

To the Graduate Council:

I am submitting herewith a thesis written by Alma J. Reece entitled "The Effects of Modality Teaching on the Learning Rate of Preschool Children." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Educational Psychology.

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Carmichael
The Graduate School

THE EFFECTS OF MODALITY TEACHING
ON THE LEARNING RATE OF
PRESCHOOL CHILDREN

A Thesis
Presented for the
Master of Science
Degree
The University of Tennessee, Knoxville

Alma J. Reece

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DEDICATION

To Michael and Robbie, who unselfishly gave their share of mother's attention so she might attain a long awaited goal.

ACKNOWLEDGMENTS

The author wishes to thank Ruth A. Breeding for her understanding, flexibility, and friendship. She also wishes to thank James E. Crowe for his many years of encouragement.

ABSTRACT

Two different models for providing preschool instruction were investigated. The more traditional model of self selection from teacher planned activities was compared with a model wherein activities were planned to complement each child's preferred learning modality. The subjects were 300 three, four, and five year olds. Subjects were assigned by intact classrooms to teachers in one of the two method groups. The Learning Accomplishment Profile was used as a pretest to determine each child's developmental level across seven areas. Preferred learning styles were determined by the Learning Style Inventory-Preschool Version.

Subjects were instructed for 7 months in the particular method to which they had been assigned. Each child was again given the Learning Accomplishment Profile as a posttest. Mean gain scores were calculated for each of the two groups to determine if there was a significant difference in the cognitive variable for the two groups. Forty-seven percent of children in the modality instructed group scored higher in all seven areas. Seventy-two percent of the modality instructed group had higher scores in the targeted cognitive area. The mean gain score in the cognitive area for the self selection group

was 4.3 reported in years and months, and 4.9 for the modality instructed group.

Results suggest that teaching young children through their preferred modalities leads to faster developmental readiness. These results justify this method of instruction as one way to help children become more effective learners.

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CHAPTER I

INTRODUCTION

Statement of the Problem

Since the middle sixties, more and more women have entered the job market. One obvious side effect is the increasing number of children who attend preschool development centers. With such a large population of young children, the need for effective instruction is becoming increasingly apparent. Many strategies and teaching techniques have emerged over the years with varied degrees of success. With the recent commitment to early education to achieve productivity and a sense of satisfaction for children, the search has intensified for a technique to maximize each child's opportunity to have a successful learning experience. The apparent void of a uniformly accepted approach to teaching them makes it appropriate that a study should be made in a different realm. All previous studies concerned with modality instruction that this author could locate were aimed at a considerably older population and dealt with only one aspect of learning (e.g., spelling achievement).

The problem for this thesis was to measure and compare the effectiveness of two different models for

providing preschool instruction. These models are "Self-Selected Child Centered" and "Prescriptive Supervision." The latter model was compared with the more traditional model of self selection within a unit theme framework. Prescriptive Supervision refers to instruction utilizing individual modality preferences.

Importance of the Study

This study addresses several issues of great importance to preschool educators in the 1980's and beyond. Briefly, these issues are:

1. Can classroom teachers channel children's natural learning style into appropriate meaningful experiences, which in turn may facilitate a quicker transition into academics?
2. Can future remedial instruction be reduced by detecting individual learning styles early and focusing teaching strategies on strengths as well as accommodating weaknesses?
3. Are there significant differences between developmental gains of children taught by self selection and modality preference?

This thesis will examine the hypothesis that there is a significant difference in effectiveness between the "Self Selection Child Centered" model and the "Prescriptive Supervision" model and that the "Prescriptive Supervision"

model will be at least as cost and time efficient in terms of the possibility of increasing learning rate and reducing remedial instruction.

Definition of Terms

Self Selection

"Self Selection" refers to a teaching technique that stresses free choice of activities by children, planned by the teacher but without any specific grouping objective.

Prescriptive Supervision

"Prescriptive Supervision" refers to a teaching technique wherein each child is grouped according to the particular style of learning preferred.

Learning Style Inventory

"Learning Style Inventory" refers to an instrument used to determine each child's individual learning style herein to be referred to as "Learning Style Inventory Preschool Version" (LSI-PS). (The LSI-PS is a modified version of Janet Perrin's version of the LSI-P.)

Modality

"Modality" refers to modes by which individuals process information.

Learning Accomplishment Profile

"Learning Accomplishment Profile" refers to an early childhood assessment battery that focuses on seven areas of development; cognitive, gross motor, fine motor, pre-writing, language, self help, and personal/social, herein referred to as "LAP."

Unit Theme

"Unit Theme" refers to a single idea that has been incorporated into a unit of instruction.

CHAPTER II

REVIEW OF RELATED LITERATURE

Chapter II contains a review of literature concerning learning style and its application to educational settings. While surveying the literature, this researcher found a variety of information dealing with these topics. Only one study, however, related to the preschool population (Welch 1982). Information reported in this thesis relates to learning style and learning modalities in a general sense, but can be generalized to a younger population.

Barbe and Milone (1981) spoke of the importance of style when they wrote

One of the most promising movements in contemporary education is the attention being given to student learning styles. The movement is based on the idea that students vary in their approach to learning so . . . "no single instructional process provides optimal learning for all students" (p. 378).

Several workable definitions of learning style and modality were found. Rosenberg (1968) felt that learning style was an individual's characteristic pattern of behavior when dealing with a problem. Rosenberg further suggested that observing a child in a number of problem solving situations would reflect a pattern that he called learning style.

DeCecco (1968) stressed information processing as the key to learning style. He summarized his article by saying that learning styles are "personal ways in which individuals process information in the course of learning new concepts and principles" (p. 75).

Learning style was defined by Gregorc (1979) as consisting of

distinctive behaviors which serve as indicators of how a person learns and adapts to his environment. It also gives clues as to how a person's mind operates (p. 234).

Still another definition was given by Dunn (1980) who described learning style as "the manner in which many different elements from five basic stimuli affect a person's ability to absorb and retain" (p. 1). The five stimuli referred to by Dunn are environmental, emotional, psychological, physical, and sociological.

The focus of this study was primarily directed toward the modalities of learning, specifically the auditory, tactile, visual, and kinesthetic modalities. Barbe (1981) felt that these modalities involving perception were the most thoroughly investigated and most often associated with learning. Of these five basic modalities, Grinder and Bandler (1975) suggested that vision, audition, and kinesthetic are the three major channels. They also suggested that each individual has a preferred modality strength.

In referring to modality strengths, Barbe and Milone (1980) stated

Neither nature or nurture fully accounts for the development of a modality strength. Most likely, a person's heredity, maturation, learning, and cultural upbringing are all contributing factors. While sex and handedness have little impact on modality strengths, the influence of age is quite strong. Children in the early elementary grades have more well defined strengths and they tend to be more auditory rather than kinesthetic. As children progress through elementary school, their modalities become mixed and interdependent (p. 45).

Tyler (1979) examined the effects of readiness level and learning modality emphasis on the form discrimination performance of 109 kindergarten children on training and transfer tasks. The results suggest that readiness level has some bearing on learning modality preference. High readiness children required less trials to criterion when pretrained on the visual-verbal modality and low readiness children required less trials to criterion when pretrained on the haptic and visual-haptic modality. Low readiness children demonstrated greater reliance on sensorimotor activity. Therefore, it appears that the facility for mastering form discrimination on the selected training and transfer tasks depends on the readiness level of the child and the successful use of visual and visual-verbal learning modalities. No information was included regarding the effects of modality preference on readiness level.

Carbo (1980) also found statistically significant results when reading treatments were matched to children's

modality strengths. Results suggest that primary children, though thought to be more auditory than visual, will indeed experience positive learning when visual reading treatments are matched to visual learners. Burton (1980) found that when treatments were not matched with modalities, visual methods were more successful with primary children than auditory approaches despite the fact that the youngsters had been taught phonetically.

Although we know that all girls and boys do not mature at the same rate perceptually, Restak (1979) suggested that more girls than boys can learn to read through a phonics approach, and that more boys than girls require tactile-kinesthetic resources in combination with a word recognition approach to learn how to read easily.

Trautman (1979) examined student achievement in knowledge, comprehension, and application when instructional materials were matched and mismatched to identified learning style. Trautman found that whenever the instructional materials were matched correctly to the student's identified style, statistically significant academic progress was made.

In an older population, two postsecondary institutions participated in a program that attempted to match students' preferred learning style with an individualized educational program (Hunter 1977). The project results did not establish the existence of significant relationships

between the use of preferred styles and education outcome.

Results of this study may be a reflection of the student's age. Hunter did find a disparity in the preferred learning styles of older and younger students. Of the 968 subjects involved, 60 percent were under 24 years. Findings suggest that younger students showed greater preference for both peer and teacher affiliation, working with objects, pictorial, and direct experience modes. Older students, however, preferred a structured environment, detailed instruction and competition, verbal content, and listening modes. Hunter emphasized new instructional strategies aimed at the younger generation.

The questions addressed in this study are: Can classroom teachers channel children's learning styles into appropriate meaningful experiences, which in turn may facilitate a quicker cognitive readiness, and will this readiness result in a significant difference in cognitive scores?

CHAPTER III

METHODS AND PROCEDURES

This study was to determine if modality instruction was more effective than the traditional method of self selection. This chapter presents a description of the groups of students who participated in the study. It also includes a description of procedures through various phases of the study.

Subjects

Subjects consisted of 300 preschool children ranging from three to five years of age. The study was conducted in four East Tennessee counties. Subjects comprised two groups, a Self Selection group and a Prescriptive Supervision group, in which modality preferences were utilized. Each group was formed by several intact classrooms, with 20 children per class.

Procedure

1. Seventeen preschool teachers were assigned on a random basis to one of the intact groups: Group 1--Self Selection--eight intact classrooms (N=120); Group 2--Prescriptive Supervision--nine intact classrooms (N=180).

2. The 17 teachers assigned to the groups had an average of 8 years' experience in preschool instruction. Group 1 teachers had regular pre-service and in-service training relating to child development. In addition to regular training, Group 2 had monthly sessions to continue developing awareness of student differences and to improve skills in developing programs which complemented individual modality strengths.

3. Every child in each intact group was given the Learning Accomplishment Profile (LAP) as a pretest to determine developmental level at the onset of the study. Data were recorded using an individual profile.

4. The Learning Style Inventory-Preschool Version (LSI-PS) was administered by each classroom teacher to her own class in her local setting. Data were recorded on an individual student profile.

5. During the classroom experience, which lasted approximately 7 months, each group was instructed either by: Group 1) teacher planned activities that dealt with teaching concepts relating to a particular unit theme. Children self selected activities of interest. Group 2) teacher planned activities focused on the unit theme with children grouped and activities planned to correspond with each child's modality strength.

The daily schedule for each intact classroom contained a specific 35 minute time block in which instruction was

given according to particular group design; modality preference or self selection. Otherwise, scheduling and curriculum were identical. Group 1 was involved in activities planned by the teacher to correspond with a unit topic curriculum. The children had no prearranged grouping, but were free to move from one activity to another. Group 2 was instructed according to information obtained from the LSI-PS. Children were grouped by pairs, small groups, or individually depending on modality preference, and instructed to accommodate modality strengths. Of the 35 minutes designated for this time block, approximately 20 minutes were devoted to the determined modality strength area. Children were initially directed into activities that corresponded with their modality preference by assigning each modality strength a color code (tactual--blue; visual--red; auditory--green, etc.). For example, in an object discrimination task, children in the previously determined "blue group" always began their activities in the tactual area of the classroom. The tactual area contained several activities, preplanned by the teacher to complement the tactual learners and correspond to the unit topic of object discrimination. The area included activities such as hands on matching games, feeling boards, multi-size pegs, tracing patterns, etc. The visual group may have flash cards, picture matching games, and posters. Auditory

activities could consist of story telling, record with ear phones, or various rhythm instruments. The same unit topics were used for both groups.

6. At the end of the 7 month instruction period, every child in both groups was given the LAP as a posttest. Gain scores were tabulated to determine the effectiveness of each model of instruction.

Design of the Instrument

The Learning Style Inventory-Preschool Version is an adaptation of Janet Perrin's Learning Style Inventory Primary Version (LSI-P). The language was changed to accommodate a younger population.

The inventory is a questionnaire consisting of 11 charts, each containing one series of pictures and one series of questions. Each chart tests a different element of learning style. An individual student profile is also part of the inventory. Directions are included with each series of questions. Approximately 20 minutes is required to administer the entire inventory. Two or three sittings are recommended depending on the attention span of the child. Children respond orally to each question.

The LSI-PS was given individually to each group. Individual profiles of Group 1 children were filed in each child's permanent record but not utilized as part

of curriculum planning or instruction. Information from Group 2 profiles was directly used to plan classroom activities and grouping arrangements. Although the LSI-PS tests 11 different elements of learning style, this researcher focused only on two. The first area was perception, which involved tactual, auditory, visual, and kinesthetic. The second area was sociological. This area of testing determined if the child preferred to work alone, with peers, or with adults.

The Learning Accomplishment Profile used for pre and posttesting is a simple criterion referenced tool for assessing a child's existing skills. The LAP addresses nearly 400 samples of behavior across seven areas of development. The cognitive area on which this study focuses addresses intellectual functions such as reasoning, problem solving, and knowledge. The specific skills which are included in the cognitive section of the LAP are basic prerequisites to scholastic functioning such as: numbers, colors, shapes, money, and measurements. Concepts of similarities, differences, size, position, weight, and texture are also assigned to the cognitive section.

The authors have used 27 documented normed scales in compiling the LAP. (See Appendix C.) These scales were: A & B, BANGS, BAY, CAP, CAT, CEC, COL, C & G, DOLL, FRANK, GES, HUR, ILL, K & P, MPS, MPDPS, PLS, S & L,

SHER, SICD, SLO, SSC, STEP, STOTT, TER, VAN, and W & L.

The developmental range of the LAP is 36 to 72 months.

Recording of the LAP consists of determining a basal level for each child. Demonstration of eight consecutive behaviors has been designated by the authors (Sanford and Zelman, 1981) as the basal for the LAP. It can be assumed that a child can pass all the items occurring before this point. After the basal has been determined, the assessment should continue until the child has three minuses in a five item sequence. This represents the ceiling level of performance and the assessment should end at this point.

The LAP was given to both groups approximately 1 month into the school year. This allowed children to become adjusted to a new environment. The LAP was again administered at the end of the school year, approximately 7 months later.

Though the scales (see Appendix C) from which the LAP was derived have been tested for reliability and validity, no data are available concerning the reliability and validity of the LAP. That is, no reliability or validity data appear in the manual or Buros' Mental Measurements Yearbook, or Buros' Tests in Print-Two.

CHAPTER IV

RESULTS

The Learning Accomplishment Profile (LAP) focused on seven areas of development; cognitive, gross motor, fine motor, pre-writing, language, self help, and personal/social. Each child's level of development in these areas were determined and recorded as a pretest of the study. Group 2, in which the treatment of modality instruction was applied, was given the LAP again after 7 months of instruction, as was Group 1. An analysis of variance was used to test the hypothesis. The analysis yielded significant differences in cognitive gains between the two teaching methods at the .05 level. It was found that the modality instructed group did in fact make larger gains in the areas of cognitive, language, personal/social, and self help. The areas of gross motor, fine motor, and pre-writing were essentially the same for both groups.

These findings suggest that there is indeed a possibility of increasing a young child's rate of learning in specific developmental areas that deal with information processing. Information processing is considered here to be how each child synthesizes and responds to incoming stimuli. It was also found that across the seven

developmental areas children in the modality group achieved a larger variation in mean gains.

The hypothesis that there is no difference in the gains between the two groups was rejected. An F test was used to determine if there was nonchance variation in the means. Table I presents a summary of the analysis of variance in the cognitive variable. The F of 192.5 is significant at the .05 level.

Table II presents a summary table of mean scores across seven areas of development.

TABLE I
SUMMARY TABLE FOR ANALYSIS OF VARIANCE OF MEAN
SCORES FOR THE COGNITIVE VARIABLE

Source	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>
Condition	1	3.85	3.85	192.5*
Within	297	6.16	0.02	
Total	298	10.01		

* $p < .05$.

TABLE II

COMPARISON OF TWO METHODS OF TEACHING AS REPORTED IN
MEAN SCORES ACROSS SEVEN AREAS OF DEVELOPMENT

Area	Teaching Method					
	Self Selection		Mean ^a Gains	Prescriptive Supervision		Mean Gains
	pre	post		pre	post	
Gross motor	4.4	4.9	.5	4.3	4.8	.5
Fine motor	4.2	4.7	.5	4.4	4.9	.5
Pre-writing	3.9	4.3	.6	4.0	4.5	.5
Cognitive	4.0	4.3	.3	4.1	4.9	.8*
Language	4.1	4.7	.6	4.0	4.8	.8
Self help	4.5	4.9	.4	4.6	4.11	.5
Personal/ social	4.0	4.5	.5	4.1	4.8	.7

^aMean reported in years and months.

N=300.

*p<.05.

Discussion, Conclusions, and Recommendations

The intent of the study was to determine if instructing preschool children through natural modality preference would yield significantly greater cognitive gains on a preschool development battery than instructing children through a self selection method with no emphasis placed on individual differences.

Forty-seven percent of the children in the "Prescriptive Supervision" group achieved consistently larger gains across all areas, and 72 percent achieved higher levels of development in the targeted cognitive area. When looking at the data, one must be aware of the natural maturing rate of very young children. The majority of the children studied were functioning at age appropriate level with only minor delays for some. Even though natural maturation was a factor in both groups, the modality instructed group still showed consistently more gains. The cognitive mean score for the self selection group was 4 years, 3 months; and 4 years, 9 months for the modality instructed group.

Although normative data were not available for the LAP, this researcher calculated the gains of three previous sample groups. The comparison groups were similar in age, socioeconomic background, and number of subjects tested. An average gain of 5 months was found

to be obtained in the last 3 years for the cognitive area over a 7 month instruction period. In the present study, the self selection group gained 3 months on the cognitive variable whereas the modality instructed group gained 8 months. Therefore, the difference between the groups was 5 months. Even though 5 months seems like a relatively short time, with this age child 5 months represents 10.4 percent of the child's life span at that point.

The question also arises as to whether future remedial instruction can be decreased by detecting individual learning styles early and focusing teaching strategies on strengths, as well as accommodating weaknesses. This concern could not be fully evaluated in this study. Implications are strong, however, that remedial instruction may in fact be decreased since findings reflect more gains across several areas, even at this young age. Further research focusing on remediation is needed to determine if modality instruction would indeed be a possible early intervention strategy to remediate individual weaknesses in children.

Dr. Patricia Cross (1978) contends that matching remedial instruction with individual styles may bridge the missing gaps in learning, and that different teaching methods work for different students. Learning, therefore, is not

always maximized since some methods of instruction appeal to different types of learners. She also contends that the old assumption that we are born with a certain amount of intelligence and the amount would either help or hinder us in school learning is outdated. In the old I.Q. assumption, there is no burden on the teacher to improve the quality of learning, whereas in the individual style approach more emphasis is on the teacher to capitalize on talents in individual students. Much more research is needed to complement educators' present knowledge of individual differences in children.

This researcher expected to find more indicators of significant difference. One possible explanation for such close clusters of scores is the young age of the subjects. Natural maturation would tend to keep the scores close at this young age. A strong point that needs to be emphasized at this time is the fact that more gains, whether at a significant level or not, were made in the modality instructed group. The difference between the groups suggest that teacher directed instruction tends to place emphasis on curriculum alone. The modality method of instruction, however, stresses students' individual processing skills in relation to the curriculum being presented.

In conclusion, one must reflect on the major purpose of this study and all other studies dealing with learning,

in theory or in method. The anticipated outcome is to have additional knowledge and information to share with others that ultimately lead to advances in the field of education.

Educators are currently taking a very close look at early education for several very good reasons. One reason is the large population involved in preschool centers. Another reason for such close scrutiny lies in the fact that young children possess more knowledge and capabilities than once believed possible. Preschool learning centers are now being associated with learning as well as care giving. Increased awareness of the importance of the early years has been the catalyst for current innovative programs for children. Complementing differences among children with individualized planned instruction is one way to help children become more effective learners.

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APPENDIXES

APPENDIX A

LEARNING STYLE INVENTORY-PRESCHOOL VERSION

LEARNING STYLE INVENTORY-PRESCHOOL VERSION

The Learning Style Inventory-Preschool Version (LSI-PS) is designed for young children to respond about the ways they prefer to learn. The questionnaire type format consists of 11 charts, each containing one series of pictures and one series of questions. Each chart tests a different element of learning style.

Before You Administer

Acquaint the child with the concept of an inventory. For example, say "Today let's talk about some things you like, and some things you like to do. Do you like ice cream? What kind of ice cream do you like best? Anything you say is O.K., there's no right or wrong answer, anything you choose is fine. Remember though, you can only choose one." Complete the survey by graphing the child's responses on a practice scoring sheet. Repeat this exercise using different items such as favorite color, favorite game, favorite toy, etc. When you are confident that the child understands there can be no right or wrong answer on a survey, introduce the LSI-PS. For example, say "Now I know what kind of ice cream you like, your favorite color, your favorite game, etc. Now I want to know how you like to learn new things."

Administration

Reproduce a Student Profile form for each child. Record the child's responses on this form in the space marked "response." Work though each chart with one child at a time. Directions are included with each series of questions. It takes approximately 20 minutes to administer the entire inventory. It should be given in two or three sittings depending on the attention span of the child. Children respond verbally to each question.

Scoring

Scoring is done on the individual Student Profile form. For each element of learning style surveyed, there is a scoring code which contains at least two sequences or responses. Record responses of each student in the boxes marked "response." Compare these boxes to the codes above it by shading in the coded boxes that match the student response. If a student responds "It doesn't matter to me," "sometimes I do and sometimes I don't," do not record this response. Compute a fraction score for each sequence by adding the shaded boxes for the numerator. The denominator, which is the number of questions asked on each chart, is indicated in the box marked "score." The closer the fraction is to "1" the more important that learning style is to the child. If the fractions for each element are split, for example $\frac{2}{5}$

and 3/5, it is assumed that element is not important to the student.

EXAMPLE:	STRUCTURE						SCORE
	needs	1	1	1	1	1	0/5
	needs little	2	2	2	2	2	5/5
	RESPONSE	2	2	2	2	2	

0/5 indicates child does not need a lot of structure.

5/5 indicates needs little structure. Prefers to structure for himself.

	LIGHT						SCORE
	low	1	1	1	1	1	2/5
	bright	2	2	2	2	2	3/5
	RESPONSE	1	2	1	2	2	

2/5 and 3/5 indicates the child is not influenced by the element of "light." Can work in either low or bright light.

This instrument has been revised to accommodate the language style of very young children. Janet Perrin's Learning Style Inventory-Primary Version (LSI-P) was a major guide in the development. The primary aim of the LSI-PS is to help help an early insight into particular conditions or motivators that inspire children to learn.

Element: Sociological

Introduction

Display the picture (Figure I).

The empty chair in each one of these pictures is your chair. Imagine you were sitting in this chair (point to picture 1). In this chair you would do your work by yourself. Some children work puzzles and draw best when they work by themselves.

Now, imagine you were sitting in this chair (point to picture 2). In this chair you would do your work with a grownup. Some children work best when they work with a grownup.

Now, imagine you were sitting in this chair (point to picture 3). In this chair you would work puzzles with your friends. Some children work best when they work with their friends.

I am going to ask you a few questions about whom you like to work with in school.

QUESTIONS:

1. When you are in school, do you like to do your work
 3 with a few friends?
or
 1 by yourself?

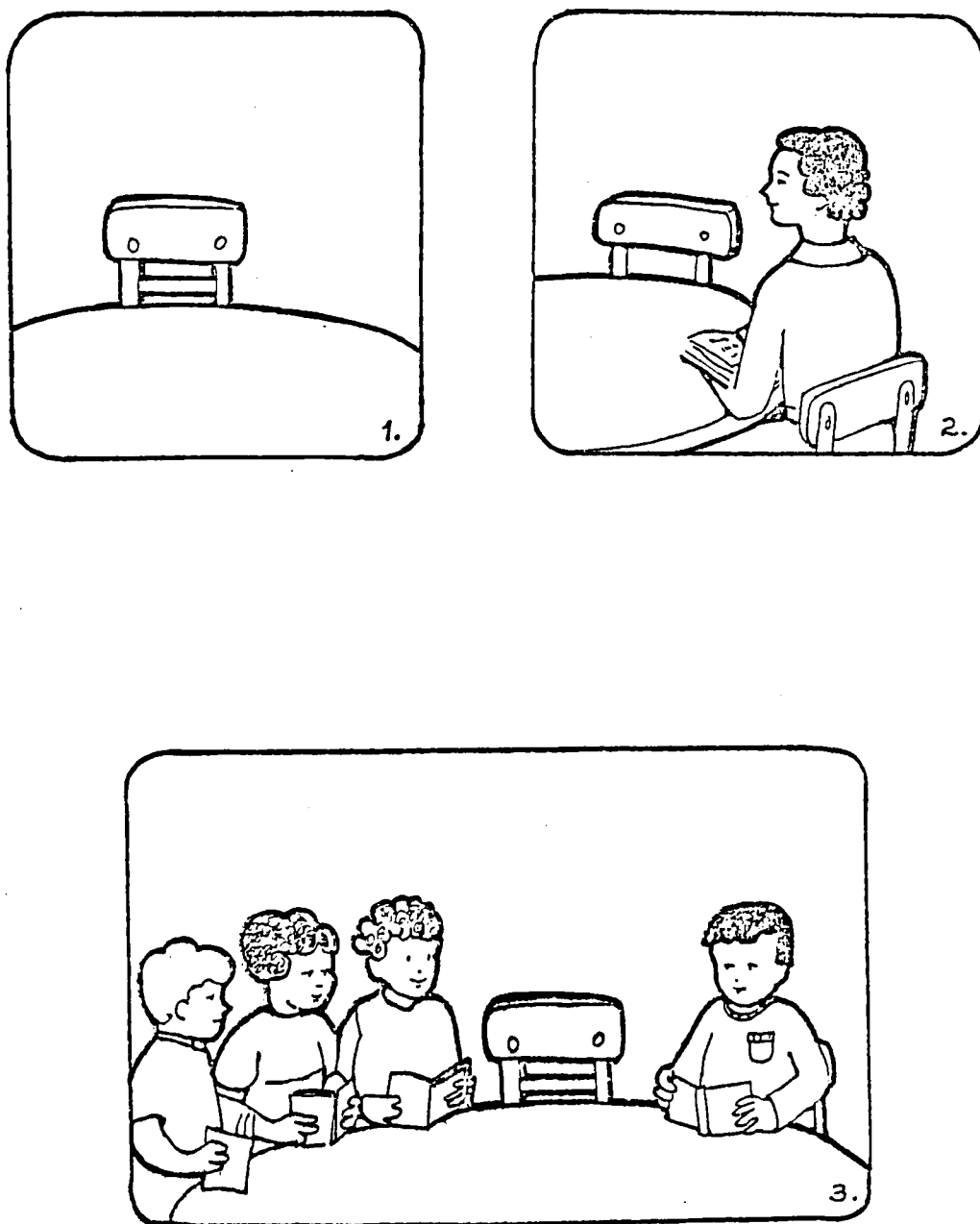


FIGURE I

ELEMENT: SOCIOLOGICAL

2. When you do your work at home, do you like to
1 do it by yourself?
or
2 have your mother or father sit with you?
3. When you are in school, do you like to
2 work with your teacher?
or
3 work with your friends?
4. When you do your work at home, do you like to
3 do it with a friend?
or
2 do it with your mother and father?
5. When you do your schoolwork, do you like to
2 work with the teacher?
or
1 work with yourself?
6. When you do your work at home, do you like to
3 work with friends?
or
1 work by yourself?
7. (Repeat the introduction to the picture.) Which
picture would you choose to put yourself in? (Have
the child point to a picture or respond verbally.)

Element: PerceptionIntroduction

Display the picture (Figure II).

We can learn things in many ways.

(Point to picture 1.) In this picture the little girl likes to learn by doing things with her hands.

(Point to picture 2.) In this picture the little girl likes to learn something new by listening.

(Point to picture 3.) In this picture the little girl likes to learn something new by looking at pictures about it.

(Point to picture 4.) In this picture the little girl likes to learn something new by using her whole body to learn about it.

I am going to ask you a few questions about how you like to learn.

QUESTIONS:

Which do you like to do better?

1. 2 listen to someone read a story?
or

3 watch a story on TV?

2. 3 look at pictures?
or

1 put a puzzle together?

3. 3 watch a movie?
or

4 play at the playground?

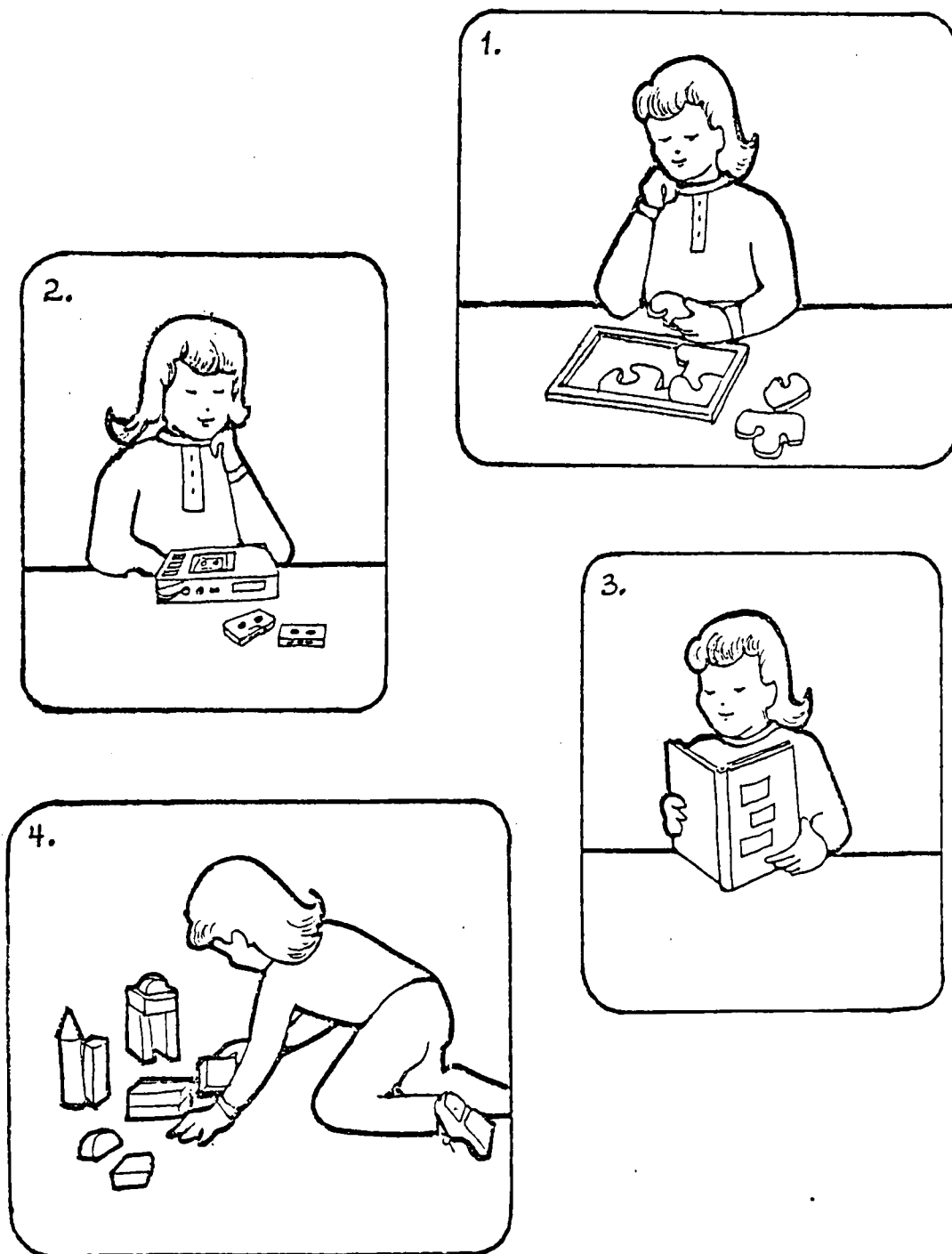


FIGURE II

ELEMENT: PERCEPTION

4. 2 listen to someone tell you a story?
or
3 see a movie about the story?
5. 2 listen to a record?
or
1 make something with playdough?
6. 2 have a story read to you?
or
4 act out a story?
7. 3 draw a picture on a piece of paper?
or
4 build with blocks on the floor?
8. 3 paint a picture?
or
4 ride a bicycle?
9. Let's look at the pictures again. (Repeat the introduction.) Which picture shows the way you like to learn? (Have the child point to a picture or verbally respond.)

APPENDIX B

LEARNING STYLE INVENTORY PROFILE

PRESCHOOL VERSION

LEARNING STYLE INVENTORY PROFILE-PRESCHOOL VERSION

NAME _____

TEACHER

DATE _____

SOUND not acceptable
acceptable
RESPONSE

	SCORE					
	/5			/5		
1	1	1	1	1	1	1
2	2	2	2	2	2	2

LIGHT
low
bright
RESPONSE

1	1	1	1	1	1	SCORE
2	2	2	2	2	2	/5
						/5

TEMPERATURE
cool
warm
RESPONSE

1	1	1	1	1	1	SCORE
2	2	2	2	2	2	/5
						/5

DESIGN
formal
informal
RESPONSE

[illegible]

SOCIOLOGICAL
alone
adult
peers
RESPONSE

1	1			1	1	1	5
	2	2	2	2		2	5
3		3	3		3	3	5

STRUCTURE
needs
needs little
RESPONSE

	SCORE
1	/5
2	/5

INTAKE does not require RESPONSE

1	1	1	1	1	1	SCORE
2	2	2	2	2	2	/5
						/5

MOTIVATION
teacher
adult
self
unmotivated
RESPONSE

[illegible]

RESPONSIBILITY
is not
is
RESPONSE

PERSISTENCE				SCORE			
1	1	1	1	1	1	1	/5
2	2	2	2	2	2	2	/5

MOBILITY does not require RESPONSE

	SCORE	/5
1	1	1
2	2	2
		75

PERCEPTION
tactual
auditory
visual
kinesthetic
RESPONSE

SCORE	
1	1
2	2
3	3
4	4
5	5

APPENDIX C

ABBREVIATIONS FOR NORMED REFERENCE

SCALES USED FOR COMPILING LAP

ABBREVIATIONS FOR NORMED REFERENCE

SCALES USED FOR COMPILING LAP

A & B	Alpern & Boll
BANGS	Bangs
BAY	Bayley
CAP	Caplan
CAT	Cattell
CEC	Communicative Evaluation Chart
COL	Coley
C & G	Cohen & Gross
DOLL	Doll
FRANK	Frankenburg
GES	Gesell
HUR	Hurlock
ILL	Illingworth
K & P	Knobloch & Pasamanick
MPS	Merrill-Palmer Scale
MPDPS	Monterey Pupil Developmental Progress Scale
PLS	Preschool Language Scale
S & L	Sharp & Loumeau
SHER	Sheridan
SICD	Sequenced Inventory of Communication Development
SLO	Slosson
SSC	Skills Sequence Checklist
STEP	Sequential Testing and Educational Programming
STOTT	Stott
TER	Terman
VAN	Vannier
W & L	Weiss & Lillywhite

VITA

Alma J. Reece was born in Knoxville, Tennessee on December 25, 1950. She was educated in the Claiborne County school system and received her Bachelor of Science degree in Elementary Education from Lincoln Memorial University in the summer of 1981. She is a trainer for the National Child Development Associate Consortium, a member of Pi Lambda Theta and Alpha Xi Delta.