This paper discusses the role of language in early childhood education. The concept of Chomsky's generative grammar is explained briefly and the linguistic approaches of Piaget, Vygotsky and Whorf are compared with regard to the relations between cognitive structures and inner linguistic structures. An enigmatic discussion of language acquisition is presented in order to suggest the scope of issues involved when studying linguistics. The sociological aspects of language are touched upon briefly. Three early childhood programs --New Nursery, Yonemura, and Talk Reform--are compared in terms of goals, teacher role, interactional patterns, level of preorganization, types of activities used, and evaluation methods. It is concluded that teachers need to be aware of current theories of language development and linguistic research and that they need to be able to listen diagnostically to each child's language. (JMB)
The Role of Language in Early Childhood Education

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Introduction

Theorists in the areas of psychology, sociology and linguistics have proliferated evidence during the past decade of an unique child language. This has caused early childhood educators to more closely examine the role of language in the young child's development and how children learn to communicate. Some of the more influential authors have been Roger Brown (1970, 1973), Basil Bernstein (1971), Courtney Cazden (1970, 1972a, 1972b), David McNeil (1970), Paula Menyuek (1971) and Dan Slobin (1971, 1972). Examination of some scientific studies suggest innate language capabilities (Chomsky, 1971; Slobin, 1971). From a different vantage point, research findings continue to suggest that children with early language deprivation from impoverished environments need intensive interaction with teaching adults in order to gain adequate language skills (Staats, 1971; Bereiter-Englemann, 1966; Lavatelli, 1973).

Foremost among the avant-garde promulgating a generative grammar is Noam Chomsky. His theory considers the form of human language and accounts for linguistic universals which deal with the generative, creative aspect of language. Support for this theory is that the expression and content of a sentence are never the same which makes language an unique phenomenon. Within this system is a set of rules that contain three components -- syntactical, phonological and semantic. The syntactical component includes a base, which generates deep structures according to rules. The deep structure, which is abstract, refers to the basic logical relationships expressed in the sentence. The syntactical component also contains a transformational subcomponent. It is this transformational aspect that dictates the rules for language production. Application of these rules results in a surface structure of language that is used in human communications. However, surface structures can be misleading and ambiguous. Chomsky's theory centers on these syntactical rules which account for the creative aspect of language. He contends that the phonological and semantic components are purely interpretive. In essence, he has proposed a generative transformational grammar that links together what is heard (surface structure) and what is meant (deep structure) specifying how underlying meaning is transformed into the sounds of the sentence. Chomsky's theory becomes operative due to the unique human language acquisition device (LAD) that enables the child to process language, to construct rules and to understand and produce grammatical speech.

What are the relations of cognitive structures and inner linguistic structure? Are cognitive functions dependent on language? Or is language a determinant of thought? These are complex questions which have no definitive answers. Three theorists noteworthy for their analyses and unique contributions to these questions areaget, Vygotsky and Whorf.
Piaget contends that cognitive development proceeds independently followed by linguistic development. Language generally reflects rather than determines cognitive development and is only a particular form of the symbolic function. He discusses the role of communication with others in the development of thought and distinguishes between "egocentric" and "socialized speech" where development is portrayed as a transition from one to the other. He describes traits of egocentrism as "intellectual realism, syncretism and difficulty in understanding relations." (Vygotsky, 1962, p. II). In egocentric speech, the child is unconcerned about whether or not he has a listener and makes no attempt to determine the view or interest of the hearer. As the child matures, this egocentric speech (and thought) disappear and now the child displays socialized speech and logical thinking. In socialized speech the child is in some way reacting, responding, or interacting with other speakers.

Vygotsky disputed Piaget's theory and stressed that all speech is social in origin and opposed Piaget's notion of the eventual atrophy of egocentric "outer speech." To Vygotsky egocentric speech becomes "inner speech" or "verbal thought," qualitatively different from outer speech. He further suggests that both in phylogeny and ontogeny there are strains of nonverbal thought and nonintellectual speech. Thought has its own structures and the transition to speech is difficult and becomes facilitated through this special form of speech -- "inner speech." The basic disagreement between Piaget and Vygotsky concerns whether language and thought develop independently, but eventually become interdependent. Since consideration of language and thought involves inferences about internal, non-observable processes, only conjectures can be made.

From a broader context, Benjamin Whorf hypothesizes that language can determine cognition. He studied the language and habits of non-American cultures in the Southwest to support his theory that man's views of the world are determined by the words and sentence structures he uses. A strong Whorfian position is that man is born into a culture that is linguistically determined, therefore, he learns a certain language that dictates perceptual discriminations. A weaker linguistic relativism view is simply that people with different languages view the world differently. In this view causal direction is not specified.
Language Acquisition

Relevant aspects in the ontogenesis of language include the child's sound system (phonology), early word formation (morphology), syntax and semantics. The learning of the sound system is characterized by the child's ability to discriminate and pronounce the sounds of his native tongue and the knowledge of the rules that govern how sounds are combined into larger units and words. The speech process begins with infant vocalization of a limited number of consonants followed by the babbling period when all the sounds that form the basis of all languages are produced.

Language acquisition begins with single word utterances or holophrases. Calling these words holophrases reflects the supposition that these words are implicitly sentences -- that the word and contextual cues express complete intentions and meaning. The child's next step in syntax development is to differentiate the holophrase class of words into open-class words (nouns) and pivot-class words (everything else). Following this, the pivot-class itself is further differentiated. Studies of child languages from several different cultures indicate the existence of this universal preliminary grammar form.

Paula Menyuk (1969, p. 148) hypothesizes an active model of acquisition. She claims "there is an active change in the structures used dependent on changes in the basic mechanisms underlying the child's increasing competence, and based on previous acquisitions." Through her research, she identifies six hypotheses of grammatical competence at various stages of child development and the child's grammatical capacity on descriptions of the sentences children produce and what they do not produce.

1. The child can determine the linguistically significant generalizations or categories in his acoustic environment. (Sentence-word-speech sound.)
2. The child can store these in memory by features of the categories. (For instance, the feature of falling intonational contour of a sentence.)
3. The child can store in memory the functional relationships of these features.
4. The child adds to the properties of the members of these categories.
5. The child can determine the fit and structure of sequences he produces and hears. ($S_1$ is a sentence, $S_2$ is partially a sentence.)
6. The child can expand and alter his structural descriptions. (p. 153)
One further aspect of language is how meanings become attached to language structure. Information about word meanings acquired through word association experiments suggests a three stage hierarchy. First, words have entire sentence meanings. Next, (about age two to three) words have meanings with incomplete definitions. Finally, words take on adult-like definitions around age seven or eight. Two salient rules in the development of meanings are markers and selection restrictions. The set of semantic markers attached with a particular word corresponds somewhat to the dictionary definition. The acquisition of the set of semantic markers for a given word may be described as a process of concept development. Selection restrictions describe in what positions a word may be used. The precise form of either of these types of rules is not known. In addition to studying the meanings of individual words, a child's whole sentence needs to be analyzed for meaning. This is particularly necessary for children speaking at the two word sentence level, where there could be various interpretations for words such as "daddy tie."

This enigmatic discussion of language acquisition suggests the scope of the issues involved when studying linguistics. Most of these language processes are still being explored. For the early childhood educator, the implications of language acquisition is crucial. The child is an active producer of language and any early child language program should enhance and facilitate the natural language of each child.

Sociological Aspects

Sociological considerations of language have been considered extensively. Cazden (1972, p. 104) groups aspects of the child's environment into three categories. These include: 1) the characteristics of the language which the child hears; 2) characteristics of the patterns of interaction in which he engages; and 3) characteristics of the nonlinguistic environment or context. She poses this interesting question about the timing of environmental assistance: "Does either exposure or contingent feedback, using a particular grammatical structure, make more difference when growth in knowledge of that structure is actively taking place?" (p. 127)

Noteworthy are the research projects that Bernstein conducted in London on the role of language in primary socialization. From his studies he labeled restricted language codes of the lower class and elaborated codes or messages of the middle class. Lower class mothers tend to use short, simple, grammatically uncomplicated and easily understood sentences, primarily denoting things and actions. In contrast, mothers in the middle class use language to socialize and discipline their children, to teach them moral standards and to communicate feelings and emotions. The restricted language code learned by lower class children impedes their progress in school as it fosters more concrete, and less conceptual, thinking. Bernstein's judgments have been challenged in that they fail to differentiate between linguistic competence and performance.
Early Childhood Language Programs

One concern of this paper is to examine the question, "Are early childhood language programs based on an adequate theory of language learning?" Or one could ask, "If we believe children have a natural capacity for language and acquire it so rapidly, why are there language programs for children?"

The issue of structure in relation to teacher preplanning, materials chosen, activities arranged, teacher-child interaction and relationships, and assessment strategies are pertinent topics when analyzing early child language programs and settings. Elsa Bartlett did a critical analysis of twenty-one language programs in relation to their goals, interactional patterns and amount of pre-organization. Within the goal dimension, language content in relation to vocabulary and basic syntactic structures, and language functions to support mathematical-logical reasoning, to support social/psychological reasoning, and to accomplish social interactions were considered. Along with definitions of language and curriculum goals, programs differed in the types of interaction which occurs between teacher and child and among the children themselves. She found three basic types of interaction in the programs: pattern repetition, instructional dialogue, and improvised interaction. Bartlett examined the organization of programs and how this may affect the administration on the basis of the amount of presequencing provided by the material, the degree to which all children have a uniform experience in the program, and the type of teacher's guide. Her intent in these analyses was to ascertain the amount of flexibility the teacher had in implementing the program as well as how informative and valuable the teacher's guides were.

For structuring another kind of critique, the following programs from the Bartlett study were selected -- New Nursery, Yonemura and Talk Reform. Chart 1 depicts the relationships of these programs according to the Bartlett dimensions.

CHART I: PROGRAMS

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<th>Bartlett Dimension</th>
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<td>New Nursery</td>
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<td>Goals</td>
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<tr>
<td>Dominant Interactional Patterns</td>
<td>Instructional Dialogue (Task: convey information) (Criterion for success: meaning)</td>
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<td>Level of Preorganization</td>
<td>Moderate Degree of Sequencing Uniformity with a very specific guide</td>
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The New Nursery School was implemented in the mid-sixties for children three to nine-years-old from low income or culturally and ethnically different homes. The intent of the program is to develop a compensatory oral-language program suited to the individual child. High priority is given to syntax, vocabulary building and concept formation on the premise that language assists the thinking function (Nimnicht, p. 42, 1969). Distinctions between home and school languages are made and it is posited that the better educated parent sets the stage for facilitating acceptable school language. A five level scale guide for teachers to analyze a child's language ability along with information on how to conduct language programs either as a model or a tutor is included.

The format for modeling language and developing concepts is as follows:

1. The sentence should be used as a basic unit of speech.
2. Whenever appropriate, a category or classification should be included in the sentence.
3. Words that are specific in meaning should be used rather than general terms that rely for understanding upon accompanying gestures or a common frame of reference.
4. References to size, weight, height and other dimensions of an object should be accurate.
5. The child should be given enough descriptive information to prevent confusion.
6. In matching activities it is necessary to be precise in specifying how things match or do not match.

As a tutor, the teacher is to echo and react to the child as the responder naturally would and then apply strategies of extension, expansion or expatiation. The program includes sequential activity booklets that contain a variety of learning episodes for developing specific language skills.

The Yonemura program is a full year oral language program designed for use with small groups of young disadvantaged children (3-5 years of age) ten to fifteen minutes per day. The eighty-one page booklet presents a discussion of levels of language, the role of school personnel in language development, and criteria for selecting language exercises when teaching standard English as a second dialect. Yonemura maintains that speakers of non-standard American English are handicapped in their communication process due to a different vocabulary resulting from different life experiences and because of a lack in flexibility in manipulating words grammatically. She further contends that "without an adequate grasp of language, it is impossible to cope with abstract ideas" (p. 6, 1969). The proposed goal is not to change, but to add part of a new dialect to an established one by means of a special language program.
The teacher's role in the Yonemura program is to be actively engaged in creating the language program. Specific approaches for teachers are as follows:

1. The teacher should listen to and record what the children say. This will give her an idea of the language forms which occur most frequently and that are different from the standard.
2. From the dialect of the children, use language forms suggested by descriptive linguists.
3. Develop a program, based on stated criteria, to teach the equivalent standard structures.
4. Develop a way of evaluating the program. (p. 38)

Vehicles for the language program include puppet plays, language exercises, prepared slides with a text, language exercises incorporated into the cooking program and taped stories from books for practicing the structures being taught. The criteria on which this program is based are as follows:

1. The program must not make the child focus on the grammatical structures since this may impede fluency.
2. Language is communication.
3. Spoken English is not simply written English which has been verbalized.
4. Use what is known about children.
5. Success leads to success.
6. The program must have range and scope for pupil developmental needs and teacher ability.
7. The program must capitalize on significant repetition.
8. When teaching one language exercise, do not burden the child by introducing him to too many new elements at one time.
9. The language exercises must be an integral part of an educationally sound program for young children.
10. Sufficient time must be allotted. (pp. 40-43)

Take Reform is a twenty-minute daily planned language program based on the premise that differential development of language skills between social classes is the major factor affecting later school performance. The program is designed to help any teacher with a standard training become aware of the opportunities for using and improving a child's speech during many activities throughout the day in the ordinary classroom. The three modulaties are activities for improving attention and auditory discrimination, activities for improving speech and activities for improving structure and vocabulary. The program is a result of a research project conducted in London and designed by Basil Bernstein. As mentioned earlier, Bernstein has concentrated on aspects of home environment and child rearing which might be crucial to the full development of language.
The text contains specific activities and directions for teacher implementation in the three modalities. The use of games, tape recorders, telephones, picture and character stories, I-spy and surprise boxes, drama, small group discussions, word associations such as "that reminds me of ... because...," alternative statements, completion, tenses, extension and construction of sentences are all specifically outlined.

Conclusions from the three-year project are presented. The authors discuss the lack of developmental scales of language, the lack of a language quotient, and the inconsistency and inaccuracy in collecting speech samples. They summarize that the system of linguistic analysis is a full-scale research project in itself and is still not complete.

These three programs, although distinctly unique in Bartlett's categorization, converge in many respects. The modus operandi of each includes teacher preparation, guidance and support. The materials selected are similar -- namely, the use of drama, games, cooking and other first-hand experiences as well as some structured activities. Each program provides an opportunity for small group activities. None of the programs contains suggestions for a daily sequence or even a weekly order. The teacher is left to make this decision. Thus, in actual implementation, teachers adopting any of these programs would need to provide their own rationale and specific procedures. This would affect the potential accountability of each program. Teacher-child interaction and relationships are considered important and a warm, friendly, supportive atmosphere is encouraged. The teacher is considered to be a language model.

The greatest deviation among the three programs is in the area of assessment and evaluation. Talk Reform identifies specific results from pre and post assessment tools and strategies. However, one of the goals of this research project was to design, administer and analyze a diverse group of evaluations. On the whole, the results show language program children being superior to the control group in the general area of discrimination and classification, in the verbal coding of sensory experience and in the development of inter-personal forms of control. The fifth chapter of the Yonemura book suggests the use of observations, recording child's utterances and structuring tape recorded conferences to elicit data on a child's language. Vague suggestions about language development and the aspect of self-selection is discussed. The teacher is encouraged to use good judgment. No effort was made to evaluate the effectiveness of this program. In the New Nursery, levels of a child's language are identified and the activities booklets are sequenced according to the child's language ability. Assessment of a child's language is considered a continual process. This program has been identified as one of the Follow Through demonstration models sponsored by the Office of Child Development. Reports should be available on its "statistical" success in facilitating school achievement in culturally disadvantaged children.
Although the majority of language programs receiving current acclaim are designed for compensatory education, it is important to remember that all children need help with language. Lavatelli (1971, p. 61) identifies the following language skills that teachers should be concerned about with middle class children:

1. Putting thought into words.
2. Expressing ideas sequentially.
3. Keeping to the subject in a speech sequence.
4. Stating reasons for actions.
5. Giving precise descriptions of objects and events.
6. Giving logical explanations of actions or phenomena.

Summary

The early childhood educator may select from a variety of language programs and the increasing number of such programs reflects the current emphasis on this aspect of child development. However, these programs can not help the teacher know each child's language ability. These programs can not provide the day-to-day, on-the-spot decisions that teachers constantly make. These programs do not provide the situational context and they are not the real-life situation. These programs can not account for the variety of interactional patterns that occur in the early child classroom. In summary, the program per se is not the solution to a successful child language program.

The challenge for early childhood educators seems to be two-fold. First, is to be aware of the current theories promulgated regarding language development. Teachers need some familiarity with studies in linguistics to formulate oral language programs. Knowledge of linguistics leads to a different attitude toward language which provides a foundation for respecting the complexity of linguistic theories and problems associated with research in this area.

Secondly, teachers need to be able to listen diagnostically to each child's language. In evaluating a child's language, the teacher must be able to segment the components of the child's system in order to individualize a suitable language program. Determining to what extent inborn structure, maturation and learning are responsible for the child's language performance is difficult, but must be considered by the teacher. Recognizing the value of the social context in which a language program is implemented; recognizing that children learn and respond through involvement, participation and action with concrete objects and materials; recognizing that talking with a child or a small group of children about natural interests helps children understand how a language is used, are all important considerations of the role of language in early childhood education. McNeil (in Slobin, 1971, p. 17) summarizes this position with the statement that, "Acquisition of language can be understood as an interaction between a child's linguistic experiences and his innate linguistic capacities."
REFERENCES


