THE INFLUENCE OF HOME ENVIRONMENTAL FACTORS ON THE DEVELOPMENT OF LANGUAGE AND CONCEPTS OF PRINT OF BILINGUAL KINDERGARTEN CHILDREN

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RONNI EINSOHN, B.A., M.ED.

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DEDICATION

To all my past and present family: the Stachowitzes on my mother's side and the Juliuses on my father's side. To the memory of my grandparents who came to this country speaking various foreign languages - and while they did not become doctors, lawyers, teachers or famous - paved the way for me in America.

To my beloved parents Sidney and Ruth Julius for their guidance in my childhood, tolerance in my adolescence and friendship in my adulthood, and without whose understanding and cooperation this study would not have been possible.

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TABLE OF CONTENTS

Chapter Page

Chapter Page

LIST OF TABLES

Table Page

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Background of the Problem

Classic research on early reading, for the most part, comes from the findings of Dolores Durkin's two longitudinal studies reported in Children Who Read Early. Some of her findings were that:

1. More mothers of early readers said they read more often than the average adult. (p. 93)

2. More early readers were read to at home, prior to entering school. (p. 95)

3. More mothers of early readers said parents should give help with skills such as reading to preschool children. (p. 95)

4. Early readers watch television less than six hours a week. (p. 97)

5. More parents of early readers attributed preschool interest in reading partly to:
   a. interest in the meaning of words
   b. availability of paper and pencils in the home
   c. availability of reading materials in the home
   d. availability of a blackboard in the home (p. 100)

6. More parents of early readers gave preschool help with:
   a. printing
   b. identification of written words
   c. the meaning of words
   d. spelling
   e. the sounds of letters (Durkin, 1967, p. 101)

Ten of the families in the first longitudinal study were bilingual. In seven families the second language was Chinese. In two families the second language was Spanish and in one family the language was German. Of the seven Chinese families three of the mothers spoke Chinese only. The study was conducted in Oakland, California, and the sample contained forty-nine early readers.

The second study was conducted in New York and none of the early readers were bilingual. The comparison group of non-early readers contained bilingual Puerto Rican children.

Oral language proficiency and success in reading have been found to have a definite correlation (Clay, 1972a; Durkin, 1967). Fishbein (1972) wrote,

> A beginning task for the child in learning to read is to develop the concept that there are units of sound in spoken language and that these units have a written representation - the letters of the alphabet. (p. 177)

Nila Blanton Smith (1975) said,

> Not only does the development of language in young children serve as a foundation for reading, language reinforces reading throughout the school years. (p. 401)

There has been little research to measure the home environment of bilingual children and their concepts of print and oral language. Research has shown a strong relationship between the home environment and later academic success (Bloom, 1964; Gordon, 1972).

Normal language acquisition appears to depend on the child's heredity, the rate of maturational development and the amount and kind of stimulation in his environment (Marge, 1972). Parents have always been the major source of stimulation within a child's environment (Cazden, 1969).

Early intervention in the home has produced significant results in later school years. Infant and parent education programs leading to a greater amount of parental involvement are current trends in education (Gordon, 1972; Levenstein, 1973). When parents are fully aware of their own importance to a program they tend to participate more actively.

Statement of the Problem

This study focused on the relationship that exists between a bilingual kindergarten child's home environment and the child's perceptions of print and language development.

> There are many factors that contribute to the deficiencies of disadvantaged Spanish-speaking children in reading - physical and economic deprivation, lack of motivation, lack of experiential background conducive to learning to read . . . . (Pena, 1970, p. 157)

Kindergarten children were selected as subjects in order to minimize the effects of future schooling and maximize those influences and experiences from home. Half of the children were bilingual and the other half English monolinguals. The study was to determine whether a child who came from a

bilingual background had the same language development and perceptions of print as the child who only spoke English. It was hoped that this information could be used to help determine those bilingual children who do not need a full day of bilingual education.

Questions of the Study

1. Which home environment influences contribute positively and/or negatively to the development of language in kindergarten children?

2. Which home environment influences contribute positively and/or negatively to the development of perceptions of print in kindergarten children?

3. Do bilingual kindergarten children from a nurturing home environment have the same concepts of print and language development as those from English speaking homes with nurturing environments?

Significance of the Study

> The awareness of print seems to develop as children learn to categorize the large amount of print information which surrounds them in a literate society. As they drive down a highway, walk down a street or through a shopping center, or watch television, they are bombarded with print media. (Goodman & Goodman, 1976, p. 13)

The child who is bilingual comes from an environment where the language is different from the majority of the

American society (Ramirez, Harold, & Castaneda, 1978). As the child leaves his home he is thrust into a world of English.

There are those who advocate providing young bilingual children with language experiences in their dominant language. It is then that reading instruction should follow also in this dominant language (Smith, 1975; Modiano, 1975).

Manuel (1965) feels that the educated parent can teach his child to read Spanish if the child has no opportunity to learn it in school. An interest in reading can be developed gradually. The parent can provide simple but interesting children's books in Spanish. The child can then see that most of the same letters are used in Spanish as in English but that they sometimes represent different sounds. If the child knows both English and Spanish, the introduction to reading may be in either.

Clay (1976) when studying Samoan children found,

> The Samoan child who speaks two languages, who is introduced to print and to written messages in his home, who is urged to participate fully in schooling and is generally supported by a proud ethnic group with firm child-rearing practices, manages to progress well in the early years of his school without handicap from his low scores on oral English tests. (p. 341)

In the past "compensatory" education in the United States has operated under the assumption that Mexican-American culture and the Spanish language interfere with the intellectual and emotional development of children (Ramirez

& Castanada, 1974).

Thonis (1971) felt that there were other variables aside from the cultural ones which would affect the success of bilingual children in school. Some of these were parental education, genetic endowment, social class and life opportunities. Also the age at which the second language was introduced, the proficiency of the first language and quality of the language experiences were significant to the future schooling of the child. The fact that there is a positive correlation between oral language development and reading ability has stimulated this investigation.

Dave (1963) and Wolf (1964) studied home environment influence upon academic successes of fifth grade children. Dave found six characteristics as determiners of the home upon educational achievement. Several factors were then listed under each process variable. The six variables and factors were:

I. Achievement Press

1. Parental aspirations for the education of the child.
2. Parents' own aspirations.
3. Parents' interest in academic achievement.
4. Social press for academic achievement.
5. Standards of reward for educational attainment.
6. Knowledge of the educational progress of the child.
7. Preparation and planning for the attainment of educational goals.

II. Language Models

1. Quality of the language usage of the parents.
2. Opportunities for the enlargement and use of vocabulary and sentence patterns.
3. Keenness of the parents for correct and effective language usage.

III. Academic Guidance

1. Availability of guidance on matters related to school work.
2. Quality of guidance on matters relating to school work.
3. Availability and use of materials and facilities related to school learning.

IV. Activeness of the Family

1. The extent and content of the indoor activities of the family.
2. The extent and content of the outdoor activities during weekend and vacations.
3. Use of TV and other such media.
4. Use of books, periodical literature, library and such other facilities.

V. Intellectuality in the Home

1. Nature and quality of toys, games and hobbies made available to the child.
2. Opportunities for thinking and imagination in daily activities.

VI. Work Habits in the Family

1. Degree of structure and routine in the home management.
2. Preference for the educational activities over other pleasurable things. (pp. 38-39)

The need for this kind of research stemmed from the influx of bilingual populations into large urban school districts. Educators still assume these children will blend into our culture as a part of the "melting pot." However,

a new metaphor is being promoted - that of the "salad bowl." Bambi Cardenes at a meeting on Mexican American Education held by the United States Commission on Civil Rights in San Antonio, Texas in March, 1974 said:

> This metaphor is particularly apt, for a salad is not just a mere mechanical mixture of elements; it is rather an emergent entity which is more than the sum of its parts, in which the parts remain distinguishable and we can still recognize their separate contribution to the whole. (Saville-Troike, 1976, p. 3)

Due to the lack of research in the area of bilingual home environments upon oral language development and concepts of print of kindergarteners, this investigation was conducted. The Record of Oral Language (ROL) and Sand Test (perceptions of print) were the instruments used. Home environments were measured by the home environment process variables from interviews conducted in selected homes.

Basic Assumptions

1. Home environment influences contribute positively and/or negatively to the development of language in kindergarten children.

2. Home environment influences contribute positively and/or negatively to the development of concepts of print in kindergarten children.

3. Bilingual kindergarten children from nurturing home environments have the same concepts of print and language development as those who are from English speaking

nurturing home environments.

4. Subjects in the study will be matched on the basis of comparable socioeconomic levels and chronological age.

5. Bilingual children will be of Mexican-American descent.

6. Parents will answer honestly the interview questions.

Definitions of Terms

The following definitions were used for the investigation.

1. Mexican-American Descent - denotes an individual of Mexican origin born and raised in the United States (Marcoux, 1961)

2. Bilingualism - refers to an individual who is able to speak two languages but demonstrates greater proficiency in one of the languages. The two languages referred to in this study are English and Spanish. (Darcy, 1963)

3. Educational Home Environment - that aspect of the home which appears to be supportive of learning and related success in young children moving into print. The Educational Home Environment score is derived by averaging six process variables. (Smith, 1978)

4. Environmental Process Variable - specific processes or forces at work between the child, the parents, and/

or the environment in which they live together, which collectively approximate the Educational Home Environment. Each Process Variable score is derived by averaging several factors (Appendix E).

5. Environmental Factors - specific quantifiable dimensions of the process variables which appear to be related to the educational bheavior of the child (Smith, 1978)

6. Concepts of Print - those behaviors or responses shown by a child that indicate he is attending to print as measured by the Sand Test

7. Oral Language - the spoken or oral communication of a child as measured by the ROL.

Limitations of the Study

1. The subjects selected for this study were solicited from an urban central Texas school system, which were the geographic boundaries.

2. It is realized that a volunteer bias was considered a limitation of this study.

3. The schools used in this study were those designated as having a bilingual program.

4. The time period for collection of data was one month.

5. The small size of the population will affect the study; thereby necessitating a cautious interpretation of the results and future implications of the study. (Slaughter, 1979, p. 12)

Procedure

Subjects

A north central Texas urban school district was chosen to conduct the research study using bilingual and English speaking students. It was explained to parents that a parental interview and testing of students would be done in the child's home and would in no way interfere with classroom instruction. Schools were chosen on the basis of geographical location, socioeconomic level of students and proportion of Spanish-speaking students.

Forty English monolingual kindergarten children were chosen by using standard statistical procedures utilizing a table of random numbers. Another forty bilingual children, as determined by the PAL test scores obtained from the district, were to have been selected by the same statistical procedure. However, a delay in the administration of the PAL necessitated that children be selected by the Parental Survey of Home Language (Appendix H) until test results were available. The sample was composed of cooperating families who responded favorably to an initial request

letter. (Appendix A)

Instruments

Record of Oral Language (ROL)

The ROL (See Appendix B) was developed by Clay, Gill, Glynn, McNaughton, and Salmon (1976) to measure a child's ability to handle certain grammatical structures. It consists of two sections. The first section is made up of 42 sentences grouped in three levels of difficulty. Each level contains two examples of seven different sentence types. The second section consists of diagnostic sentences and was not used for this study.

Children are asked to repeat sentences after the examiner says them. The sentences were revised by Perkins (1978) to facilitate comprehension by the subject. No reliability coefficient for the revised sentences was given. Perkins did correspond with one of the authors (Glynn) regarding vocabulary changes.

> Glynn indicated that changes would be acceptable provided the substituted word be of the same linguistic class and contain the same number of morphemes, if possible (e.g., stroller for pushcart and kitty for pussy). (Perkins, p. 40)

Clay, et al. (1976) reported a reliability coefficient of 0.93 for the Level Sentences.

> By having a child repeat sentences which represent a range of different syntactic structures in English a teacher can learn as much in a relatively short time

> about his control of those structures as would be learned from listening to the child's spontaneous speech over a much longer period of time. (p. 9)

A child must repeat a sentence verbatim to receive credit. The highest score is 42.

Sand Test

The Sand Test (See Appendix C) measures a child's concepts of print (Clay, 1972b). The child is asked to help the examiner read a book which contains mistakes. The child's awareness of these mistakes is recorded. There are 24 items and 24 is the highest score possible.

A reliability test of 40 children yielded a correlation of 0.95. The children were the same age (Clay, 1972b, p. 11).

Home Interview Form

Dave (1963) and Wolf (1964) developed six characteristics to determine the influence of home environment upon educational success. When the characteristics were scored on rating scales and totaled, a correlation of .80 was found between the index of educational environment (totaled process variable scores) and fifth grade achievement test scores. These researchers were more concerned with the home environment than socio-economic status of the parents.

These six Environmental Process Variables were:

1. Achievement Press
2. Language Models
3. Academic Guidance
4. Activeness of the Family
5. Intellectuality of the Family
6. Work Habits of the Family.

The Home Interview Form (See Appendix D) which contained 63 questions was developed by Dave (1963). The questions were a reference to the six environmental process variables and 17 environmental factors which refined each process. The research questionnaire was designed for parents of fifth grade children. A revised questionnaire for kindergarten children was developed by Smith (1978). The revised interview of 50 questions and three pages of general information was used for this investigation.

Rating Scales

The rating scales used were 16 of the 21 rating scales for environmental measures developed by Dave (1963). Smith (1978) added an additional 9 point scale developed to measure a child's interaction with print. All 17 scales are shown in Appendix E where each of the factors of the "Environmental Process Variables" is specified in terms of criteria for evaluation. By averaging the process variables an

Educational Home Environment score was determined. (Appendix F)

Data Collection

All data were collected in the selected homes during the month of September. September was chosen in order to maximize the home environment factors and minimize the influence of school instruction. Each child was administered the Concepts of Print (Sand Test) and Record of Oral Language (ROL) instruments. Administration time was approximately twenty minutes.

The parents were given a structured home interview. It took between approximately 60 to 90 minutes to measure home environment.

Analysis of Data

A descriptive design was used due to the type of research setting (home) and the impossibility of controlling the home environment. Home Environment scores were used to formulate four bilingual profile groups:

A. Children who score high on the Sand and ROL and come from a home with a corresponding high score in the Educational Home Environment.

B. Children who score low on the Sand and ROL and come from a home with a similar low score in the Educational Home

Environment.

C. Children who score high on the Sand and ROL and come from homes with low scores in the Educational Home Environment.

D. Children who score low on the Sand and ROL and come from homes with high scores in the Educational Home Environment.

After the profiles were developed, comparisons of Process Variables were made to describe what some parents did which appeared to have positive results and what some parents did which appeared to have less positive results (Smith, 1978).

This analysis was repeated for children from English speaking homes using the same profile classifications. These groups were identified by the corresponding letters of Ae, Be, Ce, and De.

CHAPTER II

REVIEW OF RELATED RESEARCH

This study was designed to provide additional descriptive research in early concepts of print and language development of bilingual children by examining their home environments. Because little has been documented to date regarding home environments of bilingual children, the need for home interviews was indicated. The following review of related research focuses on the following topics: (a) a review of historical bilingual education legislation; (b) language development and early concepts of print, and (c) the importance of the home environment to later school success.

Legislation

In 1968, President Johnson signed into law the Bilingual Education Act (Title VII, Elementary and Secondary Education Act). This act alone was the catalyst needed to promote bilingual education. This legislation was to nurture and sustain languages in the U.S. and provide better learning opportunities for children of these languages.

The bilingual movement was given further impetus by the unanimous Supreme Court decision of Lau vs. Nichols

(January 21, 1974) which stated that the failure of a school system to provide children with English language instruction, or to provide them with other adequate instructional procedures, denies children of a meaningful opportunity to participate in the public education program and thus violates Section 601 of the Civil Rights Act of 1964, which bans discrimination based "on the ground of race, color, or national origin" in "any program or activity receiving Federal financial assistance." It further stated that:

> There is no equality of treatment merely by providing students with the same facilities, textbooks, teachers and curriculum; for students who do not understand English are foreclosed from any meaningful education.
>
> Where inability to speak and understand the English language excludes national origin-minority group children from effective participation in the educational program offered by a school district, the district must take affirmative steps to rectify the language deficiency in order to open its instructional program to these students. (35 Fed. Reg. 11595)

The Texas Legislature, recognizing the responsibility of the state of bilingual education, enacted the Texas Bilingual Education Act of 1973 (Texas Education Code Ann. Section 21.451). Some of the major provisions of the Bilingual Act are:

a. The Board of Trustees of each school district in the state must determine the number of limited-English-speaking ability (LESA) students in each grade, such students being defined as "children whose native tongue is a language other than English and who have difficulty performing ordinary classwork in English." Sections 21.452, 21.453 (a)

b. Each school district with twenty or more LESAs in any grade, speaking the same primary language, must implement a bilingual education program. Section 21.453 (b)

The north central Texas school district in which this study took place has had, for the past twenty-five years, a policy requiring documentation from the Immigration and Naturalization Service for children who are not citizens to enroll in school. In addition, the State Legislature enacted HB 1126 in 1975 which prohibited the use of School Foundation Funds for the education of undocumented children. In the spring of 1979 the local Office of Legal Services filed a class action suit in Judge Robert Hill's Federal District Court, challenging the contitutionality under the 14th Amendment, of both the state law and the school district's admissions policy.

Before any action was taken in this case the State Attorney General made a legal move that consolidated seventeen different lawsuits in Texas and placed them in Judge Woodrow Seal's Federal District Court in Houston. A six weeks trial followed during the Spring of 1980. In July a decision was made as follows:

1. The state law prohibiting the use of state funds for undocumented children was declared unconstitutional.
2. Houston, Goose Creek, Pasadena and Spring Branch Independent School Districts were ordered to admit undocumented students.
3. This Southern Federal District was found to have no jurisdiction in the Northern Federal District in which this study took place.

The State Attorney General requested and secured a stay from Judge Seal's order from the Fifth Circuit Court of Appeals. Judge Hill held a hearing and delayed action pending Appellate Court action. Plaintiffs in the case appealed to Justice Powell, the Supreme Court Justice who supervises the Fifth Circuit. On September 11 Judge Hill ordered the school district to admit all school age children regardless of citizenship status.

As applied to this study, the admission of undocumented children is important since they, for the most part, speak no English. The State of Texas has a shortage of bilingual teachers even without counting these new children. This study hoped to show that bilingual children had language development and concepts of print equivalent to English speaking children. In this way priorities could be set with regard to allocation of personnel or other bilingual resources.

It should be noted that a bill is to be introduced by Representative Jim Mattox in the House of Representatives to provide general assistance and special impact aid to those local educational agencies required by order of any Federal Court to provide educational services to undocumented alien children residing within their school districts.

Language Development and Early Concepts of Print

A child's success or failure in school may be related to his comprehension and use of language. Teachers should be aware of factors contributing to langauge development. Some theorists feel that children have an inherent predisposition to learn language. An innate capacity is assumed in order to explain several facts. To summarize Lenneberg (1970),

1. Children around the world begin to learn their native language at the same age, in much the same way, and in essentially the same sequence.

2. Children have acquired most of the basic operations in a language by the age of four, regardless of their language or social environment.

3. Children can understand and create novel utterances; they are by no means limited to repeating what they have heard, and many children's speech patterns are systematically different from those of the adults around them.

Gladney (1974) adds that,

> The child learns his language from those speakers around him: that is, he creates his own linguistic system from the systems of the speakers around him. What he observes is their performance; therefore, he has to continually test data received from them against his own developing set of rules so that his rules can eventually approximate those of the speakers he observes. (p. 43)

Psycholinguists, "the study of the acquisition and use of structured language" (Ervin-Tripp & Slobin, 1966, p. 436)

emerged during the last decade. This research has focused on the acquisition of grammar or the rules for putting words together.

> Every language has two major aspects: Structure (the basic words and sounds, and rules for arranging them) and meaning (conventional, arbitrary signs for referents, for objects and events). The structural aspects essentially consist of the sound system (phonology), rules for formation of words from sounds (morphology), and rules for word combination (grammar or syntax). (Mussen, Conger & Kagan, 1969, p. 249)

Chomsky (1967) suggested that the human organism's nervous system is "programmed" in such a way that there is a mental structure that makes language acquisition possible (p. 401).

The environment plays a significant role in the language development of a child. Research has shown that children raised in institutions have delayed language development (Mussen, Conger & Kagan, 1969, p. 229). The amount of vocalization between the child and caretaker is linked to the child's language development.

Operant conditioning was described as part of a learning theory by Skinner, who was a behaviorist. This method of learning was by trial and error. It refers to rewarding a desired behavior when it occurs (Horn, 1970).

> A related learning theory incorporates some aspects of operant conditioning but describes social learning that takes place through a technique known as modeling. Bandura and Walter have shown that a young child can learn complex skills very quickly simply by observing another person demonstrate those skills. The procedure is enhanced, their research has shown if either person

> who acts as the model or those imitating the model are reinforced for exhibiting the desired behavior. (p. 104)

To summarize, four language theories have been presented: classical; operant conditioning; modeling; and the psycholinguistic approach.

In relation to reading, Nila Blanton Smith (1975) has said that:

> Early language development and beginning reading have all elements in common with one exception: reading uses little black symbols on a printed page, early language uses words uttered by a human being. Both reading and early language serve the same purpose - that of communication, both use the same language symbols with the same meanings, both use the same kinds of sentences in which words are arranged in the same order or orders. (p. 400)

Studies by Loban (1963) and Strickland (1962) found that there was a close relationship between language abilities and reading. According to Loban who made an extensive longitudinal study of children from kindergarten age through grade nine,

> Those who are high in general language ability (the high group in this study) are also high in reading ability. Those who are low in general language ability (the low group in this study) are also low in reading ability. (p. 85)

With respect to bilingualism and reading several experts have offered their opinions:

1. Goodman (1965) has stated:

> Literacy is built on the basis of the child's existing language. This base must be a solid one. Children must be helped to develop a pride in their language and confidence in their ability to use their language to communicate their ideas and express themselves.

> In reading instruction, the focus must be on learning to read. No attempt to change the child's language must be permitted to enter into this process or interfere with it. (p. 855)

2. Stewart (1969) said:

> The most promising innovation in the direction of a viable literacy program is the pedagogical separation of beginning reading from the encumberment of concurrent foreign language teaching. This separation is accomplished by the single strategy of teaching individuals to read first in their own native language and then transferring the reading skills thus acquired to the task of reading in whatever language is the ultimate goal of the program. (p. 158)

3. Loban (1968) said:

> Language is an expression of culture. If Pidgin (for example) is important to people of an area, it should not be destroyed, but accepted and supplemented. (p. 593)

Loban prefers the language experience approach. He favors writing charts in the child's dialect rather than standard English. Later the chart should be written in standard English to show the child that there is another way of writing the same story.

The relationship between language and learning to read is a transfer of oral skills to graphic skills. According to Jones (1972),

> A child about to read has a moderately good command of the simple, basic grammatical structures of his native language, a good understanding of its intonation patterns, and an ability to comprehend simple clauses in auditory form. He comprehends these clauses by forming a semantic judgment based on the contents of an auditory short-term memory store, which must somehow be related to whatever is relevant in the long-term memory

> store - word meanings, relationships, associations, etc. When he begins to read, he is faced with a strictly visual set of symbols which are arranged not temporally, but spatially. These symbols contain no indications of rhythms, or at best only some unfamiliar ones, and are both easily confused and variable. Then, he must learn to discriminate the visual patterns which are the symbols, and to build up the larger perceptual units which are essential to useful reading. In between he must learn to break the code - that is, he must learn to relate the visual perceptual units to his auditory language units, because only in this way can he comprehend the message. (p. 123)

Barr (1972) is in agreement with Jones in regard to the relationship of speech and reading:

> In order to read printed words, children need to focus on written symbols, remember them and make comparisons that in turn allow them to generalize from those symbols to meaning. Speaking involves the identification of sound sequences, appropriately associating names with characteristics of things and processes, and learning the rules for interrelating these words correctly. Reading, by contrast, involves associating graphic sequences to an already developed language capability. (p. 132)

Goodman (1976) when talking about beginning reading speaks of the graphic nature of the written language.

> Oral language is produced in a time sequence, but written language must be arranged spatially. Though various arrangements are possible, and used in other systems, in English print is arranged from left to right and top to bottom in successive lines. White space separates patterns of letters just as oral patterns are marked by intonation, contours, pauses, pitch sequences, and relative stressing. Larger patterns require markings, punctuation, to set them off from other patterns. Again, intonational features are replaced to some degree in print by periods, commas, and other graphic signals. In this feature, as in a number of others, there is no one-to-one correspondence between oral and written language. (p. 473)

Clay (1972a) shares these same beginning concepts with Goodman.

> The child who is to begin to read on sentences must quickly become aware of several features in written language.
>
> He must appreciate the directional pattern of movement needed to read English. There are three stages to this learning
> (i) left-to-right sweep across lines,
> (ii) work-space-word matching within the left-to-right sweep,
> (iii) letter analysis left-to-right across a word, within the word-by-word analysis, within the left-to-right sweep across a line.
> He must realize that the language he speaks is related to the written English he is trying to read and is a valuable source of cues. (p. 151)

These concepts characteristic of the English language are also characteristic of the Spanish language. If a mother reads to her child in Spanish, the concepts (as measured on the Sand test), should be equivalent to the concepts of the English-speaking child from a similar socio-economic background.

This section has dealt with language theory and the relation of language to beginning reading and concepts of print. The next section deals with home environment.

Home Environment and School Success

Walberg and Marjoribanks (1973) found that a student's home environment contained two components - distal and proximal. Distal components were those dealing with

socioeconomic status (SES) - occupation, education, family ownership, house type, family size, etc. Proximal components were attitudinal dimensions - parental interest, parents' setting of goals for their children, encouragement of achievement motivation.

Historically, SES scales have been used almost exclusively to explain differences in home environments. This was often the case when explaining the differences in IQs between blacks and whites (McGurk, 1953; McQueen & Churn, 1960). These studies assumed that SES measured all of the aspects of home environment which influence intelligence.

Later research indicates that SES does not sufficiently indicate those aspects of the home environment which influence intelligence and achievement. The proximal components of the home are at least as high related to intelligence and achievement. Miller (1970) found that proximal dimensions were more important than the SES as predictors of student achievement.

Proximal components are potentially more amenable to manipulation by parents. For example, there is little a parent can do to control their SES components, such as home ownership, educational level and occupation level. But attitudinal components, such as parental understanding or achievement motivation, can be manipulated.

Many studies have been done showing a correlation between home environment and academic success in reading. Almy (1949) concluded that learning to read in the first grade was positively correlated to the child's opportunity to look at books and magazines and for being read to before entering school. Smith (1975) stated that most young children become aware of the reading process by watching parents read and listening to them as they read.

One of the few empirical studies on the effects of style of reading to young children upon the child's cognitive growth was done by Swift (1970). He began a parent training program in Philadelphia. The program enabled mothers of preschool age children to lengthen thoughts, elaborate upon ideas and improve observation. Parents were taught to retell certain parts of stories in order to extend their child's ability to put things into words and to tap children's thoughts during the readings by questioning them about their own experiences.

Durkin (1972) found that it was important for parents to talk with their children, answer their questions, and in turn provide them with experiences which result in new vocabulary. She further pointed out that oral reading episodes between adults and children "can be a vehicle for learning about children's readiness for reading" (p. 78).

Kagan (1970) feels that many poor parents with young infants do not have a clear understanding of how the child develops and do not have sufficient confidence that they can mold the infant the way they would wish.

> The mother may know what kind of a 10 year old she wants, but she is not certain what she should do to have a serious effect on the growth of the infant. She may hold fatalistic attitudes toward the young child, assuming that the power to sculpt him lies within his genetic potential and chance experiences in the environment over which she has no control. Consequently, she does not interact with him as often, as long, or as consistently as the middle class mother. If we could increase the mother's sense of control over her infant's growth and persuade her of the value of language, motivation, and expectancy of success, she might begin to believe that her efforts with the infant could facilitate fulfillment of her ideals. (p. 9)

Kagan has thus summed up the position of those who advocate early home intervention. Several parenting programs have sprung up around the country and have met with great success.

Schaefer (1969) has also reported that disadvantaged infants who were provided child-centered home tutoring between 15 and 36 months showed accelerated intellectual growth during the tutoring period, but a decrease in mean Stanford-Binet IQ from 106 to 100 a year after termination of tutoring. Although the tutored group's mean IQ score had dropped, their mean Stanford-Binet IQ was still 10 points above that of the control group.

Proponents of early education programs frequently cite Bloom's (1964) conclusion, derived from longitudinal data on intellectual development, that "in terms of intelligence measured at age 17, at least 20% is developed by age 1, 50% by about age 4, 80% by about age 8 and 92% by age 13" (p. 68).

Significant correlations between early ratings of maternal behavior and child's subsequent adjustment, task-oriented behavior and mental test scores had been interpreted as revealing the effect of parent behavior upon child behavior (Schaefer & Bayley, 1963). Many studies suggest that the family environment provided by parents and parental behavior with the child may be a major factor in the early and continuing education of the child. Parents are major suppliers of the materials and experiences that contribute to the child's education.

Hess, Shipman, Brophy and Bear's (1969) study of preschool children provides strong support for a hypothesis that

> the cognitive environment significantly influences intellectual development of both boys and girls. Highly significant correlations were found between measures of cognitive development and academic achievement and measures of mother-child interaction compiled from home visits and observations. (p. 33)

Milner (1951) found that children from low SES homes who earned low scores on a reading readiness test were read to less at home, received less affection, were whipped more

often and shared mealtime conversations less often.

Preventing cognitive defects was the major focus of home invant programs developed by Gordon (1972). Another program by Levenstein, Kochman and Roth (1973) used books as a means of interaction between mother and child. The mother was shown how to use the book with the child. Mean IQ gains of 17 points were found in the experimental group after an average of 32 visits over a 7-month period during which 28 books and toys were left in the home.

This chapter has reviewed the research dealing with the subjects of bilingual legislation, early language development and the effect of home environment on academic success. The research supports the theory that the home environment can be manipulated to improve future school achievement.

1. Home environment is a major factor in determining school success.

2. Variables that contribute to success in school are found in every type of environment but are more likely to be found in homes with high SES.

3. Homes with low SES are likely to have fewer toys, games, books, and other materials that enhance future success.

4. The variables that contribute to success in school can be identified and as a result, can be manipulated.

CHAPTER III

METHODS AND PROCEDURES

The purpose of this study was to compare home environments, oral language development and concepts of print of Spanish bilingual kindergarten children with English monolingual kindergarten children. The study also sought to determine which home environment variables led to high scores on oral language and concepts of print tests. The study was descriptive in nature due to the type of research setting (home) and impossibility of controlling the home environment.

Selection of the Population

This study required a population of Spanish speaking bilingual kindergarten children matched with English speaking monolingual kindergarten children. The names, addresses, and phone numbers of kindergarten children attending schools with a bilingual program were secured under Public Law 93-380, the Family Educational Rights and Privacy Act, which, as interpreted by the district, states:

> The District's policy under the Family Educational Rights and Privacy Act (PL 93-380) does not permit access to, or release of educational records or personality identifiable information contained therein,

> other than directory information, of a student without written consent of parents or written consent of an eligible student, to any party or person other than the following:
>
> > Other school officials, including teachers within the educational agency who have been determined by such agency or institution to have legitimate educational interests.

Since the investigator was herself a teacher within the school district, and was determined by the appropriate review of a committee at Texas Woman's University as having a legitimate educational interest, it was possible to secure the necessary data.

This Public Law was published in English and Spanish in a local newspaper before the beginning of the school year. It went on to say:

> Notice is also given that directory information from student records will be released to the public unless a parent, legal guardian, or a student over the age of 18 objects to part or all of such release in writing within ten (10) school days after receiving this notice. Objections to the release of such directory information should be made to the principal of the school which the student is attending.
> The following is directory information:
>
> 1. Student's name, address, and telephone listing
> 2. Date or place of birth
> 3. Major field of study
> 4. Participation in officially recognized activity of sports
> 5. Dates of attendance
> 6. Degrees and awards received
> 7. Most recent previous educational agency or institution attended
> 8. Other similar information

Four schools were chosen on the basis of the availability of a bilingual program and their geographical

proximity. Primary Acquisition of Language (PAL) test scores were to be used to determine who the bilingual children were; however, the scores were not yet available due to the lateness in administration of the test. As a result of the Lau decision, upon entering school, parents must fill out a Home Language Survey Form (Appendix G) which denotes the languages of the child. Spanish speaking children were determined from this form. Of the 264 children in the total population, 111 of the children spoke Spanish. Of this 111, 39 were eliminated from the study because they spoke only Spanish. From the 72 who were left, 9 were eliminated because they were not of Mexican American descent. This left a total of 63 children. All the parents of these children were sent letters and consent forms explaining the study and inviting them to participate. When the PAL test scores arrived indicating who would be eligible for bilingual instruction, 16 more children were eliminated because they did not qualify. This left a total of 47 Spanish bilingual children. Response from the parents was poor. A follow up phone call was made after the deadline passed for responding to the letter. Questions were answered and the purpose of the study was again clarified. The bilingual sample came to a final figure of 31.

Of the 153 students in the remaining population, 4 were eliminated on the basis of their Home Language Survey Form. They were bilingual but the second language was Korean and Vietnamese. Two more children were eliminated because they were repeating kindergarten for the second time. This left a population of 147. These names were arranged in alphabetical order and assigned numbers 001 through 147. A table of random numbers was used to select 80 children. Letters and consent forms were sent to the parents of these children. Response was again low, but a final sample of 32 children was attained.

Instruments

The framework for this study was provided by a joint research project conducted by Perkins and Smith (1978). Perkins traced the development of oral language and early concepts of print of kindergarten children through a school year. The instruments she used were the Sand (Clay, 1976) and the ROL (Clay, et al., 1972b).

ROL

The Record of Oral Language (ROL) developed by Clay, et al. (1976) was chosen by Perkins after perusing several methods of evaluating children's oral language.

> It was decided to use only the Levels Sentences since the Diagnostic Sentences are for in-depth analysis of a child's language that was not the purpose of this study. The Levels Sentences do provide a range of difficulty from simple to more complex types. Clay, et al. report a reliability coefficient of 0.93 for the Level Sentences. The present 42 sentences used in the ROL were selected from 369 sentences during a pilot study. The main study utilized 123 sentences (of which 42 were the Level Sentences) and 393 children in 131 public and private schools participated in the study. The children were all between 5-0 and 6-0 years of age on the date of the testing. Clay, et al. (1976b) report a mean for the Level Sentences of 22.3 with a standard deviation of 9.2 and a Kuder-Richardson 20 reliability coefficient of 0.93. (pp. 42-44)

There are three levels of difficulty. Fourteen sentences comprise each of the three levels. A child must repeat each sentence verbatim to receive one point credit.

Perkins (1978) amended the original sentences to accommodate the vocabulary of American children. The substitute words were submitted to a panel of linguistics experts and were found to be acceptable.

Concepts About Print

Clay (1972b) developed the Sand test, a booklet to observe children's concepts about print. This picture book is read to the child. The child is asked to respond to "mistakes" in the book. The child's awareness of these mistakes is recorded. A score of 0-24 is possible.

> The research group for the Sand included 320 children between the ages of 5-0 and 7-0. A reliability test of 40 children of the same age yielded a correlation of 0.95. The validity with word reading for 100

children yielded a correlation of 0.79. (Clay, 1972b, p. 11)

It was found in the pilot study that children who scored high on the Sand also scored high on the ROL. Conversely, those who scored low on the Sand also scored low on the ROL.

Home Interview

Smith (1978) used the Initial Home Interview based on a study conducted by Dave (1963) and Wolf (1964) at the University of Chicago. The original study measured home environmental factors of fifth grade students. Smith made some modifications to the original interview so as to be applicable to kindergarten students.

In identifying environmental process variables, Wolf (1964) used a set of variables proposed by Bloom:

1. Stimulation provided in the home for verbal development
2. Extent to which affection and reward are related to verbal-reasoning accomplishments
3. Encouragement of active interaction with problems, exploration of the environment and the learning of new skills. (p. 30)

It was felt that these variables presented by Bloom were ongoing processes in the environment and could have direct consequences for the development and maintenance of general intelligence.

According to Dave (1963):

Of all the different aspects of the environment, the home produces the first, most insistent, and perhaps,

> most subtle influence on the educational development of the child. The vital role of the home environment as one of the most powerful determinants of variability in educational progress among children has been recognized by educators, sociologists and psychologists for a very long time. (p. 4)

His definition, therefore, of an Educational Environment was:

> . . . those conditions, processes, and socio-psychological stimuli of the total environment which affect the educational achievement of the child. The Educational Environment may be present in the school, in the classroom, in the home, and also in the community. (p. 16)

This study as Smith's (1978) focused on the home and family's use of the community resources as part of the home and family life.

Educational Home Environment (EHE)

Dave (1963) further defined the Educational Home Environment with six Environmental Process Variables. These six variables were further defined by Environmental Factors.

1. Achievement Press - "The home plays an important role in motivating the child toward learning, expecting certain standards of achievement and thereby exerting on him, what may be called the Achievement Press." (p. 25)
   The Achievement Press was made up of the following factors
   a. parental aspirations for the education of the child
   b. parents' own aspirations
   c. opportunity for enlargement and use of vocabulary and sentence patterns
   d. keenness of parents for correct and effective language (p. 28-31)

2. Academic Guidance - "Education achievement is dependent on the nature and kind of experiences received by the child. It includes an awareness of the parents regarding the educational progress of the child, helping him in appraising his own strengths and weaknesses, providing suggestions for the nature of work necessary for balanced educational progress and developing in him a sense of accomplishment." (p. 31) The two factors were:
   a. availability of guidance on matters related to school work
   b. availability and use of materials and facilities related to school learning (p. 33)
3. Activeness of the Family - "The nature and quality of activities of the family determine the quality and variety of experiences the child can receive from an early age. Theactiveness of the family is particularly useful in exposing the child to a variety of external stimuli which may result in the expansion of his general experiential world." (p. 33) The four factors were:
   a. the extent and content of the indoor activities of the family
   b. the extent and content of the outdoor activities during week-ends and vacations
   c. use of TV and other such media
   d. use of books, periodicals, literature, library and such other facilities. (p. 35)
4. Intellectuality in the Home - "It has been shown by Piaget, Baldwin and others that conceptual thinking and simple problem solving skill begins to develop during the early pre-school years." (p. 35) At this point Smith (1978) added the child's interaction with print as a factor. (p. 44)
   a. child's interaction with print - "extent of Parent-Child-print activity, value of reading as an enjoyable activity and availability of reading material for the child." (p. 35)
   b. opportunities for thinking and imagination in daily activities (p. 37)
5. Work Habits in the Family - "The cultivation of studious habits is a prerequisite for academic achievement. Most of these habits have their origin in the home. They are likely to be related to more general work habits in the family, and to the degree of structure in the management of the home. (p. 37) There are two factors:
   a. degree of structure and routine in the home

management
b. preference for educational activities over other pleasurable things (p. 37)

Rating Scales

> A nine point rating scale was developed from those constructed by Dave (1963) and Wolf (1964) to independently quantify each of the seventeen Environmental Factors discussed above. The Rating Scales are provided in Appendix E. Points 1, 3, 5, 7 and 9 are defined as cues to the rater in as brief and concise a manner as is practical. When viewed in the context of the total scale of the dimension and the criteria for measurement, they are as explicit as possible for practical use. Points 2, 4, 6 and 8 are used for all cases falling in between the defined odd points on the scale. The seventeen factors for which rating scales are developed and their relationship to the total conceptual structure is shown in Table 1. (Smith, 1978, p. 46)

Smith (1978) modified a 63 question home interview. "It was necessary to modify some questions, and remove others to fit the seventeen factors listed previously" (p. 46). The resulting 50 questions are shown in Appendix D. Table 1 shows the relationship of questions to the Seventeen Process Factors as developed by Smith (1978).

> The order of the questions were arranged to facilitate a more natural conversation and allow for cross checking. In addition, several questions relate to more than one factor of the conceptual framework. The responses to all questions referenced for each factor were considered in scoring. (p. 46)

Table 1

Environmental Factors and Related Questions from the Home Interview Form

Environmental Factors	Questions Numbers
1. Parents' aspirations for child	1, 2, 31, 32, 33, 34, 37
2. Parents' own aspirations	34, 35, 36, 37, 38
3. Parents' interest in achievement	3, 4, 16, 18, 19, 30
4. Reward for educational achievement	1, 9, 40, 41
5. Quality of language of parents	(determined by verbal response)
6. Opportunity for use and enlargement	4, 6, 20, 21, 22, 23, 24, 28, 29
7. Keenness of parents for correctness	10, 13, 25, 28, 29, 30
8. Availability of guidance	16, 17, 22, 41, 43
9. Availability of materials	8, 12, 13, 14, 15, 17
10. Indoor activities	4, 7, 21, 22
11. Outdoor activities	3, 4, 5, 6, 22
12. Use of television	26, 27
13. Use of reading material and facilities	4, 7, 10, 25, 50
14. Opportunity for thinking	4, 11, 20, 22, 23, 25
15. Child's interaction with print	7, 9, 14, 16, 17, 22, 25
16. Structure and routine	44, 45, 46
17. Preference for educational activities	42, 47, 48, 49, 50

Collection of the Data

As stated previously names and addresses and phone numbers were secured from individual schools under Public Law 93-380. Those responding favorably to a letter inviting them to participate in the study were contacted by phone. Appointments were made at the convenience of the parents after school and on weekends.

The investigator visited the homes of all 63 participants to collect data. This helped in allaying concerns many parents had and allowed the investigator to observe the condition of the home.

The parental interview was administered first. This was to prevent the parents from answering in response to the child's performance on the ROL and Sand. The presence of the child at this time was left to the discretion of the parent. Next the child was administered Sand and Rol in that order. The presence of the parent was of no concern at this time. Most were curious about the instruments. The final page of the parental interview was completed as soon as possible after the interview. The Home Environment Interview was scored within 24 hours after the interview. The ROL and Sand were scored at the time of administration.

Design and Analysis

The Educational Environment scores were used to assist in grouping the families relative to Sand and ROL performance of the children.

Four family profile groups for bilingual children and four family profile groups for English monolingual children were established on the basis of the following criteria:

A. Children who scored high on the Sand and ROL and come from a home with a correspondingly high score in the Educational Home Environment.

B. Children who scored low on the Sand and ROL and come from a home with a similarly low score in the Educational Home Environment.

C. Children who scored high on the Sand and ROL and come from homes with low scores in the Educational Home Environment.

D. Children who scored low on the Sand and ROL and come from homes with high scores in the Educational Home Environment.

This design was repeated for children from English speaking homes using the same profile classifications. These groups were identified by the corresponding letters of Ae, Be, Ce and De.

A descriptive analysis was made for each group. Comparisons of variables between groups were made to describe what some parents were doing which appeared to have positive results and what some parents were doing which appeared to have less positive results.

CHAPTER IV

RESULTS

The purpose of this study was to identify those factors which contribute to the development of oral language and perceptions of print of bilingual kindergarten children. The study focused on the proximal factors which parents could control or change. The following questions were investigated:

1. Which home environment influences contribute positively and/or negatively to the development of language in kindergarten children?

2. Which home environment influences contribute positively and/or negatively to the development of perceptions of print in kindergarten children?

3. Do bilingual children from a nurturing home environment have the same concepts of print and language development as those from English speaking homes with nurturing environments?

Answers to these questions were looked for by dividing the sample into eight groups. They were:

A. High Home Environment, high Sand and ROL scores

B. Low Home Environment, low Sand and ROL scores

C. Low Home Environment, high Sand and ROL scores

D. High Home Environment, low Sand and ROL scores

Corresponding profiles of Ae, Be, Ce and De were used to delineate the English Speaking sample. In this chapter "each group will be described according to the process variables which comprise the educational environment. And finally, an analysis of the differences between various groups will be presented in an attempt to answer the questions above" (Smith, 1978, p. 55).

Grouping of Bilingual Families into Clusters

Thirty-one families participated in this study. The educational home environment score and process variable scores were computed for each subject's home. These raw scores are shown in Appendix H. The educational home environment scores were then plotted with the Sand scores as shown in Figure 1. The results were four profile groups. Subjects in groups A and D were above the mean on educational home environment scores. The mean for these scores was 4.21. Subjects in groups B and C fell below the mean. Also, subjects in groups B and D fell below the mean for Sand scores. The mean for the Sand was 5.32. ROL scores were plotted against the educational home environment. The mean for the ROL was 19. Subjects A3 and A10 were below the mean for the Sand but were left in this

cluster due to a high EHE and Sand score. Subject A7 was below the mean on the ROL but was left in this cluster due to a high EHE and Sand score. Subject B9 was above the mean on the ROL but was left in this cluster due to a low EHE and Sand score. Subject C3 was 1 point below the mean on the ROL but was left in this cluster due to a low EHE and Sand score above the mean. Resulting groups are shown below in Table 2.

Table 2

Cluster Identification of Thirty-One Homes

Group	Number of Families	Sand and ROL Scores	Home Environment Score
A	11	High	High
B	12	Low	Low
C	5	High	Low
D	3	Low	High

Eleven children came from homes with high home environment scores and high Sand and ROL scores. Twelve children scored low on both Sand and ROL scores and low on home environment. Five children scored high on the Sand and ROL but low on home environment. Three children scored low on Sand and ROL scores but high on home environment.

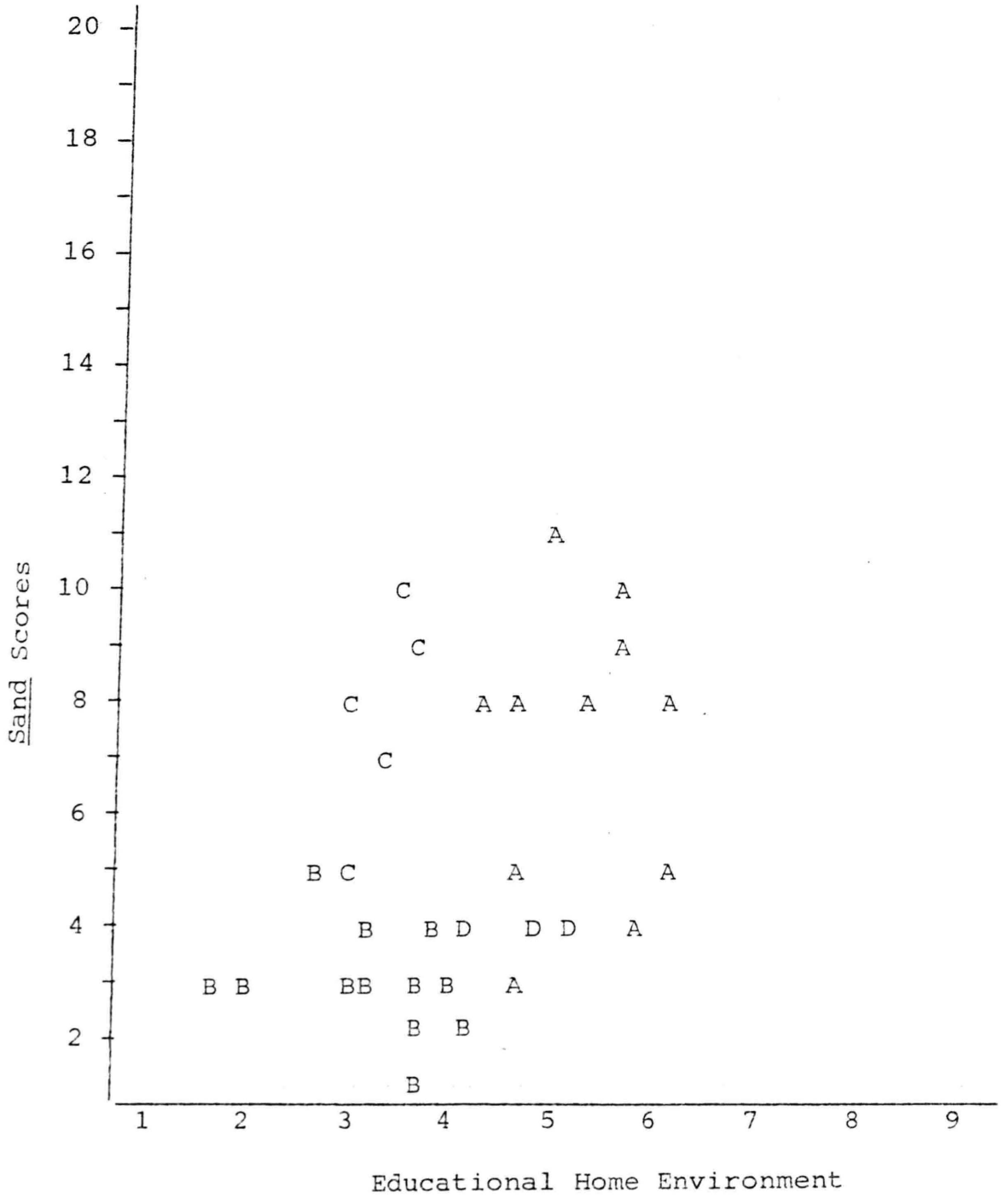

Figure 1. Scatter diagram of Sand scores and Educational Home Environment scores of Bilingual children.

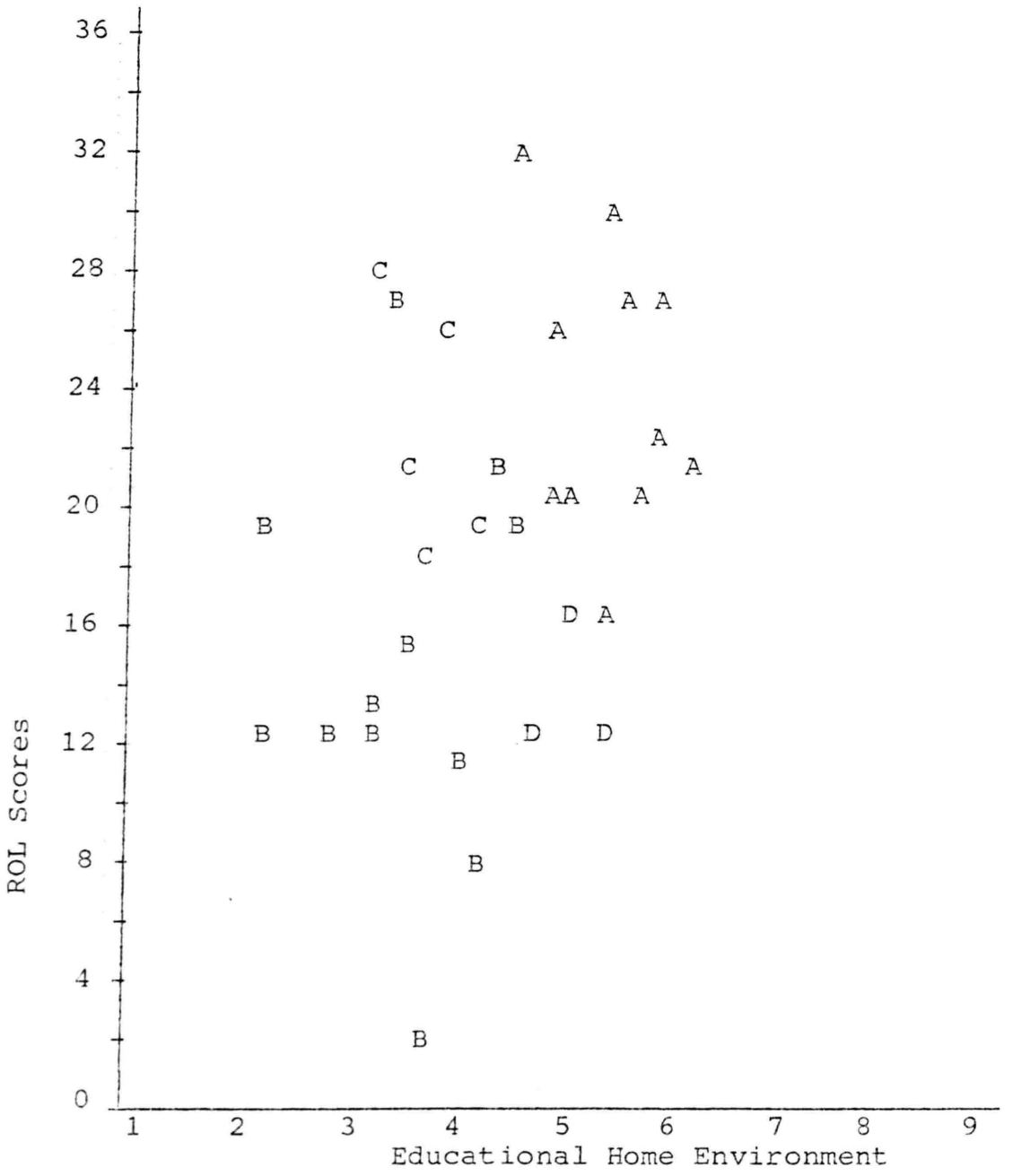

Figure 2. Scatter diagram of ROL scores and Educational Home Environment scores of Bilingual Children

For each profile, a group mean was computed. The results are shown in Table 3. Analyses of each profile group will examine factors contributing to these scores.

Table 3

Educational Home Environment, Sand and ROL Group Mean Scores

Group	N	Home Environment	Sand	ROL
A	11	5.34	7.18	24.27
B	12	3.33	2.92	14.42
C	5	3.46	7.8	22.6
D	3	4.81	4	13.33
Total Sample	31	4.24	5.48	18.65
Possible Range of Scores		1-9	0-24	0-42

General Characteristics of the Sample

Thirty-one bilingual children participated in the study. Twenty-six of the children came from homes with two parents. Five children came from single-parent homes. Of these single-parent families four of the children were in the custody of the mother. In the two-parent, nineteen mothers and twelve of the fathers participated in the interview (See Table 4). Fathers participated 39% of the

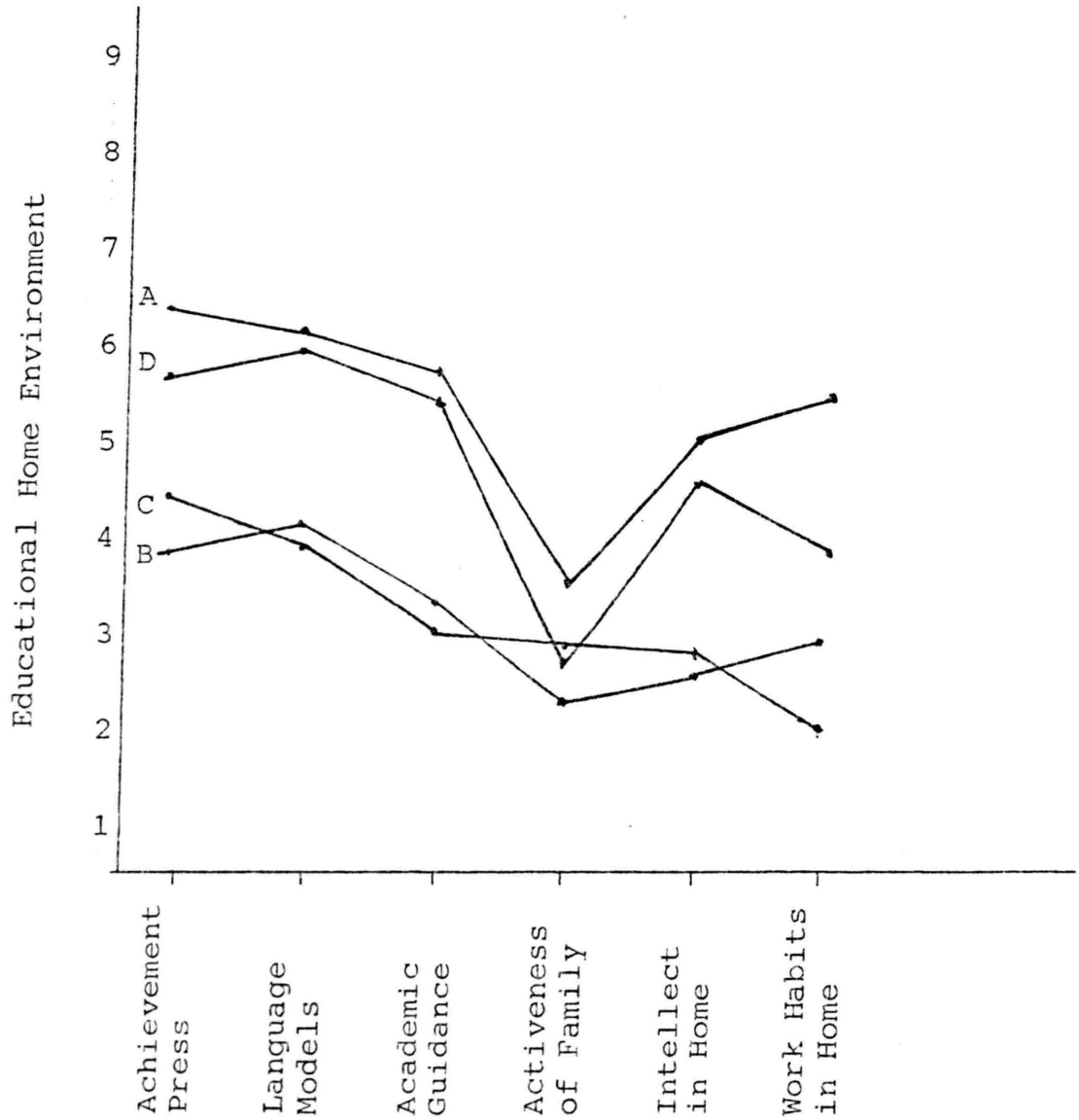

Figure 3. Process variable comparisons for Groups A, B, C, and D.

Table 4

Parental Patterns in the Thirty-one Subject Homes

Group	Two Parents	One Parent
A	11	
B	8	4
C	4	1
D	3	
Total	26	5
Percent	83.87	16.13

time. It should be noted that of the twelve fathers, five were interviewed because the mother spoke no English.

Of the 26 male heads of households in this study, all were employed. Twelve of the thirty mothers were employed full time. The range of occupations is shown in Table 5.

In 58% of the homes a parent was home when the child arrived home from school. Only 29% of the children attended a pre-school prior to public school experience. These pre-schools ranged from full-day day care centers to part-time nursery schools. Table 6 shows pre-school programs and parental supervision.

Table 5

Employment of Parents Living in the Household of Thirty-one Bilingual Families

Occupation		Number
Fathers		
Professional		3
Technical		2
Laborer or production		17
Self-employed		3
Miscellaneous		1
Not living in household		5
	Total	31
Mothers		
Homemakers		18
Service		6
Student		
Clerical		1
Professional		
Self-employed		4
Laborer or Production		
Not living in household		1
	Total	31

Table 6

Availability of Parental Supervision Compared to Pre-Kindergarten School Experience

Group	Parent Available Yes	Parent Available No	Pre-School Experience Yes	Pre-School Experience No
A	8	3	3	8
B	7	5	1	11
C	2	3	2	3
D	1	2	3	
Total	18	13	9	22
Percent	58.0	41.9	29	70.9

Cluster Profiles

Cluster A - High Home Environment Scores and High ROL and Sand Scores

Parental aspirations for the education of these children were high. There were expectations of A's and some B's. Occupational expectations required high education and the completion of four years of college. With respect to the parents' own aspirations, high accomplishments were already attained. Education was used as one of the chief means of accomplishment. There was a feeling for not having enough education.

Only one of the parents was occasionally active in educational activities and was fairly particular about the educational progress of the child. Academic accomplishments were praised, but other accomplishments were praised more. There were high expectations for educational achievement. Some gifts were chosen for their educational value.

The quality of the language usage of the parents was very good. There was a moderate variety of situations available fairly frequently for the child to enlarge upon and use his vocabulary and sentence patterns. The children were read to almost every day for about three years or more. Some occasional reading still continues. A good

variety of efforts in improving vocabulary and language existed. There was fairly regular supervision regarding educational activities. Guidance was sometimes available. Suggestions given to the child regarding the betterment of work were given only occasionally. Only one of the parents provided guidance and suggestions. There was the availability of some educational material. A specific selection according to the child's level was made only in some cases.

There were no family activities in the home, or, the activities which did exist had hardly any direct educational value. Both parents were generally not available in any educational activities. A majority of outside activities had more recreational or other purposes with incidental educational value. One or both parents participated. Generally, activities were planned by any one of the parents and the others followed.

There was not much use of television and other media. When used it was mostly for recreational purposes with hardly any follow up discussion. There was moderate reading of some variety of material by the family members. Some encouragement to the child for the use of reading facilities existed. There were opportunities to work with one or two very moderately complex appliances. Opportunities to listen to thought provoking discussions happened occasionally. There was practically no encouragement for

independent thinking.

The degree of structure and routine in the home management was the result of moderate planning. It was followed with only moderate regularity. Other activities were higher in priority than educational activities and studies. One of the parents continued studies after completing formal education as an occupational requirement.

Cluster B - Low Home Environment Scores and Low Sand and ROL Scores

Parental aspirations for the education of these children extended through high school. Some college education was desired with expectations of B's with some A's and some C's. There were moderately high occupational aspirations. As for the parents' own aspirations they felt that fairly high accomplishments had been achieved. Education was used as one of the chief means of accomplishment. There was a keen feeling for not having enough education.

Only one of the parents was occasionally active in educational organizations and activities. They were not quite particular about the educational progress of the child. Academic accomplishments were occasionally praised. Some other accomplishments were praised highly. There were moderate expectations of educational achievement. Gifts having educational value were chosen only occasionally.

The quality of the language of the parents was a little above average. There were only a few situations available infrequently for the child for enlargement and use of vocabulary and sentence patterns. The child was read to during the pre-school years occasionally and without any regularity. There were incidental efforts to improve vocabulary and language usage.

There was occasional supervision regarding educational activities. Guidance was only given once in a while. Suggestions were given to the child regarding the betterment of the work very occasionally. There was a moderate supply of educational material and no specific selection according to the child's level.

There were no family activities in the home having any direct educational value. Both parents were generally not available in any educational activities. A majority of outside activities had more recreational or other purposes, with incidental educational value. One or both parents participated and the activities were usually planned by any one of the parents.

There was not much use of television or other media except for recreational purposes. There was some reading done infrequently by the members of the family and only occasional encouragement to the child for use of reading facilities. Opportunities existed only to work with one

or two very moderately complex appliances. Opportunities to listen to thought-provoking discussions occurred only occasionally. There was hardly any encouragement for independent thinking. There was practically no parent-child reading-related activity and no opportunity for the child to look at books.

With regard to the degree of structure and routine in the home management, there were some efforts made for planning and distribution of work which was not followed systematically. There was no emphasis attached to scholastic studies by the parents. It was often made subsidiary to other activities. Parents did not continue any studies after completing their formal education.

Cluster C - Low Home Environment Scores and Relatively High Sand and ROL Scores

Parental aspirations for this group were that the children finish high school and go to college. There were moderately high occupational aspirations and an expectation of B's with some A's and some C's. Fairly high accomplishments of the parents were already achieved. Education was one of the chief means of attainment and there was a sense of not having enough.

Only one of the parents was occasionally active in educational organizations and activities. They were not

quite particular about the educational progress of the child. Academic accomplishments were occasionally praised. Some other accomplishments were praised highly. There were moderate expectations of educational achievement. Gifts having educational value were chosen occasionally.

The parents' language usage was a little above average. Only a few situations available infrequently existed for enlargement and use of vocabulary and sentence patterns. The children were read to during the pre-school years occasionally and without any regularity. There were incidental efforts to improve vocabulary and language usage.

There was occasional supervision regarding educational activities. Guidance was only sometimes available. Suggestions given to the child regarding the betterment of work were given rarely. There was a moderate supply of educational material and no specific selection was made according to the child's level.

There were no family activities in the home. If some did exist they had hardly any direct educational value. Both parents were generally not available in any educational activities. A majority of outside activities had more recreational or other purposes with incidental educational value. One or both parents participated. These were generally planned by one of the parents and the others followed.

There was not much use of television and other media. It was mostly for a recreational purpose when it was used. There was some reading done infrequently by the members of the family. Only occasionally did parents encourage their child for the use of reading facilities. The child had opportunities to work with one or two very moderately complex appliances. Opportunities to listen to thought-provoking discussions happened only occasionally and there was hardly any encouragement for independent thinking. There was practically no parent-child reading-related activity and no opportunity for the child to look at books.

With regard to the degree of structure and routine in the management of the home, some efforts were made for planning and distribution of work. This was not followed systematically. There was no emphasis attached to scholastic studies by the parents. It was often made subsidiary to other activities. The parents did not continue any studies after completing their formal education.

Cluster D - High Home Environment Scores and Low Sand and ROL Scores

Parental aspirations for these children were identical to those of Cluster A. The parents had occupational expectations for their children which required four years of college. There were expectations of A's with some B's.

The parents' own aspirations for this group were higher than those of Cluster A. High accomplishments had already been attained. Education was used as a chief means of accomplishment and there was a feeling of not having enough. Only one of the parents was occasionally active in educational organizations and activities. They were fairly particular about the educational progress of the child. Academic accomplishments were praised. Some other accomplishments were praised more. There were moderately high expectations for educational achievement. The child sometimes received gifts having educational value.

The parents' language usage was very good. A moderate variety of situations existed for the child to enlarge and expand his vocabulary and sentence patterns. The child was read to during the pre-school years occasionally and without any regularity. Incidental efforts were made to improve vocabulary and language usage. There was fairly regular supervision regarding educational activities. Guidance was sometimes available. Suggestions given to the child regarding betterment of work occurred only occasionally. Only one of the parents provided guidance and suggestions. There was availability of some educational material. Specific selections according to the child's level existed only in some cases.

There were no family activities in the home that had any direct educational value. Both parents were not generally available in any educational activities. A majority of the outside activities had more recreational or other purposes with incidental educational value. One or both parents participated. Activities were generally planned by any one of the parents and the others followed.

There was not much use of TV and other media. It mostly had a recreational value when used. Some reading was done infrequently by the members of the family. Only occasionally was encouragement given to the child for the use of reading facilities. The children had opportunities to work with a variety of complex appliances. There were some opportunities to listen to and participate in thought-provoking discussions. There was encouragement for independent thinking. A negative or neutral attitude existed in the parents with regards to reading with the child. There was hardly any opportunity for the child to read alone.

The degree of structure and routine in the home management was moderately planned. It was followed with only moderate regularity. Other activities were higher in priority than educational activities and studies. One of the parents continued studies after completing formal education as an occupational requirement.

Description of Results of English Speaking Children

Grouping of Families into Clusters

Thirty-two families participated in this study. The educational environment score and process variable scores were computed for each subject's home. These raw scores are shown in Appendix I. The educational home environment scores were plotted with the Sand scores as shown in Figure 4. The results were four profile groups. Subjects in groups A and D were above the mean on educational home environment scores. The mean for these scores was 4.74. Subjects in groups B and C fell below the mean for Sand scores. The mean for the Sand was 6.96. ROL scores were plotted against the educational home environment. (Figure 5) The mean for the ROL was 27. Subject Be11 was .1 above the mean for the Sand but was left in this cluster due to a low EHE and a ROL score below the mean. Subjects Be1, Be5, Be6 and De 4 all had ROL scores slightly above the mean but were kept in these particular clusters due to EHE and Sand scores. Resulting groups are shown below in Table 7.

Fourteen children came from homes with high home environment scores and high Sand and ROL scores. Eleven

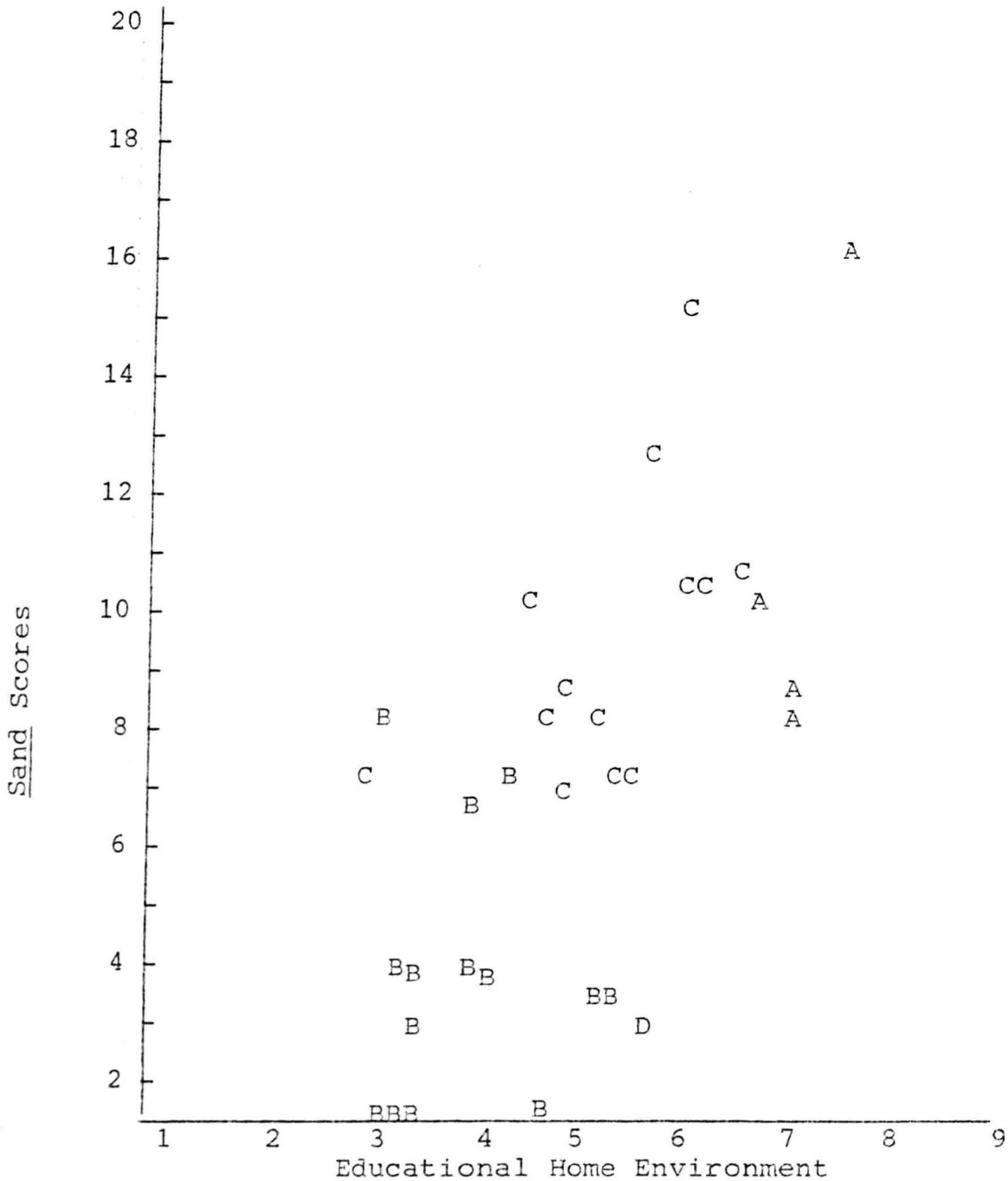

Figure 4. Scatter diagram of Sand scores and Educational Home Environment scores of English speaking children.

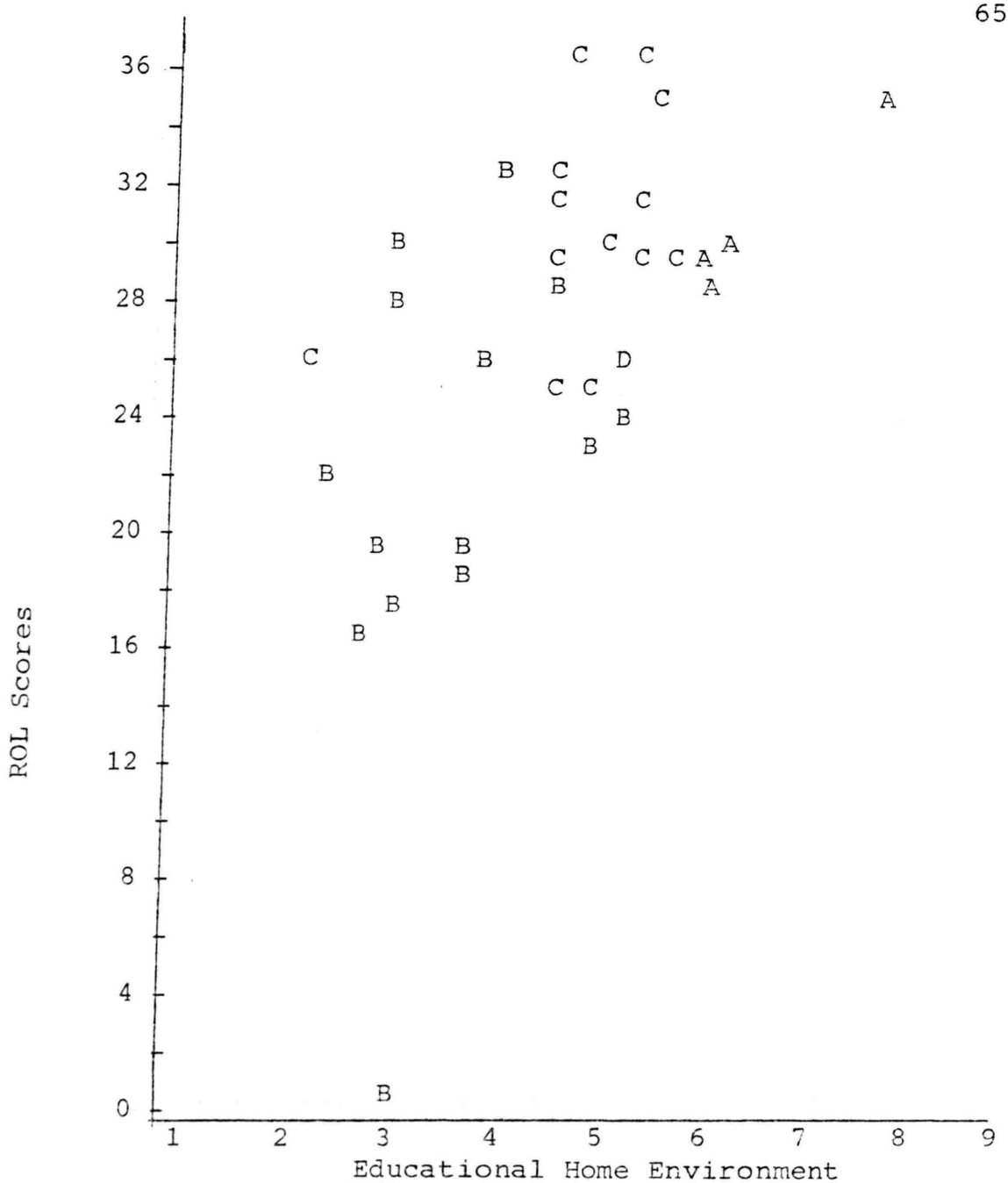

Figure 5. Scatter diagram of ROL scores and Educational Home Environment scores of English speaking children.

Table 7

Cluster Identification of Thirty-Two Homes

Group	Number of Families	Sand and ROL Scores	Home Environment Score
Ae	14	High	High
Be	11	Low	Low
Ce	3	High	Low
De	4	Low	High

children scored low on both Sand and ROL scores and home environment. Three children scored high on Sand and ROL scores but low on home environment. Four children scored low on Sand and ROL scores but high on home environment.

For each profile, a group mean was computed. The results are shown in Table 8. Analyses of each profile group will examine factors contributing to these scores.

Table 8

Educational Home Environment, Sand and ROL Group Mean Scores

Group	N	Home Environment	Sand	ROL
Ae	14	5.79	10.42	31.64
Be	11	3.46	3.63	21.09
Ce	3	3.97	7.66	29.33
De	4	5.17	4.25	25.50
Total Sample	32	4.59	6.49	26.89
Possible Range of Scores		1-9	0-24	0-42

General Characteristics of the Sample

Thirty-two English speaking children participated in the study. Twenty-six of the children came from homes with two parents. Six children came from single-parent homes. Of these single-parent families 5 of the children were in the custody of the mother. In the two-parent families twenty-three of the mothers and seven of the fathers participated in the interview. Fathers participated only 27% of the time.

Table 9

Parental Patterns in the Thirty-two Subject Homes

Group	Two Parents	One Parent
Ae	11	3
Be	8	3
Ce	3	
De	4	
Total	26	6
Percent	81.2	18.75

Of the 26 male heads of households in this study all were employed. Fourteen of the 31 mothers were employed full time. The range of occupations is shown in Table 10.

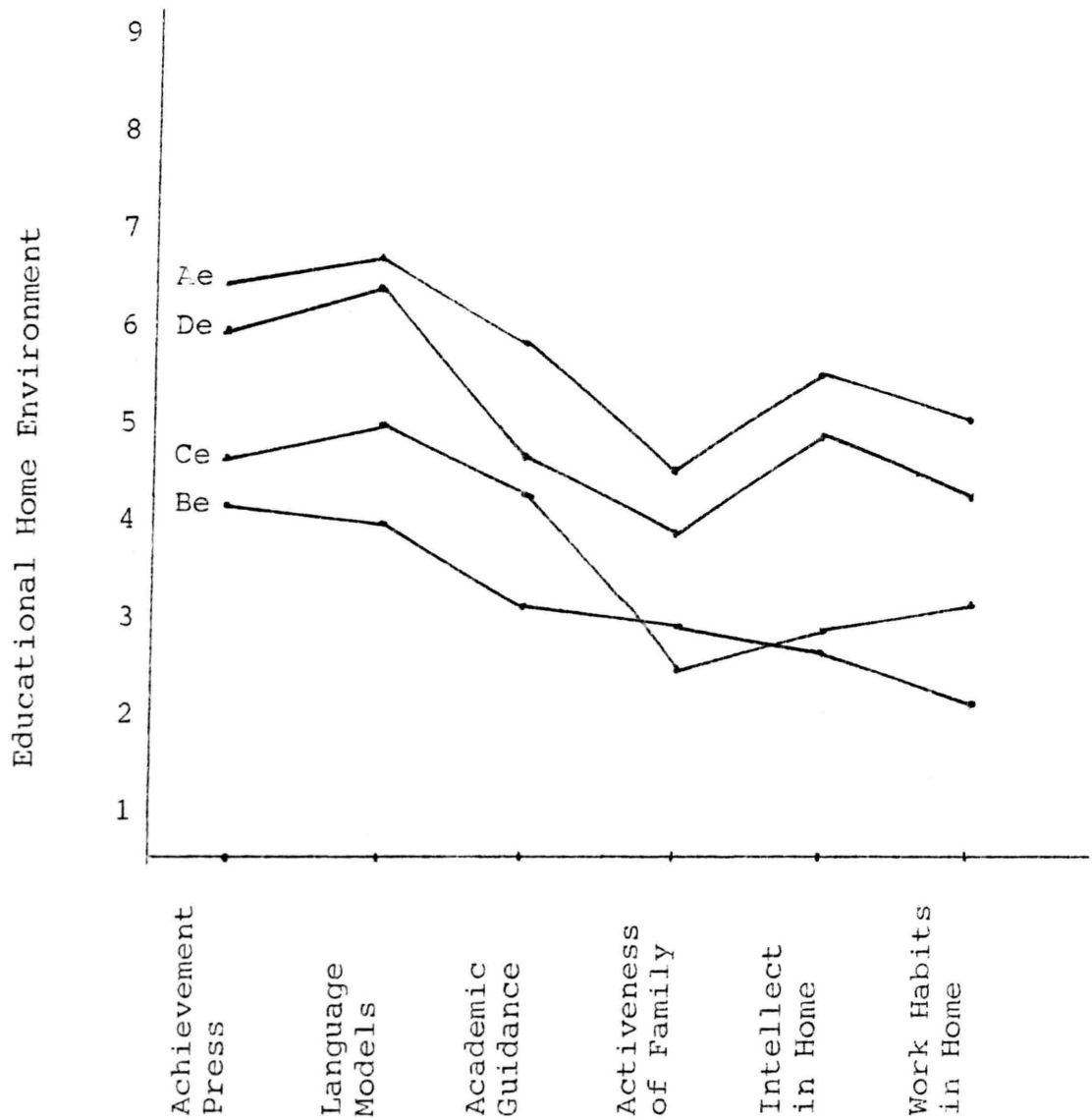

Figure 6. Process variable comparisons for Groups Ae, Be, Ce, and De.

Table 10

Employment of Parents Living in the Household of Thirty-two English-speaking Families

Occupation	Number
Fathers	
Professional	5
Technical	10
Laborer or Production	10
Self-employed	1
Miscellaneous	1
Not living in household	5
Total	32
Mothers	
Homemakers	15
Service	2
Student	2
Clerical	11
Professional	1
Not living in household	1
Total	32

In 59% of the homes a parent was home when the child arrived home from school. Only 31% of the children attended a pre-school prior to public school experience. These pre-schools ranged from full-day every day centers to part-time nursery schools. Table 11 shows pre-school programs and parental supervision.

The ethnic background is given to give a clearer picture of the sample. All the bilingual children, as mentioned before were of Mexican-American descent. The ethnic

Table 11

Availability of Parental Supervision Compared to Pre-Kindergarten School Experience

Group	Parent Available Yes	Parent Available No	Pre-School Experience Yes	Pre-School Experience No
Ae	9	5	6	8
Be	7	4	2	9
Ce	1	2	2	1
De	2	2		4
Total	19	13	10	22
Percent	59.3	40.6	31.2	68.7

make-up of the English-speaking sample is as follows.

Table 12

Ethnic Patterns of Thirty-two Families According to Cluster Groups

Group	Anglo	Mexican-American	Black	Two Cultures
Ae	7	3	2	2
Be	8	2		1
Ce	1	1	1	
De	2	2	—	—
Total	18	8	3	3
Percent	56.25	25	9	9

Cluster Profiles

Cluster Ae - High Home Environment Scores and High ROL and Sand Scores

Parental aspirations for the education of these children were high with expectations for four years of college. They had occupational expectations requiring a high amount of education and expected the children to receive A's and some B's. The parents' own aspirations were for the most part already achieved. Education was seen as one of the chief means of accomplishment and there was a keen feeling for not having enough education. There were more aspirations but they were moderate.

Both or one of the parents were active in educational organizations and activities. The parents were particular about the educational progress of the child. Academic accomplishments were often praised. Some other accomplishments were praised more. Gifts sometimes had educational value.

The quality of language usage of the parents was very good. There was for the child a moderate variety of situations for opportunity to increase and enlarge his own vocabulary. Children were read to almost every day for about three years or more. Some occasional reading still continues. A good variety of efforts was made in improving

the children's vocabulary and language usage.

There was fairly regular supervision regarding educational activities. Guidance was sometimes available. Suggestions regarding betterment of work were given occasionally. Only one of the parents provided guidance and suggestions. In the home there was an abundant supply of educational material. The selection was appropriate to the level of the child.

Only a very small number of family activities in the home had direct educational value. Often only one parent participated. A majority of outside activities had more recreational or other purposes with incidental educational value. Two of the parents in this group were gym teachers.

There was fairly regular use of television. A recreational purpose was more predominant than educational purpose. There was fairly extensive reading of a good variety of materials by family members. The child had opportunities to work with some complex appliances. There were some opportunities to listen to and participate in thought-provoking discussions and encouragement for independent thinking.

In the management and routine of the home moderate planning existed and was followed with only moderate regularity. Educational activities and studies were moderately high in priority. A few others were higher in priority.

One of the parents continued studies either voluntarily or as an occupational requirement after completing formal education.

Cluster Be - Low Home Environment Scores and Low Sand and ROL Scores

Parental expectations for this cluster were moderate. They expected their children to at least go through high school. Some college education was desired and the parents had somewhat high occupational aspirations. They expected B's for the most part with some A's and C's. As for the parents' own aspirations they felt that there were moderate accomplishments. Education played only an incidental role in the accomplishments.

Only one of the parents was occasionally active in educational organizations and activities. The parents were not quite particular about the educational progress of the child. Academic accomplishments were occasionally praised. Other accomplishments were praised highly. Gifts having educational value were chosen only occasionally.

Quality of the language usage of the parents was average. Only a few situations available infrequently existed for the child for enlargement and use of vocabulary and sentence patterns. The child was read to during the preschool years occasionally and without any regularity.

There were incidental efforts to improve vocabulary and language usage.

There was occasional supervision regarding educational activities. Guidance was only occasionally available. Suggestions given to the child regarding the betterment of work came infrequently. There was a moderate supply of educational material. No specific selection was according to the child's level and only an occasional use of these materials existed.

There were no activities having hardly any direct educational value in the home. Both parents were not generally available in any educational activity. A majority of outdoor activities had more recreational value or there were few outdoor activities. One or both parents participated.

There was not much use of television or other media. It mostly had a recreational purpose when used. There was some reading done infrequently by the members of the family and only occasional encouragement to the child for the use of reading facilities. The children had the opportunity to work with one or two very moderately complex appliances. There was an occasional opportunity to listen to any thought-provoking discussions and hardly any encouragement for independent thinking. There was practically no parent-child reading related activity and not much opportunity for children to look at books.

With regard to structure and routine in home management, there was some effort made for planning and distribution of work which was not followed systematically. There was no emphasis attached to scholastic studies by the parents. It was often made subsidiary to other activities. Parents did not continue any studies after completing their formal education.

Cluster Ce - Low Home Environment Scores and Relatively High Sand and ROL Scores

Parental aspirations for these children were that they finish high school and receive some college. There were moderately high occupational aspirations with expectations of B's and C's. For the parents' own aspirations there were high accomplishments already achieved. Education was a chief means of the accomplishments. There was a feeling of not having enough education.

One of the parents was occasionally active in educational organizations. They were not quite particular about the educational progress of the child. Academic accomplishments were occasionally praised. Gifts having educational value were chosen only rarely.

The parents' language usage was good. Opportunities for the child's enlargement and use of vocabulary and sentence patterns were available infrequently. The child was

read to during the pre-school years without any regularity. There were only incidental efforts to improve vocabulary and language usage.

There was occasional supervision regarding educational activities. Guidance was sometimes available. Suggestions given to the child regarding betterment of the work occurred once in a while. There was a moderate supply of educational material. There was no specific selection according to the child's level and only an occasional use of the materials (i.e. workbooks).

There were no family activites in the home or the ones which did exist had hardly any direct educational value. There were practically no outside activities of the family having educational purpose.

Television was used infrequently. It had mostly a recreational purpose. Reading by family members was infrequent. The child was permitted to work only one or two moderately complex appliances. There was almost no encouragement for independent thinking and rare opportunities to listen to any thought-provoking conversations. There was practically no parent-child reading related activity.

Some efforts were made for planning and distribution of work in the routine of the management of the home. This was not followed systematically. Other activities received a higher priority than educational activities and

studies. One of the parents continued studies after completing formal education as an occupational requirement.

Cluster De - High Home Environment and Low Sand and ROL Scores

Parental aspirations in this cluster for the education of the child were identical to those in Cluster A. The parents' own aspirations were also the same as that Cluster. Parents' interest in the academic achievement was the same too. Praise for the academic accomplishments however was less. Other accomplishments were praised more.

The parents' language usage was very good. The child's opportunity for enlargement and use of vocabulary and sentence patterns contained a moderate variety of situations available fairly frequently. The keenness of the parents for correct and effective language usage was almost equivalent to the A Cluster. There was occasional supervision regarding educational activities. Some educational material was available. The specific selection according to the child's level existed only in some cases.

There were few family activities in the home. These had hardly any direct educational value. Outdoor activities had more recreational value or other purposes.

There was not much use of TV or other media and they, too, had more of a recreational purpose. The variety of

reading books and periodicals was equivalent to the A Cluster. This was also true with regard to availability of complex appliances and encouragement for independent thinking. The child's interactions with print were the same as the A Cluster.

The degree of structure and routine in home management and preference for educational activities over other pleasurable things was almost the same as the Cluster A group.

Analysis of Environmental Process Variables

Group means were computed for the six process variables for each of the eight profile clusters. To recall, the variables were: achievement press, language model, academic guidance, family activities, intellectuality in the home and work habits in the home. The results for the bilingual children and English-speaking children are shown in Tables 3 and 8 respectively. The data indicate that the Clusters A and Ae children have a home environment which did indeed lead to the higher scores on the Sand and ROL. Details fo these homes will be discussed further in this chapter.

The Clusters B and Be showed consistently low scores on all six process variables and these groups had low Sand and ROL scores. Clusters C and Ce with high Sand and ROL scores and low educational home environments and D and De

with high educational home environments will be analyzed later in the chapter.

In seeking to find the answer to Question One:

1. Which home environment influences contribute positively and/or negatively to the development of language in kindergarten children, the process variables: language models, academic guidance and activeness of the family were analyzed.

The process variable language models consisted of three subheadings: quality of language of the parents; keenness of parents for correctness and opportunity for use and enlargement by the child.

In the A Cluster consisting of bilingual children the quality of the language of the parents was a 7.5 or very good. It should be noted that in this group five of the mothers spoke no English. The quality of English on the part of the interviewee was the determining factor. This compares with an 8.1 score by the English speaking parents which was again very good. In determining the quality of language of the parents there were four criteria: fluency of expression, pronunciation, vocabulary, and organization of thoughts. Each of the four criteria was rated individually on the scale under number five of the rating scales. The average of the scores was then computed and ranked.

The keenness of the parents for correct and effective usage contained three criteria: regularity in reading to the child during the pre-school period and variety of efforts for increasing vocabulary and correcting language usage as needed. The children of A had a mean score of 6.5 and the English speaking children had a score of 6.8. The children were all read to quite regularly, almost every day for about three years or more. There is still some reading and a variety of efforts exist to improve vocabulary and language usage. Three of the bilingual children were read to in Spanish by the mother.

There were two criteria in determining the opportunities for the enlargement and use of vocabulary and sentence patterns of the child. These were: variety of opportunities (i.e. books, tv, travel, picnics, verbal interaction) in home situations and frequency of opportunities. In profile A the children had a mean of 5.6 and the Ae Cluster had a mean of 5.9 meaning that in both groups there was a moderate variety of situations available fairly frequently. In one of the bilingual homes there was no talking permitted at the dinner table - a time when most families exchange details of the days' happenings. The mother explained, "My husband requests for us not to speak while eating so we have adjusted not to talk in (sic) the table and all of us like the silence while

eating." Another child Ae6 was also not permitted to talk at the table.

The profile groups B and Be were the groups with low home environments and low ROL and Sand scores. The quality of language of the parents in these clusters was 5.5 and 5.2 respectively. This was translated into "average" on the rating scales.

The keenness of the parents for correct and effective language usage was 4.08 for the bilingual children and 3.6 for the English speaking children. These children were read to without any regularity and only incidental efforts were made to improve vocabulary and language usage. The parents of B3 and Be8 read to the child only when the child asked to be read to. The parents of B2 and Be11 stopped reading to their child when the child entered school. Subjects B10, B11 and Be3 were never read to. Subject B12 was read to by an older sister.

The opportunities for the enlargement and use of vocabulary and sentence patterns scores were very low. The B profile group scored a 3.3 and the Be group a 3.4. This meant there were only a few situations available infrequently. Again Be8 and B9 came from families where there was no talking permitted at the table.

The second process variable contributing to the development of language was academic guidance. Availability of

guidance on matters relating to educational activities consisted of three criteria: extent of general supervision regarding activities, readiness in guidance when asked for and suggestions regarding educational activities.

The bilingual children in profile A had a mean score of 5.5 and the English profile Ae had a mean of 5.7. There was fairly regular supervision regarding educational activities. Guidance was sometimes available. Only one parent usually provided suggestions toward the betterment of work. With regard to the availability and use of materials and facilities related to cognitive learning, the A profile scored a 6 and the Ae profile a 6.8. The materials consisted of dictionaries, encyclopedias and workbooks. The English speaking children were shown to have a more appropriate selection to their own educational level than the bilingual children. Of the bilingual, three came from homes where dictionaries existed in both English and Spanish.

The children of the B and Be profiles scored 3 and 3.4 on academic guidance and 3.8 and 3.5 respectively on availability of materials. This meant there was no selection made to the appropriate level of the child.

The third process variable contributing to the development of language was the activeness of the family. This was measured by: extent and content of indoor activities

of the family (discussion, undertaking a project); outdoor activities of the family (visits to a museum or zoo, traveling to historical places); use of television; and use of books, periodical literature and the library.

Profile groups A and B scored 1 on indoor activities and profile groups Ae and Be scored 3.1 and 1.7 on the same topic. As Smith (1978, p. 77) stated: "Parents did not appear to be aware or informed of the kinds of activities which would have educational benefit for their child." Neither bilingual nor English speaking children scored well.

Profiles A and Ae scored 3.9 and 4.2 on outdoor activities. Outdoor activities were mostly for recreational purposes with little or no educational value. There was a lot of traveling done to historical places by both these profile groups. When parents were asked the kinds of activities which took up their time at these places, the reply was most often "visiting relatives." Profiles B and Be scored 2.6 and 2.7. These scores were interpreted on the rating scales to be the same as the A Cluster's.

The use of television for profiles A and Ae was 3.5 and 4.9. For B and Be it was 3 and 3.5. Television when watched was used mostly for entertainment. The average hours per week was high. This was in part due to an extremely hot summer in 1980 which forced parents and sitters to keep the children indoors.

The use of books, periodicals and library was high for the A profiles. A scored 5.4 and Ae scored 6.5. The B profile scored 3.3 and Be 3.6. Table 13 shows the number of children who had library cards and those who made use of the library.

Table 13

Patterns of Public Library Use

Group	Child with Library Card	Use of Library	No Use
A	4	6	5
Ae	3	10	4
B		3	9
Be		1	10
Total	7	20	28

In summary of question one, there are identifiable home environment influences which contribute to the development of language in kindergarten children. This investigation has shown that children who scored positively on the ROL came from homes with the following things in common:

1. the quality of the language models in the home was very good;

2. a keenness on the part of the parents for proper vocabulary and sentence patterns;

3. the efforts made to help the child increase and enlarge his vocabulary;

4. a regularity in the reading of books to the child before kindergarten;

5. educational material appropriate to the educational level of the child;

6. an availability for the child to express himself often in a variety of situations;

7. the use of the public library and a variety of reading materials in the home.

To determine the answer to Question Two:

2. Which home environment influences contribute positively and/or negatively to the development of perceptions of print in kindergarten children, the following process variables were analyzed: Achievement Press, Intellectuality in the Home and the Work Habits in the Family.

The Achievement Press variable consisted of four criteria: parents' aspirations for the child, parents' own aspirations, parents' interest in achievement and rewards to the child for educational achievement. The top profile groups A and Ae both had mean scores of 7. The parents expected their children to have four years of college and the occupational expectations all required a high amount of education. A's and B's were the grades expected in school.

The parents' own aspirations for the A group had a mean of 7 also. High accomplishments were already attained

and there was a feeling of not having enough education. However the feelings of some parents was that high goals had been reached without a lot of education. As one father put it, "I have my own house, two cars that are paid for, my own business and four children. I only have a high school diploma." The Ae group scored a 5.8 on aspirations. This score was lower due to a change in lifestyle as the result of divorce. Goals seemed to have been clear when the parents were married. At the end of the marriage, the same goals were not appropriate. The goal of putting food on the table and clothes on the children's backs was higher in priority than planning for things five years down the road. Parents' own aspirations were lower in the English speaking group.

The parents' interest in education was based upon the extent of the parents' participation in educational activities (i.e. PTA), and the interest in the educational progress of the child. The A and Ae profiles scored 5.9 and 6.9. Both or any one of the parents were active in educational activities and organizations of the school for the English speaking sample. Only one parent was occasionally active in educational organizations in the bilingual profile. This could be the result of the parents' fear of the language barrier. However, it should be noted that of the four schools in the study the PTA program chairpersons

did try to balance PTA meetings and provide translations. Still there was a reluctance on the part of some of the Spanish speaking parents to attend school activities and functions unless their child was in a program.

There were two components for the Standards of Rewards for Educational Attainment: valuing academic accomplishments and the selection of gifts having educational value. The A and Ae groups were nearly identical with means of 5.8 and 5.9. Academic accomplishments were praised but other accomplishments were praised more. For instance, the parents mentioned, "keeping her room clean," "not hitting," and "going to bed on time."

The profile groups B and Be which scored lowest on home environment, the Sand and the ROL had parental aspiration means of 4.6 and 5.5 respectively. High school was the minimum amount of education expected. Some college education was desired and the parents anticipated grades of B's with some A's and C's.

The B and Be parents had aspiration means of 4.5 and 4.4. The aspirations of the parents consisted of three components: present accomplishments, means of accomplishment and future aspirations. There were fairly moderate accomplishments achieved and in most cases education played only an incidental role. Two of the fathers of the bilingual group had no formal education at all. One was a

carpet layer and the other a laborer.

The parents' participation in school activities and organizations was low. The bilingual group had a mean 3.4 and the English speaking group a 4.09. Only one of the parents was occasionally active in educational organizations and activities. They were not quite particular about the educational progress of the child. This was based on the number of times the parents conferenced with the child's teacher, how often the parents discussed between themselves the progress of the child, and how often they asked the child about his school progress.

The B and Be profiles had means of 3.4 and 3.8 regarding the value to the parents of academic accomplishments and the selection of gifts having educational value. Accomplishments other than those which were academic were praised highly. Only occasionally were gifts chosen having educational value. Most of the gifts came in the form of books. The A and Ae profile groups were given books, blackboards, puzzles, workbooks, etc.

Process variable number five was Intellectuality in the Home. This was comprised of two components: the child's interaction with print and opportunity for thinking. The child's opportunities for thinking and imagination in daily activities had three criteria: variety (i.e. use of power appliances, thought-provoking

discussions, etc.), level of complexity and extent of encouragement for independent thinking. The A and Ae group had means fo 3.4 and 3.9. The children had opportunities to work a very moderate amount of complex appliances such as tape recorders, television, and stereos. There were some occasional opportunities to listen to and participate in thought-provoking discussions. It should be remembered, however, that some children were not allowed to speak at all during certain times. Most of the children were friendly with adults outside their immediate family. When parents were asked about the special qualities these other adults possessed, almost all the answers were the same. "They talk to my child." "They listen." "They are patient." One of the nicest responses by the mother of a bilingual child was, "She teaches them Spanish and about the Mexican culture. She shows her how to make tortillas."

With respect to the Child's Interaction with Print the A and Ae groups scored 6.5 and 6.9. The children were read to three to five times a week and this was viewed as a fun activity. Books were often appropriate to the child's level. All the children in both these profile groups were taught to count and print their name before they entered kindergarten.

Both B and Be profile groups scored a 2 on Opportunities for Thinking and Imagination in daily activities.

They had practically no opportunities to work with any complex appliances. Most children were allowed to turn on the tv or record player. Five of the bilingual children and 3 of the English speaking children were not permitted to use any appliances. There were no opportunities to listen to any thought-provoking discussions and no encouragement for independent thinking.

B had a mean of 3.4 and Be a mean of 4.1 on their Interaction with print. There was infrequent reading with the child. Three of the children were never read to at all. Table 14 shows the number of children who were taught to count and print their name before entering school.

Table 14

Children Who Were Taught to Count and Print Their Name Before Entering Kindergarten

Group	Count	Print Name
A	11	11
Ae	14	14
B	11	5
Be	8	5
C	2	2
Ce	3	3
D	3	2
De	4	4
Total	56	46

Work Habits of the Family consisted of two criteria: structure and routine and preference for educational activities. The A and Ae group had means of 6.4 and 5.6 on structure and routine. The work was distributed among the family members and was followed with moderate regularity. This compared with 4.3 and 3.9 for the B profiles. There was some effort made for planning and distribution of work but this was not followed systematically.

The Preference for Educational Activities over other pleasurable things was composed of two criteria: priority to educational activities and continuity of academic activities (i.e. taking courses after completing formal education). The A and Ae profiles had means of 3.8 and 4.7. In the bilingual group only one of the parents continued their education as an occupational requirement. Other activities were higher in priority than educational activities and studies. For instance parents rarely altered their plans for the sake of their child's school work. In the English speaking group one of the parents continued their education either voluntarily or as an occupational requirement. Educational activities and studies were moderately high in priority and few other things were higher.

The B and Be profiles scored a 2 and 1.3 respectively. There was no emphasis attached to scholastic studies by the parents. It was made subsidiary to other activities.

The parents did not continue studies after completing their formal education.

Analysis of C and D profile groups now follow. Group C was composed of children who scored high on the Sand and ROL but low on the home environment. In the bilingual group, three of the children were read to by older brothers and sisters. Once child had siblings who were in the ninth and tenth grades. The older siblings' command of English was better than that of the parents. The Seventeen Environmental Scores of both the bilingual group and English group were almost identical to those of both B profile groups. Of the Ce group, all of the parents were employed. No one was at home to help the child except older brothers and sisters.

Profile groups D were composed of children who scored low on the Sand and ROL but high on the home environment. In the English profile group, one of the four children was born two months premature. His speech was poor and the child was referred to a therapist. The only other explanation for the remaining children and the three of the bilingual profile group was they may not have been ready to take tests of this nature at this particular time. The home environment scores were somewhat lower than those of the A profile groups and ran almost parallel.

In summary of Question Two, there are home environmental influences which contribute to the development of concepts of print in kindergarten children. This investigation has shown that the children who scored high on the Sand came from homes with the following things in common:

1. high parental aspirations for the child's education and future career;

2. a feeling that the parents' own goals were the result of education;

3. gifts having an educational value;

4. frequent parent-child reading activities;

5. an abundance of reading material at the child's appropriate education level;

6. the children were taught to count and print their name before starting school.

The answer to Question Three:

3. Do bilingual kindergarten children from a nurturing home environment have the same concepts of print and language development as those from English speaking homes with nurturing environments? can be summarized best by Table 15. Table 15 shows the group profile means of the 17 Home Environment Factors for both the bilingual and English speaking samples.

A comparison of Tables 3 and 8 shows that the mean for the Educational Home Environment of the A profile

Table 15

Group Means of the Seventeen

Home Environmental Factors

Group	1	2	3	4	5	6	7	8	9
A	7	7	5.9	5.8	7.5	5.6	6.5	5.5	6
Ae	7	5.8	6.9	5.9	8.1	5.9	6.8	5.7	6.8
B	4.7	4.5	3.4	3.4	5.5	3.3	4.1	3	3.8
Be	5.5	4.4	4.1	3.8	5.2	3.4	3.6	3.4	3.5
C	5.6	4.8	3.6	3.6	6.4	3.4	3.8	3.4	3.8
Ce	6	5	3.6	4.3	7	4.6	4	4.3	4
D	7	5	5.3	5.3	7.7	5.3	3.7	5.7	5.7
De	7	6.8	6	4.8	8.5	4.8	5.8	4.5	5

Group	10	11	12	13	14	15	16	17
A	1	3.9	3.5	5.5	6.5	3.4	6.4	3.8
Ae	3.1	4.2	4.9	6.5	6.9	3.9	5.6	4.7
B	1	2.6	3	3.3	3.4	2	4.3	2
Be	1.7	2.7	3.5	3.6	4.1	2	3.9	1.3
C	1.2	2.8	3.2	4.2	3.6	2.4	2.8	2
Ce	1.6	2	4	4.3	4	2.6	3.3	4
D	1	3.3	3.7	3.3	6.7	3	4.7	2.7
De	2.5	3.3	5	6	6.3	3.5	5.8	4

group of the bilingual population was 5.34. The mean of the English speaking population was 5.79. The mean of the bilingual Sand was 7.18 and the English speaking mean was 10.42. Sand items which were answered correctly by the bilingual and English populations are shown in Table 16. The English speaking group scored almost three points higher than the bilingual group. The real difference in

Table 16

Sand Test Items Answered Correctly

Item No.	Concept	A-D Bilingual	Ae-De English
1.	Front right side up. Orientation of book.	27	30
2.	Print Carries Message.	8	18
3.	Start page reading at top left.	8	15
4.	Left to right direction of reading.	9	15
5.	Return sweep to start next line of print.	6	14
6.	Word by word pointing, sound and print correspondence.	1	1
7.	Beginning and end of text.	2	10
8.	Orientation of inverted picture.	16	22
9.	Orientation of inverted print.	18	14
10.	Top to bottom line sequence.	2	2
11.	Left page right page reading sequence.	18	18
12.	Word order sequence within a sentence.	3	3
13.	Letter order sequence within a word.	0	0
14.	Reordering incorrect sequence of letters.	1	0
15.	Function of question mark or name.	1	5
16.	Function of period or name.	0	1
17.	Function of comma or name.	0	0
18.	Function of quotation mark or name.	0	0
19.	Capital and lower case correspondence.	10	13
20.	Differentiation of reversible words.	0	0
21.	Concept of a letter.	25	18
22.	Concept of a word.	5	7
23.	First and last letter of a word.	2	8
24.	Capital letter.	4	6

in groups was the ROL scores. The bilingual group scored a 24.27 to the English speaking group's 31.64. The difference in home environments was negligible. The Sand means differed by 3.24. It appears that the big discrepancy is with the oral language development of the children. These low scores of the bilingual children may be attributed to the lack of standard English spoken in the home. Sixteen percent of the mothers spoke no English at all. In summary, the answers to Question Three are:

1. Bilingual children from a nurturing home environment are not equivalent in development of concepts of print to English speaking children from a nurturing home environment.

2. Bilingual kindergarten children from a nurturing home environment are not equivalent to English speaking kindergarten children in language development.

Summary of Results

The results of this investigation are the same as those found by Smith (1978, p. 83), "that the home is a powerful influence on the language development and the concepts of print with which a kindergarten child begins school."

CHAPTER V

SUMMARY AND RECOMMENDATIONS

Summary of Investigation

This study was designed to identify factors in the home which seem to influence oral language and concepts about print of kindergarten children. The study focused on the proximal components or those which could be manipulated and changed by the parents. Also, the investigation sought to find out if bilingual children were equivalent in oral language development and concepts of print to English speaking children.

The Record of Oral Language (ROL) and Sand test measured the oral language and concepts of print. The Educational Home Environment was based on an altered model developed by Dave (1963) and Wolf (1964). The Educational Home Environment contained six process variables: achievement press, language models, academic guidance, activeness of the family, intellectuality in the home and work habits of the family. Seventeen environmental factors comprised these six process variables.

Sixty-three kindergarten children and their homes were selected from four elementary schools. Thirty-one of these children were bilingual and the other thirty-two were

English monolinguals.

Interviews in the homes were conducted during the month of September, 1980. At this time the Sand and ROL were administered. "The Educational Home Environment was determined by scoring seventeen factors on a nine-point scale, which were developed from those constructed by Dave (1963) and Wolf (1964)" (Smith, 1978, p. 86).

Summary of Findings

The purpose of this study was to answer three specific questions:

1. Which home environment influences contribute positively and/or negatively to the development of language in kindergarten children?

The findings indicated that the home is a powerful influence on language development. The process variables language models, academic guidance and activeness of the family were used to determine the language quality of the home. These variables appeared to have the most influence on oral language development. Language models were composed of three criteria: quality of the language of the parents, opportunity for the enlargement and use of vocabulary and sentence patterns and keenness for correct and effective language usage. Academic guidance was based upon: availability of guidance on matters related to school work,

quality of guidance on matters related to school work and availability and use of materials and facilities related to school learning. The activeness of the family was measured by: use of TV and other media, use of books, extent of family indoor activities and family outdoor activities. From these variables the following home influences contributed to language development:

a. good language models in the home

b. a keenness by the parents for proper vocabulary and sentence patterns

c. efforts to help the child increase and enlarge his vocabulary

d. regular parent-child reading related activities

e. educational material appropriate to the educational level of the child

f. opportunities for the child to express himself often in a variety of situations

g. use of public library and a variety of reading material in the home.

2. Which home environment influences contribute positively and/or negatively to the development of perceptions of print of kindergarten children?

The process variables: achievement press, intellectuality in the home and work habits of the family

contributed to these findings. Again it was found that the home had a profound influence on the child's concepts of print. The following identifiable environmental influences contributed to the childrens' concept of print:

a. high parental aspirations for the child's education and future career

b. a feeling that the parents' own goals were the result of education

c. gifts having educational value

d. frequent parent-child reading activities

e. an abundance of reading materials at the child's educational level

f. counting and learning to write one's name before entering school.

3. Do bilingual children from a nurturing home environment have the same concepts of print and language development as those from English speaking homes with nurturing home environments?

The A profile clusters of both bilingual and English speaking samples were analyzed. The findings were that the home environments were almost identical. The bilingual A profile had a mean of 5.34 and the Ae cluster a mean of 5.79. On the Sand test which measured concepts of print the bilingual group scored a 7.18 and the English speaking group a 10.42. On the ROL the bilingual group scored a

24.27 and the English group a 31.64.

On the basis of the Educational Home Environment, Sand, and ROL scores it may be concluded that:

a. bilingual children from a nurturing home environment are not equivalent in the development of concepts of print with English speaking children from a nurturing home environment;

b. bilingual children from a nurturing home enviornment are not equivalent in the development of oral language to English speaking children from a nurturing home environment.

Conclusions

The following conclusions may be inferred from the findings of this study:

1. There are definite identifiable home environment influences which can be manipulated and contribute to the development of language in kindergarten children regardless of the SES. The role of the mother in verbally interacting with her child is significant in the language development of that child. These identifiable home environment factors could perhaps be improved with planning by the school districts. Parents should be made aware of the effects of their language model on their children. School systems could:

a. offer classes in the evening to parents of bilingual children to increase their language skills;

b. instruct parents on ways they can help a child increase and enlarge his vocabulary and provide opportunities for the child to express himself.

Perhaps some homes lack parent-child reading activities and do not have educational material appropriate to the educational level of their child because they cannot afford the materials. School systems could easily supply parents with materials appropriate to their children's level.

School systems could operate a library for bilingual children and their parents. In so doing, they would also be instructing parents and children about how to use the public library. It is felt that many bilingual families do not use the library because of the language barrier.

2. There are identifiable home environment influences which can be manipulated and contribute to the development of concepts of print in kindergarten children regardless of the SES.

Most families in the U.S. are not aware of the idea of concepts of print. School systems should publish easily read explanations of just what this concept is and what parents can do to increase this concept in their own children. These publications should be in both Spanish and English.

Help should be offered to families through workshops, lending libraries and other means to parents so that they may work with their own children.

3. Bilingual children scored lower than matched English speaking children in both language development and in knowledge about concepts of print. Studies by Dave (1963), Wolf (1964), Dale (1976), Durkin (1972), Hess et al. (1969) and others indicate that it is the child's environment that makes the critical difference.

The United States proposes to offer the best educational system in the world. If this is true, surely they have the means to offer some remediations for less than adequate home environments. It is not reasonable for research study after research study to point out that improvement in environment would improve a child's educational future and not go all out to do what can be done.

It would seem to be past time for our school systems to recognize the problem and at least begin the planning steps of remediation.

Recommendations

Recommendations for School Administrators

Given the small amount of bilingual parent involvement in educational activities districts may wish to be more conscientious in the assignment of principals and assistant principals. Of the four schools in the study, only one had an assistant administrator who spoke Spanish. Parents would feel more at ease knowing there was a person of

position at school with whom they could communicate.

Pre-school PTAs should be formed in order to help parents prepare their children for school and become more involved. This is a non-cost item with the exception of a nominal dues.

Recommendations for Libraries

Within walking distance of two of the schools is a public library. The investigator found that the library had few selections in Spanish for children. The children's librarian said that they were in the process of attaining more books. In order for a child to receive a library card he must: bring his parents to the library to fill out forms and be able to write his name. Applications for cards are not allowed to be distributed in schools. This practice appears to be questionable. Given the large numbers of working parents it is not always convenient for the parent to make a stop at the library.

Also, there does not seem to be much publicity regarding the amount of adult Spanish materials. There are magazines, books, pamphlets, etc. available at the library. The individual branches should do their own promotions and focus their programs on the needs of their individual communities.

Recommendations for Parent Education Programs

According to Ira Gordon (1970),

> . . . some parents lack any notion that they are or should be teachers of their very own children. Some lack the ability to teach a child. They do not understand what behaviors on their part help a child to learn and what things they do prevent or inhibit learning. They man lack knowledge of what kinds of conditions and experiences seem to open the world for the development of the child and what other conditions close it down. Their own verbal facilities may be so limited that they do not communicate with the young child. They may have a belief that after all each person is a victim of chance, fate and circumstance and that there is little an individual can do to affect what might happen to the child. (p. 247)

Gordon found

> . . . that the best teacher of the parent is someone with a similar background to hers, who has been specifically trained in interview techniques and with a set of materials (based largely on Piaget . . .) designed to bring mother and child together in interaction, through play, in ways that would be mutually satisfying and would enhance the intellectual and personality development of the child. (p. 248)

Given the sums of money allocated to bilingual education, it is recommended that some be invested in parent education and that those programs be administered in local communities.

Difficulties in the Implementation of the Study

There were many difficulties with the implementation of this study. The first of these was the inability to obtain letterhead stationary from the university to use for the initial letter to the parents. It is felt that the reluctance on the part of some parents to participate may have

been in part attributed to the lack of an authoritative appearance of this approved project.

Another problem which arose was the use of the Wolf parental interview. The rating scales were highly subjective. Also it should be noted that there were existing situations which did not fit the rating scales. For example, parents who had attained many of their personal goals did not feel education was an important means to this end. The use of tv was linked to a follow-up discussion of the programs. Families were marked down when only one parent participated in either learning or recreational activities. This was an unnecessary disadvantage to single parents.

Suggestions for Future Research

It is recommended that this project be replicated using a larger sample and limiting the English speaking population to only those of Mexican-American descent. This would eliminate a cultural bias.

It is also recommended that a different instrument be used in conducting the interview. It is suggested that the questionnaire implemented by Slaughter (1979, pp. 95-104) be used with modifications. This instrument is much simpler and shorter.

APPENDICES

APPENDIX A

LETTER TO PARENTS

AND

AUTHORIZATION

August, 1980

Dear Parents,

As a part of my doctoral program at Texas Woman's University a study is being conducted to investigate children's general language ability and perceptions of print. A scientifically random sample has selected 80 children. _____ was one of the 80 children selected to participate in this study, should you agree.

This study will be conducted during the month of September. It will include one testing session of the child and one interview of the parents of each child. The interaction between the investigator and child will be about 20 minutes in duration. The interaction will be fun activities and will not be a stressful, threatening test situation. At no time will the study affect your child at school. The session will be in your home and the parental interview will last between 45 and 60 minutes. Visits will be scheduled at your convenience: late afternoon, evening, weekday or weekend.

It is believed that the results of this study will be helpful to kindergarten teachers and parents in the future. Your help is needed: please sign the enclosed form and return in the enclosed stamped envelope within three (3) days. If you have any questions please call me (evenings 386-6744).

Let me assure you that the information you provide will be held in the strictest confidence and research ethics will be closely observed. This information will be processed in an anonymous summary form and will not be used for any purpose other than the research for which it is intended. Individual children and schools will not be identified in the report of this study.

Sincerely,

Ronni Einsohn
Doctoral Student

Enclosures: 2

TEXAS WOMAN'S UNIVERSITY

I hereby authorize Ronni Einsohn to contact me for purposes of making an appointment to visit my home to ask _____ questions of an educational nature and to collect additional information. I understand that the information may be used for educational and research purposes; and do hereby consent to such use. I also understand that the visit will be scheduled at my convenience and that all information will be held in structest confidence.

At any stage of the study if we, the parents, decide to change our minds and withdraw from the study we will notify Mrs. Einsohn by mail. In such a case, Mrs. Einsohn will delete all reference to our interview or to our child.

I understand that no medical service or compensation is provided to subjects by the university as a result of injury from participation in research.

_____ _____

Parent or Guardian Date

_____

Witness

APPENDIX B

ROL LEVELS SENTENCES

AND TYPES

Class: _____ School: _____ Child's Name: _____

Date: _____ Date of Birth: _____ I.D. #: _____

Recorder: _____ Age: _____ Teacher: _____

Sex: _____ Ethnic Group: _____

THE LEVELS SENTENCES

Level 2 Part 1
Type

A. That big dog over there is going to be my brother's.

B. The boy by the pond was sailing his boat.

C. The bird flew to the top of the tree.

D. For his birthday Kelly gave him a truck.

E. Can you see what is climbing up the wall?

F. Here comes a big elephant with children sitting on his back.

G. My brother turned the radio up very loud.

Level 2 Part 2
Type

A. That old truck in there used to be my father's.

B. The cat from next door was chasing a bird.

C. The dog ran through the hole in the fence.

D. For the holidays Grandpa bought us a ball.

E. The boy saw what the man was doing to the car.

F. There is my baby riding in his stroller.

G. The girl threw her book right across the room.

Total for Level 2

Enter 14 on the next page if all Level is credited.

Level 1 Part 1
Type

A. My brother's knees are dirty.

B. Kitty is drinking some milk.

C. Sally is staying at home.

D. John is buying me a boat.

E. I know he's in there.

F. There's another fire engine.

G. She's driving her car quickly.

Level 1 Part 2
Type

A. My father's radio is broken.

B. Sally is riding her bike.

C. Mary is going to town.

D. Mary is giving me a book.

E. I guess we're lost.

F. Here are some more fish.

G. He's playing his radio very loud.

Total for Level 1

Level 3 Part 1
Type

A. Be as quiet as you can when your father's asleep.

B. My aunt and uncle want to start building a new house.

C. The two cars drove along the roads for a long time.

D. The shopkeeper sold my mommy some fresh cream.

E. The girl saw who her mother was giving the cakes to.

F. There are the books that you were reading at my place.

G. My mother usually puts the cat outside the house at night.

+ 12 go to Level 3

3-11 go to Level 1 and then Level 3

0-2 go to Level 1 and STOP

Level 3 Part 2
Type

A. Be very careful swimming when there's a big wave.

B. That dog and the one next door like to chase the mailman.

C. All the children talked loudly to each other at the table.

D. The new teacher read our class a fairy story.

E. The teacher knows how much wood we will need for the house.

F. There goes the fireman who put out the fire in the factory.

G. My brother often puts some bread outside for the birds.

Total for Level 3

Level 1

Level 2

Grand Total

ROL SENTENCE TYPES

Type	Construction		
A	Subject	+ Verb 'to be'	+ Simple Statement
B	Subject	+ Verb	+ Direct Object
C	Subject	+ Verb	+ Additional Construction
D	Subject	+ Verb	+ Indirect Object + Direct Object
E	Subject	+ Verb	+ Noun Clause
F	Adverb or Relative Pronoun	+ Verb	+ Subject
G	Subject	+ Verb Phrase	+ Object + Additional Construction

To receive credit for a correct response the subject must repeat a sentence verbatim. The possible score for the ROL ranges from 0 to 42 (Perkins, 1978, p. 39).

APPENDIX C

SUMMARY OF SAND TEST ITEMS

SUMMARY OF SAND TEST ITEMS

Item No.	Concept
1.	Front right side up. Orientation of book.
2.	Print carries message.
3.	Start page reading at top left.
4.	Left to right direction of reading.
5.	Return sweep to start next line of print.
6.	Word by word pointing, sound and print correspondence.
7.	Beginning and end of text.
8.	Orientation of inverted picture.
9.	Orientation of inverted print.
10.	Top to bottom line sequence.
11.	Left page right page reading sequence.
12.	Word order sequence within a sentence.
13.	Letter order sequence within a word.
14.	Reordering incorrect sequence of letters.
15.	Function of question mark or name.
16.	Function of period or name.
17.	Function of comma or name.
18.	Function of quotation mark or name.
19.	Capital and lower case correspondence.
20.	Differentiation of reversible words.
21.	Concept of a letter.
22.	Concept of a word.
23.	First and last letter of a word.
24.	Capital letter.

APPENDIX D

INITIAL HOME INTERVIEW FORM

Number _____

INITIAL HOME INTERVIEW FORM

Name of the interviewees: _____ Relation to the child:

_____ Mother Father

Address: _____ Other (specify)

_____ _____

Phone No. _____ Child_____

Name of the interviewer:_____ Birth Date:_____

Date of interview: _____

Children

	Name	Sex	Age	School Grade	Remarks
1.					
2.					
3.					
4.					
5.					

(circle number of focal child)

Adults Living in the Home

Father: _____Yes _____No Mother: _____Yes _____No

Other:_____

	Father	Mother
Occupation	_____	_____
Education	_____	_____

Pointing out the Subject: We are going to talk about your kindergarten grade child (name). We will probably be referring to the others on occasion, but our discussion will be mainly about _____(name).

1. How do you feel about his school progress:

   What grades do you expect him to receive?

   What grades satisfy you?

	Expect	Satisfy

2. How do your other children generally do in school?

3. What organizations or clubs, if any, do you belong to (PTA, Church, Political, etc.)?

   Does your child know what you do in these organizations?

   _____Yes _____No How?

4. What are your favorite recreation pastimes?

   What recreational activities do you and your family engage in on weekends together?

   What places have you visited on weekends during the past six months?

	Visit	Reason
Family		
Mother		
Father		

5. Do you usually plan your weekends and vacations ahead of time?

_____Yes _____No How often?

What makes the plans?

6. Where have you, as a family, traveled during the past two years?

Why were these places chosen?

What specific activities take up most of your time at these places?

7. What newspapers and/or magazines do you subscribe to?

Do you encourage your child to read them? If so, how?

Do you discuss the articles or stories in them in his presence? (Give examples)

Does your child ever participate in these discussions - vs. listening?

8. Does your child take any lessons--musical, dance, academic subject?

If so, what?

How long has he taken these?

How did he get started in this area?

9. What kinds of toys, games, books, pamphlets, etc. have you bought for your child in the past two years? (Include birthdays and holidays) Give examples:

10. Does your child have a library card? _____Yes _____No
If so, how long has he had it?

How did he come to get his card? (Note parent initiation)

Do you remember the first few times he went to the library? Did anyone accompany him? Who?

Where else does he obtain reading material?

11. What appliances do you permit him to operate?

How long have you allowed this?

12. Does your child have a desk of his own? _____Yes _____No
If not, where does he study or look at books?

What kinds of supplies are available for him to work with: (Observe)

_____paste	_____scissors	_____others (specify)
_____paper	_____compass	_____
_____paints	_____protractor	_____
_____crayons	_____ruler	_____

13. Do you have a dictionary in your home? If so, what kind?

Does your child have a dictionary of his own? If so, what kind?

Where are they kept?

Does your child use the dictionary?

How often do you?

When the child uses the dictionary, at whose initiation--his or yours?

What other ways does your child have of learning new words? School, relatives, etc.?

Home dictionary:	Child's dictionary"
_____Yes _____No	_____Yes _____No
Name	Name
Use	Use

14. Do you have an encyclopedia in your home? _____Yes _____No
If so, what kind?

When did you get it? Why?

Do you buy yearbooks to accompany the encyclopedia? ___Yes ___No

Where is it usually kept?

How often do you use it?

How often does your child use it?

15. Do you have an almanac or fact book? _____Yes _____No
If so, when was it purchased?

Who uses it? When?

What other sources of reading material does your child have available to locate answers to his questions--library, friends, etc.?

16. Did you teach him to count, read, or print his name before he went to school? If so, how much?

17. Do you have any workbooks or other kinds of learning materials which you use to help your child in his learning?

What other steps, if any, do you take to insure that your child keeps up in his school work?

18. How often do the two of you discuss your child's progress in school?

What generally results from such discussions?

19. Have you had any experience in teaching? What?

Father Mother

20. When does your child usually eat dinner on weekdays?

Who eats with him?

Who does most of the talking at the dinner table?

About what?

21. At what other times are you together as a family on weekdays?

    Weekends?

22. What are some of the activities you engage in with the child on weekdays? On weekends?

	On Weekdays	On Weekends
Father:		
Mother:		
Family:		

23. Are there any adults outside of you (parents) that your child is particularly friendly with?

    If so, what does he seem to like about them?

    What do you see as this person's special qualities?

    How often does your child see them?

    What does he do when he's with them?

24. Have both of you worked outside the home since your child was born?

    _____Yes _____No If so, who took care of the child?

25. Did you read books to him when he was younger?

If so, when did you start?

When did you stop?

How <u>regularly</u> did you read to him?

Do you still read to him? Does he read to you?

How often?

Tell me how you read to him:

26. About how many hours a week does he usually watch TV?

Winter: _____Hours Summer: _____Hours

What are his favorite programs?

Do you approve of them? If not, what do you do about them?

Do you determine when the TV is on? If so, how?

27. What are your favorite TV programs?

Did you recommend that your child watch any particular programs in the past week? If so, which ones?

Did you discuss any programs with him after watching them?

28. How would you describe your child's language usage?

Do you help him to increase his vocabulary? If so, how?

How have you helped him to acquire appropriate use of words and sentences?

Are your still helping him in these respects? If so, how?

29. How much would you estimate you correct him in his speech? Example: Use of "ain't," etc.

How particular are you about your child's speech?

Are there particular speech habits of his that you are working on to improve? Earlier?

Give examples, if so:

30. Do you speak any language other than English in the house?

_____Yes _____No If so, which one?

Does the child also speak this language?

31. How much schooling do you wish your child to receive?

32. How much schooling do you expect your child to receive?

33. What is the minimum level of education that you think your child must receive?

34. Do you have any ideas about the kind of work you would like to see your child do when he grows up?

    Do you have any ideas about the kind of work you would <u>not</u> like your child to do?

35. How do you feel about the kind of work you're doing?

    <u>Father</u> <u>Mother</u>

    Is this the kind of work you always wanted to do?

36. How do you feel, in general, about the accomplishments of your family?

    How far have you been able to accomplish the aspirations or plans with which both of you started your family life?

37. How important has education been in achieving these goals?

    How much importance is education going to have in the life of your child?

    Would his future status be radically affected if he does not attain the level of education you wish him to attain?

38. What is the educational level of some of your close friends and relatives?

39. Have you met with your child's present teacher? _____Yes _____No
If so, when?

Why?

Does the teacher usually initiate parent-teacher conferences?

If you ask for a meeting, for what purpose?

What other ways, if any, are you in contact with the school?

40. Did you hug, kiss, or speak approvingly to your child in the past few days? If so, for what reasons?

What are some of the activities and accomplishments of your child that you praise and approve of?

How do you do this?

What things do you find you have to scold him for?

Father Mother

41. Do you discuss his school work with him?
What particular things do you discuss with him?

42. Do you have college plans for him? _____Yes _____No
If so, what have you done to financially prepare for this?

In what other ways, if any, do you prepare him for the attainment of educational goals? (e.g., acquaint him with colleges, telling him about what people learn in college, etc.)

43. About how often do you ask your child how well he is doing in school? What particular things do you ask him?

44. Does he help you in the routine housework? _____Yes _____No
If so, what responsibilities does he have?

How punctually does he carry them out?

45. Is the housework distributed among the members of the family?
If so, who did the planning for such assignments?

How regularly are these assignments followed?

What factors, if any, come in the way of carrying out such plans?

46. How would you rate your child's habit of completing his work on time, not leaving a problem undone, correcting his mistakes, etc.?

How did he acquire these habits?

47. Do you ever have to change your own plans for the sake of your child's school work? _____Yes _____No

If so, what kinds of plans have you had to change?

48. Have you had to sacrifice any of your major needs or desires such as buying a new car, giving up a job, etc., for the present and/or future education of your child?

If so, what did you give up?

What were the immediate consequences?

49. Are you taking any courses or involved in a hobby?

If so, what?

How did you get involved in this?

How are you doing it--formally or informally?

Did you study any subjects or have a hobby during the past two years? If so, what?

Father:

Mother:

50. What do you read?

Father:

Mother:

How often do you read?

Father:

Mother:

Do you or other adults read in front of the child?

AGE OF SIGNIFICANT FAMILY CHANGES

	0-1	1-2	2-3	3-4	4-5
Birth					
Death					
Divorce					
Move					
Employment					
Father					
Mother					
Illness					
Child					
Sibling					
Father					
Mother					
Other					

CHILD CARE BY AGE (Minimum of 3 hours per day_

Mother					
Regular sitter					
Nursery School					
Day Care					
Combination					

PARENT-CHILD CONTACT

	Daily Regular	Weekly Frequent	Monthly Infrequent	Seldom	None
Father	_____	_____	_____	_____	_____
Mother	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

(Explain)

(Complete After Interview)

DWELLING

Cost	Up $50,000	$50,000 $25,000	$25,000 Down	Apt. $175.+	Apt. $175.-
No. Rooms	2 Less	3	4	5	6 or more

CULTURAL GROUP

White_____ Oriental _____

Brown_____ Native American_____

Black_____ Other _____

ESTIMATED INCOME LEVEL

Low _____ Middle _____ High _____

Remarks:_____

_____

_____

_____

APPENDIX E

RATING SCALES

RATING SCALES

There are seventeen rating scales in all, as given in this appendix. Each rating scale is preceded by the name of the environmental process factor, the criteria for its measurement, and the serial numbers of the questions in the interview schedule that are based on the factor. The interview schedule given in Appendix D may be consulted for the question.

The description of the alternative points on the scale given as cues to the rater had to be as brief and explicit as possible for their practical use. Therefore, they are often stated in the form of phrases or incomplete and abridged sentences. Their meaning, however, will become explicit when read in the context of the other parts of the scales and the criteria for the measurement of the process characteristic concerned (Smith, 1978, p. 124).

(1) PARENTAL ASPIRATIONS FOR THE EDUCATION OF THE CHILD

Criteria: *Nature of the educational and vocational goals
*Level of expectation of the educational accomplishments

Questions: 1, 2, 31, 32, 33, 34, 37

Rating Scale:

9	Beyond four years of college. Occupational expectation requiring very high education. Expectation of best grades in school.
8	
7	Four years of college. Occupational expectation requiring high education. Expectation of A's with some B's.
6	
5	At least through high school. Some college education desired. Moderately high occupational aspiration. Expectation of B's with some A's and some C's.
4	
3	Only up to high school. Very moderate and uncertain occupational expectation. Expected grades C's with some B's.
2	
1	Absence of any long term educational and vocational goals. Only narrow and immediate goals. No expectations about grades, or expectation below C's.

(2) PARENTS' OWN ASPIRATIONS

Criteria: *Present accomplishments
*Means of the accomplishments
*Future aspirations

Questions: 34, 35, 36, 37, 38

Rating Scale:

9 Very high accomplishments already attained. Education used as is the most important means of the accomplishments, or a very keen feeling for not having enough education. Still very high aspirations.

8

7 High accomplishments already attained. Education used as one of the chief means of the accomplishments, or a keen feeling for not having enough education. Still high aspirations.

6

5 Fairly high accomplishments already achieved. Education used as one of the chief means of the accomplishments or a keen feeling for not having enough education. Still more, but moderate aspirations.

4

3 Moderate accomplishments. Education played only an incidental role in the accomplishments. Very moderate aspiration.

2

1 Little accomplishment. Education is not considered as a means of any possible accomplishments. Practically no future aspiration.

(3) PARENTS' INTEREST IN ACADEMIC ACHIEVEMENT

Criteria: *Extent of participation in the educational activities (e.g. reading, PTA)
*Keenness for the educational progress of the child

Questions: 3, 4, 16, 18, 19, 39

Rating Scales:

9	Both parents very active in educational organizations and activities. Very particular about the educational progress of the child.
8	
7	Both or any one of the parents active in educational organizations and activities. Particular about the educational progress of the child.
6	
5	Only one of the parents occasionally active in educational organizations and activities. Fairly particular about the educational progress of the child.
4	
3	Only one of the parents occasionally active in educational organizations and activities. Not quite particular about the educational progress of the child.
2	
1	None of the parents active in any educational organization or activity. Not at all particular about the educational progress of the child.

(4) STANDARDS OF REWARD FOR EDUCATIONAL ATTAINMENT

Criteria: *Valuing academic accomplishments
*Selection of gifts having educational value

Questions: 1, 9, 40, 41

Rating Scale:

9 Academic accomplishments very highly and invariably praised. They are praised more than any other accomplishments. Very high expectations of educational achievement. Selection of gifts invariably having educational value.

8

7 Academic accomplishments are one of the most highly praised accomplishments. High expectations of educational achievement. Gifts very often having educational value.

6

5 Academic accomplishments are praised. Some other accomplishments are praised more. Moderately high expectations for educational achievement. Some gifts having educational value.

4

3 Academic accomplishments are occasionally praised. Some other accomplishments are praised highly. Moderately high expectations for educational achievement. Some gifts having educational value.

2

1 Academic accomplishments are not praised at all. Some other accomplishments are very highly praised. Very low expectations of educational achievement. Gifts hardly having any educational value.

(5) QUALITY OF THE LANGUAGE USAGE OF THE PARENTS

Criteria: *Fluency of expression
*Pronunciation
*Vocabulary
*Organization of thoughts

Evidences: From the conversation with the parent(s) during the interview.

Rating Scale:
(i) To rate each of the four criteria individually on the following scale and (ii) to take their average as the overall rating for this characteristic. (Round to whole number.)

9 Excellent

8 Very good

7 Good

6 A little above average

5 Average

4 A little below average

3 Quite below average

2 Poor

1 Very poor

(6) OPPORTUNITIES FOR THE ENLARGEMENT AND USE OF VOCABULARY AND SENTENCE PATTERNS

Criteria: *Variety of opportunities (e.g. books, TV, travel, picnics, verbal interaction in home situations)
*Frequency of opportunities

Questions: 4, 6, 20, 21, 22, 23, 24, 28, 30

Rating Scale:

9	A great variety of situations available frequently and consistently.
8	
7	A good variety of situations available quite frequently
6	
5	A moderate variety of situations available fairly frequently.
4	
3	Only a few situations available infrequently.
2	
1	Very limited situations available.

(7) KEENNESS OF THE PARENTS FOR CORRECT AND EFFECTIVE LANGUAGE USAGE

Criteria: *Regularity in reading to the child during pre-school period
*Variety of efforts for increasing vocabulary, and correcting language usage, if needed.

Questions: 10, 13, 25, 28, 29, 30

Rating Scale:

9 Read to the child very regularly, almost every day, from early childhood. The child is encouraged to read some special material to the parents and others. A great variety of efforts in increasing vocabulary and improving language usage.

8

7 Read to the child quite regularly, almost every day, for about three years or more. Some occasional reading to him still continues. A good variety of efforts in improving his vocabulary and language usage.

6

5 Read to the child fairly regularly for two or three times a week for about two years or so. Some effort to improve vocabulary and language usage.

4

3 Read to the child during the pre-school occasionally and without any regularity. Incidental efforts to improve vocabulary and language usage.

2

1 Parents or family have not read to the child with any regularity at any time. Hardly any efforts to improve vocabulary and language usage.

(8) AVAILABILITY OF GUIDANCE ON MATTERS RELATING TO EDUCATIONAL ACTIVITIES

Criteria: *Extent of general supervision regarding activities
*Readiness in guidance when asked for
*Suggestions regarding Educational Activities

Questions: 11, 17, 22, 41, 43

Rating Scale:

9	Very regular general supervision regarding educational activities. Guidance made readily available when asked for. Both parents provide the guidance and suggestions.
8	
7	Regular general supervision regarding educational activities. Guidance available most of the times when asked for. Suggestions given to the child sometimes at the parents' initiative. Both parents provide the guidance and suggestions.
6	
5	Fairly regular supervisoin regarding educational activities. Guidance sometimes available. Suggestions given to the child regarding the betterment of the work, only occasionally. Only one of the parents provides guidance and suggestions.
4	
3	Occasional supervision regarding educational activities. Guidance only occasionally available. Suggestions given to the child regarding the betterment of the work very occasionally.
2	
1	No supervision regarding educational activities. No guidance or suggestions available for the improvement of work.

(9) AVAILABILITY AND USE OF MATERIALS AND FACILITIES RELATED TO COGNITIVE LEARNING

Criteria: *Selection of the material (e.g. Dictionary, Encyclopedia, Workbooks)
*Guidance for the use of the material and educational facilities

Questions: 8, 12, 13, 14, 15, 17

Rating Scale:

9 Selection of the most appropriate materials according to the educational level of the child. Abundant supply of the educational materials. Appropriate and timely use of the materials and facilities.

8

7 Selection of generally appropriate material according to the educational level of the child. Fairly abundant supply of the educational material. Appropriate and timely use of the materials and facilities.

6

5 Availability of some educational material. Specific selection according to the child's level only in some cases. Some general use of the materials and facilities.

4

3 Very moderate supply of educational material. No specific selection according to the child's level. Only occasional use of the material and facilities.

2

1 No availability of educational material in the home. No use of facilities available in the community, such as library.

(10) THE EXTENT AND CONTENT OF INDOOR ACTIVITIES OF THE FAMILY

Criteria: *Variety (Discussion, Undertaking a project, etc.)
*Frequency
*Educational value

Questions: 4, 7, 21, 22

Rating Scale:

9 A variety of activities in the home, having very high educational value are frequently undertaken by the family. Both parents participate.

8

7 A variety of activities in the home, having high educational value are often undertaken by the family. One or both parents participate.

6

5 A moderate variety of activities in the home, having general educational value are sometimes undertaken by the family. One or both parents participate.

4

3 Only a very few number of family activities in the home have direct educational value. Often only one parent participates.

2

1 No family activities in the home. Or, the activities have hardly any direct educational value. Both parents are generally not available in any educational activities.

(11) THE EXTENT AND CONTENT OF OUTDOOR ACTIVITIES DURING WEEK-ENDS AND VACATIONS

Criteria: *Variety (e.g. visits to a museum or a zoo, traveling to historical places)
*Frequency
*Educational valeu

Questions: 3, 4, 5, 6, 22

Rating Scale:

9 A variety of child-centered activities outside the home having very high educational value, and frequently undertaken by the family. Both parents participate. Initiated and planned by different members of the family, instead of just one person.

8

7 A variety of outside activities having high educational value are often undertaken by the family. One or both parents participate. Generally planned by the parents.

6

5 A moderate variety of outside activities that have high educational value. Such activities are only sometimes undertaken by the family. One or both parents participate. Generally planned by any one of the parents.

4

3 A majority of outside activities have more recreational or other purposes, with incidental educational value. Or very few outdoor activities. One or both parents participate. Generally planned by any one of the parents. Others follow.

2

1 Practically no outside activities of the family having educational purpose.

(12) USE OF TV AND SUCH OTHER MEDIA

Criteria: *Purpose of the use
*Extent of the use

Questions: 26, 27

Rating Scale:

9	Regular use for specifically educational purpose. Recreational value subsidiary. Frequent follow-up discussions.
8	
7	Regular use for general educational and recreational purpose. Sometimes followup discussions.
6	
5	Fairly regular use. Recreational purpose often more predominant than educational purpose. Occasionally followup discussions.
4	
3	Not much use of TV and other media. Mostly recreational purpose when used. Hardly andy followup discussion.
2	
1	No use of any of these media.

(13) USE OF BOOKS, PERIODICAL LITERATURE, LIBRARY AND SUCH OTHER FACILITIES

Criteria: *Variety of material used by the family members (e.g. books, magazines, newspapers)
*Encouragement to the child for the use of such material (e.g. helping him to be a member of the library, suggesting him to write reading material with friends)

Questions: 4, 7, 10, 25, 50

Rating Scale:

9	Extensive reading of a variety of material by the family members. Great encouragement to the child for the same from his early age.
8	
7	Fairly extensive reading of a good variety of material by the family members. Encouragement to the child for the same.
6	
5	Moderate reading of some variety of material by the family members. Some encouragement to the child for the use of reading facilities.
4	
3	Some reading infrequently done by the members of the family. Only occasional encouragement to the child for the use of reading facilities.
2	
1	Hardly any reading done by the members of the family. No encouragement to the child also.

(14) OPPORTUNITIES FOR THINKING AND IMAGINATION IN DAILY ACTIVITIES

Criteria: *Variety (e.g. use of power appliance, thought-provoking discussions, etc.)
*Level of complexity
*Extent of encouragement for independent thinking

Questions: 4, 11, 20, 22, 23, 25

Rating Scale:

9	Opportunities to work with a variety of complex appliances. Opportunities to listen to and participate in thought-provoking discussions. Great encouragement for independent thinking.
8	
7	Opportunities to work with some variety of complex appliances. Some opportunities to listen to and participate in thought-provoking discussions. Some encouragement for independent thinking.
6	
5	
4	
3	Opportunities to work with one or two very moderately complex appliances. Opportunities to listen to thought-provoking discussions occasionally. Hardly any encouragement for independent thinking.
2	
1	Practically no opportunities to work with any complex appliances. No opportunities to listen to any thought-provoking discussions. No encouragement for independent thinking.

(15) CHILD'S INTERACTION WITH PRINT

Criteria: *Extent of Parent-Child-Print activity
*Value of reading as fun activity
*Availability of child's reading material

Questions: 7, 9, 14, 16, 17, 22, 25

Rating Scale:

9	Daily parent-child reading activity viewed as a pleasant enjoyable time. Great to read books at child's own level.
8	
7	Frequent parent-child reading activity, 3 to 5 days a week, viewed as a fun activity. Some to read books at child's level.
6	
5	Moderate parent-child reading related activity, once or twice a week. No reference as pleasant activity by adult. Little opportunity for child to read.
4	
3	Infrequent parent-child reading related activity. Negative or neutral reaction of parent to reading with child. Hardly any opportunity for child to read alone.
2	
1	Practically no parent-child reading related activity and no opportunity for the child to look at books.

(16) DEGREE OF STRUCTURE AND ROUTINE IN THE HOME MANAGEMENT

Criteria: *Planning and distribution of work
*Punctuality in following it

Questions: 44, 45, 46

Rating Scale:

9	Well planned home management. Distribution of work among the family members. Punctuality and discipline in following the plans.
8	
7	Major duties distributed among the family members. Planning followed quite consistently.
6	
5	Moderate planning. It is followed with only moderate regularity.
4	
3	Some efforts made for planning and distribution of work which was not followed systematically.
2	
1	No planning or household work.

(17) PREFERENCE FOR THE EDUCATIONAL ACTIVITIES OVER OTHER PLEASURABLE THINGS

Criteria: *Priority to educational activities attached by the parents.
*Continuity of academic activities (e.g. taking courses after completing formal education)

Questions: 42, 47, 48, 49, 50

Rating Scale:

9 Very high priority attached by the parents to studies and other educational activities. Both parents continued studies voluntarily after completing formal education.

8

7 Educational activities and studies stand among the activities of high priority. One or both parents continued studies voluntarily after completing formal education.

6

5 Educational activities and studies moderately high in priority. A few others higher in priority. One of the parents continued studies either voluntarily or as occupational requirement after completing formal education.

4

3 Other activities higher in priority than educational activities and studies. One of the parents continued studies after completing formal education as an occupational requirement.

2

1 No emphasis attached to scholastic studies by the parents. It is often made subsidiary to other activities. Parents did not continue any studies after completing their formal education.

APPENDIX F

SCORING FORM

Name _____

Number _____

EDUCATION HOME ENVIRONMENT

Scoring Form

	Environmental Factors	Process Variables
1. Achievement Press		_____
Parents' aspirations for child	_____	
Parents' own aspirations	_____	
Parents' interest in achievement	_____	
Rewards for educational attainment	_____	
2. Language Models		_____
Quality of language, parents	_____	
Opportunity for use and enlargement	_____	
Keenness of parents for correctness	_____	
3. Academic Guidance		_____
Availability of guidance	_____	
Availability of materials	_____	
4. Activeness of Family		_____
Indoor activities	_____	
Outdoor activities	_____	
Use of TV	_____	
Use of Reading	_____	
5. Intellectuality in Home		_____
Child's interaction with print	_____	
Opportunity for thinking	_____	
6. Work Habits in the Family		_____
Structure and Routine	_____	
Preference for Educational Activities	_____	
Education Home Environment (Total of Six Process Variables)		_____

APPENDIX G

PARENTAL SURVEY OF HOME LANGUAGE

Place 4-line Demographic label here. If label is not available, fill in student information below.

WHITE - Data Services
CANARY - Student File
PINK - Area Administrator

PARENTAL SURVEY OF HOME LANGUAGE

STUDENT INFORMATION:

Key punch Col.

F
1

School Location Number _____ 2-4

Student I.D. Number _____ 5-10

Sex:
____Male
____Female

ETHNIC RACIAL CATEGORY
____ American Indian or Alaskan Native
____ Asian or Pacific Islander
____ Black Not of Hispanic Origin
____ Hispanic
____ White Not of Hispanic Origin

Student Name: _____

Grade: _____

TO BE COMPLETED BY PARENT OR GUARDIAN:

FIRST LANGUAGE
_____
71

SECOND LANGUAGE
_____
72

FREQUENCY
_____
73

C
_____
80

1. What is the first language your child learned at home? _____
2. Does your child hear a language other than English spoken at home by parent or guardian? ____ yes ____ no

   If the answer to Question Number 2 is Yes, please answer the following questions:

3. What is the language(s) other than English which your child hears at home from parents or guardian(s)? _____
4. When the language other than English is spoken at home, does your child understand it? _____ yes

   _____ no

5. Does your child speak the language other than English at home? (Indicate your response with an X on the space provided.)

   a. Most of the time. _____
   b. Some of the time. _____
   c. Not very often. _____
   d. Not at all. _____

_____
Signature of Parent

_____
Date

Dear Parent(s)/Guardian(s):

The Independent School District is committed to serve all children through programs that are appropriate to their needs. Recently the Supreme Court ruled in the Lau vs. Nichols decision that schools must report what language(s) is spoken by a child and his/her family in the home. Clearly you are most qualified to assist us in this area. By sharing this information with us, you will help us to provide your child with the best education that our schools can offer.

Your participation is very important. Please take the time to answer several questions about the language(s) spoken in your home.

Please answer the questions on the reverse side of this letter. Complete one questionnaire for each child and return the questionnaire to your child's teacher. Call the school if you have any questions regarding this communication.

Once again, we deeply appreciate your cooperation in helping us to provide a better education for your child.

Sincerely yours,

General Superintendent

APPENDIX H

HOME ENVIRONMENT SCORES AND TEST SCORES FOR BILINGUAL CHILDREN

PROCESS VARIABLE SCORES AND EDUCATIONAL

HOME ENVIRONMENT SCORES

BILINGUAL CHILDREN

KEY:
EHE - Educational Home Environment
Process Variables --

1. Achievement Press
2. Language Models
3. Academic Guidance
4. Activeness of Family
5. Intellectuality in Home
6. Work Habits of Family

Subject's Number	EHE	1	2	3	4	5	6
A 1	6.09	6.00	7.33	6.50	3.75	6.00	7.00
A 2	6.09	6.00	7.33	6.50	3.75	6.00	7.00
A 3	5.73	7.25	7.66	6.00	3.00	5.00	5.50
A 4	5.58	8.00	6.66	5.00	4.25	4.50	5.00
A 5	5.58	6.50	6.66	7.00	2.75	5.50	5.50
A 6	5.40	6.00	7.00	6.50	3.50	6.50	3.00
A 7	5.23	6.25	6.66	6.00	4.00	5.00	3.50
A 8	4.90	5.75	5.66	5.00	3.50	5.00	4.50
A 9	4.89	6.75	4.25	5.00	3.25	4.00	6.00
A 10	4.73	6.50	5.33	5.00	3.00	4.00	4.50
A 11	4.50	6.00	6.00	4.50	3.50	2.50	4.50
B 1	4.06	4.75	5.00	3.50	2.50	4.00	4.50
B 2	4.05	4.75	5.33	4.00	2.75	3.50	4.00
B 3	4.01	4.25	5.33	5.00	4.00	3.00	2.50
B 4	3.83	4.50	5.00	4.50	2.50	4.50	2.00
B 5	3.66	4.50	5.00	4.50	2.50	2.00	3.50
B 6	3.50	4.00	4.00	4.00	2.50	3.50	3.00
B 7	3.23	4.00	4.66	3.00	2.75	2.50	2.50
B 8	3.19	3.00	4.66	3.00	2.00	2.50	4.00
B 9	3.12	4.25	4.00	4.00	2.50	3.00	1.00
B 10	2.69	3.00	2.66	1.50	2.00	1.50	5.50
B 11	2.47	3.75	3.33	2.00	1.75	1.50	2.50
B 12	2.14	3.25	2.60	1.50	2.00	1.50	3.00
C 1	3.90	4.50	4.50	4.00	4.50	4.50	1.50
C 2	3.62	4.50	5.00	3.50	2.75	3.50	2.50
C 3	3.45	4.25	5.00	3.50	2.50	2.50	3.00
C 4	3.26	4.50	2.60	4.00	3.00	2.50	3.00
C 5	3.05	4.50	4.33	3.00	2.50	2.00	2.00
D 1	5.09	5.25	6.33	7.00	3.00	4.50	4.50
D 2	4.90	6.25	6.66	5.00	3.00	5.50	3.00
D 3	4.44	5.50	5.66	5.00	2.50	4.50	3.50

BILINGUAL CHILDREN

SEVENTEEN ENVIRONMENTAL FACTOR SCORES

Key to Environmental Factors:

1. Parents' aspirations for child
2. Parents' own aspirations
3. Parents' interest in achievement
4. Rewards for educational attainment
5. Quality of language of parents
6. Opportunity for use and enlargement
7. Keenness of parents for correctness
8. Availability of guidance
9. Availability of materials
10. Indoor activities
11. Outdoor activities
12. Use of television
13. Use of reading material and facilities
14. Opportunity for thinking
15. Child's interaction with print
16. Structure and routine
17. Preference for educational activities

Subjects's Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
A 1	7	6	6	5	7	7	8	6	7	1	4	4	6	9	3	8	6
A 2	7	6	6	5	7	7	8	6	7	1	4	4	6	9	3	8	6
A 3	8	9	7	5	9	7	7	7	5	1	6	2	3	8	2	9	2
A 4	8	8	8	8	7	7	6	5	5	2	6	3	6	6	3	5	5
A 5	6	9	5	6	8	4	8	7	7	1	3	3	5	8	3	6	5
A 6	7	5	6	6	8	7	6	6	7	1	4	4	6	6	7	5	1
A 7	6	5	7	7	8	7	5	5	7	1	3	4	8	6	4	5	2
A 8	7	6	5	5	7	4	6	5	5	1	4	4	5	6	4	6	3
A 9	8	7	7	5	7	5	5	5	5	1	3	4	5	5	3	7	5
A 10	7	7	6	6	7	4	5	5	5	1	3	3	5	5	3	6	3
A 11	7	9	2	6	8	3	7	3	6	1	3	4	6	3	2	5	4
B 1	6	6	4	3	8	3	4	3	4	1	2	2	5	5	3	6	3
B 2	6	4	5	4	7	4	5	4	4	1	3	3	4	2	5	6	2
B 3	4	5	4	4	6	5	5	5	5	1	5	5	5	3	3	2	3
B 4	4	5	4	5	7	3	5	4	5	1	3	3	4	7	2	1	3
B 5	5	5	5	3	5	5	5	4	5	1	3	3	3	3	1	6	1
B 6	4	5	3	4	4	3	5	3	5	1	3	3	3	4	3	4	2
B 7	5	4	4	3	6	3	5	3	3	1	3	4	3	3	2	3	2
B 8	5	3	2	2	8	3	3	3	3	1	2	2	3	3	2	5	3
B 9	5	6	2	4	4	2	6	3	5	1	2	3	4	4	2	1	1
B 10	4	3	3	2	2	4	2	1	2	1	3	3	1	1	2	9	2
B 11	4	3	3	5	6	3	1	2	2	1	2	2	2	1	2	3	2
B 12	4	5	2	2	3	2	3	1	2	1	1	3	3	2	1	5	1

Bilingual Children

SEVENTEEN ENVIRONMENTAL FACTOR SCORES (Continued)

Subject's Number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
C	1	5	7	2	4	7	3	7	3	5	1	3	3	7	6	3	1	2
C	2	5	5	4	4	7	4	4	3	4	1	3	3	4	5	2	3	2
C	3	5	3	4	5	8	3	4	3	4	1	3	3	3	2	3	4	2
C	4	6	4	5	2	3	3	2	5	3	2	2	4	4	3	2	4	2
C	5	7	5	3	3	7	4	2	3	3	1	3	3	3	2	2	2	2
D	1	5	6	3	7	8	5	6	7	7	1	3	3	5	6	3	5	4
D	2	9	4	8	4	7	7	6	5	5	1	4	4	3	7	4	4	2
D	3	7	5	5	5	8	4	5	5	5	1	3	4	2	7	2	5	2

BILINGUAL CHILDREN SUBJECT IDENTIFICATION

NUMBERS AND ROL/SAND SCORES

Subject's Number	Sand Score	ROL Score
A 1	8	27
A 2	5	22
A 3	4	23
A 4	10	27
A 5	9	21
A 6	8	31
A 7	11	16
A 8	8	26
A 9	5	21
A 10	3	21
A 11	8	33
B 1	2	19
B 2	4	23
B 3	3	8
B 4	3	11
B 5	0	2
B 6	2	15
B 7	4	12
B 8	3	13
B 9	3	27
B 10	5	12
B 11	3	12
B 12	3	19
C 1	9	19
C 2	10	26
C 3	7	18
C 4	8	22
C 5	5	28
D 1	4	12
D 2	4	16
D 3	4	12

APPENDIX I

HOME ENVIRONMENT SCORES AND TEST SCORES FOR ENGLISH SPEAKING CHILDREN

PROCESS VARIABLE SCORES AND EDUCATIONAL

HOME ENVIRONMENT SCORES

ENGLISH SPEAKING CHILDREN

KEY:

EHE - Education Home Environment

Process Variables --

1. Achievement Press
2. Language Models
3. Academic Guidance
4. Activeness of Family
5. Intellectuality in Home
6. Work Habits of Family

Subject's Number	EHE	1	2	3	4	5	6
Ae 1	7.50	7.00	9.00	9.00	4.50	8.00	6.50
Ae 2	6.25	6.50	8.30	5.50	5.75	5.50	6.00
Ae 3	6.21	7.25	7.30	7.00	4.75	4.00	7.00
Ae 4	6.09	7.20	7.60	7.50	4.25	5.00	5.00
Ae 5	6.00	6.10	6.20	8.00	5.00	6.00	5.00
Ae 6	5.95	5.75	6.00	6.00	5.00	6.00	7.00
Ae 7	5.89	5.75	6.60	7.50	5.00	6.50	4.00
Ae 8	5.86	6.50	8.00	5.00	5.20	5.50	5.00
Ae 9	5.85	6.50	7.62	7.00	5.00	5.00	4.00
Ae 10	5.38	7.25	6.30	5.50	4.25	4.50	4.50
Ae 11	5.26	6.25	6.60	3.00	4.25	5.50	6.00
Ae 12	5.18	6.50	6.60	5.00	4.50	3.50	5.00
Ae 13	4.87	5.50	5.00	5.50	3.25	5.00	5.00
Ae 14	4.86	6.00	5.00	6.00	4.25	5.00	3.00
Be 1	4.72	5.00	6.33	5.00	3.50	4.50	4.00
Be 2	4.01	6.00	5.60	4.00	5.00	2.50	1.00
Be 3	3.87	5.50	4.00	6.00	2.25	2.50	3.00
Be 4	3.86	5.25	4.66	2.50	3.25	3.50	4.00
Be 5	3.29	3.25	4.00	2.00	2.50	5.00	3.00
Be 6	3.25	4.25	3.00	3.00	3.30	2.50	3.50
Be 7	3.25	2.75	4.00	3.50	2.75	3.50	3.00
Be 8	3.15	3.75	3.65	2.00	4.50	1.50	3.50
Be 9	3.05	3.75	4.33	4.00	2.75	2.50	1.00
Be 10	3.04	4.25	4.00	3.50	2.50	4.00	2.00
Be 11	2.63	5.25	3.30	2.50	1.75	2.00	1.00
Ce 1	4.63	5.00	6.10	5.00	3.30	3.00	5.50
Ce 2	4.45	5.00	6.00	4.50	3.25	3.50	4.50
Ce 3	2.84	4.25	3.30	3.00	2.00	3.50	1.00
De 1	5.47	6.25	6.33	5.00	4.75	5.00	5.50
De 2	5.26	6.75	6.60	3.00	4.25	5.00	6.00
De 3	5.12	7.00	6.00	5.50	3.75	4.00	4.50
De 4	4.85	4.50	6.30	5.50	4.00	5.50	3.30

ENGLISH SPEAKING CHILDREN

SEVENTEEN ENVIRONMENTAL FACTOR SCORES

Key to Environmental Factors:

1. Parents' aspirations for child
2. Parents' own aspirations
3. Parents' interest in achievement
4. Rewards for educational attainment
5. Quality of language of parents
6. Opportunity for use and enlargement
7. Keenness of parents for correctness
8. Availability of guidance
9. Availability of materials
10. Indoor activities
11. Outdoor activities
12. Use of television
13. Use of reading material and facilities
14. Opportunity for thinking
15. Child's interaction with print
16. Structure and routine
17. Preference for educational activities

Subject's Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Ae 1	8	6	7	7	9	9	9	9	9	3	3	5	7	9	7	6	7
Ae 2	9	5	5	7	9	8	9	5	6	3	7	5	8	9	2	6	6
Ae 3	7	7	8	7	9	7	6	6	8	2	6	4	7	5	3	8	6
Ae 4	7	7	8	7	9	7	7	7	8	1	3	6	7	6	4	5	5
Ae 5	8	5	7	5	8	5	7	7	9	7	5	5	5	7	5	5	4
Ae 6	5	4	9	5	8	4	6	5	7	4	4	5	7	7	5	8	6
Ae 7	6	4	6	7	8	6	6	6	9	4	3	4	9	8	5	6	2
Ae 8	7	8	7	4	9	7	8	5	5	4	7	5	5	8	3	3	7
Ae 9	7	5	8	7	8	7	7	7	7	5	5	5	5	5	5	5	3
Ae 10	8	7	7	7	8	5	6	5	6	3	3	5	6	7	2	5	4
Ae 11	7	8	7	3	9	3	8	3	3	2	3	5	7	8	3	7	5
Ae 12	8	7	5	6	9	6	5	5	5	2	5	5	6	4	3	5	5
Ae 13	7	5	7	3	8	3	4	5	6	1	3	4	5	5	5	5	5
Ae 14	7	4	5	8	2	6	7	5	7	3	2	5	7	8	2	5	1
Be 1	6	5	4	5	8	6	5	5	5	3	3	3	5	7	2	5	3
Be 2	7	3	7	7	8	7	2	3	5	3	7	5	5	2	3	1	1
Be 3	6	4	7	5	5	3	4	6	6	2	2	1	4	3	2	5	1
Be 4	5	5	8	3	7	3	4	3	2	1	3	4	5	5	2	5	3
Be 5	3	5	2	3	4	3	5	2	2	1	2	3	4	7	3	5	1
Be 6	7	6	2	2	2	3	4	3	3	1	3	3	3	3	2	6	1
Be 7	3	3	2	3	5	2	5	4	3	2	2	3	4	5	2	5	1
Be 8	6	4	2	3	5	2	1	2	2	1	1	4	3	2	1	6	1
Be 9	5	3	4	3	5	3	3	3	5	3	5	5	1	3	2	1	1

ENGLISH SPEAKING CHILDREN

SEVENTEEN ENVIRONMENTAL FACTOR SCORES (continued)

Subject's Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Be 10	6	5	2	4	5	3	4	3	4	1	1	4	4	5	3	3	1
Be 11	7	5	5	4	4	3	3	3	2	1	1	3	2	3	1	1	1
Ce 1	5	5	4	6	8	7	4	5	5	2	3	5	5	3	3	5	6
Ce 2	6	5	5	4	9	4	5	5	4	2	2	4	5	5	2	4	5
Ce 3	7	5	2	3	4	3	3	3	3	1	1	3	3	4	3	1	1
De 1	8	7	5	5	9	5	5	5	5	3	4	5	7	5	5	6	5
De 2	7	8	7	5	9	3	8	3	3	2	3	5	7	8	2	7	5
De 3	8	7	7	6	8	5	5	5	6	2	3	5	5	6	2	5	4
De 4	5	5	5	3	8	6	5	5	6	3	3	5	5	6	5	5	1

ENGLISH SPEAKING CHILDREN SUBJECT IDENTIFICATION

NUMBERS AND ROL/SAND SCORES

Subject's Number	Sand Score	ROL Score
Ae 1	16	36
Ae 2	8	29
Ae 3	9	31
Ae 4	11	30
Ae 5	11	30
Ae 6	11	36
Ae 7	11	32
Ae 8	13	38
Ae 9	15	30
Ae 10	7	31
Ae 11	7	38
Ae 12	8	25
Ae 13	9	32
Ae 14	10	25
Be 1	2	29
Be 2	6	26
Be 3	4	19
Be 4	4	20
Be 5	2	29
Be 6	3	28
Be 7	2	17
Be 8	2	1
Be 9	4	17
Be 10	4	20
Be 11	7	26
Ce 1	8	33
Ce 2	7	33
Ce 3	8	22
De 1	3	25
De 2	4	24
De 3	4	23
De 4	6	30

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