RECEPTIVE VOCABULARY AND BIRTH ORDER OF CHILDREN WITH A NON-WORKING PARENT AT HOME DURING THEIR PRE-SCHOOL YEARS

THESIS

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by

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The purpose of this study was to determine if there is a statistically significant difference between the receptive vocabulary scores on the Stanford Achievement Test of children having different birth orders all of whom were raised with a non-working parent in the home during their pre-school years.

This study examined the effect of birth order on a child's receptive vocabulary. It analyzed the effects on a child's language development by environment, birth order, parental involvement, sibling communications, schema and intelligence.

Researchers agree that a child's academic success is correlated with his/her language components. A child's background is an important factor in the development of his/her language lexicons of listening, speaking, writing and reading. A child does not have to be able to read to recognize and place meaning with a verbal utterance and he is not limited by his/her experiences and environment.

How does receptive vocabulary develop in the young child? Where does it begin? Who or what affects its growth? Research indicates that the family makeup and environment shapes much of tthis development. This study delved into these prospects and investigated their importance in language development.

The findings of this study clearly indicate that there is no statistically significant difference between the receptive vocabulary scores on the Stanford Achievement Test of children with different birth orders all of whom were raised by a non-working parent in the home during their pre-school years.

"SPEAK TO THE CHILD NOT AT THE CHILD"

Colleen Wilkenson McElroy

This thesis is dedicated to my mother
Mary Paris
who encouraged me to complete my education with the belief that an education was the one thing in life that no one could take from you.

My love and thanks are extended to my husband, Gary, and daughters, Kristin and Erin, for their love and support.

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Chapter I

Statement of the Problem

Purpose

The purpose of this study was to determine if there is a statistically significant relationship between the Stanford Achievement Test receptive vocabulary scores of children having different birth orders who were raised with a non-working parent in the home during their pre-school years.

This study examined the relationship of birth order on a child's receptive vocabulary. It analyzed language development within the parameters of a child's environment and birth order, parental involvement, sibling communications, schema and intelligence.

Question

Is there a statistically significant relationship between the Stanford Achievement Test receptive vocabulary scores for second grade students having different birth orders yet all of whom were

raised with a non-working parent in the home during their pre-school years?

Need for the Study

Teachers and parents must remember that a child's oral language development is a crucial aspect of reading development. Speaking, writing, listening and reading are four intricately woven aspects of language. When one aspect breaks down or is not fully developed, the other parts have difficulties developing.

Most research in the area of language development lends itself to reading, speaking and writing difficulties in children. Reading and writing have set curriculums in elementary schools. Children are often sent to reading centers, writing centers and speech therapists to help correct their language problems. In the case of a listening difficulty, a child's hearing may be tested.

Students who display problems with receptive language or in listening comprehension yet do not have a hearing problem may be lacking in oral language development - more specifically, for the case of this study, the receptive vocabulary to understand what is

being said. Stewig (1982) states that "If children do not respond to directions or questions, it may well be because the teacher has assumed they understand when in fact they do not." Auding, "the process of listening to language and processing it for comprehension" (Brown, cited in Anderson and Lapp, 1988), begins in the very young child. "The child can have peculiar islands of accuracy amid a sea of confusion" (deVilliers & deVilliers, 1979, p. 80).

As a child ages, it becomes increasingly more important to have a large listening vocabulary. A higher percentage of his/her day is spent listening. Placing meaning on oral content becomes crucial. While one is listening, s/he is not afforded the luxury of slowing the pace of the incoming information nor is s/he allowed to go back over a piece of information. No matter what stage of development one is at, this sophisticated listening skill does not allow time for reconsideration or reflection of information as needed. Listening for content at leisure does not exist as it does in reading or writing (Stewig, 1982).

How does receptive vocabulary develop in the young child? Where does it begin? Who or what affects its growth? Research indicates that the

family makeup and environment shapes much of this development (May, 1986).

Definitions

Receptive Vocabulary - words that are received from another person through hearing or listening and assigned meaning without context.

Birth Order - the order in which children are born within a family unit. The spacing of children can change birth order labeling.

First Born and Only Child - the first born child to a family or the only child. Five or more years between siblings begins another family and another first child (Leman 1985).

Second Born and Middle Child - the second child. This child can be the second of three children, the second or third of four, etc.

Youngest or Last Born - the youngest sibling, even if there are only two children, often referred to as the baby of the family. The second

born could also be the last born if only two children are in the family (Leman, 1985).

SAT - Stanford Achievement Test, Primary 2 Form E.

Limitations of the Study

There are two main limitations to this study. The research was conducted on a group of students whose pre-school years included a non-working parent in the home. There are no qualifiers for the time spent with this parent. The children in the study were screened for learning disabilities and other learning abnormalities. Siblings of the subjects were not screened. They may have mental or physical handicaps which demand constant parental attention thus changing the parent-child relationship of the subject.

Summary

Researchers agree that a child's academic success is correlated with his/her language components. A child's background is an important factor in the development of his/her language lexicons of listening speaking, writing, and reading. A young child

receives messages aurally and comprehends without the benefit of added cues. A child does not have to be able to read to recognize or place meaning with a verbal utterance and he is not limited to a list of words but is limited by his/her experiences and environment (May, 1986).

A deeper understanding of preschool language development is necessary if educators are to know and understand the "gaps" that exist between children in their receptive language development.

Chapter II

Review of the Literature

Purpose

The purpose of this study was to determine if there is a statistically significant relationship between the Stanford Achievement Test receptive vocabulary scores of children having different birth orders who were raised with a non-working parent in the home during their pre-school years.

This study examined the relationship of birth order on a child's receptive vocabulary. It analyzed language development within the parameters of a child's environment and birth order, parental involvement, sibling communications, schema and intelligence.

Language Development

> Almost from the moment newborn infants are laid in their cribs, they are intently at work taking in information through human beings' most-used receptive channel - the ears. Though this first listening is crude compared with the sophisticated, inferential listening adults do, it is a beginning. As children grow, their listening abilities develop as the children sense, sort, and begin to act upon the aural signals they receive. (Stewig, 1982, p. 61)

Research has shown that there is a correlation between environment, culture and receptive language (May, 1986). Receptive language includes both reading and listening. Loban (1964) completed a longitudinal study on reading achievement of students in grades four through eight. These students were evaluated in kindergarten for oral language competency using a vocabulary test administered orally and via a rating by their teachers on (a) the amount of language (b) quality of vocabulary (c) skill in communication (d) organization, purpose, control of language (e) wealth of ideas (f) quality of listening. Loban (1964) reported results indicating a "strong relationship between oral language ability in kindergarten and subsequent reading ability." He further indicated that "the relationship grows with increases in grade level, which is consistant with the expectation that auding and reading test performance will be more highly correlated after some skill in learning to read has developed. This study is consistant with the theory that auding ability is indicative of reading potential. This research lead Loban (1964) to suggest that auding rate be used as an indicator of reading rate before a child has the ability to read. Preschool oral language skills have been correlated

with reading achievement upon entering school. Loban states that the ability for "auding" is strictly related to the ability to read. Stewig (1982) writes that a child's introduction to a culture is through his/her interaction with adults using language as a form of action. Research indicates that a child gains a significant amount of information from the environment (McElroy, 1972). As the need for language arrives, words are acquired, therefore relating language expansion to environmental experiences.

Kenneth Goodman (1975) states:

> Language is always a mean and never an end in itself. Nobody ever learned to talk because he wanted to; nobody ever learned to talk because it's fun to talk. Language is learned because you have ideas to communicate and because other people have ideas to communicate to you and also because it's a very convenient useful medium for manipulating experiences and developing concepts and representing them to yourself and to other people (p.628).

A first born child's environment is stimulated mainly by his/her parents. His/her language development is modeled after that of his/her parents more than anyone else. The middle and last child's receptive language development is more apt to be influenced by the immature language of his/her older siblings (May, 1986). "Children spaced no more than a year apart tend to develop language at a slower rate

then children who are spaced further apart" (Zajonc & Markus, 1975).

"In order for language to be functional, a child should expand his world both physically and mentally. A child gears his language to his/her needs." (McElroy, 1972, p. 186). A child's listening vocabulary, in the early months, develops as rapidly or as slowly as his/her experiences demand. Comprehension improves with meaningful experiences (McElroy, 1972). As a child's attention and memory expand, his/her listening and observation abilities also expand.

From birth to approximately five years of age, a child communicates as a speaker and listener. McElroy (1972) writes that a child's "progression through those years depends on his needs and on the variety of experiences offered him by his environment" (p. 186). Loban (1975) studied language development by tracking students from kindergarten through grade twelve. He concluded that students who entered kindergarten with superior oral language patterns were exceptional writers and readers by grade six. Further research indicated that these students came from environmentally rich homes. Before a child is able to use oral language s/he develops an understanding of

oral language. Garman (1977) uses as an example of this that fact that a child can follow verbal directions before s/he is able to speak. Duker (1979) finds that parents who listen to their children teach good listening habits through modeling. Stewig (1982) stresses that direct listening instruction in the home rarely takes place. Skinner (1957) insists that language is learned and environmentally affected. He defends this belief with the "wolf boy" theory and that of others abandoned or isolated from society. Skinner (1957) and Staats (1968) both ascribe exterior stimuli to language development with the parent as the main stimulus. McNeill (cited in McElroy, 1972) believes that language is innate and a "predestined tool of man." Chomsky and McNeill (cited in McElroy, 1972) claim that language is universal. They feel that it is a "biological/neurological mechanism" enhanced by environment. Language is a "reflection of culture" (Whorf, cited in McElroy, 1972).

Environment and Birth Order

Home environment is the major influence in a child's language development. This environment encompasses birth order and the spacing of siblings, the number of adults and siblings in the home, the types and amount of conversations a child is exposed

to, and the affection, discipline and interest a parent shows a child. (May, 1986). Stewig (1982) asserts:

> If the home environment is crowded with young children, it is usually permeated with noise. Passive watching of television too often substitutes for active aural - oral interchanges between child and adult. Apparently children from such surroundings sometimes "tuneout" the noise; consequently their listening skills develop slowly. (p. 62)

Tough (1974) states that different environments have different effects on language development. Braun & Froese (1977) reinforce the importance of an environment "rich in sound and sense" claiming that this type of environment is the best way to facilitate a "rich repertoire" of vocabulary.

Adult Influence on Environment

May (1986) concludes that deficient oral language abilities are often related to environment including a parent's attitude towards children and child rearing. Adults who are responsible for spending time with a child often try to be sensitive to the language development of the child and usually adjust their language to enable the child to comprehend what is being said (Menyuk, 1980). Parents intuitively modify their language using simpler sentences and vocabulary when communicating with their child (Hood, 1980). "The environment must provide him/her with a choice of

simple words that can be easily organized and translated" (McElroy, 1972, p. 102). Butler's (1974) behavioristic theory of language development confirms that reinforcement and imitation are detrimental to a child's language development. Reinforced language is repeated while neglected or ignored language fades from a child's language lexicon. Adult conversation is a mainstay in the proficiency of receptive language development, both in understanding it and its use (Fox,1976; Tinker,1971; Vygotsky,1962). Parents tend to orally interpret the immature mumblings of a child and in doing so encourage communication and model verbal interactions between the adult and the child (Zutell, 1980). Brown and Bellugi (cited in Stewig, 1982) determined that mothers often take a phrase or idea fragment said by their child and make it into a complete sentence, supplying what they assume are the missing words. This type of feedback best insures that along with a "label" for an object or feeling, a child will begin to develop a relationship among the "labels" which will assign meaning (Braun & Froese, 1977). Conversation with verbal stimulation and concept development helps the child to understand speech (Tinker, 1971). According to Athey (1971), one of the basic theories of language development is an

"operational conditioning model" theory. In this theory, infantile babblings lead to speech patterns that are reinforced in a positive manner. Klima (cited in Zale, 1968) agrees with other researchers that children study the innumerable examples of language around them and make deductions about the language system. This is also demonstrated by Klima (cited in Zale, 1968) when he states, "In a sense, the child is like a linguist, making and rejecting hypotheses about language...after ten years, the child knows all the principles of the English language" (p. 34). Taylor, Harris, & Pearson (1988) found that the language environment and values stressed in a child's home environment influences a child's progress in language development most heavily. They stress that as long as children can hear others talk they will learn language.

Schema and Receptive Vocabulary

Taylor (et al, 1988) also state that unlike sight words which are heavily laden with verbs and function words, listening vocabulary depends on words which are rich in meaning and often paint a picture for the listener. Fries (1963) authoritatively states that auditory signs for language skills already learned by the child must be transferred to visual signs in order

for a child to learn to read. In order for that to occur with meaning, a rich oral vocabulary must exist. Anastasiow (1971) states that background and environment effect language development. May (1986) states that a child's vocabulary is increased when his/her experiences are increased. Vacca (1986) concurs that a child's environment and experiences are crucial in learning concepts and words. Mayhew's (1976) theory is that environment affects all that a child says and does. His belief is that words and skills should not be taught in isolation but in a "language rich environment" with interaction between the child and an adult. Allen (1976) concurs stating that it is more important to provide a child with communication experiences which deepen his ability and technique of communication than to teach language components in isolation. Children need to understand the expressions of others and their receptive language skills should be developed within the context of the same framework (Wilson & Hall, 1972). Relating language to a child's experience and stimulating him/her to use language in a non-threatening atmosphere with other people is an important aspect of receptive language development (Braun & Froese, 1977). A child's vocabulary allows him/her to "sort out his

experiences and concepts in relation to words and phrases in the context of what he is reading" (Goodman, 1976, p. 480). Schema increases vocabulary. Vocabulary and comprehension go hand in hand (May, 1986). Wilkenson (1974) states that "the child must recognize that visual signs represent the language he knows as a sound." May (1986) states: "vocabulary growth is the means by which we understand authors and communicate with others" (p. 102).

Intelligence and Receptive Vocabulary

Duker (1969) states: "The child who is intelligent is apt to be a good listener" (p. 749). Stewig (1982) concurs claiming "though the exact nature of this relationship is uncertain, several researchers have found a significant relationship between listening skills and general intelligence" (p. 64). Piaget (1959) emphasized the importance of a child's intellectual character and his/her ability to adapt to the environment through "logical thought, judgement, and reasoning" in influencing language. Vocabulary knowledge, while a strong correlative of intelligence, is not necessarily hereditary.

Hess and Holloway (1979) reviewed literature that showed a correlation between the intelligence of the parent and the child's receptive vocabulary. They

stated that the more highly educated the parent, especially the one remaining at home with the child, the higher the preschool oral language skills of the child. They also state that the more intelligent parent is more apt to model good language and reading skills for the child. Brown (1965) writes that a correlation between listening and reading exists. Stewig (1982) verifies this stating that "reading and listening are receptive language skills" and therefore logically related as proven by research (p. 64).

Sex Differences and Receptive Vocabulary

Sex differences are not as apparent in receptive language skills as they are in other areas of language (Stewig, 1982). There are "no significant differences in listening ability between boys and girls" (Hollow, cited in Stewig, 1982, p. 64). Hollow's study contained two hundred subjects. After six weeks of instruction in a listening program, no significant differences were found.

Horgan (1975) distinguished that there is a difference in male/female language development. He differentiated that boys were slightly more advanced in early stages of language development and that girls talked or had increased utterances in later months.

Significant in his study was the fact that language development correlated with a child's treatment by and relationship with adults and older children.

Rubin's (1976) investigation in sex differences in language concluded that preschool boys and girls differ in readiness skills. Girls were more advanced but boys benefited more from the kindergarten programs.

Summary

Receptive vocabulary is that which a student receives aurally and comprehends without the benefit of added cues. A child's receptive or listening vocabulary cannot be compared to his/her sight word vocabulary.

Vocabulary growth is related to one's culture and environment. By increasing a child's experiences and enriching his/her environment, his/her listening vocabulary is increased. A non-reader or pre-school child communicates with others mainly through his/her listening and speaking vocabularies. Children learn language by listening to it being used. A young child's receptive vocabulary is his/her most developed and largest resource of communication. This lexicon

includes both listening and reading vocabularies. Listening vocabulary precedes that of reading and is more affected by environment (May, 1986).

According to May (1986), home environment affects a child's language development. Vocabulary awareness is affected by the number of adults and siblings in the home and by the spacing of siblings and birth order. Receptive vocabulary is affected by the nature and amount of conversation in the home. First borns and only children are most influenced by their parents in language development. Middle and last born siblings may be influenced more by the immature minds and vocabularies of their siblings. The closer the children are in age in a family, the slower language development takes place.

Chapter III

Research Design

Purpose

The purpose of this study was to determine if there is a statistically significant relationship between the Stanford Achievement Test receptive vocabulary scores of children having different birth orders who were raised with a non-working parent in the home during their pre-school years.

This study examined the relationship of birth order on a child's receptive vocabulary. It analyzed language development within the parameters of a child's environment and birth order, parental involvement, sibling communications, schema and intelligence.

Hypothesis

In the study the following null hypothesis was investigated:

There will be no statistically significant relationship between the Stanford Achievement Test receptive vocabulary scores for second grade students having different birth orders all of which had a non-working parent in the home during their pre-school years.

Methodology

Subjects

The subjects of this study comprise 158 students who had a parent at home full time during their pre-school years. The students have IQ scores ranging between 90-110. They have been raised in a home having English as the first language. There are no subjects from multiple births, blended or extended families. The subjects attend a suburban school in western New York.

Materials

The materials used in this study include the following information obtained from the subjects' confidential educational files located in their school:

1. Otis Lennon IQ scores from a group administered test in first grade.
2. Stanford Achievement Test (Primary 2 Form E) score for Listening Vocabulary administered to the students as second graders.
3. Family history information including: number of siblings and date of births, blended families, extended families, multiple births, main language spoken in the home, parent employment history.

Procedure

This study began by screening current junior high students' confidential educational files. (Current second grade students are not being used due to the small number available with a non-working parent in the home.) Parental employment history is recorded on each student's school registration folder in these files. It was determined which children had a non-working parent at home during their pre-school years. The main language spoken in the home was also noted from the registration folder. Students who met these two criteria were then screened for information on blended families and multiple births, which would eliminate them from the potential subject pool. The remaining subjects whose IQ scores fell within the 90-110 range on their group administered IQ test in first grade were then set aside. This completed the selection process for subjects. It was determined that all subjects were of average intelligence coming from English speaking families. They were not the products of multiple births nor of blended families. They all had a non-working parent at home during their pre-school years.

This study continued by gathering second grade SAT scores in Listening Vocabulary for the subjects who had met all screening criteria to that point.

Analysis

Chi Square formula was employed in this analysis. Stanford Achievement Test raw scores in listening vocabulary were used. The mean and standard deviation for the raw scores of all 158 students were found. SAT scores were divided into three distinct categories: low, average and high. Care was taken to establish an average sampling number within each group. Members of the original sample whose scores did not locate within the parameters of these category boundaries were excluded from the final statistical sampling.

Chapter IV

Statistical Analysis

Purpose

The purpose of this study was to determine if there is a statistically significant relationship between the Stanford Achievement Test receptive vocabulary scores of children having different birth orders who were raised with a non-working parent in the home during their pre-school years.

This study examined the relationship of birth order on a child's receptive vocabulary. It analyzed language development within the parameters of a child's environment and birth order, parental involvement, sibling communications, schema and intelligence.

Hypothesis

In the study the following null hypothesis was investigated:

There will be no statistically significant relationship between the Stanford Achievement Test receptive vocabulary scores for second grade students having different birth orders all of whom had a

non-working parent in the home during their pre-school years.

Findings and Interpretation of Hypothesis

Cross tabulation and the Chi Square test of statistical independence were employed in this analysis. The Stanford Achievement Test raw scores for the second grade in listening vocabulary were used as the criterion measure. The mean and standard deviation for the raw scores of all 158 students were calculated. The mean was 26.981 and the standard deviation was +/- 4.553. As customary with cross tabulation analysis, the SAT scores were divided into three distinct categories: low, average and high. Boundaries were then created for the definition and classification of the three categories. One standard deviation was subtracted from the mean to establish the upper boundary for the category termed "low." This group included all students whose SAT scores were at least one standard deviation below the mean. All students with raw scores of 22 and lower were included in this group. A category labeled "high" was established to include all students whose SAT scores were at least one standard deviation above the mean. One standard deviation was added to the mean to arrive

at the lower boundary of 32 for the "high" group. All students in this group have a raw score of 32 or above. An "average" category was established to include students whose scores fell between the upper boundry of the low category and the lower boundry of the high category.

Care was taken to establish an similar sampling number within each group. Members of the original sample whose scores did not locate within the parameters of these boundaries were excluded from the final statistical sampling. Seventy students were dropped from the average group in an attempt to make the number of students similar in all three categories. Students were dropped at each end of the raw score range. The boundaries finally established for the "average" category were scores greater than or equal to 26 up to and including 28, the established lower boundary for the high category.

TABLE 1

Total Original Sample

Stanford Achievement Test Scores
FORM E - LEVEL P2
Listening Vocabulary
Raw Scores

Birth Order: Only Child	First Born	Middle Born	Last Born
28	29	32	31
29	29	26	32
26	29	20	31
28	25	25	30
19	24	27	24
28	31	18	32
23	27	25	18
33	21	18	35
29	30	31	23
30	20	24	26
25	25	25	32
29	33	33	29
30	26	26	20
23	24	12	30
32	23	30	28
29	30	28	30
35	21	29	26
23	26	28	25
20	34	28	19
27	29	33	25
32	23	17	33
29	25	19	29
32	25	22	26
23	31	29	27
28	30	32	27
27	28	30	19
33	34	25	25
34	25		34
30	25		25
20	25		28
28	25		26

Table 1 (continued)

Birth Order: Only Child	First Born	Middle Born	Last Born
	34		23
	32		24
	22		18
	32		30
	27		33
	24		27
	31		32
	25		28
	29		22
	34		27
	26		28
	29		26
	23		30
	31		24
	33		20
	31		30
			31
			31
			32
			16
			21
			26
			27
			17

Only Child Mean = 27.8620
First Born Mean = 27.5531
Middle Child Mean = 25.6296
Last Born Mean = 26.6909

Since the means of the four birth order groups were so similar when all of the subjects in the study were included, it was not necessary to investigate any statistical significance among any of those group means. The writer proceeded to a cross tabulation analysis to check if there were global effects that

might possibly be masked by a mere inspection of the means.

Low Category

One standard deviation was subtracted from the mean to establish the upper boundary for the category termed "low." This group included all students whose SAT scores were at least one standard deviation below the mean. All students with raw scores of 22 and lower were included in this group.

TABLE 2
Total Low Sample Data

Stanford Achievement Test Scores
Form E - Level P2
Listening Vocabulary
Raw Scores

Category: LOW Total Sample=24

Birth Order: Only Child	First Born	Middle Born	Last Born
20	22	12	22
20	21	17	20
19	20	19	16
	21	22	21
		20	17
		18	18
		18	18
			20
			19
			19

High Category

A category labeled "high" was established to include all students whose SAT scores were at least one standard deviation above the mean. One standard deviation was added to the mean to arrive at the lower boundary of 32 for the "high" group. All students in this group have a raw score of 32 or above.

TABLE 3
Total High Sample Data

Stanford Achievement Test Scores
Form EE - Level P2
Listening Vocabulary
Raw Scores

Category: HIGH Total sample:28

Birth Order: Only Child	First Born	Middle Born	Last Born
35	34	33	33
32	32	32	32
32	32	33	32
33	34	32	34
34	33		32
32	33		35
33	34		32
	34		33
			32

Average Category

An "average" category was established to include students whose scores fell between the upper boundary of the low category and the lower boundary of the high category. Four points were added to the upper boundary of the low category and also subtracted from the lower boundary of the high category. This was done to establish an average sampling number within each group. The average group consists of sample members with scores between 26 and 28. Members of the original sample whose scores did not locate within the parameters of these boundaries were excluded from this sampling.

TABLE 4
Total Average Sample Data

Stanford Achievement Test Scores
Form E - Level P2
Listening Vocabulary
Raw Scores

Category: AVERAGE Total sample:36

Birth Order: Only Child	First Born	Middle Born	Last Born
27	27	28	27
28	26	28	28
27	26	28	27

Table 4 (continued)

Birth Order: Only Child	First Born	Middle Born	Last Born
28	27	27	28
28	26	26	26
26	27	26	26
28	26		27
28	28		27
	26		28
			26
			26
			28
			26

TABLE 5

Contingency Table
Observed / Expected Frequencies
of
Low, Average, High Achievement Groups

Mean Score = 26.981 Standard Deviation = 4.553

Row Categories	C_1 LOW <22	C_2 AVERAGE <26>28	C_3 HIGH >32	Row Margins
ONLY R_1	3 / 4.636	7 / 6.955	7 / 5.409	17
FIRST R_2	4 / 5.830	7 / 7.773	8 / 6.045	19
MIDDLE R_3	7 / 5.216	6 / 6.955	4 / 5.409	17
LAST R_4	10 / 10.739	16 / 14.318	9 / 11.136	35
COLUMN MARGIN TOTALS	27	36	28	88

Critical Value of x^2 with 6 degrees of freedom at the 95% confidence level is 12.59.

TABLE 6

CHI SQUARE TABLE

CELL	fo	fe	(fo-fe)	$(fo-fe)^2$	$(fo-fe)^2/fe$
R_1C_1	3	4.636	-1.636	2.676	.577
R_1C_2	7	6.955	.045	.002	0.000
R_1C_3	7	5.409	1.591	2.531	.468
R_2C_1	4	5.830	-1.830	3.349	.574
R_2C_2	7	7.773	-0.773	.598	.077
R_2C_3	8	6.045	1.955	3.822	0.632
R_3C_1	7	5.216	1.784	3.183	.610
R_3C_2	6	6.955	-0.955	.912	.131
R_3C_3	4	5.409	-1.409	1.985	.367
R_4C_1	10	10.739	-.739	.546	.051
R_4C_2	16	14.318	1.682	2.829	.198
R_4C_3	9	11.136	-2.136	4.562	.410
				$x^2 =$	4.095

Since the critical value of Chi Square for six degrees of freedom at the 95% confidence level is 12.59 and since the Chi Square obtained was 4.095, we must retain the null hypothesis and conclude that

there is no statistically significant relationship between receptive vocabulary and birth order of students having a non-working parent in the home during their preschool years.

Summary

The Chi Square table used demonstrates that no significant relationship exists between receptive vocabulary and birth order of children having a non-working parent at home during their preschool years.

Chapter V

Conclusions and Implications

Purpose

The purpose of this study was to determine if there is a statistically significant relationship between the Stanford Achievement Test receptive vocabulary scores of children having different birth orders who were raised with a non-working parent in the home during their pre-school years.

This study examined the relationship of birth order on a child's receptive vocabulary. It analyzed language development within the parameters of a child's environment and birth order, parental involvement, sibling communications, schema and intelligence.

Conclusions

The following conclusions can be drawn from analysis of the data on the subjects studied.

The null hypothesis was not rejected. There is no statistically significant relationship between the receptive vocabulary scores of

children having different birth orders who were raised with a non-working parent in the home during their pre-school years.

The analysis of the Chi Square data showed that there was no significant relationship between the low, high and average groups and their birth orders.

Implications for Further Research

Literature on receptive vocabulary and current research indicates that environment has an enormous effect on receptive vocabulary (May, 1986; Menyuk, 1980; Stewig, 1982). Examination into the environment and language development of current preschoolers may provide insight into the effect of day care centers on receptive vocabulary. Day care providers often cannot provide small group language experiences. A provider's time and attention is usually divided among four to six children of preschool age. There is a need to see if there is a difference between the language development of children who stayed at home with a parent during their preschool years and those who attended day care.

A longitudinal study of students' receptive language achievement might reveal a difference in later development of students in different environments prior to school age. It would be of value to see if a difference appears in later development or if no significant difference occurs.

Implications for Classroom Practice

Sufficient research has shown that a child's academic success is correlated with his/her language components. A child's background is an important factor in the development of his/her language lexicons of listening, speaking, writing, and reading. If a child enters school without sufficient background for success, a professional should assist in enlarging his schema and therefore making success accessible to the individual. The student need not be limited to learning a list of words but can enlarge his/her language lexicons through new experiences and his/her extended environment. Vocabulary growth is related to one's culture and environment (May, 1982; Mayhew, 1976). By increasing a child's

environment, his/her listening vocabulary can increase.

Children learn language by listening to it being used. A teacher should encourage children to engage in meaningful conversations and discussions with their peers in the classroom.

Teachers need reminding that a child's oral language development is a crucial aspect of reading development. Speaking, writing, listening and reading are four intricately woven aspects of language. When a child has language difficulties, a teacher must encourage investigation into the "whole" of reading and language not only into the immediate difficulty.

Listening vocabulary is utilized more often as one matures. The ability to obtain meaning from oral content becomes crucial to success in every aspect of life. No matter what stage of development one is at, listening skills do not allow time for reconsideration or reflection of information as needed. Listening strategies should be both taught and modeled within the classroom. Questioning after listening exercises

should be encouraged to reinforce these techniques.

This study has examined many aspects of language development. More often than not, environment is the crucial aspect of language enrichment. If educators can enrich children's learning environments, they may also succeed in enriching children's language development. Skill sheets and meaningless unrelated units will not encourage children to learn. If children are to actively engage in their own educational process, they must be encouraged to want to learn. Language development must be meaningful.

REFERENCE LIST

Anderson, P.S., Lapp, D. (1988). Language skills in elementary education (4th ed.). New York: Macmillan.

Brown, C.T. (1965, June). Three studies on the listening of children. Speech Monographs, pp. 129-138.

de Villers. P.A., & de Villers J.G. (1979). Early Language. Massachusetts: Harvard University Press.

Duker, S. (1969). Listening. Encyclopedia of educational research, (ed. Robert L. Ebel), pp. 747-751. New York: Macmillan.

Goodman, K. (1976). The reading process: A psycholistic view. Language and thinking in school (2nd ed.). New York: Holt Rinehart and Winston.

Hood, L. (1980). The role of imitation in children's language learning. In G.S. Pinnell (Ed.), Discovering language with children. Urbana, Illinois: National Council of Teachers of English.

Leman, K. (1985). The birth order book. New Jersey: Fleming H. Revell.

May, F.B. (1986). Reading as communication. (2nd ed.). Ohio: Merrill.

McElroy, C.W. (1972). Speech and language development of the preschool child: A survey. Illinois: Bannerstone House.

McNeill, D. (1966). The acquisition of language: The study of developmental psycholinguistics. In F. Smith and G. Miller (Eds.), The genesis of language: A psycholinguistic approach (pp. 15-80). Mass: MIT Press.

Menyuk, P. (1980). What young children know about language. In G.S. Pinnell (Ed.), Discovering language with children. Urbana, Illinois: National Council of Teachers of English.

Piaget, J. (1959). The language & thought of the child. London: Routledge.

Pinnell, G.S. (Ed.). (1980). Discovering language with children. Urbana,Illinois: National Council of Teachers of English.

Skinner, F.F. (1957). Verbal behavior. New York, Appleton Century Crafts.

Statts, A. W. (1968). Language learning & cognition. New York: Holt & Winston.

Stewig, J.W. (1982). Teaching language arts in early childhood. New York: CBS College Publishing.

Taylor, B., Harris, L.A., & Pearson, P.D. (1988). Reading difficulties. New York: Random House.

Vacca,T.V., & Vacca J.L. (1986). Content area reading. Canada: Little Brown.

Zajonc, R.B., & Markus, G.B. (1975). Birth order and intellectual development. Psychological Review, 82, 74-88.

Zale, E.M., Language and language behavior. New Jersey: Appleton-Century-Crofts, 1968, p. 34.

Zutell, J. (1980). Learning language at home and at school. In G.S. Pinnell (Ed.), Discovering language with children. Urbana, Illinois: National Council of Teachers of English.