (2)
IV. Writing

A. Writing should be introduced through the LEA.
   LLC: (1), (2), (3), (4), (5), (6), (7)
   PI: (1), (2), (3), (4), (5), (6), (7)

B. Children’s writing should be examined in terms of development in the second language.
   LLC: (2)
   PI: (2)

C. The mechanical skills of writing should be taught in accordance with children’s needs and development.
   LLC: (2), (5)
   PI: (2), (5)

D. Children should engage in oral and other experiential presentations of their ideas in order to facilitate their written expression of them.
   LLC: (1), (3), (4), (5), (6), (7)
   PI: (1), (3), (4), (5), (6), (7)

V. The functions of language

A. All curriculum should embody experiences in the functional aspects of language.
   LLC: (4), (5), (6), (7)
   PI: (4), (5), (6), (7)

B. Experiential activity, or non-language counterparts to the functions of language should precede and accompany linguistic experience in language functions.
   LLC: (3), (5)
   PI: (3), (5)

C. Teachers should help students develop the ability to elaborate in the second language through questioning techniques and modelling.
   LLC: (1), (2), (4), (6), (7)
   PI: (1), (2), (4), (6), (7)

VI. Accommodations to the learning styles of young Navajo children

A. Field sensitive teaching strategies should be used in all curriculum areas to help Navajo children gain confidence in their ability to perform school tasks.
   LLC: (3), (5), (6), (7)
   PI: (3), (5), (6), (7)

B. Curriculum content and design should accommodate Navajo religious beliefs and values where they appear to conflict with traditional methodology.
   LLC: (5), (6), (7)
   PI: (5), (6), (7)
VII. Teacher Preparation

A. Teacher preparation should include training in first and second language development.
   LLC: (2)
   PI:  (2)

B. Teacher preparation should stress teaching strategies for developing language skills.

C. Teacher preparation should stress the relationship of reading and writing to second language development.
   LLC: (2)
   PI:  (2)

D. Teacher preparation should include training in diagnosing reading and writing progress with variations of the RMI.
   LLC: (2)
   PI:  (2)

E. Teacher preparation should encompass training in recognizing and using the functions of language and the alternative modes of expression within the functions.
   LLC: (5), (6), (7)
   PI:  (5), (6), (7)

F. Teacher preparation should stress tenets of cultural anthropology and sociology which will enable teachers to develop an understanding and acceptance of linguistic and cultural diversity.
   LLC: (5), (6), (7)
   PI:  (5), (6), (7)
CHAPTER IV

TEACHING STRATEGIES AND MATERIALS FOR IMPLEMENTING THE GUIDELINES FOR ESL IN NAVAJO/ENGLISH BILINGUAL EDUCATION

The Present State of ESL Materials and Teaching Strategies

Programmed materials. Although specific printed materials for ESL in Navajo/English bilingual education are not in abundance, the general market for ESL materials for children is expanding. Unfortunately, many of the programs and materials are based on Bloomfield's linguistic theory and Skinner's theory of learning, and prescribe drill in isolated segments of the English language or work with language out of the contexts of language use.

Many schools in the southwest, particularly on the Navajo reservation, rely on programmed materials because teachers have had no formal training in how to teach subject matter to non-English speaking students. Teachers and administrators alike consider the process mysterious and in the realm of ESL experts. Programmed materials therefore seem safe.

Inadequacy of programmed materials. Saville-Troike (1976) admonishes that such a concern for safety is misplaced because most of such materials are based on theories which are now highly questionable in light of new research (as discussed in Chapter II). She maintains that,

...many former TESL programs have become components of bilingual programs, but have not yet developed integrated methods and content, nor in many cases ever resolves the problem of how instruction in the student's first language should relate to instruction in English.(p 76).

A total integration of method and content in bilingual education may take some time. Nonetheless, research in language development (see Chapter II, Section II) and the guidelines ensuing from that research (see Chapter III, pp. 93-96 ) do indicate that instructional materials and methods can and should be assessed to determine whether they meet the linguistic needs of the bilingual child.

97
ESL materials and strategies compatible with guidelines. In this chapter, some instructional materials and corresponding teaching strategies which match the standards of the guidelines described in Chapter III are noted. The list is by no means exhaustive, nor is it intended to be rigidly prescriptive. Rather the materials and strategies are discussed to illustrate that methodology already exists which correlates with the characteristics of language and with the curriculum guidelines they generate. Such materials are often less costly than publisher pre-packaged materials and have no rigidly prescribed sequence; they value teacher contribution and teacher/pupil interaction.

The materials and strategies will be discussed under the same headings as used in the guidelines (see Chapter III, pp. 93-96). Teachers should recognize the value of the materials and strategies as appropriate in many content areas and across categories.

Teaching Strategies where ESL is Taught as a Separate Subject

(See Guidelines, p. 93)

Some ESL/Navajo bilingual programs elect to begin teaching in content areas using only the Navajo language for a year or two. In these programs, English is taught as a separate subject. In other programs, content is taught in both English and Navajo but English as a second language is still treated as a separate subject. The guidelines (p. 93) stress that separate lessons in ESL be conducted in the form of content activities which cut across disciplines and utilize the language of problem-solving.

Vocabulary building. To plunge into activities of this order does not negate Saville-Troike's (1976) astute observation that the first thing the second language learner must acquire is a naming vocabulary. It is only reasonable to supply beginning speakers of a language with the labels of familiar objects they must use every day, with the names of places they must go to, and with the names of people they must speak with. And, certainly, vocabulary transferring games can be fun and useful. In the beginning, they provide the child with a sense of mastery and success.
Vocabulary in problem-solving content. However, no prolonged listing of vocabulary pictures is useful to the Navajo child. Vocabulary must be supplied which makes sense and which is connected to a need to tell what is happening, to communicating, and to storing experience. A carefully planned activity session will include such vocabulary.

For example, in her language resource book *Talkabout* (1976), Pasamanick suggests that a simple 4-to-6 piece puzzle of a rabbit or other animal can be a rich vocabulary builder, affording the teacher the opportunity to convey such words as puzzle, animal, rabbit, bunny, cat, dog, horse, ears, eyes, mouth, face, feet, tail, fur, whiskers, hear, see, eat, talk, run, walk (p. 47).

In the earliest sessions with such puzzles, parts of the puzzle can simply be named. Games can be devised where pieces are removed from the completed puzzle. "What did I take?" the teacher may ask. If the session is so devised that learning is shared, the children too can enter into the teacher role and take a piece of the puzzle out and ask the teacher to identify it. In this way, children become conversant with asking questions and, more importantly, they come to view asking them as a natural state of affairs.

Continued work with the puzzles can progress to more advanced stages of questioning and thinking. The teacher may ask the child to make comparisons and see relationships through such questions as, "What does the rabbit have that you have too?" (ibid., p. 47)

Practicing syntactical patterns through thinking games. ESL programs for young children, as for adults, introduce syntactical patterns in a sequential order. Certainly such patterns should be introduced to guarantee a child's exposure to them. With young children, however, no more than ten minutes a day should be devoted to a structured presentation of a pattern and to its practice in drill (Guidelines, p. 94). Pictures, objects, and actions, should accompany the introduction of a pattern. Any drill practice that takes place should be in the form of a game or an activity which requires thinking, and should be linked to action and concrete objects (see Guidelines, p. 93:
It is highly doubtful that children think about what they say when they sit for ten or twenty minutes saying “he is a boy” pointing to a boy doll and “she is a girl” as they point to a girl doll; the use of pictures or concrete objects alone does not guarantee active participation. But, if the activity is made into a game which utilizes thinking skills, children respond by thinking of what they are saying.

Concrete objects must be used in promoting sensory knowledge to be transformed into the corresponding verbal articulation. Merely naming is too simple a task for most youngsters and they can hardly be expected to concentrate on a doll they are not even playing with. Instead, they might dress the dolls, or place them on an environment board which shows various landscapes or stores. “Now, she is on the mountain”, or “Now, he needs to buy milk at the store”, are more exciting to verbalize.

**Varying pattern practice in games.** Drill games which children like can be used by the teacher for many different syntactical pattern practices. For example, male and female dolls may be placed on a table or on the floor, each surrounded by objects or pictures. One child may be sent from the room. While that child is gone, the children remove one of the pictures or objects. The returning child is then asked to name the object removed. The desired answer can be varied according to levels of proficiency; the child may simply name the object, or be required to say “You took his boat”, or “She has no wagon”, or “The ball is gone”. The phrase will depend upon the structure being practiced.

This author once played such a game with second and third grade Navajo youngsters who demanded that each doll be surrounded by no less than ten objects. The children made the game difficult by mixing up the objects when the child, whose turn it was, was gone from the room. No child ever made an error in naming the object taken. Some children did use the pattern phrase incorrectly. But in a game, such as the one described, the child may be asked to say the pattern correctly without damaging his/her sense of accomplishment at having named the missing object, and of having successfully communicated that knowledge to the group.
Correction strategies. Once a syntactical pattern has been presented and practiced in a drill game, it should be utilized in problem-solving content activity. The strategies to be employed in these activities are different from those employed in game drills. The strategies employed here are:

1. that the teacher will employ the correct syntactical pattern during the session in a natural way,

2. if the children do not employ the pattern correctly, they will not be corrected.

3. the teacher will note the pattern the child does employ.

Diagnosing misuse of grammar. The fact that a child uses a syntactical pattern correctly in drill session and incorrectly in activity sessions, only indicates that no amount of isolated practice insures proper use of grammatical structures in spontaneous use. Diagnosing the misuse of the pattern is, of course, important. “He have tail” indicates a knowledge of the deep structure involved in the sentence. Opportunity to hear and use the pattern in meaningful situations will likely bring about the generalizing the child needs to produce “He has a tail”, particularly if the teacher designs curriculum from his or her records.

Modelling correct responses. Hayes and Anisman suggest that, in any exercise or activity not specifically geared to grammar practice, the teacher should respond to an ungrammatical answer or question by modelling the correct pattern in response, but not by calling attention to it. To do so would be to detract from the meaning of the child’s answer or comment. They offer several examples of their rule-of-thumb. The one listed here serves as a prototype:

DIALOGUE:  
Teacher: Does a baby eat steak?  
Student: No, ’cause he don’t eat steak. He don’t got no tooth.  
Teacher: That’s right, a baby doesn’t have any teeth. Can he eat carrots?

DISCUSSION:  
The child’s double negatives are part of the systematic natural speech of millions of people. The dialogue...reflects the teacher’s knowledge that eventually, in some situations, the child can be rejected by speakers of
Standard English, and chooses to model the standard forms. He does this unobtrusively and without undermining the child's confidence, by first approving the correct content response, and then echoing the response in standard form. (Hayes-Anisman, p. 28)

It is, perhaps, important to note again that the child will not model the teacher immediately.

**Research supporting no-correction strategy.** The "no-correcting" strategy is soundly based on research in first language development. McNeil (1966), Gleason (1967), Brown and colleagues (1969), all record that children learning their native language go through stages of development, and that they do not even hear the corrections offered to them. They respond instead to the meaning in the correction, not to the form. Children appear to imitate the form of the language pattern only when they have come to their own internal understanding of the rules for the patterns (McNeil, 1966).

The teaching strategy outlined here, then, is based on research and theory which indicate that second language learners must be provided with opportunity to generalize syntactical constructions in order to come to an internalization of the rules for grammatical patterns in the second language. (Burt, Duly, 1975)

**The need to conceptualize with language.** The strategy, of course, implies another; that is, that an atmosphere for freely conceptualizing out loud must be established. Many teachers of Navajo children will attest that this is a difficult task. And it is. The Navajo child, like any other, will enjoy the puzzle, for example, but a shyness in talking in another language will inhibit discussion during the activity. ESL sessions must be conducted so that an atmosphere of mutual inquiry and respect is early established: children must be praised for their problem-solving efforts and strategies, and they must be assured that their efforts to express themselves are prized (see Guidelines, p. 93).

In a very substantial way, the no-correcting strategy aids in the accomplishment of this factor. Once the children have been assured that what they say is more important than how they say it, and is valued and responded to, they begin to generalize freely in the second language.
ESL Materials which Promote Conceptualizing in the Second Language

The following annotated list of resource materials and activities are especially useful in ESL sessions; they promote verbalization of the problem-solving skills.

I. Language Skill Development Materials

A. Teaching Resources Corporation
   100 Boylston Street
   Boston, MA 02116

Materials from this company, an educational service of the New York Times, are especially suited for ESL games. A list of card games in the Language Development series includes:

1. Parts and Wholes Picture Cards
2. Preposition Concepts Picture Cards
3. Sequence Picture Cards
4. Verb Concepts Picture Cards
5. Adjective Concepts Picture Cards
6. Opposite Concepts Picture Cards
7. Singular and Plural Picture Cards
8. Compound Word Picture Cards
9. Alike Because Book
10. Category Picture Cards
11. Functions Picture Cards

Each set of picture cards is accompanied by a guide suggesting numerous sorting games and card games. All of the activities engage the students in verbalizing concepts and are structured on the notion that children build concepts from direct sensory information. The games may proceed from simple naming to more complex categorization and the verbal manipulation of relationships and attributes. (see Guidelines rationale, Chap. III, p. 66-67)

B. Learning Development Aids
   Part Works
   Norwich Road
   Cambridge, England
   (Distributed in the United States by Lakeshore Curriculum Materials Centers)

Learning Development Aids publishes a number of inexpensive language development card games and picture activities including:

1. What's Wrong Cards -- In this set, children are encouraged to verbalize the missing or out-of-place element. Numerous patterns can be practiced in the activity.

2. Think Again Cards -- Best used with children who have been using English for two years or so, this set of cards has pictures which can be arranged to tell a story. Once the children have
verbalized the sequence, a new picture is introduced which changes the story's plot as given. Children become aware of the changes additional information can make in plot or sequence.

3. **Things That Go Together** -- Simple set of paired picture cards, e.g., button and button-hole. Pairs help build vocabulary and articulation of relationships.

4. **Concept Snap** -- A game of seeing relationships. Children can make a pair of items if they can state relationships. Like the 'Alike Because' game from Teaching Resources, Concept Snap encourages going beyond the obvious.

5. **See How You Feel** -- Varied pictures and pictured situations can be used to develop vocabulary on a wide range of feelings, to identify facial expressions depicting feelings, to promote articulation about situations which provoke certain feelings. The pictures can lead to story telling and creative drama.

6. **What Would You Do Cards** -- Develops children's ability to articulate a response appropriate to problem situations.

7. **Why Because Cards** -- These can be used to help children use language in relating cause and effect. The cards can also be used to work with the past tense, e.g., "Here is a woman baking a cake. Now, she is done. The cake is baked." Numerous possibilities exist for helping children phrase the language of cause and effect.

II. **Manipulative Materials**

A. Problem-Solving activities from

   Elementary Science Study (ESS) available
   from Selective Educational Equipment
   3 Bridge Street
   Newton, MA 02195

The SEE catalogue is well worth perusing for ideas for use in the language of problem-solving. Of particular interest to young children are:

1. Attribute Blocks
2. People Pieces
3. Cuisinaire Sets
4. People Pieces
5. Cube Sets
6. Geoboards
7. Tangrams
8. Straw constructions

These particular activities engage students in the language of logic at a level commensurate with their ability. Activity cards and booklets accompany the materials. The language teacher whose background does not include logic or set theory will find that the activities are designed so that the teacher will understand the process
with the children. The People Pieces are especially useful for work with Navajo children because they afford the opportunity to deal with pronouns in a meaningful, structured situation.

See also publishes a number of structured, discovery type activities dealing with the language and process of scientific investigation. These materials are suitable for the ESL classroom, where children may convene for 20 minutes to ½ hour a day, since each experiment in a given project may be completed in that amount of time. The experiments involve recording and discussion compatible to the age levels and skills of young children.

III. ESL Guides for Presenting Syntactical Patterns in Sequence

A. NALAP, Books I and II
   Navajo Area Language Arts Project
   Bureau of Indian Affairs
   Navajo Area Office
   Division of Education
   Window Rock, Arizona

   This series contains a sequence of grammatical structures for presentation to Navajo children. Games and activities are suggested for presenting and reviewing the structures.

B. ESL Outline of Objectives and ESL Teaching Ideas to Accompany ESL Outline of Objectives, Levels A,B,C.
   Rough Rock Demonstration School
   Many Farms, Arizona 86538

   Like NALAP, the Rough Rock books provide a sequenced order of syntactical patterns with suggestions for their presentation and practice.

IV. Resource Guides for Language Development Activities

   Great Neck Road
   Great Neck, New York 11020

   Cited as a resource guide to help ESL teachers integrate the structuralist approach (teaching patterns of language) with the cognitive approach (allowing students to generalize from available data) (Murphy, 1977), Pasamanick's guide suggests numerous language development activities using manipulatives such as attribute blocks, art, stories, drama, food, chants, outdoor activities, and poetry. Each activity listed contains the vocabulary to be elicited as well as suggestions for creating an environment where the vocabulary is used by the students. Syntactical patterns can be introduced before an activity, using the vocabulary of the activity in the presentation. Generalizations are fostered by the activity. Pasamanick also provides a guide on cognitive skills exercised in each activity.

B. The Amazing Life Games Theater File Box developed by The Amazing Life Games Co. for Houghton Mifflin Co.
V. Strategies Especially Suited to ESL Classroom

A. Brainstorming

Brainstorming, a technique used to develop fluency in the production of ideas, is useful as a device to help ESL students recall their English vocabulary. Brainstorming is used in the beginning stages of project work: students are asked to list all aspects of particular objects or concepts under study. Brainstorming is also used in other activities: children brainstorm all words and phrases connected with Christmas for a Christmas word mural, or list all the items they would need for a trip to Mexico or the Arctic. Children enjoy working up a purposeful vocabulary and they need to use the vocabulary they have for a purpose. Most young ESL students want a brainstorming list preserved because they are so pleased with the extent of words they can effectively use for a single subject.

B. Poetry

The repetitious patterns used in poetry writing are especially useful in building familiarity with syntax and with the rhythms of language. Poems can be composed in groups or individually. All poems should be typed or printed so that the children can see the syntactical patterns in graphic form.

C. Children’s Literature

Many fine children’s books employ repetitive sentence patterns. Children enjoy hearing these stories and, through hearing them, gain comprehension and control over syntactic patterns. Listening to such stories is, indeed, a form of drill, if drill is defined as hearing or repeating patterns, sentences or phrases several times. Syntactical patterns practice is repeated as often as the children want to hear the story. Oral production of the patterns is inherent in the process of repeated readings: a teacher may stop reading at a given place, the children will happily supply the repetitive sentence pattern. The obvious enjoyment children take in repeated readings of such stories justifies their inclusion in language development programs (Peckert, 1978).

Marjorie Flack’s Ask Mr. Bear (1932), Asbjornse and Moe’s adaptation of The Three Billy Goats Gruff (1957) and many Dr. Seuss stories are examples of appealing stories which employ repetitive sentence patterns. (Other stories, which do not employ rhythmic repetitive sentence patterns can be read to increase students’ involvement with the second language and, while pertinent to ESL treated as a separate subject, are discussed in the section under Reading Readiness.)
D. Idioms, Metaphors, and Similes

Not only do young children enjoy idioms, idioms form a large proportion of the English-language. Numerous possibilities exist for exploring idiomatic language with children. A “What do you think it means?” book can be made by the children, or pictures portraying a literal interpretation of idioms can be drawn for a humorous portfolio. Parish’s Amelia Bedelia (1963), a humorous story about a maid who interprets all idioms literally can be read as a starter story. The children may want to invent further adventures for Amelia as they add new idioms to their repertoire. (Zintz, 1973, p. 212) supplies a list of common idioms which his studies revealed as unknown to Native American students. Frey (1976) lists idioms which deal with parts of the human body and suggests ways to explore those idioms while working with anatomical vocabulary. Both books are useful references for investigating idiomatic language in an ESL classroom.

Metaphors and similes form a great part of creative construction with language. Their use involves the ability to perceive analogous relationships, a chief component of divergent and creative thinking. Greise (1977) maintains that basal readers do not often employ such figurative language. Second language students must therefore be insured exposure to it in other classroom activities. Greise suggests activities in which the teacher introduces comparisons children have heard or can recognize, such as “slow as a snail” or “cold as ice”. Children are then encouraged to make their own comparisons (p. 216). The Making It Strange series (1978), a collection of exercises in workbook format can also be used or adapted for use in ESL classrooms.

Poetry, of course, offers excellent examples of such analogies. Let’s Enjoy Poetry: An Anthology of Children’s Verse for Kindergarten, Grades I, II and III, with suggestions for Teaching (1958) is a useful reference and guide. Teachers may also explore metaphors and similes in Native American poetry by using such works as Out of the Earth I Sing (1968).

E. Imagination Drills

“I went to the store and bought a pink giraffe” represents the kind of drill children will do without losing interest. Imagination drills also engage children in an important function of language, allowing them linguistic exploration of the fantastic and the impossible. Children’s books such as Sesyle Joslin’s What Do You Say Dear? (1959) and de Regnier’s May I Bring a Friend? (1965) may serve as starters for such exercises.

F. Dramatic Play

Post-office, grocery shopping, telephoning and the like are excellent pretend situations. Play corners and play equipment, such as stores and telephones, should be a part of the ESL classroom and available during free play sessions as well as in suggested situational play.

VI. Evaluation and Diagnostic Instruments

A. Boehm Test of Basic Concept (Ann Boehm 1967)
The Psychological Corporation
757 Third Avenue
New York, New York 10017
The Boehm Test (see Chapter III, pp. 62-63) is based on 50 concepts necessary to understand the language of school instruction. For the most part, the concepts are simply basic to understanding and using English. The instrument is criterion-referenced, is easy to give, easily corrected, and handily charted so that those concepts which a child does not know can be addressed. Since 1976, the Boehm Resource Guide for Basic Concept Teaching has also been available from The Psychological Corporation. The Resource Guide is a kit which provides games, puzzles, picture cards and suggested small group activities for teaching the 50 basic concepts. While the Boehm Test indicates only a student’s passive or listening comprehension of the concepts, the suggested strategies include students’ oral production of them.

B. Bilingual Syntax Measure (Marina K. Burt, Heidi C. Dulay, Eduardo Hernandez)
The Psychological Corporation
757 Third Avenue
New York, New York 10017

The Bilingual Syntax Measure (BSM) is designed to ascertain student’s fluency in Spanish and/or English. In Navajo/English bilingual education, the English Syntax measure is used to ascertain development in English. The BSM is based on the notion that second language acquisition is developmental and that children engage in creative construction in developing second language syntax (described in Chapter II). The levels of proficiency designated by the BSM are scored according to developmental levels: Level 1 = No English, Level 2 = Receptive English only, Level 3 = Survival English, Level 4 = Intermediate, and Level 5 = Proficient. Instructional and programmatic suggestions are provided for each level designated. Because the BSM guide demonstrates how particular types of grammatical responses can be viewed in terms of development, it serves as an instructive aid for the teacher in gaining diagnostic skills.

Some of the cartoon pictures in the BSM portray the sea and fish. Many practitioners in ESL for Navajo children feel that these scenes are too alien for young Navajo children to respond to. The pictures can be changed without destroying the questioning techniques used to elicit response.

C. Teacher Made Diagnostic Instruments

Teachers may choose their own pictures to stimulate verbal response. Student responses can be measured in terms of fluency of expression, of meaning and ideas, and by the use of sentence structures. Developmental levels can be assigned on the basis of proficiency in these areas as they are in the BSM. In Level I, for example, a child uses isolated words to describe a scene or answer a question. In Level 5, students produce sentences containing more than one dependent clause. Assigning levels according to any scheme is important only in terms of devising strategies.

In choosing pictures or books to elicit student verbal response, Frey (1976) suggests that the following criteria be used:

a. There should be two or more easily recognized characters in the pictures.
b. There should be a central activity or “story” represented.

c. Each character should be doing something different.

d. The setting or background should indicate where the action is taking place, but should not be so complicated as to distract from the main theme. (p. 119)

Interpreting oral proficiency diagnostic instruments. All tests of oral proficiency in the second language must be interpreted in the light of second language development as described in Chapter II. For example, second graders are not to be expected to use complex compound sentences and dependent clauses correctly or at all. If a student only names objects in a picture, the teacher’s next steps should include work with the child on verbalizing action words and phrases in meaningful learning activities such as those described above. It must also be remembered that the results of any of the above instruments will not be valid unless prior teaching strategies are used which promote verbal articulation of the order expected.

Strategies for English as a Second Language in Subject Areas

Concepts, conceptualizing and language (see Guidelines, p. 94). A discussion of techniques and materials commensurate with the characteristics of language and the implied curriculum guidelines is more difficult in this area primarily because there is confusion among linguists and educators alike as to the difference between concepts and conceptualizing. Saville-Troike (1976) and Willink (1973), for example, both make the statement that it is redundant to teach concepts in the second language if they are taught in the first. If knowing a concept is simply a matter of possessing names for ideas given to the student, then one might suppose teachers need only supply those names in the second language. But if concepts are only gained by conceptualizing, if, in fact, they cannot be separated from the act of thinking, as the characteristics of language learning, p. 59, indicate, then more must be involved than merely naming. Conceptualizing must take place in the second language as well as the first. (see language learning characteristics, p. 59 and characteristics of language, p. 59)
Willink (1973) carries the notion of conceptualizing into her rationale for bilingual education:

Almost all lessons...need follow-up lessons in which the content is made more familiar, closer delineated, practiced with. Such follow-up lessons can teach the language of the subject matter as well as more of the subject matter itself. The students will then get practice in bilingual functioning, the rationale of the recommendation to deal with the same content in two languages, but from the standpoint of learning content, there is no waste of time and effort. (p. 181)

Opportunity to conceptualize in both languages. If this particular rationale is followed, then Saville-Troike's concern that second language learning and first language learning must be integrated is addressed by joint lesson planning between the Navajo language teacher and the English language teacher. That integration is more difficult to achieve, however, in those programs which elect to teach subject matter in Navajo for the first few years and then to switch abruptly to English as the language of instruction.

Controlling the language of instruction. Whether or not subject matter is taught in Navajo as well as in English, Navajo children should not be expected to manipulate English with the same skill as the native speaker. Strategies, thus, must include careful and consistent use of terms used to give instruction until the English language teacher is sure that the children are prepared to understand variation (see Guidelines, p. 94). Variation should be introduced as such, telling the children that “another way of saying that is . . . .” , works well. Children then may be asked to try the other way when they respond with the original form.

Controlling the language of tests. Testing instruments must also employ the same language used in instruction. If a school uses a standardized test in content areas, liberties should be taken to reword any test item so that it corresponds to the language patterns used for the instruction of that item. If “equal” is always used in explaining a particular type of mathematical operation, then any test item testing that operation which uses another term will be testing a child’s comprehension of English rather than a child’s understanding of mathematics.
Providing for student hypothesizing. Beyond testing considerations, strategies for teaching content in the second language must include the same means for hypothesizing with the available language data as are recommended for ESL as a separate subject, and the classroom teacher must be prepared to aid and interpret the hypothesizing in the same way (see Guidelines, p. 96).

The language of math: manipulatives and talk. Sets, operations, mappings, and relations are considered to be the foundations of all mathematics, and much concern has been applied to bring them into early childhood education through games and manipulative activity. All basic math series contain supplementary suggested activities using manipulative materials such as attribute blocks, cuisinaire rods, place value cubes, and the like. Their use affords not only a firm base in mathematics, it supplies the teacher with the opportunity to help children perceive and use the language which corresponds to their manipulations (see Guidelines, p. 94).

The project method. Another excellent instructional strategy for using the language of the disciplines in meaningful and pragmatic situations is that of the project method, a learning technique based on Dewey’s thesis that knowledge is comprised of integrated experiences. In the project method a situation, an object, or an event is explored from a variety of inquiry methods or subject areas, in accordance with the level of skill the children possess. Study of a particular school on the reservation, for example, might include research into when it was built, why it was built, an account of the physical features or its architecture, such as measurement of doors, heights of windows, number of rooms and exits, the staff required to maintain the building, the number of buses used, where they go, where the students come from who ride them, where the teachers come from, and so on.

Such information is not compiled by the teacher and served to the students in a lesson. Students do the research and computing themselves with teacher guidance. Informa-
tion is computed and charted. Maps are constructed. Drawings and models are made. Photographs may be taken. Interviews may be conducted by the children. The project method is limited only by time, interest, and skills.

In the Integrated Day system in Britain, the project method is used precisely because it integrates disciplines. The rationale is that, in daily life, the disciplines are not separated into the Aristotelian division upon which so much of western education is predicated.

**Benefits of project method for Navajo students.** For the Navajo child, learning through the medium of another language, the project method offers the same benefits of integration. It is a viable methodology for other reasons as well; the project method necessitates talk in planning and in execution. It is a method whereby the Navajo child can engage in hypothesizing with language. It affords the teacher the opportunity to enter into dialogue with students.

**Project method and time for talk.** Teachers are understandably reluctant to use the discussion method in school systems where skills are taught in step-by-step progression and where objectives are rigidly sequenced. The introduction of the project method in these areas is especially recommended because, by its nature, it prescribes that some time must be allotted to discussion and planning. The amount of time spent on the project is not prescribed, however: one day a week can be set aside for project work, or one week a month, or part of every day.

The most successful projects are those which the children initiate. However, in introducing the method, teachers may initiate a project based on their assessment of the children’s interests. In either case, teachers will be able to see that particular skills are exercised in context.

**Project method record keeping.** The notion of integration, inherent in the project method, means that elements of the whole can be separated out of the process. In the case of the school study mentioned, the separation, for purposes of teacher record-keeping, might look like this:
<table>
<thead>
<tr>
<th>Activities</th>
<th>Subject Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring aspects of building</td>
<td>Math/Science</td>
</tr>
<tr>
<td>Counting/computing features</td>
<td>Math</td>
</tr>
<tr>
<td>Tracing reasons for building school</td>
<td>History/Language Arts</td>
</tr>
<tr>
<td>Reports-dictated or written</td>
<td>Language Arts/Reading</td>
</tr>
<tr>
<td>Records and charts</td>
<td>Math/Language Arts</td>
</tr>
<tr>
<td>Maps</td>
<td>Math/mapping skills</td>
</tr>
<tr>
<td>Interviews</td>
<td>Language Arts</td>
</tr>
<tr>
<td>Models, drawings, etc.</td>
<td>Language Arts</td>
</tr>
<tr>
<td>Devising means of presenting project results</td>
<td>Language Arts/Art</td>
</tr>
</tbody>
</table>

The record-keeping could be carried further, of course. Particular skills used in math, for example, could be delineated, such as computation of two digit numbers.

**Project method and presentation** (Guidelines, p. 94). While planning and actually working on the project are crucial elements of both learning and instruction, the presentation of the project by the students is important for a sense of accomplishment and recognition. Projects should culminate with a presentation. Bulletin boards, displays, plays, or books are effective ways of presenting the completed product.

**Limiting the scale of the project.** Initiation into the project method may be achieved by limiting the scale of the project. ESL science materials are useful here. Growing seeds, investigating measurement, building bridges with straws, are all activities which need be carried no further than the confines of the particular investigation but which require problem-solving, recording, and presenting. Reports of such investigations may be recorded by the teacher from the children’s narration of each step. The teacher may help children summarize their reports and help them devise ways to display their product, as well as the methods they used to arrive at the finished product -- the garden, the bridge, or the model building.

**Project method and cultural awareness.** The project method may also be used to help children investigate their traditions and to present their heritage with pride and understanding. Here, the teacher must be prepared with knowledge of which cultural aspects might be explored when. Many Navajo tales and games can be discussed, told, or played,
only after a first frost and must not be continued in the spring. And many dances are sacred and not to be performed outside of designated ceremonies. Many Navajo children may greatly benefit from learning some of the Navajo tales and games which they otherwise might not learn in their changing society. Certainly they will benefit from expressing their traditions in the second language to members of the dominant culture. But care must be exercised in terms of appropriateness and timing.

Anglo teachers can find out about such Navajo traditions and prohibitions by consulting Navajo staff members and by reading in the many books on Navajo culture and lore which every Navajo school library now stocks. Parent involvement in planning Navajo curriculum is also beneficial. Parent aides can be hired for the specific purpose of telling Navajo tales and teaching varied Navajo arts. A strong parent support group results when a Navajo school board or a Navajo parent advisory board is convinced of its authority to influence curriculum (Rousell, 1971).

Project method talk. In the small group discussions which the project method generates, the teacher can be alert to his/her use of syntactical patterns or vocabulary which is confusing to the students. In fact, once the children are alert to meaning and to making sense out of what they hear for a purpose, they are likely to respond to a word they do not know with “What does that mean?” or “I don’t understand”. Such comments and questions should be encouraged.

The necessity of producing language errors. Classroom strategies which generate talk and the presentation of ideas, generally require a tolerance of incorrect patterns and structures. As in the activity sessions of ESL, only errors which hinder communication should be corrected; content and effort should be praised and encouraged.

Burt (1967) notes that, once adult speakers of a second language know they can communicate, it becomes possible for them to work on errors in special learning sessions. It is Burt’s contention that an adult second language learner must have the satisfaction of...being able to communicate sequences of ideas that are similar
in complexity to those he is used to expressing in his own language. (p. 55)

It is even more important that children have this same satisfaction, for they must have the satisfaction of not only expressing their capabilities, but of expressing the very process of their growth.

Since the classroom teachers are second language teachers as well, they should be knowledgeable of which speech errors are desirable and developmental, and work with appropriate language patterns in language lessons designed for that purpose.

**Strategies for Reading** (see Guidelines, p. 94)

Strategies for teaching reading the Navajo/English bilingual curriculum are derived from considerations of the reading process which are universal, applying to the process of reading in any language. These considerations, however, have special implications when they are applied to reading English as a second language in the context of bilingual education.

**The nature of reading.** The considerations, based on research in psycholinguistics, are summarized by E. Goodman and Burke (1972) as the following:

1. All readers bring an oral language system to the reading process.
2. All readers bring the sum total of their past experience to the reading process.
3. Reading materials represent the language patterns and past experience of the author.
4. Reading is an active language process which involves constant interaction between the reader and the text.

**Reading readiness.** In keeping with the first of these considerations, the ESL guidelines for Navajo/English bilingual education stress that reading in English should not be attempted until the Navajo child has enough command of English vocabulary and syntax to make reading meaningful. The guidelines also stress that reading and the purpose of reading should surround the children and permeate their school experience from the beginning, so that they, in fact, will be ready to “read” well before they tackle the printed page.
Strategies which prepare children with the oral language system necessary for reading are:

Talk

1. Planned talk includes the exchanges between teacher and students during the instruction sessions with manipulative materials.

2. Talk is also integral to the project method (which requires student planning).

3. In Talk in the Language Arts Classroom, Klein (1977), suggests that small group discussion sessions should be activities in themselves. The discussions should begin with very specific topics and should be of less than 15 minutes for primary school children. Rules of discussion are to be established as part of the activity.

Reading Stories Outloud to Children

1. Stories should be read regularly. Twice a day is not too much for primary school children.

2. Picture books are immensely helpful in illustrating the printed text. “He roped the horse” is clearly understood when a picture depicting the action accompanies the words.

3. After reading a story, teachers may help children re-tell the story. In the beginning, students will likely offer only one word or a phrase: T: “What did the seal do after...?” Child: “Run. Run home.” T: “Yes, he ran to his home in the zoo, didn’t he?” (looking to see that child agrees). As children increase in their English proficiency, longer answers may be drawn out by questioning.

4. Thonis (1970) suggests that reading stories offers opportunity to enrich vocabulary. She notes that teachers should take the time to explain words by pictures, gestures, pantomime, or synonyms (p. 124).

5. Teachers should feel free to re-word syntax which they judge difficult. Verb tense may be changed as well.

6. When children appear ready, story time may be used to work with verb tense: “The author is telling about something that already happened. How can you tell?”

7. Preparation before reading a story makes the narrative more comprehensible. Preparation need not be elaborate: “This is a story about a boy who lives in Russia. There are wolves in the
part of the country where he lives. The boy's grandfather is afraid of the wolves and he tells the boy that he must stay in the garden. The boy disobeys. Let's see what happens."

8. Stories dealing with Navajo life and values help children relate literature to their own lives in an immediate and intimate sense. Rudman's Children's Literature: An Issues Approach (1976) contains an annotated list of Native American literature. Appropriate age levels are noted as aids to teachers. The children can analyze stories depicting their way of life with a critical eye: Does the author really portray Navajo life? After reading Sullivan's We Are Navajo, one third grade class of Navajo students decided that all aspects of the children's life depicted in the book were real, but several children noted that the horse was neither illustrated nor mentioned in the text. One child dictated his concern to the author: "There is no horse. Navajo boys and girls have horse(s)."

9. Story discussion should include questions which help the students relate the story to their own experience: "Have you ever felt that way?" "When?"

10. Children should be encouraged to add sequels to favorite stories, to dictate stories about characters they like, or to illustrate favorite stories in a setting they choose. After reading and discussing Flack's Ask Mr. Bear (1932), two children decided to place the protagonist in an "Indian" environment. One child changed the boy's name and created different illustrations, the other child actually rewrote the story and created a totally different work which won her a nomination to a Young Author's Conference.

11. Stories read to young ESL students are also used to expand their experience. When the story depicts life experiences or landscapes which are alien to the children, preparation for reading the story might include film, pictures or film strips, and a discussion of the life styles portrayed in the narrative (Greise, 1977).

12. All stories read out loud should be available in the classroom for the children to peruse and read.

13. Favorite stories can be taped so that the children can look at the book as they listen to it. Then the teacher works out a plan with the children so that they pantomime the story as it is read or told again by the teacher.

Sequence Patterns

Kreidler (1965) notes that children learning to read in a second language need sight practice with the way English sentences look. Exercises such as the following may be helpful in establishing sight familiarity: Children may be asked to brainstorm
a list of things they can do. The teacher prints a list of their “I can” sentences.

I can run.
I can talk.
I can walk.

The list is displayed on a chart and referred to – “Let’s look at the list we made.” Other sentences, made from the children’s words, may replace the first.

Language Experience Approaches. These types of activities are basic to Language Experience Approaches to reading. There are a number of commercially prepared LEA programs whose guides and materials aid the teacher in conducting readiness and reading activities. Such programs should be examined by teachers so that the program chosen best serves the needs of individual school districts. Three LEA programs suggested for examination are noted here:

Interaction, published by Houghton Mifflin, is based on the theory outlined by James Moffett in The Universe of Discourse (1968) and on the practical application of that theory in his book, A Student-Centered Language Arts Curriculum Grades K-13: A Handbook for Teachers (1968). Moffett stresses the use of games, drama, small group discussions and having children write in a variety of genres. Encyclopedia Britannica Educational Corporation is based on Roach Van Allen’s identification of language activities preparatory for and conducive to reading. Van Allen has also written extensively on the language experience approach to reading. His Language Experiences in Communication (1976) contains sections especially pertinent to reading in bilingual communities. Van Allen stresses discussion techniques and using the visual arts to stimulate verbal articulation. He also provides a list of children’s books which contain common sentence patterns.

Breakthrough to Literacy, published by Bowmar, is based on the British School Council’s LEA research and has been used in second language programs in Africa and Wales. Certain features of the program are noted as successful with second language learners. The classroom and individual sentence maker, for example, provide young children with the opportunity to explore and practice making sentences before they can actually write
the words themselves. The teacher’s guide is especially cogent and informative in describing
the various kinds of sentences children are likely to produce as they begin the activity.

**LEIC** and **Breakthrough to Literacy** have teacher’s guides which aid the teacher in
understanding the purpose and processes involved in the LEA. The **Interaction** teacher’s
guide is less comprehensive but offers sound rationale for the activities in the program and
delineates the particular reading skill each is designed to serve. All three programs include
numerous paperback books, recommend publishing children’s work in the classroom, and
provide suggestions to organize and manage the LEA program.

**Strategies for testing reading progress** (see Guidelines, p. 94). All testing should be diag-
nostic and be used to develop teaching strategies for those areas where children demonstrate
difficulty.

**Vocabulary and syntax readiness.** The Boehm Test of Basic Concepts (described
earlier, p. 107) is a fair gauge for ascertaining important concept words which should be part
of children’s vocabulary before they begin reading. Other readiness tools will include teacher
notes on the vocabulary and syntax children employ in re-telling a story.

**Checklist for readiness.** McDonnell and Osburn (1978) suggest a checklist based on
Clay’s (1972) work. The checklist provides teaching objectives as well as diagnostic strate-
gies:

**A. Does the child attend to the visual cues of print?**

-If I am reading a story, can the child tell me where to start
  and where to go next?

-Is the child able to point to words as I read them, thereby
demonstrating knowledge of directional patterns of print?

-Does the child understand the concept of words and letters?
  Can he/she circle a word and letter in the book?

**B. Does the child use his/her intuitive knowledge of language?**

-Can the child look at a picture book and invent a story to
go with the pictures?
-Does the invented story, when the teacher begins to write it down, indicate the child is using a more formalized language that approximates the language used in books (book talk) rather than an informal conversational style?

-Does the child recognize that the print and the pictures are related?

-Can the child “read the words” of a memorized text such as a nursery rhyme, even though the spoken words are not completely accurate matches for the print? Is this recall stimulated or changed by the pictures?

C. Is the child beginning to show signs of integrating the visual and language cues?

-Can the child use all the cues available to a reader: the predictability of language, word order, a beginning sound, and an appropriateness to context while reading?

-Does he/she stop and correct without prompting when a visual-vocal mismatch occurs?

D. Does the child expect meaning from print?

-Does he/she demonstrate that a message is expected by relating a sensible story?

(McDonnell, Osburn, “New Thoughts about Readiness”, Language Arts, Vol. 55, No. 1, J. ’78, pp. 27-29)

The checklist offers reliable criteria from which to judge a child’s readiness to read. Strategies for teaching reading readiness are inherent in the checklist itself. For example, if children are to be able to point to words or to recognize that pictures and print are related, they must have a great deal of experience in looking at picture books and hearing stories read aloud to them while they watch before they can be expected to perform those tasks.

Readiness in the LEA. In the LEA, children begin reading when they are ready. The method, of itself, does not preclude teaching sound/letter relationships, though these should not be overly emphasized and should probably come after a child develops a large supply of sight words (Kavale, Schreiner, 1978). Once children begin reading in the second language, some form of the Reading Miscue Inventory (RMI) can be used for diagnosing progress and devising strategies to aid the progress.
The RMI. The RMI resembles the Informal Reading Inventory (IRI) and is, in fact, a variation of that instrument. The analysis of errors in terms of miscues is the distinguishing characteristic of the RMI and is what makes it more properly a diagnostic tool in terms of second language development.

For the RMI, the student reads a lengthy passage (several readings may be collected from young readers) into a tape recorder. No prompting is offered by the teacher. At the end of the reading, the student is asked to retell the story in his/her own words. In the retelling, questions which enable the child to elaborate on certain aspects may be asked.

The reading is then analyzed. The teacher has a copy of the script read by the student. Listening to the tape, the teacher marks the miscues and diagnoses them according to nine codes and questions:

1. Dialect: Is a dialect variation involved in the miscue?
2. Intonation: Is a shift in intonation involved in the miscue?
3. Graphic Similarity: How much does the miscue sound like what was expected?
4. Sound Similarity: How much does the miscue sound like what was expected?
5. Grammatical Function: Is the grammatical function of the miscue the same as the grammatical function of the word in the text?
6. Correction: Is the miscue corrected?
7. Grammatical Acceptability: Does the miscue occur in a structure which is grammatically acceptable?
8. Semantic Acceptability: Does the miscue occur in a structure which is semantically acceptable?
9. Meaning Change: Does the miscue result in a change of meaning?

(Yetta Goodman, Carolyn Burke, Reading Miscue Inventory Manual Procedure for Diagnosis and Evaluation, 1972, pp. 49-50)

The retelling of the story, which is also on tape, is analyzed according to categories such as character analysis, theme, plot, events and anecdotal information (ibid., p. 68).

Administration of the RMI. The RMI, as described in the Reading Miscue Inventory Manual, is time consuming to give and to correct. Y. Goodman and Burke, however, suggest that it need be administered only twice a year in this form. Since most reservation primary schools employ a reading specialist, the diagnosis and charting could become the province of that department. Conferences with classroom teachers should be part of the procedure.
and strategies for correcting miscues prescribed by both specialist and teacher. Classroom teachers should be aware of the criteria used to analyze children’s reading so that less elaborate RMI’s can be constructed by the teacher for more frequent diagnosis and planning of strategies.

Devising teaching strategies based on miscue analysis.

Navajo readers miscues. Though the techniques noted for reading thus far are based on the assumption that Navajo children will begin to read when they are ready, it must be remembered that, even then, they will begin reading while their competence in the English language is nascent. Navajo children will have a harder time asking themselves if a sentence makes sense because they will not be sure of what makes sense in English. They will have difficulty in predicting structures and extracting meanings from those structures because their own knowledge of English grammatical structures is in a developmental stage of uncertainty. They will exhibit less ability than native speakers to note their own miscues and correct them because of that uncertainty as well. (Buck, 1977)

Strategies. They will therefore need experiences in seeing grammatical structures written down. They will need to engage in activities which will help them bring meaning to the text. Common sentence patterns can be taught through poetry. Brainstorming techniques, such as listing all the things a voyager would need for a trip to the Arctic, provide experience in using and seeing grammatical structures. Greise (1977) suggests that any passage or book which contains new information should be preceded by concrete experiences relevant to the text and by films, pictures or discussions. Such preparation is not unwarranted since reading test scores of Native American children now reveal that they show a decreasing decline in reading comprehension as they progress through school. (Morris, 1972)

What miscues reveal. Miscue analysis serves to indicate progress in the second language as much as it serves to indicate progress in reading. For example, teachers trained in analyzing miscues will know that the child who reads “they was” for “they were” has
come to an understanding of the past tense and is in the process of generalizing its form. Such miscue does not detract from gaining meaning and indicates a grasp of syntactical cues. Readers who read "The was smick" instead of "They were sick" are less likely to be using syntax to extract meaning and will need strategies such as those described for practicing grammatical forms to help them become familiar with the way words are held together in English.

Students who use grapheme/phonic cues to produce non-words which are close in sound and appearance to the word in the text may be revealing a lack of understanding of the English concepts in the text. The students’ retelling will help the teacher to ascertain whether further reading exercises or non-reading experiences in development of the concept are required. Teachers trained in miscue analysis will know that while knowing the meaning of every word is not essential to reading, readers must have some knowledge of plot carrying vocabulary and concept carrying vocabulary, especially when the meaning of such vocabulary cannot be ascertained from the text.

It is hoped, of course, that serious reading problems of the genre so well known in the past -- word by word reading, an inability to make sense of the words read, an inability to recognize sight words in context -- will not occur if children are led to reading through their own writing (LEA), which inevitably will contain only the syntax and vocabulary they know.

Helping students judge reading material. It is also inevitable that students will leap on their own into books where the syntax is too involved and the concepts too alien to their background and confounding to their grasp of the second language. One strategy which is useful in such instances is that of helping students understand that this is a natural course in reading and to know that help is available. If a student can say "this doesn’t make sense to me" and know that he/she can confer with a teacher, a great deal of needless frustration can be eliminated.
Children can also be helped to make judgements about the books they choose. They can be taught Chall’s five finger exercise in which they hold up a finger for each word they do not understand in a passage of one hundred words. A count of five signals that the book may be an unsatisfactory reading experience. Goodman and Burke (1972) recommend encouraging students to ask themselves what to do when a passage doesn’t make sense. Students can decide to go back over the passage to see if they can use new strategies in understanding it or they might read on to see if further information will clarify the difficult passage. They should feel free to judge a particular text as too difficult at the moment and choose another more suitable one.

Reading in the content areas. Many teachers and curriculum developers assume that social studies and physical science programs which have accompanying texts cannot be used in second language settings because the children cannot comprehend the text. Unfortunately in these situations, second language learners are often expected to use text books independently as a means of gaining new information. Hopefully, as the notion that comprehension of any written material requires prior related experience and information gains support, this expectation will cease. Teachers will recognize their responsibility to provide background information for any text.

Developing critical thinking skills. At the primary level content area reading materials should be used along with stories and poems. All reading requires the critical thinking ability that Durrell (1956) says characterizes successful reading in content areas. The language development activities cited in this chapter (see p. 103) are based on the development of cognitive skills, including those considered most important for critical reading: inference, perceiving relationships, judgement, conclusion, and generalization. Reading readiness in content areas begins well before second language learners are prepared to decode the printed word.

Teaching strategies. Social studies units and physical science can be explored
through experiential activity and discussion well before children are able to read the text. When text books accompany these units, teachers can selectively read pertinent material to the children. The reading is preceded by experiential activity and discussion and it is followed by questions to the students which help them engage in applying critical thinking skills to the task of gaining information. Picture magazines, related story books, and factual books should also be read to the children and be kept in the classroom for their perusal.

When children do begin reading in content areas, they may read selected passages silently in small groups or as a class and then discuss the passage with the teacher who asks questions dealing with inference and other cognitive skills. Greise (1977) maintains that careful questioning from the teacher teaches the students to employ the same questioning techniques as they read. Vygotsky’s theory (see Chapter II, pp. 29-37) of the development of scientific concepts is much in evidence in this strategy.

**Inadequacy of text books.** It is probable that primary students should never be asked to read all of a chapter or all chapters in a given text book. Smith and Lindberg, who field tested the Scots Foresman K-13 reading program using miscue analysis techniques, caution that many text books contain too much information and actually fail to adequately develop any one concept. They suggest that teachers examine text book material and select only those portions which are relevant to the topic under study. Once the teacher has done this, the next task is to provide experiences which will bring the reader to the level of understanding required by the passage. Smith and Lindberg’s comment that,

> Little totally new information can be taught through reading alone. A reader brings his prior experience to the reading task and when he brings no related information, he cannot understand what he is reading. (L. Smith and M. Lindberg, p. 89)

is true for all readers, but it is crucial for the student who reads in a second language.

**Summary of reading teaching strategies.** Strategies for teaching reading in any area include reading itself, combined with a variety of non-reading experiences with concept development and grammatical structures. Sight words are usually acquired in the early stages of
the LEA. Letter/sound relationships may be developed a little later. Continued exercises in decoding skills may be prescribed by miscue analysis. In general, teachers will find that an increased ability to make sense of what is read is dependent upon increased proficiency in the second language.

All strategies are to be geared toward helping the reader make sense of the printed text. It is to be expected that grammatical errors will occur in students’ oral reading. These errors will correspond to the students’ competency in the second language. They are predictable errors of second language development. Unless they hinder meaning, they will not become the focus for strategies.

Reading strategies for Navajo students reading in English are based on knowledge of second language development. It takes time to learn a second language. The time needed to develop second language skills must be recognized as bearing on reading development as well.

Strategies for Writing (see Guidelines, p. 95)

Writing, like reading, is best initiated through the LEA methodologies. Macay, Thompson, and Schuab (1973) note in the teacher’s guide to the LEA program, Breakthrough to Literacy, that certain pedagogical premises guide the strategies suggested for teaching reading and writing through the LEA:

Making mistakes is a necessary component of any learning process: what the teacher must ensure is that the children learn to accept their mistakes and that they do this within a framework of help, reassurance and general progress. Success is possibly the greatest single stimulus to further effort. (p. 3)

Dictation. Dictation is the first step toward writing. Children who dictate a story or idea for the teacher to write down are engaging in soliloquy. They are not relying upon immediate reciprocity from others to form their thoughts. What they say emanates from themselves.

Dictation of this sort resembles the activity involved in the writing process as described by Vygotsky (1962). It is rare, however, that any child can dictate in this manner
without help. In the first sessions with dictation, children must be asked a good many questions and helped to formulate their thoughts for dictation. Gradually, they will dictate stories or reports without prompting. Group dictation or stories, reports, rules, or how-to books are helpful in starting children in this early process of writing. Once children are comfortable in engaging in soliloquy, tape recorders can also be used so that children can dictate without teacher help.

There are many ways to expand children's language activities into the realm of writing.

**Dictation and early writing activities.** Stories made up from flannel board cut-outs can be written down by the teacher or by the children when they are able. Children also enjoy making their own flannel board cut-outs and then making up a story about them to be written down.

Plots from favorite stories can be dictated by the children. Favorite stories can be re-written to suit the landscape and terrain of the area. Cook books can be made from favorite recipes made in class. All books written by the children should be bound and displayed with other classroom books.

The time honored activity, most frequently associated with the LEA, of dictating a story or narrative about drawings or other work in the visual arts is still one of the most highly recommended because it quickly involves a child in elaboration of ideas, in describing, and making inferences with language.

The project method described earlier necessitates writing in varied genres from charts and reports to plays and poems. Class newspapers offer another avenue for written expression.

**Correction strategies.** The same strategy for correction applies to Navajo children writing in their second language as it does for children writing in their first: children must be encouraged to write and to be secure in their knowledge that writing mechanics will be learned
in time. Aspects of writing mechanics can be taught to whole classes, small groups of children, or individuals as need occurs. All of the writing errors that a child makes in a given composition will not be singled out for correction at one time, only one or two, and only those whose remediation is sensible in terms of the child’s development.

Record keeping. Record keeping aids teachers in choosing which skills to teach a child. Teachers may keep an individual writing folder on each child and record all the errors a child makes in it. In this way, teachers can keep track of the kinds of errors children persistently make. It also enables them to note which errors children appear to remediate on their own, through their continued experiences with reading and writing.

Teacher recording of all errors, however, best serves the teacher in choosing the one or two to be worked with. Spelling and punctuation errors may be analyzed by the teacher through the recording. A particular spelling lesson for a small group of children may result from noting that three or four students exhibit the same kind of error. The folder should also contain remarks on the skills children exhibit and notation of a child’s mastery of skills after lessons in them.

Writing and other forms of presentation. Writing is a form of presentation of ideas, a means of using language to represent, it should be preceded and accompanied by many opportunities to represent ideas in talk and art forms. Once children begin writing, opportunity to do so should be a daily occurrence.

Strategies for Involving ESL Navajo Students in the Functions of Language
(see Guidelines, p. 95)

Strategies for insuring that Navajo children have opportunity to engage in exercising the functions of language are more easily devised once teachers are aware of these functions. Knowledge of the functions of language also enables teachers to separate them from an activity which integrates them, and to examine the quality or manner in which a particular
function is exercised by student and teacher alike. The functions of language as delineated by Halliday (1973) and discussed by Smith (1977) are listed again here with specific strategies suggested for each. The wording used in listing the categories is that of Smith (see Chapter III, p. 81-82).

**Instrumental:** “I want.” The ESL classroom affords opportunity to show how “I want” can be expressed in many ways, so that children can have the option of choosing which manner of expressing want or need best suits their needs at a given time. The ESL classroom is especially suited to such exploration because it is legitimate here for the teacher to explore different manners of expression as part of teaching about the second language; students of a second language, no matter what their age, have a right to know the differences between expressions in their native language and the second language.

In Navajo, for example, equivalent words for please and thank you are not expressed. If a Navajo asks for anything, both of the notions, especially that of “thank you”, are understood to be present in the very act of request. It is not surprising that many young Navajo children associate the Anglo adult’s insistence upon “please” and “thank you” as a bid for their subservience to adults or to Anglos.

Yet, even young children understand explanations such as, “In English, it is said this way, in Navajo, it is not.” The point is more clear and even exciting to children if the teacher can call upon the linguistic customs of still other languages for comparisons.

The tone of voice used in saying “please” and “thank you” can be explored in a variety of situations so that children can discern just when “please” does assume a note of the servile, and when it is simply a polite and customary manner of expressing need and requesting assistance. Teacher can model “please” and offset this notion. The tone of voice in expressions of want can be explored when “please” is omitted as well: the pleasant “hand me that paper, would you?” can convey respect and contain the notion of “please”, just as a surly “hand me the paper” conveys a command that can only be understood as expressing anger.
or disrespect toward the person to whom it is addressed.

Since so much of ESL pedagogy is based on modelling, teachers should consciously arrange to model the nuances of instrumental language. One of the best ways to practice the instrumental aspect of language is in an informal activity where the teacher is engaged in the activity too. The teacher then may create the opportunity to say, “I need a blue crayon. Who has it? Oh, may I please use it for a few minutes. I just want to color this truck.”

Regulatory: “Do as I tell you”. The regulatory function of language, so intimately related to the instrumental, the interactional, and the personal functions, can also be talked about and explored by even very young children. Stories might be discussed in terms of such functions: “How does Mary feel when Margaret grabs the bike away?” “How else could Margaret say ‘I need my bike right now?’ ” Problem situations can be devised and role-played. Children can brainstorm various solutions and act them out.

One consideration which must be taken into account when working with young second language learners is that, while their knowledge of the second language is necessarily limited, and their expression in that language immature and bound by whatever syntax and vocabulary they have garnered, their comprehension of meaning conveyed by others may be as keen as any native speaker’s and, perhaps, even more so, since theirs is a more conscious and acute need to understand. Teachers must be especially conscious that lessons are learned about language use apart from programmed design and within the context of everyday activities.

Teacher strategies in this area depend upon far more than lesson planning in areas of function. Teachers’ awareness of their own behavior and speech, as they interact and give instructions, as they, in fact, regulate student behavior, will aid them in their ability to model or teach the organic lessons in speech functions. (Preservice and inservice instruction for promoting this awareness will be discussed under that section in this chapter.)
Interactional: "Me and You". Activities which promote sharing, listening to others and responding to what they say are useful here. Team work on projects is helpful. Practice in debating a cause and presenting an argument can be used to understand the viewpoint of others. For example, one group of children may be asked to argue that recess be one hour long and give reasons why this should be. Another group may be asked to oppose the argument and give their reasons. Members of both groups may be assigned roles of teachers, parents, students, or other community members.

The interactional function of language involves the notion of socialization and the process of decentralization. Activities, then, which help children to define the viewpoint of others, and to expand their own in the very act of separating it from that of others, must give depth to the language of interaction. Creative dramatics or dramatic play expands children’s knowledge of others and increases their facility and vocabulary in the language of interaction.

Improvisations concerning buying in a store, taking a bus, asking directions, a fight on the playground, telling a teacher you don’t understand, are only a few possibilities for exploring the self and others and using the language of interaction. Acting out scenes from stories, and even free play where children use the class store or play school also contribute toward exploring roles.

If creative dramatics is to be an effective teaching tool, it should be initiated early and engaged in with scheduled regularity. Success with improvisational situations increases with the familiarity children gain in using the tool.

It is standard to begin creative dramatic activities with warm-ups which include the whole class: "Let’s all pretend to taste a lemon." The teacher asks leading questions, "How does it make your mouth feel?"

Preparation for the improvisation itself includes questions which help all of the children explore the particular roles: "What does a cashier do?", "Does the cashier stand while he/she is working?" "It is near closing time when the customer says he forgot his
wallet. How do you think the cashier feels at that time of day?” etc.

The use of creative dramatics does take time. For the benefits it offers ESL students in their quest to understand a world with their second language, the time taken to build a creative dramatics component is well taken. Brian Way’s Development Through Drama and Spolen’s Improvisations for the Theater are exceptionally practical resource books for providing both cogent rationale and established strategies in this area.

The Personal: “Here I Come”. All learning involves the self. Teaching a second language must incorporate means to express the self in that language. The opportunities to express one’s self and to have that expression valued become very important objectives in second language programming.

The personal function of language is the handmaiden of the interactional; neither exists without the other. Creative dramatics serves the personal function of language as it serves the interactional. Other interesting activities, based on the development of the self in relation to others, can be found in the “Magic Circle” curriculum published by the Institute for Human Development. The focus of the many activities in this series is on self expression with words. What children say in the “Magic Circle” is listened to and repeated back to them. In a typical beginning format, a group of eight or so children may be asked to name something they can do well or that they enjoy doing. Each child in the group who wishes to contributes that information. The teacher repeats what each child says and may ask questions of the child to help him/her elaborate: “John really likes to ride his pony. Where do you ride, John?” After each child has spoken who wishes to (and it is rare that any child does not), the teacher asks the children to recall what each had named: “Who would like to tell what John really likes to do?”

The rules of the “Magic Circle” technique are simple. All who want to, participate. Each person is listened to and knows that this is so because/her/his words are repeated or paraphrased by the others. No adverse comments can be made on any remark made during the session.
Not all teachers may wish to adopt the total program of the "Magic Circle" but an incorporation of some of the lessons as classroom activities provides a structured format for self-expression and interaction in the second language. The "Magic Circle" guidelines are geared to age level; the materials are inexpensive, and are well worth perusing for topics for discussion.

Other areas for self expression include autobiographies in writing, movement, art, or writing and illustrating the popular early childhood "I Can Do" books, "Things I Like", or "Things I Don't Like" books and charts. The "Amazing Life Games Theater" program by Houghton Mifflin contains a number of partially prepared booklets to be filled out by children. As noted, the activity cards in this program contain suggestions for self expression in all the subject areas.

Language lessons for second language learners should deal with naming feelings. Children can be given the vocabulary to help them name their feelings with refinement and degree. All too often, the young Navajo child is equipped to say only "I am sad" or "I am happy" in English to convey a wide range of feelings including frustration and anger.

Words like 'joy', 'excited', 'thrilled', 'furious', 'angry', 'disappointed', and especially idioms, 'I feel blue', 'I see red', are neither difficult to say nor to understand. These can be introduced in ESL language lessons and explored through stories, situations, and games.

Many such words and idioms appear in children's stories. It is a good idea to point them out, especially if the text depends upon the reader's knowledge of their meaning. It is safe to assume that the children do not have that knowledge and it is useful to explain the word before reading the story or when it appears in the story. With words of feeling, as with words of any sort, it is wise to recall Thonis' rule-of-thumb:

Do not assume that all pupils know every word in a story, poem, or selection that you read. Take your time and explain word meanings by pictures, by gestures, by pantomime, or by giving synonyms. As pupils acquire new words, help them find more than one meaning for each word. (p. 124)
Pantomime games are especially good for helping children remember new words depicting feeling. Children may pantomime a facial expression or body action to the call of a particular word, or the teacher may present quick situations and ask students to show how they feel with their faces or bodies: “You expect to go to Gallup on Saturday and your dad says the roads are too icy to go. Show how you feel. What words name that feeling?”

Children are never too young to be taught the means of expressing their opinions. To teach these means also establishes for them their right to express their opinions in the second language, and helps them distinguish between opinion and factual information. This author has found that the phrase, “in my opinion” has the connotation of the erudite, or the ‘adult’ for young second language learners, and they take special delight in using an adult or grown up tone in practicing their comprehension of the term: “In my opinion, that test was cinchy.” “What’s my opinion of that ring? I think it’s pretty.”

Techniques for teaching critical reading have always stressed asking young readers or listeners to compare a character’s situations and feelings to their own in similar situations, or to imagine how they might react in a similar situation. This technique can most definitely be viewed as promoting verbal personal expression.

Heuristic: “Tell me why?” The language of heuristic thinking can be developed through manipulative problem-solving activities. The many materials and activities of this nature listed earlier are especially recommended.

Most problem-solving language can be modelled by the teacher: “How is this attribute block like that one?”, “What will happen if you put this block in the set you just made?” The questions teachers ask as they go over such activities in the beginning stages are the questions the child learns to ask.

The children may be asked to pose the questions too. Teachers should encourage having children ask each other questions such as, “Can you find out why I put the yellow blocks in this set?” ESL manipulative problem-solving activities contain activity cards which
enable children to pose such questions of each other.

"That’s one way, is there another we can think of?" represents an open attitude toward knowledge. It is a statement and question which does not negate the validity of one answer, but it leaves open the possibility of other answers and other questions.

Imaginative: “Let’s pretend”. Practicing the forms of a second language is perhaps most appealing to children when imagination and divertive thinking are involved. “What would you do if an elephant came into the room?” is a lively problem for children to ask of each other as they practice the construction, “What would you do if...” The answers should not be held to grammatical accuracy since the intent of the exercise is simply to practice the question patterns.

Aside from practice in grammatical constructions, imaginative language plays a great role in creating stories, plays, and characters. There are probably no subject areas where ‘fact’ is not made more meaningful and truthful through imagination. Even computation can be performed when the pretend store keeper adds up the bill and the customer counts the change.

When children study other cultures, geography, and history, their knowledge gains depth through imagination. A study of arctic terrain might include a detailed description of weather conditions, narrations of what it is like to be caught in a blizzard so dense with snow that sight is impossible. Any techniques which help children envision such circumstances aid their understanding of it. Questions which invite children to speculate with the information they have gained, also exercise imagination. The teacher need not say that the Eskimo fisherman who gets wet inside his boots will likely freeze before reaching shelter. The teacher, instead, asks what will happen if the Eskimo hunter or explorer gets his/her boots wet.

Inference, a crucial cognitive skill, is based on imagination. Teaching strategies include, then, giving some information and inviting students to draw conclusions, rather than presenting the material in totality for memorization.
Representation: "I've got something to tell you". Strategies here include blending of the manipulative or visual with verbal means of representation. An example of a beginning exercise in representational language might involve a child's drawing (a visual representation). The teacher asks the child to tell what is happening in the picture. The child's first efforts at transforming the visual information into the verbal will likely consist of one word, such as "boy", "running", or "raining". This is the beginning of verbal representation. When the teacher knows the child has the verbal ability to expand those answers, questions may be asked to help the child flesh out the skeletal verbal information: "Where is the boy? Is he alone herding the sheep? Is he afraid of the rain?" The child may answer only yes, or give one word; the teacher expands the one word answers into sentences: "The boy is alone. He is afraid of the lightning." At a still later stage of proficiency, the child may be asked to repeat the sentence the teacher has made from his/her one word response: "The boy is herding sheep. Can you say that too?"

This particular example indicates that the ability to create complex representational language does not unfold immediately in the second tongue. The example also demonstrates that the teacher can show the child that the drawing has merit as representation, and that the fledgling one word attempts to expand on the drawing are understood.

Other activities for representational language might include making simple maps of the school or neighborhood and describing the things the maps depict: "The school is here. You go up here to the trading post."

Games can be devised where children direct each other to find certain hidden objects. This author has found that riddle games prove especially helpful in aiding children to choose attributes which are pertinent to representation and to discard those which are not. A group of familiar animals may be placed on the flannel board. Each child chooses one of the group but tells no one. Then, each child must try, in turn, to have the others guess which animal (s)he has chosen by providing information which will distinguish it from all the other animals on the board. A child might say, "It has four legs. It lives in Africa. It
has black and white stripes.”

It should be noted that this strategy, like so many others noted in this chapter, is recommended for developing conceptual skills for all children. There are few children who immediately find the attributes which distinguish the animal they have chosen from all the others on the board. What more naturally occurs first is that the child will say, “It has four legs.” The other children then guess any number of other animals which the clue fits. The child providing the clues may be prompted by the teacher to think of something that fits the animal of his/her choice, and only that animal, or in the beginning sessions, the teacher may confer with the child and lead her/him to see a distinguishing feature. Once this game has been played a few times, children come to the realization that they must find precise clues themselves. The activity is a problem-solving one, it is not to be considered a mere practice in grammatical form.

Skill in representational language is also achieved in reports narrating how an activity was performed or how an object was constructed. Such reporting helps children sequence information and sort out useless from useful information.

**Divertive: “Enjoy this”**. Activities dealing with idioms, metaphors, and similes, such as those described on p.107 of this chapter, are examples of ways in which second language learners can enjoy the divertive function of language.

Riddles which do not contain a play on words are also enjoyable divertive language exercises. Play-on-words riddles are best introduced in later language sessions because they are often confusing to young children.

Chants, games and silly rhymes are recommended for sentence pattern practice and an excursion into the divertive use of the second language. “Who stole the cookie from the cookie jar?” and “This Old Man” are enjoyable chants of this type.

**Authoritative/Contractual: “How it must be”**. Young second language learners are capable of drawing up class rules or listing the rules for the playground and the like. The language
of rules and authority is usually quickly understood, but children seldom have the opportunity to devise their own, or to engage in the language used in rule making.

Children can make up rules for games they play and have them written down for reference when the game is played again. If contracts are used for individual or group assignments, the children should have a part in creating the language of the contract.

Perpetuating: “How it was”. Retelling of stories is one of the earliest exercises of this function. Keeping records of class activities also serves well and is useful in helping the children work with the past tense. Recording of completed projects should always be worded in the past tense so that the children associate the proper words with the past, with what is done, with what happened.

Strategies to Accommodate for Learning Styles of Navajo Children (see Guidelines, p.95)

It is difficult to generalize particular styles of learning common to Navajo children. Saville-Troike (1972) points out that contrary evidence exists for several alleged learning styles. Moreover, interpretations of the data on different learning styles changes with the attitudes and cultural backgrounds of the researchers.

Field sensitive teaching strategies. Concentration on field sensitive teaching strategies as noted by Ramirez et al (1975) can meet some of the problems involved in attempting to meet learning styles which may encompass a different world perspective; for field sensitive strategies aim at helping children engage in the perspective of the educational system without demeaning their own. Prefacing lessons with supportive assurances and a detailed overview of the objectives, and modeling problem-solving strategies are especially important in helping the Navajo student understand the point of school learning, as has been previously discussed (see Chapter III, Field Sensitive styles of teaching strategies, p. 86).

Building positive self concepts. Building and preserving a positive self-concept is paramount to the field sensitive strategies. One of the values in using manipulative
materials for teaching concepts rests in the fact that Navajo children can use these materials successfully even though their ability to lucidly verbalize in English the procedures involved is limited. In this type of curriculum, the teacher has the opportunity to build positive self-concept by noting out loud the successful efforts of the children.

In a classroom where cooperative learning is stressed, where children work with the teacher and each other on assorted tasks and projects, recognition of effort tends to be “social”. “You worked that problem, John”, said in a warm, pleased voice is a statement of fact. It is also a statement conveying recognition of achievement and meets the field sensitive teaching strategy that “social reward be used to strengthen personal ties and group spirit”. (Ramirez et al, 1975, p. 72)

The personal statement of recognition is preferred to personal statements which leap from the act of achievement or effort to generalizations about character; noting that a child tried a problem or succeeded in solving a problem is not the same as generalizing to a statement such as “You are really a nice boy, John”. According to Anatasiouw’s (1969) study, the latter type of statement tends to suggest to children that they are valued only if they perform as the teacher wishes, or if they succeed, and this is precisely the attitude field sensitive teaching strategies aim to avoid.

Navajo values. While any given area on the reservation will yield differences in the degree and practices of traditional Navajo values and attitudes, it is wise to accommodate them where they exist in individual students or groups of students. Those most often listed in the literature on Navajo learning styles or values are noted here with suggested strategies to accommodate them:

**Time.** Time does not have the same significance in Native American cultures as it does in Anglo cultures. It may be difficult for many Navajo children to work according to schedules with the same sense of intensity the Anglo teacher may feel. Many young Navajo children appear unconcerned with timed tests, for example.
Teaching strategies which accommodate to this factor, where it exists, may simply require a more relaxed attitude on the part of the teacher. If timed tests are important to Navajo education, speed games in computation may be practiced in the middle grades and mock tests whizzed through as well. Older children, secure in their language skills, may become comfortable with such practices. There is little merit in persuading younger children of their worth.

Teasing. Teasing is a form of discipline in many Navajo homes (Adcock, 1968) and physical punishment is not used. It is not suggested that the Anglo teacher attempt to practice teasing as a form of discipline, though school personnel might well question the current and prevalent practice of spanking.

The importance of teasing however lies in the Anglo teacher's reaction to student teasing. It is wise to regard it as a compliment and not as a sign of disrespect. Where teasing goes beyond the bounds the Anglo teacher can tolerate, she can say so nicely and set the limits of classroom behavior.

Silence. Many Navajo children take a long time to answer a question. Waiting for the answer patiently is worthwhile. If the wait is longer than three minutes, the child may be asked if (s)he wants to pass up this question, or be called on later. The long wait time for answers may indicate a lack of confidence; it may indicate a whole mental process of forming words from Navajo to English, or it may be a culture trait. Research examiners (Saville-Troike, 1971; Y. Goodman, 1977) note it often enough. In this author's experience it is fairly common, but not widespread and tends to disappear after those children who exhibit it gain confidence in their ability to be understood in the second language.

Future. Zintz (1963) notes that in Navajo tradition, it is dangerous to plan ahead. The belief is no longer widespread, but it does exist. It is sometimes difficult to recognize it and it may be confused with other attitudes which are not traditional. For example, this author once asked a group of seven year olds what they wanted to be when they grew
Many of the children answered, "Nothing". One child ventured, "a man and then an old man". After the children had played with career dolls and talked about what a lawyer did, what a cashier did, etc., they did venture wishes of what they might like to be when they grew up. One child, however, told the author that "my mother said if you want to be something, it won't come true. But in school, it is different."

The incident is difficult to interpret. In ignorance of Navajo tradition, this author had assumed that the children had simply not enough knowledge of occupations and possibilities to dare to think they might grow up and be a policeman or lawyer. Certainly, the Navajo tribe's support of career education programs indicates tribal policy fosters awareness of career options. But if children exhibit the traditional belief, there is no need to ask them to make a personal statement such as "I want to be...", nor is there harm in introducing a variety of occupations, including those distinctly Navajo, such as weaving and silversmithing.

Visual learning: a preferred style. The Center for Applied Linguistics government sponsored document, Styles of Learning Among American Indians (1969) cites numerous studies which indicate that Navajo children are good observers. The inference made in much of the research studies is that Navajo cultural training emphasizes visual learning and not verbal learning. No evidence fully supports this inference, however, since verbal learning has always been measured in terms of student responses to curriculum conducted in English.

Navajo students may indeed be keen visual observers, and teaching materials and strategies should call upon this skill to aid second language development. Sequencing picture stories, for example, requires assessing visual clues. All manipulative logic and math activities rely heavily upon visual perception of attributes and categories. Such activities not only help Navajo students indicate to the teachers that they can ably manage the intellectual tasks involved, they can also become the focal point for developing verbal conceptualization to correspond with the visual.
Teacher Preparation Strategies (see Guidelines, p. 96)

Teacher preparation strategies for ESL in Navajo/English bilingual education should deal with understanding the dynamics of cultural pluralism and language development. It would be valuable if supporting universities in the Southwest offered inservice certification in bilingual education. Reservation schools and those in surrounding areas which serve the minority populations might make such certification mandatory and institute inservice programs which would lead to certification.

Cultural awareness models. Aragon (1973) suggests a model for such inservice training. His model requires that both the minority group member teachers and the Anglo teachers attend training sessions. The model sessions are divided into sections. Each section covers several meetings. The first section is concerned with individual self needs; participants are guided through lectures, reading and discussions to examine their own personal behavior and attitudes. Cultural diversity is the theme of the second section: instructors in anthropology, sociology, and history help students to examine the minority community from the perspective of those disciplines. The third section focuses on identifying specific areas where the dominant and the minority culture differ. The fourth section centers on those areas where the differences stimulate conflict between the cultures, and the implications of the conflict to teaching and teachers.

In the final phase of Aragon’s model, participants use the information and attitudes gained in the first sections to classify teaching styles, analyze school policy, and to conduct a survey which takes them out into the community.

The model, Aragon argues, is like others being tried in various sections of the Southwest. It differs, however, in its stress on self-awareness and on recognition of conflict as inevitable but not irreconcilable.

Other methods, contributing to the Anglo teachers’ understanding of Navajo culture, involve requiring new teachers to live with Navajo families for a few weeks, or simply
visiting the homes of students with interpreters. Some teachers, working in areas where the children come to school by bus, find riding a bus run offers some insights into the distances children must travel and of the terrain which surrounds their homes. Because many children live some miles from the highway, this method offers only a partial glimpse of life away from school.

Understanding and working with language as a developmental process. It is essential that teachers in bilingual programs understand second language acquisition as a developmental process. They must be aware that the process begins with a production of nouns and verbs, a name calling vocabulary, and proceeds, as does first language development, as children generalize from the basic rules of grammar which they hear in the language about them. (see Chapter II, p. 50)

Teaching a second language and teaching with a second language must concentrate on meaning. It is not necessary that teachers analyze or be cognizant of each sequential step in a particular child’s development. The sequential order of second language development has not been universally established (see Chapter II, p. 50); broad variation in sequence may emerge for individual children.

However, teachers should be able to judge errors in speech in terms of development. The child who misuses the past tense is expressing a knowledge of the past tense. “I did went”, for example, is a developmental level above “I go” when “I go” is meant to express, “I went”. The child who says, “I did went” is employing advanced rules of generalization. Correct modeling of the past tense in meaningful talk, and exposure to it in varied learning experiences will help the child arrive at the accepted grammatical statement. Correcting the child’s grammar can only stifle his/her willingness to hypothesize in the second language.

In addition to the teacher preparation courses noted in the guidelines, training in miscue analysis, whether or not teachers are responsible for reading, provides a great
deal of insight into the process of second language development (Riggs, 1975). Inservice courses in techniques for implementing language development through discussion, drama, manipulative materials, literature, and classroom talk, are also useful.

The functions of language. Knowledge of language development includes understanding the functions of language and the alternative modes of expression within those functions (Halliday, 1973; Bernstein, 1971). Training in this area, however, is a delicate matter because it involves a personal awareness of teaching attitudes and behaviors. When that awareness threatens self-esteem or self-concept, unconscious self-deception may prove stronger than the desire to observe oneself and to change, if change is necessary.

A strategy culled from counseling techniques may prove more useful here than lectures or probing discussions, particularly in inservice training situations where all the participants are known to each other. The strategy involves having an instructor from outside the school setting present especially prepared audio-video tapes illustrating classroom use of language functions and of the alternative ways of engaging in them - particularly in the elaborative and restricted modes. With the instructor, teachers may discuss the functions and modes and identify them from the tapes. Teachers may keep a journal in which they record instances of their own conscious employment of the functions. The journal is to be shared only with the instructor. Teachers may be encouraged to tape-record themselves in the classroom and to base their journals on their analysis of the tapes.

This teacher preparation strategy is in keeping with the overall strategy suggested in Doughty and Thorton’s guide for teacher preparation in language, Language Study, the Teacher and the Learner:

...to create patterns of work that would modify attitudes
You cannot tell (italics in text) people what to think about
language, because it is too intimate and familiar a possession; therefore, you have to let them work towards a situation in which they come to see for themselves the limits of their existing views. The key process, here, is the ‘working towards’, the process of the inquiry itself. (p. 74)

Teacher preparation should not end with certification or be confined thereafter
to mandatory inservice training days. Support group discussions could become weekly or monthly teacher sessions where teachers meet to discuss selected problems, or examine materials in terms of the language goals set in the preparation courses.

The Guidelines for ESL in Navajo/English Bilingual Education and the Promise of the Bilingual Education Laws

The education of the Navajo child in schools of the dominant culture in this country has had a history of travesty and injustice. The Bilingual Education laws promise amelioration of that history because they promise to juxtapose what should be the birthright of the Navajos -- their language and culture -- with the language and culture of the dominant society.

The argument presented in this paper maintains that recent epistemological theory and research point the way to pedagogical principles which will aid the Navajo child in living successfully in two cultures. The guidelines which follow from the theory that language learning is an affective/cognitive developmental process, highly dependent upon societal interaction, have not been implemented to their full extent; from a pragmatic point of view, the theory and guidelines have yet to be tested in Navajo education.

Need for further supporting research. Within the framework of the theory and research which inspire the guidelines, there are areas of conflict in need of supportive research data. If, for example, Vygotsky's thesis of language development is carried to its logical end, introducing a second language as the medium of instruction before mature conceptualization in Navajo occurs may damage cognitive growth by cutting off the spiraling stages of Navajo conceptualizing.

Where Vygotsky's argument is offered in defense of bilingual education, it is seldom mentioned that mature conceptualization does not occur until adolescence. No Navajo/English bilingual programs are equipped to introduce English gradually, as a foreign language, and to maintain instruction in Navajo until adolescence. Certainly, there is some
evidence that such a procedure would be impractical since most Navajo children meet the English speaking community well before adolescence. Nonetheless, research aimed at ascertaining the most appropriate length of time for instruction in Navajo would be beneficial, especially in boarding schools where Navajo children have less opportunity to continue spontaneous conceptualization in informal learning. The Native American Curriculum Development Center is working now on a Navajo K-8 math series. If teachers can be found to implement the program, some data on the effects of prolonged bilingual instruction in a major content area may be recorded.

The guidelines constructed here for the ESL component of Navajo/English bilingual education are strongly based on studies from first language development which indicate that discourse with adults and peers comprises a societal interaction wherein children hypothesize and develop syntactic structures. Hatch (1975) and Wong-Fillmore (1976) specifically address the development of a second language through discourse. Hakuta and Concino (1977) note that more studies are needed in this area so that classroom interaction might be better planned. They further argue that discourse analysis might illuminate those studies (Shuman 1975,76; Gartner and Lambert 1971; Gardner 1973) which indicate that social factors are powerful influences in the degree to which a second language is learned.

This study has provided guidelines aimed at fostering a positive attitude toward learning English by linking its acquisition to academic activities which are intrinsically interesting and purposeful because they speak to the cognitive/affective developmental capacity of young children. Logitudinal studies of the effectiveness of the guidelines and strategies do not, as yet, exist. Only when they do can the research assume the status of viable, empirical data on Navajo education.

Implementation of the guidelines and strategies will be hindered by the same factors which hinder the implementation of corresponding guidelines and strategies for the English speaking population; no one can guarantee that the results can be favorably demonstrated
on standardized tests which measure other skills. All Navajo programs must rely on federal funding. Proposals for securing funding usually include some standardized pre- and post-test in order to show that demonstrable objectives can be obtained. Though Native American education wrestles with this dilemma, it is not alone in doing so. Indeed, it must do so because other sectors of American education face a similar dilemma.

In a joint publication prepared by various scholarly professional organizations such as the Association for Supervision and Curriculum Development and the International Reading Association, the dilemma is stated concisely:

...Decisions related to schooling, including the teaching of reading, are increasingly being made on economic and political bases instead of on our knowledge of young children and how they learn best.

In a time of diminishing financial resources, schools often try to make a “good showing” on measurements of achievement that may or may not be appropriate for the children involved. Such measures all too often dictate the content and goals of the programs.

In attempting to respond to pressures for high scores on widely-used measures of achievement, teachers of young children sometimes feel compelled to use materials, methods, and activities designed for older children. In so doing, they may impede the development of intellectual functions such as curiosity, critical thinking, and creative expression...

(From Reading and Pre-First Grade: A Joint Statement about Present Practices in Pre-First Grade Reading Instruction and Recommendations for Improvement)

These factors, which pervade the total educational scene, influence many aspects of Navajo/English bilingual education, including the manner and timing of teaching reading in Navajo, and in grading systems which discriminate against the Navajo child even in the bilingual setting. No Navajo/English bilingual program will venture to initiate an ungraded curriculum in the primary years, so long as federal monies are best obtained by promising to bring the Navajo child “up to” a grade level achievement score. The guidelines and strategies presented here can more readily be implemented and verified as to effectiveness when the goals and practices of general American education change to reflect the notion of
integrated knowledge and the affective/cognitive development of children.

Toward a Realistic Assessment of the Guidelines for ESL in Navajo/English Bilingual Education

Instruments for evaluating language growth. Standardized tests are invalid instruments for measuring the growth of bilingual students. Other means and instruments are available and can be used to evaluate bilingual programs. The Boehm Test of Basic Concepts (see p. 107) for example, can be used to measure whether or not strategies aimed at teaching basic concepts in English are satisfactory. It should also be used, as suggested, to ascertain which concepts children need help with in English. The Bilingual Syntax Measure (see p. 108) which assigns developmental levels to a student’s use of syntactical structures, can also be employed as an instrument to evaluate programmatic strategies. If children are tested at the beginning of a school session and register at Level I or II, then movement to a higher level at the end of the year indicates that the teaching strategies are effective.

The value in knowing which skills to evaluate. ESL in bilingual education must, of course, be concerned with measuring the academic skills students gain while in a program. Standardized tests are invalid because they require a language proficiency second language speakers cannot possess. Other means of measuring the bilingual students’ gain in skills can be devised only if teachers and curriculum developers are aware of the skills they wish to measure. Incorporating skills objectives and the means to evaluate student gain in them into programmatic goals is not really difficult.

Delineating math skills and methods of testing their mastery. For example, math skills for every grade level are delineated in every math series. Those skills can be taught in a variety of ways and tested in a variety of ways. Children who consistently demonstrate the ability to add two digit figures in playing store or in class math work can be said to have mastered those skills. Teachers can record that mastery and assume that the teaching strategies are effective.
Delineating, teaching, and evaluating growth in problem-solving skills. If program goals include growth in cognitive skills as suggested in the guidelines rationale (p. 66) then those skills should be delineated and measured as well. Teachers must, of course, be aware of the skills, work with them, and be able to recognize student progress in them. The list of annotated resource materials (pp. 103-106) in this chapter cites several materials which provide means of working with specific cognitive skills.

Teachers can keep a list of the skills and check instances where their use is successfully demonstrated by children. If teachers record the situations in which the skills are practiced, they can note individual children’s growth in particular skills. Teachers who examine activities in terms of the cognitive skills they require are aware of how necessary the exercise of cognitive problem-solving skills are for any intellectual endeavor. The ability to perceive relationships, for example, is as necessary to reading (see p. 124 of this chapter for a discussion of cognitive skills requisite for reading) as it is to all mathematical situations.

The rationale for the guidelines proposed for ESL in Navajo/English bilingual education stresses the importance of a conscious development of cognitive skills (p. 66) in accordance with the notion that language use embodies cognitive activity (see Chapter II, pp. 29-34). Many of the strategies and materials listed in this chapter are specifically designed to develop specific cognitive skills, as noted above. Evaluation of programmatic strategies should, therefore, include assessment of students’ participation in problem-solving activities.

Measuring reading and writing growth. Evaluation of reading skills can be measured by variations of the RMI, as has been noted (see pp. 121-122). The record keeping device for ascertaining students’ needs and strengths in writing skills (p. 128) provides an adequate means to measure students’ mechanical writing skills. Student attainment of skills can be recorded so that teachers can judge whether certain strategies are effective or not. If a realistic list of writing skill objectives is used for particular grade levels, teachers can also note which of those skills individual children attain.
The need to recognize time as a factor in acquiring second language competence. Procedures for evaluation of the guidelines presented here do exist and they should be used. The effectiveness of the guidelines and the strategies cannot be evaluated unless it is understood that learning to read and to express oneself in a second language takes time. All strategies for teaching children in a second language fail if students are expected to perform on the same linguistic level as native speakers.

Longitudinal studies are needed to ascertain when Navajo/English bilingual students begin to achieve on a comparable linguistic level with native speakers of English. Longitudinal studies are needed to see what level of academic competence in English and Navajo can be achieved while Navajo/English bilingual students are developing their second language.

Bilingual education for Navajo children is very recent. The research and theory which inspires the guidelines for ESL in Navajo/English bilingual education are also very recent, but the definition of language and language learning which they expound more adequately describes language learning and use than does the theory and research which governed in the past, and still governs existing education programs for Navajo students (Chapter II, pp. 10-13). The literature on Navajo education cited throughout this work (i.e., Morris, 1972; Szasz, 1974), attests only to the failure of previous educational methodology to provide Navajo children with the necessary skills to live and work in two cultures. For these reasons, if for no other, the guidelines presented here should be implemented and submitted to evaluation on the terms described above. Longitudinal and comparative studies can assess the prime goal of the guidelines: the development of bicultural, bicognitive Navajo American citizens.


CACTI (Cultural Awareness Center Trilingual Institute) The University of New Mexico, Albuquerque, New Mexico, from a presentation on the implications of the Lau v. Nichols Supreme Court Decision given at Ganado, Arizona, March, 1977.


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