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THE INFLUENCE OF PRESCHOOL AND
SOCIAL CLASS ON CHILDREN'S
LANGUAGE SKILLS

BY

ANNA ALSTON STEELMAN

APPROVED BY:

A. Jane Lieberman
Chairman, Thesis Committee

James Paul Mills
Professor Elementary Education

C. Hutchinson
Professor of Speech Pathology

C. Hutchinson
Chairman, Department of Speech Pathology

Ron Tuttle
Dean of the Graduate School

William Leonard Bury
Appalachian Collection

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THE INFLUENCE OF PRESCHOOL AND
SOCIAL CLASS ON CHILDREN'S LANGUAGE SKILLS

A THESIS

PRESENTED to

the FACULTY of the GRADUATE SCHOOL
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ANNA ALSTON STEELMAN

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THE INFLUENCE OF PRESCHOOL AND SOCIAL
CLASS OF CHILDREN'S LANGUAGE SKILLS

by
Anna A. Steelman
May, 1980

Chairperson, Thesis Committee: Jane Lieberman
Department: Speech Pathology

The purpose of this study was to investigate the influence of preschool attendance and social class on the language skills of kindergarten children. Forty subjects, of average intelligence, were administered the Preschool Language Assessment Instrument (PLAI), a tool designed to measure young children's skills in coping with the language demands of the teaching situation. The subjects were divided equally into four groups: 1) low socioeconomic status without preschool; 2) low socioeconomic status with preschool; 3) high socioeconomic status without preschool; and 4) high socioeconomic status with preschool.

Using a 2 x 2 factorial design, groups were compared on four quantitative and nine qualitative scores obtained on the PLAI. On the Quantitative categories there were no significant differences between children with preschool and children without preschool. However, there was a significant difference between children from high low socioeconomic backgrounds on Reasoning and Perception the Quantitative

category which represents the highest level of abstraction.

On the qualitative scores, children who attended preschool made significantly fewer responses in the Invalid and No Response categories. Children from high socioeconomic backgrounds made more Adequate responses while children from low socioeconomic backgrounds made more Invalid and Inadequate responses. In addition, interaction effects were observed on the Quantitative category of Reasoning about Perception and the Qualitative category of "Don't Know" responses. In summary, social class significantly influenced performance on some scores obtained on the PLAI, while preschool affected performance to a lesser degree.

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Chapter 1

STATEMENT OF THE PROBLEM

Many studies reveal that children are affected by preschool experiences. (Vane and Davis, 1971; Moore and Ogletree, 1973; Borden, Wallenberg, and Handley, 1975; Elardo, 1977) Vane et. al (1971) examined children from several different Head Start Centers and found that many of the children made gains in I.Q. Children with lower I.Q.'s seemed to benefit most from the program. Moore et. al (1973) noted significant differences between Head Start and non-Head Start participants in readiness and intelligence. Borden et. al (1975) also found that Head Start participants made significant scholastic gains. Elardo (1977) stated that preschool could make a difference if teachers would stimulate language development by using expansion, modeling, and reinforcement, to give children an opportunity to talk.

Other studies suggest that preschool experiences do not make a difference in the child. (Hulan, 1972; Cawley, Burrow, and Goldstein, 1970, Tough, 1977). Hulan (1972) found no difference in the cognitive abilities of Head Start and non-Head Start participants. Cawley et. al (1970) concluded that differences between Head Start and non-Head Start participants were infrequent and the few that did occur could probably be attributed to chance. Tough (1977) concluded that preschool experience did not seem to make much difference in the language children use in later stages of school, although preschool experience did have an effect

to some extent in children's language use in earlier stages of life.

Contradictory results also exist when comparing language abilities of children from different social classes. (Young, 1970; Tough, 1977) The majority of language and social class studies indicate that advantaged or middle class children's language is superior to that of disadvantaged or lower class children. (Bernstein, 1958 and 1960; Hess and Shipman, 1965; Jenson, 1968; Uhl, Fillmer, and Yano, 1972) Uhl et. al (1972) found that upper-middle class children scored significantly higher on expressive and receptive vocabulary than lower class children. Basil Bernstein (1962) noted that lower and middle class mothers use different language codes while communicating with their children. Because of the structuring of middle class families the child is "capable of responding to, manipulating and understanding, a public language, expressive symbolism, and a formal language which is structured to mediate personal qualifications"; while the lower class child is limited to expressive symbolism and a public language. (Bernstein, 1958, p.172) Bernstein designated the elaborated code to define how the structuring of middle class families influences mothers to communicate with their children; while the restricted code is used to define how structuring affects the lower class mother-child interaction. Hess et. al (1965) also observed that different types of mother-child interactions occur in lower and middle class families. Because of these differences in communication between mother and child of various social classes, the middle class child may have certain advantages in the development

of language abilities. Jensen (1968) concluded that children who come from lower class homes may exhibit speech and language deficiencies due to the lack of verbal play, reduced verbal interaction, and diminished reinforcing behavior for communication.

Some studies reveal no influence of social class on language skills. (Shriner and Miner, 1968) For example, when Shriner et. al (1968) examined the morphological structures of advantaged and disadvantaged children, they found no significant differences between the two groups in the ability to apply morphological inflections to noun and verb forms. Because of the contradictory evidence regarding the influence of pre-school and social class on the development of language skills the researcher investigated this problem once again.

RESEARCH QUESTIONS

To the researcher's knowledge, only one other study comparing the language skills of lower and middle class children who attended preschool to those who did not has been done. (Tough, 1977) The present study explored the language skills of children from different social class backgrounds, half of whom attended preschool and half of whom did not. To assist in the analysis of the proposed research, two questions were developed.

1. Does preschool experience influence the language skills of kindergarten children as measured by the Preschool Language Assessment Instrument?

2. Does social class, as determined by Hollingshead's Two Factor Index of Social Position influence the language skills of kindergarten children?

These questions were tested at the .05 level of confidence. For the purpose of this study preschool was defined as an educational program which enhanced physical, intellectual, and social development of young children. (Read, 1971) Preschools are a place "where teachers provide the child with a variety of materials and experiences suited to his individual needs, and where they offer guidance and encouragement to children as they learn". (Read, 1971, p. 3) Children from high socioeconomic backgrounds were defined as those children who scored within the range of 11-27 on Hollingshead's Two Factor Index of Social Position, while children from low socioeconomic backgrounds had scores ranging from 44-77.

LIMITATIONS

Several limitations of this study are apparent. The sample of subjects was relatively small, however, because the results indicated a significant difference in certain language skills of upper and lower class children who attended preschool and the language skills of upper and lower class children who did not attend preschool, the small sample of subjects was sufficient for the researcher's purpose on some measures. In addition, the findings of this study may not be generalizable to other populations outside the Watauga County because another sample might

produce different results in another location. Finally, since the groups were matched on the basis of socioeconomic status the researcher could not be certain that the groups were equated on all other significant variables at the outset of the study.

Chapter II

RELATED RESEARCH

Many researchers have examined how language is affected by preschool and social class. The following includes a discussion of this literature.

Research on Preschool and Language

The Influence of Preschool on Language Related Scholastic Abilities

The majority of investigators compared preschool attendants to non-preschool attendants selected from the preschool populations from Head Start programs. (Borden et. al, 1975; Hulan, 1972; Cawley et. al, 1970) One study examined the long term effects of being enrolled in a Head Start program. (Borden et. al, 1975) The factors examined included I.Q., reading, spelling, and arithmetic. The data indicated that Head Start participants in a highly structured Head Start-Follow Through Program showed significant scholastic gains when compared to non-Head Start participants. (Borden et. al, 1975) Moore et. al (1973) also compared Head Start and non-Head Start participants on readiness and intelligence when they reached first grade. The results indicated that there was a significant difference between Head Start and non-Head Start participants on readiness and intelligence. A study done by Vane et. al (1971) also confirmed that Head Start attendants made some gains. They examined 371 children from seven different Head Start Centers. The children attended these Centers for 6 1/2 weeks. The results indicated that many of the children made gains

in I.Q. and that children with lower measured I.Q.'s seemed to benefit most from the program. (Vane et. al, 1971)

A few studies have been done which found no significant differences in scholastic abilities between Head Start and non-Head Start participants. Hulan (1972) examined the cognitive abilities at different levels for Head Start and non-Head Start attendants by examining the achievement scores from the school system of Warren County. The data did not reveal a statistically significant difference between the two groups. Cawley et. al (1970) also examined Head Start and non-Head Start children using tests of psycholinguistic abilities, vocabulary, readiness, and visual perception. They concluded that the differences between Head Start participants were infrequent and the few that did occur could probably be attributed to chance. (Cawley et. al, 1970)

The Influence of Preschool of Language Functions

One study of particular importance which investigated how preschool experience and social class affect children's language skills was done by Joan Tough (1977) in Great Britain. Tough conducted a longitudinal study of the language use and structure of disadvantaged and advantaged children, half of whom attended preschool and half of whom did not. She was influenced by the work of Vygotsky, Luria, and Piaget. Piaget (1923) believed that language appears to facilitate much of the learning that goes on in schools, while Vygotsky (1934) and Luria (1961) questioned if early linguistic experiences affected the child's future language at all.

The purpose of Tough's study (1977) was to closely examine the language use of selected children from an early age onward so that the effects of nursery school on future language development could be measured. At the outset, she selected sixty-four children, three years of age, for the study. It was known at that time which of the children would attend nursery school and which would not. Following the initial data collection, thirty-two of the children went on to attend nursery school while thirty-two did not. Tough questioned whether the nursery school would be beneficial in helping children to develop ways of using language that would ensure success in school experiences to follow.

Audio recordings of the language use of nursery school children were made after the children had grown accustomed to the school situation. Tough (1977) also obtained permission to visit the homes of the children in this group to study the child in his natural environment and to gain essential information from the parents. The data collection for this group was carried out over the course of one year, then the data from those who did not attend nursery school was gathered the following year.

Data collection was done in three phases, each lasting two years at the following ages: 3, 5 1/2, and 7 1/2. The language sample obtained from the three year old group was collected in a play situation with a friend. The researcher's role in this sample was to provide the children with a supportive, accepting audience. The sample taken was an hour in length. Structured interviews which required the

children to use language for purposes that are essential in education, provided the setting for sampling the 5 1/2 and 7 1/2 year old groups.

The study did not produce overwhelming evidence to show that nursery schools would reduce the problems of the disadvantaged group in later stages of school but it did show that children who attend nursery schools made some gains. Tough (1977) found that on all language use scores the disadvantaged nursery group scored higher than the disadvantaged non-nursery group, including: self monitoring, extending action and collaborating in action, extension through referring to detail, logical reasoning identifying, predicting, directing in imagination, extending actions in imagination, extension of imagined context, logical reasoning in imagined context, and role taking. The advantage nursery group scored higher than the advantaged non-nursery group on the following measures: monitoring own actions, extending action and collaborating in action, referring to detail, identifying, logical reasoning, extending actions in imitation, logical reasoning in imagined context, and role taking.

Tough's (1977) study also examined differences in the use of language structures between children who attended preschool and children who did not. The structures under investigation included the noun phrase, the verb phrase, and the pronoun system. Although advantaged children who attended preschool and advantaged children who did not demonstrated similar performance on noun phrase and verb phrase elaboration, this was not the case for the disadvantaged groups.

Disadvantaged children who attended preschool exhibited significantly more complex noun phrase elaborations than disadvantaged children without preschool. In addition, the disadvantaged children with preschool demonstrated more complex verb phrase elaborations but differences between the two groups were not significant. In addition, in the use of pronouns, disadvantaged children with preschool were significantly more likely to use pronouns to refer to items already named than their disadvantaged counterparts without preschool. These disadvantaged children without preschool use pronouns without providing any other verbal reference to support them. Finally, there was also some gain in the I.Q. of the disadvantaged nursery school group at age 5 1/2. A similar gain was not apparent for the disadvantaged non-nursery school group. Thus, the results from this study seem to imply that preschool does affect the child's language use and structure to some extent.

Thomas (1972) recorded every response uttered by children while observing them in a play situation. The responses and activities were categorized and analyzed in relation to children's social class, intellectual ability, and verbal ability. The results indicated that if preschool education is to have a beneficial effect on the linguistic development of the child, there must be a structured approach to nursery activities. Some basic suggestions that may enhance the language abilities of young children were offered by Elardo (1977). These included the use of expansion, modeling, and reinforcement.

In addition, he suggested that giving a child a chance to talk also encourages language development. He believes that child care workers can play an important part in encouraging and enhancing the language development of children.

The Influence of Models on Language during Preschool

Hamilton and Stewart (1977) investigated whether peer models had any influence on the language acquisition of children. Their results indicated that young children imitated with some frequency the language of their peers. Although the adult models provided more effective models for language learning, the difference when compared to the peer models was small. Children learned new words from their peers. The overall results suggest that young children's imitation of the language of their peers can play a part in the learning of new words, but its occurrence is influenced by the social learning and the language characteristics of the setting. This setting could be produced in a nursery school. Streng (1956) once wrote that if a child does not attend preschool a parent should provide appropriate language stimulation for him in the home. She believes a parent should encourage a child to make correct responses. Streng (1956) also believes that the preschool years give us a preview of "the shape of things to come". (Streng, 1956, p. 21)

Research on Social Class and Language

The Influence of Social Class on Language Related Scholastic Abilities

Kung and Moyer (1969) examined differences in social class with regard to a variety of measures: physical skills, social skills, language skills, intelligence, emotional disturbance, creativity in the use of materials, curiosity, attention to and interest in stories, performance for rewards, sensory discrimination abilities, problem solving abilities, and ability to conserve. They found that no difference existed between the high socioeconomic level and low socioeconomic level groups in relationship to physical skills, attempts at problem solving, preference for rewards, and length of sentences. There were some differences between the two groups in naming and defining, while there was a significant difference between the two groups in vocabulary scores and motor skills.

The Influence of Social Class on Language Functions

Tough (1977) was also concerned about whether social class made a difference in the language use of children. She questioned whether the fact that children were considered disadvantaged was a reflection of the social and material environment at home. To study the effects of socioeconomic status on the development of language she compared the language use of children from homes where parents pursued professions attained through higher education with children who came from homes where parents pursued semi-skilled and unskilled occupations.

"All the children selected came from the indigeneous population, and children were not selected that were shy, withdrawn, or hostile."

(Tough, 1977, p. 3)

The results of the study indicated that the disadvantaged group used language for purposes different from those of the advantaged group. Evidence for this conclusion was found in children as young as age three. The disadvantaged children exhibited little use of language for the following functions: recalling and giving detail of past experiences, reasoning about present and recalled experiences, anticipating future events and predicting the outcome, recognizing and offering solutions to problems, planning and surveying alternatives for possible courses of action, projecting into the experiences and feelings of other people, using imagination to build scenes through the use of language for their play. (Tough, 1977)

Bruck and Tucker (1974) studied the influence of social class differences on the acquisition of school language. Comprehension and use of language was measured by several tasks: imitation of grammatical structures, manipulation of objects in response to commands, production of specific grammatical forms and wh-questions, story telling, description of abstract designs, naming familiar objects and naming objects in different categories. The results indicated that lower class children did not perform consistently more poorly than middle class children on all measures, although there were three areas in which the lower class children experienced particular difficulty. Lower class children had more difficulty spontaneously producing

grammatical structures. Second, lower class children exhibited fewer relevant details in their speech than middle class children making it more difficult for the listener to understand them. Lastly, lower class children had particular difficulty evaluating the communicative demands of the classroom.

Gerber et. al (1969) examined the linguistic competence of advantaged and disadvantaged children. The results were as follows:

1. "The preschool-aged, culturally disadvantaged children were retarded in language development as measured by the I.T.P.A.:
2. They were retarded in development of ten specific linguistic abilities: total language abilities, auditory decoding, visual decoding, auditory-vocal association, vocal encoding, motor encoding, auditory-vocal automatic, auditory-vocal sequencing, visual-motor sequencing, and mean length of utterances;
3. They also found a difference in sex of these children, which was mean length of utterances."

The study also revealed that culturally disadvantaged children performed 13 1/2 months below the culturally advantaged children in psycholinguistic skills.

The Influence of Social Class on Language Structures

The receptive and expressive vocabulary of upper-middle class and lower class second grade children was examined by Uhl et. al (1972). The findings indicated that the upper-middle socioeconomic level group scored significantly higher than the low socioeconomic level group on both receptive and expressive vocabularies. The differences between the receptive and expressive vocabularies for the

low socioeconomic level group were significantly greater than the difference between expressive and receptive vocabularies of the upper-middle class group.

A study which examined whether social class made a difference in the syntactic elaboration of children's speech was done by Williams and Naremore (1969). The results indicated significant social class differences on a variety of indices. Children from the higher social classes tended to employ more elaborated syntactic patterns than the children of lower social classes.

Shriner et. al (1968) examined the morphological structures of advantaged and disadvantaged children. They found no significant differences in the performance of the disadvantaged children as compared to advantaged children in the ability to apply morphological inflections to noun and verb forms. No significant difference resulted in receptive versus expressive production scores for either group.

Tough (1977) found that responses of disadvantaged children were shorter than those of the advantaged children at ages: 3, 5 1/2 and 7 1/2. In addition, the language of the disadvantaged group demonstrated a lower mean number of words, and a lower noun phrase index than the advantaged group, throughout the four years of the study. However, the disadvantaged group achieved mean scores for the verb phrase index that were just as high as the mean scores for the advantaged group. The disadvantaged group used more pronouns than the advantaged group. In addition, the disadvantaged group did not communicate as effectively

as the advantaged group because they used pronouns without supporting verbal references.

The Influence of Social Class on Mother-Child Interactions

A few studies have assessed mother's teaching styles from different cultures. (Young, 1970; Hess et. al, 1965; Bernstein, 1962) Hess et. al (1965) concluded that two types of family control existed in a mother-child interaction, status-oriented control and person-oriented control. Status-oriented control leaves little opportunity for the unique characteristics of the child to emerge in the mother-child interaction, while person-oriented control takes into account the unique characteristics of the child during mother-child interactions. Lower-class parents use status-oriented control, which does not encourage the child to develop language; while middle class mothers use person-oriented control which enhances language development. Status-oriented control is associated with Bernstein's restricted code while person-oriented control is associated with the elaborated code. Basil Bernstein (1962) and Hess et. al (1965) agree that different language codes exist between low and middle-class mothers and their children. Elaborated code is the term Bernstein used to define how middle class mothers interact with their children, while restricted code defines how lower class mothers communicate with their children. Because of the structuring of middle class families the child is "capable of responding to, manipulating and understanding, a public language, expressive

symbolism, and a formal language which is structured to mediate personal qualifications"; while the lower class child is limited to expressive symbolism and a public language. (Bernstein, 1958, p. 172)

Bernstein (1960) has argued that the language forms of working-class children are more concrete, or situationally specific, than those of middle-class children, whose language forms are conducive to a greater degree of semantic generalization and precision. He also noted that middle class children, because of different socialization practices, are more oriented towards receiving and offering "universalistic meanings in certain contexts". (Bernstein, 1960, p. 272)

Young (1970) found that black mothers tend to hold their babies more than middle class mothers. Black mothers held their children so that the mother and child were able to see each other and exchange verbal interaction. This interaction enhances communicative exchanges during the babbling period at about six months of age. However, Young (1970) also found that between the ages of one and two, the black child received much less attention from his mother than the white child. This period is thought of as inferior in terms of the amount and type of verbal stimulation that the lower class child received.

In another study of mother-child interaction, Goldstein and John (1964) reasoned that because of the scarcity of verbal communication between children and adults in lower class homes, the children learn language by means of receptive exposure---- by hearing rather than by being corrected. In middle class homes, on the other hand, children

learn language by feed-back, that is, by hearing as well as by being corrected. Hubbard and Zarate (1967) referred to middle class homes as essentially verbal homes. They maintained that the parents of middle class homes play a major role in teaching children a high level of language ability before they reach school age. The parents teach their children by talking to them, reading to them, and fostering a verbal give and take which helps the children develop their language potentialities. In culturally deprived homes all of this is not absent but it does not play such an important role in child rearing. (Bloom, Davis, and Hess, 1965). Jensen (1968) agrees that children who come from lower class homes may have speech and language deficiencies due to lack of verbal play, reduced verbal interaction and fewer rewards for communication.

The Influence of Social Class on Concepts

A study which examined concept knowledge of children with different socioeconomic backgrounds was done by Downing et. al (1977). Seven tests designed to measure specific cognitive or non-perceptual components of reading skills were administered. The results indicated that children of high socioeconomic backgrounds had significantly superior scores on the cognitive tests than the middle or low socioeconomic children. "These findings seem to support the view that the child's development of language concept is related to the experiences of speech and writing at home."

Conclusions

A number of studies have been presented with opposing views. Much of the information indicates that social class does make a difference in language abilities of children. Also, many of the studies have demonstrated that some type of preschool training in language, either by the parent or teacher, seems to be beneficial to the child.

Chapter 3

METHOD

A descriptive design was employed to test the hypotheses in this study. A descriptive design involves some type of comparison or contrast which attempts to determine relationships that occur between existing non-manipulated variables. (Best, 1977) This study sought to investigate the following: 1) Does preschool attendance directly affect a young child's language skills, insofar as such skills can be measured on the Preschool Language Assessment Instrument (PLAI)? (Blank, Rose, and Berlin, 1978). 2) Does social class, as determined by Hollingshead's Two Factor Index of Social Position (Hollingshead, 1957) affect the development of language skills? Since previous research (Blank et. al, 1978) has shown that the PLAI is sensitive to social class differences, the study sought to control socioeconomic status by using a 2 x 2 factorial design. The criterion variables of this study were: high versus low socioeconomic status and preschool versus no-preschool.

Subjects

The subjects were selected from two kindergartens in the elementary schools of Watauga County, North Carolina. Permission slips (Appendix A) were sent to the parents of all 130 kindergarteners and 75 were returned. Forty subjects were randomly selected from the subject pool, ten for each of four groups: 1. low socioeconomic status without preschool

2. low socioeconomic status with preschool. 3. high socioeconomic status without preschool. 4. high socioeconomic status with preschool. Sixteen boys and twenty-four girls were selected, ranging in age from four to six years.

Procedures

After obtaining parent permission, all children participating in this study were given an abbreviated version of the Slosson Intelligence Test for Children. (Slosson, 1975) About two weeks, later, the Pre-school Language Assessment Instrument (Blank et. al, 1978) was administered by the researcher. All testing was done individually within the school setting and was completed within the first two months of enrollment in kindergarten so that the effects of kindergarten teaching would not affect the results. Socioeconomic status data were obtained directly from parents at the time permission for participation was obtained. The researcher subsequently rated the socioeconomic status background of each child using the Hollingshead's Two Factor Index of Social Position. (Hollingshead, 1957)

Materials

A quick screening device of intellectual function was employed to determine if the children were functioning within the normal range, an Intelligence Quotient of at least 90. Ten items for the screening device were adapted from the Slosson Intelligence Test for Children (Slosson, 1975) These items were taken from the five year old age

range which spanned 4.8-6.0 years. The test items used in the study are presented in Appendix B. To be included in the study, children needed to achieve 80% accuracy in response to the items.

Hollingshead's Two Factor Index of Social Position

Hollingshead's Two Factor Index of Social Position (Hollingshead, 1957) was used to obtain an indication of socioeconomic status. This procedure was developed to estimate the positions which individuals occupy in the social structure of society. "This scale is based on the assumption that men and women who possess similar educations will tend to have similar behavioral patterns." (Hollingshead, 1957, p. 9)

The two factors used to estimate position are occupation and education. Occupations are grouped according to a seven-point scale. At the upper end of the scale are included occupations such as higher executives, major professionals, and proprietors of large concerns. At the lower end of the scale are listed occupations involving little or no skills such as machine operators and shoe shiners. (Hollingshead, 1957). The educational scale is also divided into seven categories from graduate professional training, at the upper end of the continuum, to less than seven years of school, at the lower end of the continuum. An abbreviated form of these scales is included in Appendix C.

To calculate the Index of Social Position the score on the Occupational Scale is multiplied by a factor weight of seven, and the score on

the Educational Scale is multiplied by a factor weight of four. These two scores are summed to obtain the Index of Social Position Score. Scores thus obtained may be divided into five social classes.

(Hollingshead, 1957) This scale is listed in Appendix C. For participation in this study inclusion in the highest social class required a score of 11-27 and inclusion in the lowest social class required a score of 44-77.

Preschool Language Assessment Instrument

The Preschool Language Assessment Instrument was used to assess the linguistic proficiency of the children in this study. (Blank et. al, 1978) It is an experimental test designed to assess young children's skills in coping with the language demands of the teaching situation. The objectives of the test are: to offer a picture of children's language skills so that teaching encounters can be structured to match the child's level of functioning; and to identify children before they encounter severe difficulties in the school setting. (Blank et. al, 1978)

The test was derived from a language model developed by James Moffett (1968), and adapted for use with the preschool-aged child.

The modified version of the model focuses on classroom language as a system of discourse involving three major components. The first component involves teacher-child interaction or how a teacher and child communicate with each other. The second component involves the topic of discussion, and includes topics confined to perceptually

based experiences that the preschooler can comprehend. The third component involves the level of discussion and includes four levels of abstraction. These levels are the Quantitative Categories. The first level of abstraction is Matching Perception which refers to reporting and responding to concrete information. An example of a test item which assesses this level is "What things do you see on the table"? (Blank et. al, 1978) The second level of abstraction is Selective Analysis of Perception which refers to reporting and responding to delineated and less concrete cues. An item which queries "What shape is the bowl"?, (Blank et. al, 1978) is an example of the second level of abstraction. The third level of abstraction is referred to as Reordering Perception, and involves the use of "language to restructure perceptual input and inhibit predisposing responses". (Blank et. al, 1978) An example of an item at this level is "Show me the part of the egg that we don't eat". (Blank et. al, 1978) The last level of abstraction is Reasoning about Perception and involves "using language to predict, reflect on, and integrate ideas and relationships". (Blank et. al, 1978) An example of this would be "What will happen to the cookies when we put them in the oven"? (Blank et. al, 1978)

The appropriateness of each response to the test questions are measured by the Qualitative categories, which include nine scores. When the question, "A little girl played with something that was not a doll. What could she have played with?" was asked, seven different responses could be elicited. The responses for the Fully Adequate

category were truck, doggie, or ball which received a score of 3, while Accurate responses were boy, her played a ball, or toy. The Accurate responses received a score of 2. A score of 1 was given to Ambiguous responses. Examples of Ambiguous responses were a motor, a pencil, or a bear. The Total Adequate Responses include the total number of responses for the above three categories. Invalid responses were something to drink, Raggedy Ann, or apple, while Irrelevant responses include a doll or nothing. Two additional responses that could be elicited by the child were Don't Know and simply No Response. These four responses received a score of 0. The total Inadequate Responses include the total number of responses for the four categories above.

During standardization of the Preschool Language Assessment Instrument, three aspects of reliability were assessed: rater reliability, split-half reliability and test-retest reliability. To evaluate rater reliability, four raters independently scores the 60 items on the test. Eighty-three percent of the time, the mean scores of the four groups of items were identical and in no case did they exceed a difference of 0.3. The Spearman-Brown formula was used to assess split-half reliability and a high level of internal consistency within each of the four groups of items were obtained. The correlations are as follows: Matching Perception - .64, Selective Analysis of Perception - .80, Reordering Perception - .83, and Reasoning about Perception - .86. To evaluate test-retest reliability, the Preschool Language Assessment

Instrument was readministered to 34 children within one to two weeks of the first administration. The correlations obtained indicated that the children's scores were stable from one administration to the next. The correlations are as follows: Matching Perception - .73, Selective Analysis of Perception - .83, Reordering Perception - .86, and Reasoning about Perception - .88. (Blank et. al, 1978)

Three types of validity were also measured: content validity, discriminative validity, and construct validity. Content validity was assessed by noting the degree to which professional personnel agreed on the clustering of the items into the four levels of abstraction. Five psychologists and special education teachers were asked to sort the sixty items into four groups. Total agreement was reached on seventy-five percent of the items and agreement among at least four of the five raters was reached on ninety-five percent of the items. Discriminative validity was assessed by noting whether the test could identify a group of children who possess a known disorder thought to affect performance on the test. Fourteen language disordered children were used to verify this type of validity. The language impaired children were compared to non-impaired children by using the scores from the Pre-school Language Assessment Instrument. The language impaired children demonstrated poorer performance on all four groups of discourse skills. Finally, construct validity was tested by examining the test results to determine if they were consistent with the theoretical model postulated. There was a steady progression in test performance

with age. This progression is consistent with much of what is known about language development in young children. There was also an expected disparity between the performance of middle-class and lower class children. (Blank et. al, 1978)

Chapter 4

RESULTS AND CONCLUSIONS

Performance on the Preschool Language Assessment Instrument

(Blank et. al, 1978) is typically displayed in two sub-sets of scores.

The language parameters are listed as: Matching Perception; Selective Analysis of Perception; Reordering Perception; Reasoning about Perception. These "Quantitative Scores" generate a possible maximum score of 45. The performance of each subject may also be examined in terms of "Qualitative Scores." These include:

<u>Total Adequate</u>	<u>Total Inadequate</u>
Fully Adequate	Invalid
Accurate	Irrelevant
Ambiguous	Don't Know
	No Response

The Quantitative and Qualitative Scores appear in Appendix D, and are summarized in Tables 1-4.

The two questions investigated in this study were:

1. Does preschool experience influence the language skills of kindergarten children?
2. Does social class influence the language skills of kindergarten children?

The data were analyzed by a two-way analysis of variance (Fried, 1976) and appear as Tables 5 and 6.

Influence of Preschool Experience

According to the results preschool experience did not influence the language skills of kindergarten children. On the Quantitative scores there was no difference. As additional support for this statement, the Qualitative scores revealed that the children without preschool experience produced more Invalid Responses than the children with preschool experience. On the other hand, the children with preschool experience elicited more No Responses than the children without preschool experience. The No Response category yielded a mean score of 1.0 with a standard deviation of .07 for the children who attended preschool, while the non-preschool attendants received a mean score of .04 with a standard deviation of 1.07. In the Invalid Response category the children who attended preschool achieved a mean of 2.4 with a standard deviation of 1.68. Children who did not attend preschool achieved a mean score of 3.3 with a standard deviation of 1.78.

Influence of Social Class

The analysis of variance results revealed that social class differences existed in the language skills of children for the Quantitative and Qualitative categories. The Quantitative category which was significant was Reasoning about Perception. Children from high socioeconomic status received a mean score of 32.9 with a standard deviation of 4.82, while children from low socioeconomic backgrounds achieved a mean score of 29.5 with a standard deviation of 6.05. Children from high socioeconomic backgrounds tend to perform better on this higher order linguistic task.

The Qualitative scores were significantly different on both categories: Total Adequate Responses and Total Inadequate Responses. Not only the Total Inadequate Responses but the sub-category Invalid Responses showed significant differences. Children from high socioeconomic backgrounds received a mean score of 39.65 with a standard deviation of 2.89, on the Total Adequate Responses while the children from low socioeconomic backgrounds had a mean score of 37.95 with a standard deviation of 3.18. For Invalid Responses children from high socioeconomic backgrounds achieved a mean score of 2.25 with a standard deviation of 1.90. A mean score of 3.45 with a standard deviation of 1.53 was achieved by the low socioeconomic status children on Invalid Responses. In the category of Total Inadequate Responses the children from high socioeconomic backgrounds achieved a mean score of 5.0 with a standard deviation of 2.97, while the children from low socioeconomic backgrounds achieved a mean score of 7.0 with a standard deviation of 3.07.

To summarize, children from high socioeconomic backgrounds achieved more Total Adequate scores than children from low socioeconomic backgrounds, and conversely, children from low socioeconomic backgrounds achieved more Inadequate scores.

Because of the differences in both Quantitative and Qualitative categories of responses it appears social class does influence the language skills of kindergarten children.

Interaction Effects

The interaction effects are reported in Tables 5 and 6 and are graphically displayed in Figures 1 and 2. On the Quantitative category Reasoning about Perception, analysis of interaction effect suggest that although socioeconomic status seems to have an influence on language performance this difference is most evident in those children without preschool experience which performed at a similar level.

The major interaction effect occurred in the Qualitative category Don't Know Responses. High socioeconomic status children without preschool and low socioeconomic status children with preschool used more of these responses than high socioeconomic status children with preschool and low socioeconomic status children without preschool.

On Reasoning about Perception, children from high socioeconomic backgrounds who attended preschool achieved a mean score of 33.9 with a standard deviation of 4.10, while high socioeconomic status children without preschool experience achieved a mean score of 31.9 with a standard deviation of 5.28. Reasoning about Perception also revealed that children from low socioeconomic backgrounds who attended preschool received a mean score of 27.2 with a standard deviation of 5.65. The children from low socioeconomic backgrounds who did not attend preschool achieved a mean score of 31.8 with a standard deviation of 4.86.

Don't Know Responses revealed that children from high socioeconomic backgrounds who attended preschool achieved a mean score of 0.7 with a standard deviation of 0.57. The high socioeconomic status children who

did not attend preschool received a mean score of 1.7 with a standard deviation of 1.91. On Don't Know Responses, children from low socioeconomic backgrounds who attended preschool achieved a mean score of 2.0 with a standard deviation of 1.69, while low socioeconomic status children without preschool experience achieved a mean score of 0.7 with a standard deviation of 0.74.

Summary

To summarize, the results indicated that preschool does not influence the language skills of kindergarten children. This finding is supported by Tough (1977). Other investigators who have noted an influence of socioeconomic status on language performance include Uhl et. al (1972); Bernstein (1962). The results obtained in this study may be due to the type of language test administered. The Preschool Language Assessment Instrument purports to measure language skills necessary for academic success. It does not assess typical components of linguistic competence such as phonology, morphology, syntax, and semantics. Administration of a measure of linguistic competence might result in differences between children with and without preschool exposure. Further research should examine parameters other than those measured by the Preschool Language Assessment Instrument, including linguistic and communication competence.

Another variable that should be examined in future research is the inclusion of subjects who represent different models of preschool

experience. Proponents of certain preschool models may stress social and intellectual activities more than language activities.

Lastly, the items included on the Preschool Language Assessment Instrument may not represent the curriculum of the preschools studied in this investigation.

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APPENDIX A

Permission Slip for Parkway Elementary School

Dear Parent,

I am a student at Appalachian State University completing the requirements for a Masters Degree in Speech Pathology. As part of my program, I am studying the language skills of kindergarten children.

I would greatly appreciate your consent so that I may work with your child. I will be asking your child to look at several pictures and to answer some questions about them. The maximum time involved will be twenty minutes. His performance on this task will be kept in strictest confidence. Please indicate your wishes below and return this form to Parkway School as soon as possible. Please do not hesitate to contact me if you have any further questions about this project. Thank you for your assistance and your prompt reply.

Sincerely,

Anna E. Alston
262-1206

I give consent for my child to participate in the project mentioned above.

_____ Yes _____ No

Date _____

Parent's Signature

Additional information that would be helpful:

Has your child attended preschool? _____ Yes _____ No

If so, please indicate the name of the preschool attended -

Permission Slip for Hardin Park Elementary School

Dear Parent,

I am a student at Appalachian State University completing the requirements for a Masters Degree in Speech Pathology. As part of my program, I am studying the language skills of kindergarten children.

I would greatly appreciate your consent so that I may work with your child. I will be asking your child to look at several pictures and to answer some questions about them. The maximum time involved will be twenty minutes. His performance on this task will be kept in strictest confidence. Please indicate your wishes below and return this form to Hardin Park School as soon as possible. Please do not hesitate to contact me if you have any further questions about this project. Thank you for your assistance and your prompt reply.

Sincerely,

Anna E. Alston
262-1206

I give consent for my child to participate in the project mentioned above.

_____ Yes _____ No

Date _____

Parent's Signature

Additional information that would be helpful:

Father's Education Level _____

Mother's Education Level _____

APPENDIX B

Test Questions Adapted from the Slosson

1. Say these numbers for me. Listen carefully. 2953
2. Now I want you to say these numbers. Listen carefully. 8417
3. Tell me how many apples I am drawing. (Draw 6)
4. Now tell me how many apples I am drawing (Draw 4)
5. Draw me a block like this. (Show child a picture of a block)
6. Draw me a triangle like this. (Show child a picture of a triangle)
7. Which is bigger, a cat or a mouse? (cat)
8. What comes after the number eight? (nine)
9. If I cut an apple in half, how many pieces will I have? (two)
10. A lemon is sour. Sugar is _____. (sweet)

Adapted from:

Slosson, Richard L. Slosson Intelligence Test for Children and Adults.
East Aurora, New York, 1975, pp. iii-V.

APPENDIX C

Hollingshead's Two Factor Index of Social Position

A. The Occupational Scale:

1. Higher Executives, Proprietors or Large Concerns, and Major Professionals.
 - a. Higher Executives-Bank Presidents, Judges, etc.
 - b. Large Proprietors (Value over \$100,000) - Brokers, Contractors, etc.
 - c. Major Professionals-Accountants (C.P.A.), Lawyers, Physicians, etc.
2. Business Managers, Proprietors of Medium Sized Businesses, and Lesser Professionals.
 - a. Business Managers in Large Concerns-Advertising Director, Office Managers, Police Chief, etc.
 - b. Proprietors of Medium Businesses (Value \$35,000-\$100,000), Advertising Owners, Clothing Store Owners, etc.
 - c. Lesser Professional-Chiropractors, Librarians, Nurses, etc.
3. Administrative Personnel, Small Independent Businesses, and Minor Professionals.
 - a. Administrative Personnel-Insurance Adjusters, Credit Managers, etc.
 - b. Small Business Owners (\$6,000-\$35,000) - Bakery, Beauty Shops, etc.
 - c. Semi-Professionals-Actors, Deputy Sheriffs, Morticians, etc.
 - d. Farmers-Farm Owners (\$25,000-\$35,000)

4. Clerical and Sales Workers, Technicians, and Owners of Little Businesses (Value under \$6,000).
 - a. Clerical and Sales Workers - Bank Tellers, Bookkeepers, Sales Clerks, etc.
 - b. Technicians - Camp Counselors, Dental Technicians, Proofreaders, etc.
 - c. Owners of Little Businesses - Flower Shop, Newstand.
 - d. Farmers-Owners (\$10,000-\$20,000).
5. Skilled Manual Employees - Auto Body Repairers, Barbers, Hair Stylists, Farm Owners (under \$10,000) etc.
6. Machine Operators and Semi-Skilled Employees - Hospital Aids, Bartenders, Delivery Men, etc.
7. Unskilled Employees - Cafeteria Workers, Janitors, Shoe Shiners, Share Croppers, etc.

B. The Educational Scale:

1. Graduate Professional Training
2. Standard College or University Graduation (4 years)
3. Partial College Training (1-3 years)
4. High School Graduates
5. Partial High School (completed 10th or 11th grades)
6. Junior High School (completed 7th through the 9th grades)
7. Less than Seven Years of School

Index of Social Position Scores

<u>Social Class</u>	<u>Range of Computed Scores</u>
I	11-17
II	18-27
III	28-43
IV	44-60
V	61-77

Formula for Computing the Index for
Social Position

<u>Factor</u>	<u>Scale Score</u>	<u>Factor Weight</u>	<u>Score X Weight</u>
Occupation	3	7	21
Education	3	4	<u>+ 12</u>
		Index of Social Position Score	33

Hollingshead, A. B. Two Factor Index of Social Position.

Connecticut, Publisher-B. Hollingshead, August, 1957, pp. 2-10.

The Quantitative and Qualitative Scores of the Subjects derived
from the Preschool Language Assessment Instrument

CHILDREN WITH PRESCHOOL

High SES

	I	II	III	IV	FA	ACC	AMB	TA	INV	IRR	DK	NR	TI
1.	41	41	32	35	36	2	4	42	3	0	0	0	3
2.	40	36	31	29	29	6	2	37	3	2	1	2	8
3.	40	37	31	30	29	7	4	40	2	0	1	2	5
4.	39	36	36	27	31	5	2	38	1	2	1	3	7
5.	43	40	39	42	40	1	1	42	1	2	0	0	3
6.	45	38	38	37	34	5	2	41	1	1	0	2	4
7.	44	38	37	36	36	2	3	41	3	0	1	0	4
8.	41	41	38	32	35	6	0	41	3	0	1	0	4
9.	44	38	37	34	30	7	4	41	2	0	1	1	4
10.	43	34	32	37	32	2	6	40	0	2	1	2	5

Low SES

1.	41	41	40	40	37	4	2	43	2	0	0	0	2
2.	40	39	32	34	31	6	2	39	2	1	3	0	6
3.	44	35	37	21	26	10	5	41	1	3	0	0	4
4.	39	41	35	27	29	6	4	39	3	1	2	0	6
5.	45	30	32	20	23	8	4	35	4	3	0	3	10
6.	41	41	39	26	34	3	2	39	3	1	2	0	6
7.	41	30	26	31	28	4	1	33	5	1	4	2	12
8.	40	35	35	27	30	3	4	37	2	1	4	1	8
9.	40	32	22	24	26	4	3	33	3	7	1	1	12
10.	41	32	40	22	28	5	3	36	4	0	4	1	9

CHILDREN WITHOUT PRESCHOOL

High SES

	I	II	III	IV	FA	ACC	AMB	TA	INV	IRR	DK	NR	TI
1.	41	36	27	32	26	10	3	39	3	1	1	1	6
2.	41	45	39	28	38	1	2	41	3	1	0	0	4
3.	40	31	35	31	29	4	5	38	3	1	3	0	7
4.	40	33	37	27	31	3	4	38	2	0	5	0	7
5.	43	35	41	34	34	5	1	40	3	2	0	0	5
6.	41	38	35	37	30	11	4	45	0	0	0	0	0
7.	38	34	33	22	26	7	0	33	6	1	4	1	12
8.	43	35	36	36	31	6	2	39	4	1	1	0	6
9.	44	39	34	40	35	4	3	42	1	0	2	0	3
10.	40	36	41	32	34	5	3	40	1	1	1	0	3

Low SES

1.	43	36	36	37	33	4	3	40	3	0	1	1	5
2.	44	39	36	30	32	3	3	38	3	4	0	0	7
3.	38	36	29	21	23	8	4	35	8	2	0	0	10
4.	39	40	31	30	31	3	5	39	4	0	0	2	6
5.	39	38	35	35	34	5	2	41	4	0	1	0	5
6.	41	43	39	27	35	5	1	41	3	0	0	1	4
7.	38	41	33	38	37	2	0	39	3	0	2	1	6
8.	42	32	34	34	34	2	1	37	4	3	1	0	8
9.	41	33	32	32	30	3	3	36	3	2	1	1	7
10.	41	35	34	34	32	4	2	38	5	1	1	0	7

APPENDIX E

Analysis of Variance Formula

$$F = \frac{\frac{\sum_n (X - X_x)^2}{K - 1}}{Sp^2}$$

Fried, Robert, Introduction to Statistics. New York: Halsted Press, 1976, p. 144.

TABLE 1

SUMMARY FOR THE INTERACTION OF PRESCHOOL
AND SOCIOECONOMIC STATUS ON QUANTITATIVE
SCORES

		Preschool		No Preschool	
		\bar{X}	σ	\bar{X}	σ
High SES *	Matching Perception (I)	42.0	2.05	41.1	1.79
	Selective Analysis of Perception (II)	37.9	2.28	36.2	3.57
	Reordering Perception (III)	35.1	3.12	35.8	3.78
	Reasoning about Perception (IV)	33.9	4.10	31.9	5.28
Low SES	I	41.2	1.88	40.6	2.10
	II	35.6	4.61	37.3	3.54
	III	33.8	6.12	33.9	2.84
	IV	27.2	5.65	31.8	4.86

* Socioeconomic Status

TABLE 2

SUMMARY FOR PRESCHOOL AND SOCIOECONOMIC STATUS
ON QUANTITATIVE SCORES

	Socioeconomic Status				Preschool			
	High		Low		With	Without		
	\bar{X}	σ	\bar{X}	σ		\bar{X}	σ	
I	41.55	2.01	40.9	1.94	41.6	2.05	40.85	1.90
II	37.05	3.66	36.45	4.09	36.75	4.22	36.75	3.72
III	35.45	3.67	33.85	5.01	34.45	4.33	34.85	3.60
IV	39.9	4.82	29.5	6.05	30.55	6.59	31.85	4.98

TABLE 3

SUMMARY FOR THE INTERACTION OF PRESCHOOL AND SOCIOECONOMIC STATUS ON QUALITATIVE SCORES

		Preschool		No Preschool	
		X	O	X	O
HIGH SES *	Adequate				
	Fully Adequate (FA)	33.2	3.62	31.4	3.91
	Accurate (Acc)	4.3	2.42	5.6	3.12
	Ambiguous (Amb)	2.8	1.37	2.7	1.52
	Total	40.3	1.79	39.5	2.74
Inadequate	Invalid (Inv)	1.9	1.10	2.6	1.76
	Irrelevant (Irr)	0.9	0.66	0.8	0.66
	Don't Know (DK)	0.7	0.57	1.7	1.91
	No Reponse (NR)	1.2	0.74	0.2	0.47
	Total	4.7	1.79	5.3	2.76
LOW SES	Adequate				
	FA	29.2	3.75	32.1	3.17
	ACC	5.3	2.05	3.9	1.49
	AMB	3.0	1.24	2.4	1.10
	Total	37.5	3.349	38.4	1.59
Inadequate	INV	2.9	1.20	4.0	1.37
	IRR	1.8	2.26	1.2	1.29
	DK	2.0	1.69	0.7	0.74
	NR	0.8	0.57	0.6	0.33
	Total	7.5	3.34	6.5	1.33

* Socioeconomic Status

TABLE 4

SUMMARY FOR PRESCHOOL AND SOCIOECONOMIC STATUS
ON QUANTITATIVE SCORES

	Socioeconomic Status				Preschool			
	High		Low		With		Without	
	\bar{X}	σ	\bar{X}	σ	\bar{X}	σ	\bar{X}	σ
FA	32.3	4.29	30.65	4.12	31.2	4.75	31.7	3.76
ACC	4.95	2.72	4.6	2.20	4.8	2.29	4.75	2.70
AMB	2.75	1.68	2.85	1.41	2.9	1.48	2.55	1.55
TA	39.65	2.89	37.95	3.18	38.9	3.40	38.95	2.49
INV	2.25	1.90	3.45	1.53	2.4	1.68	3.3	1.77
IRR	0.85	0.18	1.5	1.86	1.35	1.70	1.0	1.12
DK	1.2	1.37	1.35	1.46	1.35	1.43	1.2	1.41
NR	0.85	1.29	0.85	1.33	1.0	1.0	0.07	1.07
TI	5.0	2.97	7.0	3.07	6.1	3.40	5.9	3.09

TABLE 5

ANALYSIS OF VARIANCE RESULTS FOR QUANTITATIVE
SCORES

	Preschool F	Social Class F	Interaction Effects F
1) Matching Perception (I)	0.000	0.269	2.163
2) Selective Analysis of Perception (II)	0.000	0.269	2.163
3) Reordering Perception (III)	0.089	1.429	0.050
4) Reasoning about Perception (IV)	0.598	4.092*	3.855 *

* Significant at the .05 level

TABLE 6

ANALYSIS OF VARIANCE RESULTS FOR QUALITATIVE
SCORES

	Preschool F	Social Class F	Interaction Effects F
1) Fully Adequate (FA)	0.205	1.841	3.734
2) Accurate (ACC)	0.004	0.213	3.162
3) Ambiguous (AMB)	0.537	0.011	0.274
4) Total Adequate (TA)	0.004	5.576 *	1.059
5) Invalid (INV)	4.039 *	7.180 *	0.199
6) Irrelevant (IRR)	0.615	2.121	0.314
7) Don't Know (DK)	0.134	0.134	7.896 *
8) No Reponse (NR)	4.765 *	0.000	2.118
9) Total Inadequate (TI)	0.060	5.970 *	0.955

* Significant at the .05 level

FIGURE 1

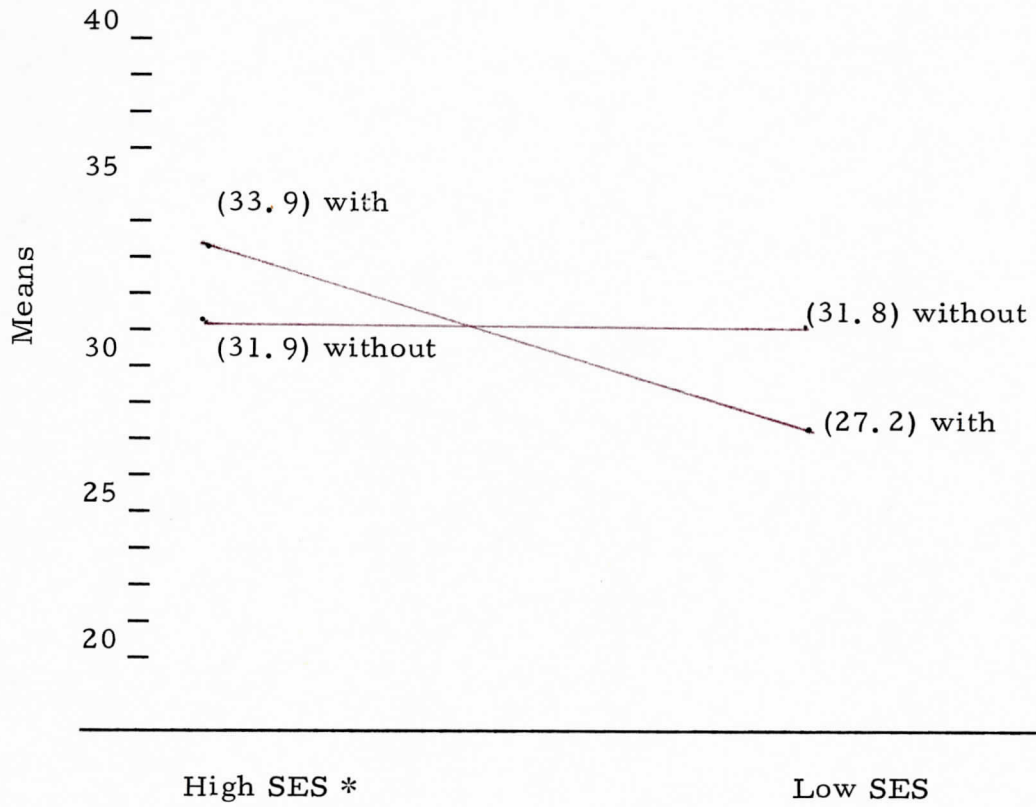
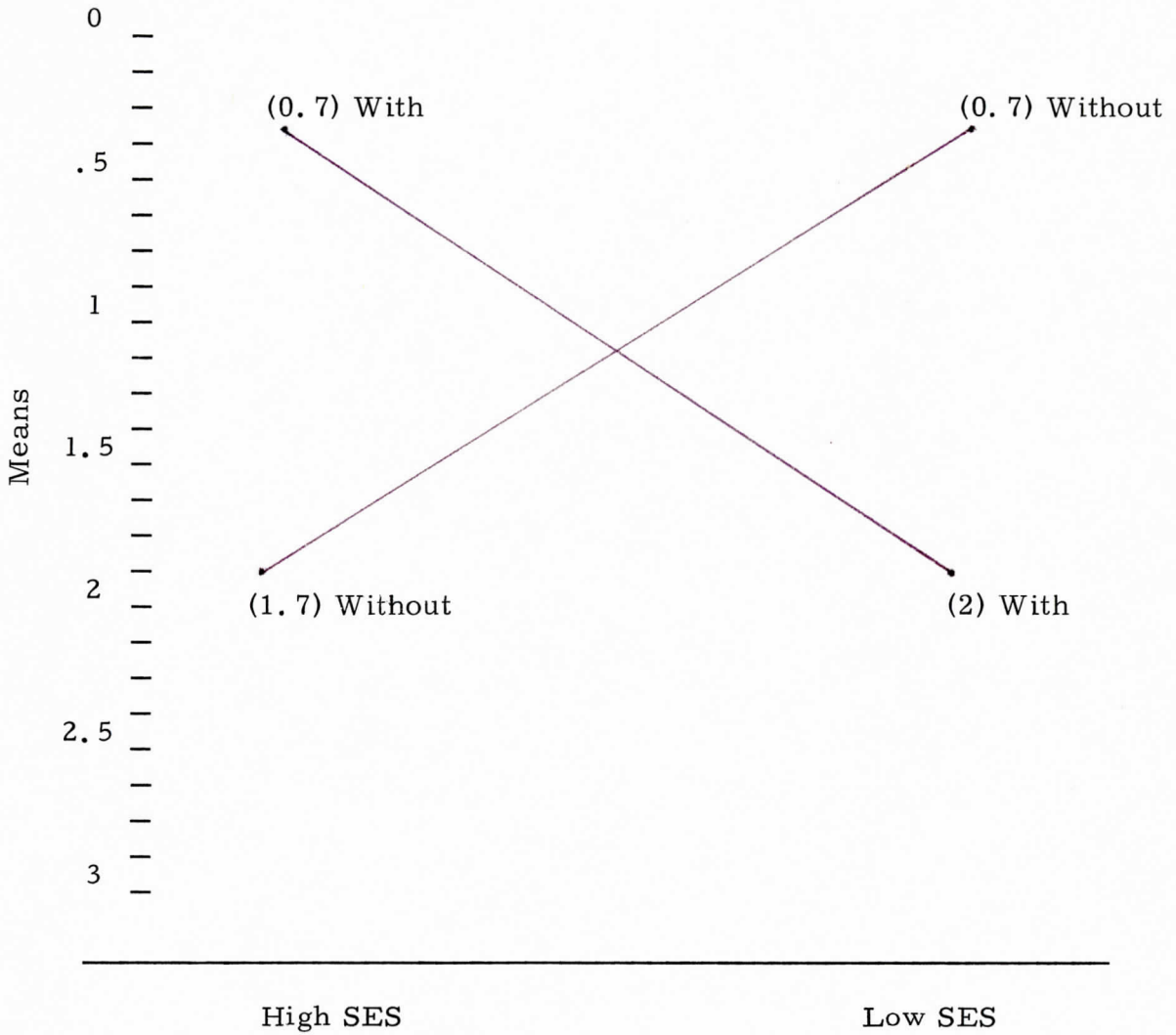
INTERACTION EFFECTS FOR SOCIOECONOMIC STATUS
AND PRESCHOOL ON REASONING ABOUT PERCEPTION

FIGURE 2

INTERACTION EFFECTS FOR SOCIOECONOMIC STATUS
AND PRESCHOOL ON DON'KNOW RESPONSES

* Socioeconomic Status