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## A Comparison Of Two Approaches To Training For Mothers Of Kindergarten Children Evaluated As Deficient In Readiness Skills.

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A COMPARISON OF TWO APPROACHES TO TRAINING FOR  
MOTHERS OF KINDERGARTEN CHILDREN EVALUATED  
AS DEFICIENT IN READINESS SKILLS

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A Dissertation  
Presented to  
the Faculty of the School of Education  
University of the Pacific

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

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by  
Edythe Klassen Eymann

April 1974

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1974

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April 22, 1974

A COMPARISON OF TWO APPROACHES TO TRAINING FOR MOTHERS OF KINDERGARTEN  
CHILDREN EVALUATED AS DEFICIENT IN READINESS SKILLS

Abstract of the Dissertation

**PURPOSE:** It was the purpose of this study to compare the academic gains of kindergarten children showing six to eighteen months' deficiency in readiness skills as measured by the ABC Inventory, in September, 1973. This comparison was based on parent education experiences and a structured mother-child games technique during the early months of the subjects' kindergarten school year.

**PROCEDURES:** In order to collect evidence of academic readiness gains, the investigator used scores from three standardized test instruments. The ABC Inventory was administered to all kindergarten children in the Kings Canyon Unified School District, Fresno County, California by the staff members of the Prescriptive Learning Center in September, 1973. Selection of children with readiness ages six to eighteen months below their chronological ages was made from the ABC Inventory scores. Following the randomized selection of subjects for this study, the Brenner Gestalt Test of School Readiness and the Peabody Picture Vocabulary Test were administered to one-half of the children as pretests. The two latter measures were administered to all subjects as posttests after four months in kindergarten.

Seventy-two students were randomly selected and assigned to one of three groups in a modified Solomon Design. Experimental One ( $E_1$ ) group met for ten consecutive weeks, one evening per week for a three-hour parent group designated Study-Discussion-Games. The mothers of the Experimental Group Two ( $E_2$ ) also met for ten consecutive weeks, one evening per week, for a three-hour period, designated Study-Discussion. The Control (C) group mothers did not meet for any parent training.

Each parent training session began with the co-leaders (the investigator and a Mexican-American community aide) asking for questions or comments regarding the previous week's assigned reading. Specific behavior problems of children were discussed, and problem-solving techniques based on Gordon's Parent Effectiveness Training were taught. Mothers were invited to share experiences, feelings were probed, and consequences were explored. In addition,  $E_1$  mothers received a new toy or game each of the first nine weeks. Specific instructions were given on how the games or toys were to be used at home for play with their kindergarten children.

**FINDINGS:** The findings of this study did not support the hypotheses that children whose mothers participated in parent-training groups using either study-discussion or study-discussion-games methods would have a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten. The hypotheses relating to higher mean scores on the Brenner Gestalt Test of School Readiness were supported by the findings. The scores for both Mexican-American and Anglo children in experimental groups were significantly higher than the scores for children whose mothers received no parent education. The findings further supported the two research hypotheses stating there would be no interaction effect for treatment between the two groups based on their ethnic backgrounds.

**CONCLUSIONS:** Several conclusions were reached as a result of this study: (1) parent-training groups may be structured for specific outcomes for the children involved; (2) a training period as short as ten weeks, three hours per week, may be effective in achieving the desired results; (3) a positive increase in intellectual measurement may be shown when a parent is trained to instruct the child at home in specific remediation techniques; (4) parent-training groups may be organized around behavior problem-solving techniques without the addition of specific toys and games and still be effective in the development of readiness skills in young children; and (5) parent-training groups which include toys or games for home play between mother and child in addition to behavioral problem-solving techniques may be significantly effective in the development of readiness skills.

**RECOMMENDATIONS:** Some recommendations for further study were made as follows: (1) parent educators should perform replications of the parent-training methods to substantiate the study's findings and to generalize them to wider school populations; (2) parent-training groups of various socio-economic and racial backgrounds should be formed and research conducted to determine whether there is any significant difference in method; that is, whether the addition of toys or games does, indeed, consistently produce a divergence of scores as shown in this study; (3) replication, using a different battery of instruments as measures of the dependent variable, should be made; (4) parent-training classes should be formed by school districts for parents of children not yet in school; and (5) a study should be undertaken to find the age of child and the period of time required for parent training to provide the greatest longterm gains for the subjects.

## ACKNOWLEDGEMENTS

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...EKE.....

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## CHAPTER I

### I. INTRODUCTION

Educators, parents, and law makers are concerned with numerous aspects of low scholastic performance at all levels of endeavor. The results of failure in early childhood as reported by the Education Commission of the States are demonstrated by the social ills of our society: mental illness, delinquency, crime, and unemployment.<sup>1</sup> The Commission's 24-member task force on early childhood education felt that efforts to deal with cause rather than effect should begin before a child is six years old. Consensus was that to the extent to which an educational program for children contributed to their success as students and citizens, that program would significantly reduce subsequent remedial, counseling, and even penal and welfare costs.<sup>2</sup> This belief was qualified by the following statements:

. . . There are no definitive statistics on how much a state might save in the long term by investing in early childhood education. And there is not yet enough experience to analyze precisely the relationship of early training to prevention of later problems. But it is clear that a relationship exists. Failure in the initial years . . . can be closely tied to the high percentage of dropouts in the public schools.

Early childhood education is not a panacea for the social ills of our society; but it certainly is a prerequisite to solving many of these problems.<sup>3</sup>

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<sup>1</sup> Education Commission of the States, Early Childhood Development; Alternatives for Program Implementation in the States (Denver: Education Commission of the States, 1971), Foreward.

<sup>2</sup> *Ibid.*, p. 7.

<sup>3</sup> *Ibid.*, p. 13.

The major thrust of any new program for early childhood education, according to the Education Commission of the States, should be:

(a) strengthening the role of the family as the first and most fundamental influence on child development; (b) the early detection of serious health and educational handicaps; and (c) the provision of remedial health and education programs for all preschool children who need special services.<sup>4</sup>

Barabasz, et. al.,<sup>5</sup> Gordon and Hyman,<sup>6</sup> Hayes and Dembo,<sup>7</sup> and Rice,<sup>8</sup> all noted in the field of early childhood education, have discussed the importance of early diagnosis of a child's basic educational needs. Ideally, a comprehensive diagnostic system would identify those children needing only minimal assistance as well as those needing substantial help.

## II. THE PROBLEM

### Rationale

The critical role of early experiences in the total cognitive, social-emotional, and physical development of the young child no longer needs to be documented. The answer to the question, "Does early education produce positive effects?" has been given to us by such well-known

<sup>4</sup>Ibid., p. 15

<sup>5</sup>Arreed Barabasz, et. al., "Focal-point Dependency in Inversion Perception Among Negro, Urban Caucasian and Rural Caucasian Children," Perceptual and Motor Skills, XXXI (1970), 136-138.

<sup>6</sup>George Gordon and Irwin Hyman, "The Measurement of Perceptual-Motor Abilities of Head Start Children," Psychology in the Schools, VIII (1971), 41-47.

<sup>7</sup>Mabel Hayes and Myron Dembo, "A Diagnostic-Prescriptive Approach to Preschool Education," Psychology in the Schools, VIII (1971), 37-40.

<sup>8</sup>J. Rice, "Head Start Screening: Effectiveness of a Teacher-Administered Battery," Perceptual and Motor Skills, XXXII (1971), 675-678.

investigators as Hunt,<sup>9</sup> Bloom,<sup>10</sup> Skeels,<sup>11</sup> Kirk,<sup>12</sup> Bereiter and Engelmann,<sup>13</sup> and others. They have found that measurable gains can indeed accrue to the young child and thereby to the entire educational community by the early and judicious use of appropriate intervention strategies. Today's composite question must be "Which intervention techniques are best employed with which children? at what point of time? and under what kinds of situations?"

Edwards and Stern,<sup>14</sup> Lombard and Stern,<sup>15</sup> and Stearns,<sup>16</sup> have undertaken a number of studies in an effort to show that learning deficiencies can be detected and remediation begun in preschool children. Dusewicz' study, of thirty-two days' duration, found that a mean growth

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<sup>9</sup>Jane Hunt, "The Psychological Basis for Preschool Enrichment," Merrill Palmer Quarterly, X (1964), 209-243.

<sup>10</sup>Benjamin Bloom, Stability and Change in Human Characteristics (New York: John Wiley & Sons, 1964).

<sup>11</sup>H. M. Skeels and H. B. Dye, "A Study of the Effects of Differential Stimulation on Mentally Retarded Children," Convention Proceedings, American Association on Mental Deficiency, XXXIV (1939), 114-136.

<sup>12</sup>Samuel A. Kirk, Early Education of the Mentally Retarded (Urbana, Illinois: University of Illinois Press, 1958).

<sup>13</sup>C. Bereiter and S. Engelmann, Teaching Disadvantaged Children in the Preschool (Englewood Cliffs, New Jersey: Prentice-Hall, 1966).

<sup>14</sup>Joseph Edwards and Carolyn Stern, "A Comparison of Three Intervention Programs with Disadvantaged Preschool Children," Journal of Special Education, IV (1970), 205-214.

<sup>15</sup>Avima Lombard and Carolyn Stern, "Effect of Verbalization on Young Children's Learning of a Manipulative Skill," Young Children, XXV (1970), 282-288.

<sup>16</sup>Marian Stearns, "Early Education: Still in its Infancy," American Education, August/September, 1970, pp. 3-5.



of 6.95 months in mental age was attained through exposure of preschool children to an enrichment program.<sup>17</sup>

Although this trend has been in progress for several years, the recent interest in early education has contributed greatly to the upsurge in parent and family involvement in the educational process. Family members are no longer considered incidental to the formal program necessary to remediate and/or develop learning and other behavioral skills. Active participation in every aspect of the process is now essential if total success is to be achieved.<sup>18</sup>

Baumrind<sup>19</sup> and Emmerich and Smoller<sup>20</sup> have studied parents as role models and/or reinforcers of their children's behaviors. Various other authors, including Allen, et. al.,<sup>21</sup> have concluded that desired behavior changes could be produced when certain techniques were employed at the preschool level. The influence of parents, of mothers in particular, on the growth, development, behavior, and intelligence of the young child was not debated by these investigators.

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<sup>17</sup>Russell Dusewicz, "Early Childhood Education for Disadvantaged Two-year-olds," Psychological Reports, XXVI (1970), 954.

<sup>18</sup>W. Emmerich, "The Parental Role, A Functional-Cognitive Approach," Monograph, Society for Research in Child Development, XXXIV (1969), 1-71.

<sup>19</sup>Diana Baumrind, "Socialization and Instrumental Competence in Young Children," Young Children, XXVI (1970), 104-119.

<sup>20</sup>W. Emmerich and F. Smoller, "The Role Patterning of Parental Norms," Sociometry, 1964, pp. 383-390.

<sup>21</sup>Eileen Allen, Keith Turner, and Paulette Everett, "A Behavior Modification Classroom for Head Start Children with Problem Behaviors," Exceptional Children, XXXVII (1970), 119-127.

Readiness Program in the Kings Canyon Unified School District

The subject school district in the current study, the Kings Canyon Unified School District (Fresno County, California) has used the traditional readiness program for kindergarten and first grade children. Materials for readiness supplied to the school district by the State Department of Education include the Harper Row basic readiness book, On Our Way to Read, for each child in the first grade, and Try Tasks, a set of workbooks and manipulative materials distributed on a one-per-five ratio for slow, culturally advantaged children in kindergarten, and culturally disadvantaged children in the first grade. Directions from the State Department of Education simply state that students are to be classified as fast, average, or slow "on the basis of tests and other evidence of achievement and ability such as teachers' opinions."<sup>22</sup> Thus, these materials are distributed in limited supplies for a common sense evaluation of what the students seem to need. These state-supplied materials emphasize reading readiness using such activities as matching letters and symbols.

Readiness activities that receive priority on the quarterly kindergarten progress report include growth in social development such as self control, consideration for others, courtesy, and ability to play well with other children. Work and study habits are also evaluated, including listening and following instructions accurately, working well independently, and giving sustained attention to tasks for reasonable periods of time. Other readiness skills considered of importance

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<sup>22</sup>California State Department of Education, Part Three Annual Report and Requisition for State Textbooks, State Department of Education (Sacramento: State Printing Office, 1969).

include the ability to: (1) recognize and print own name, (2) recognize and name colors, (3) skip, and (4) tie shoes. Arithmetic skills listed in the quarterly progress report include counting from one to ten, understanding number concepts from one to five, and recognizing geometric shapes.

Readiness activities as described above are instituted at the kindergarten level in the subject school district of this study. As a rule, however, minimal diagnoses or plans for remediation are made. For example, from the total of 140 children referred to the Prescriptive Learning Center of the Kings Canyon Unified School District during the school year 1970-71, only eleven were from kindergarten and fourteen from first grade.<sup>23</sup> This averaged about one child at each of the two grade levels from the fifteen elementary schools within the district. Referral reasons for these twenty-five children included the following concerns: "general immaturity," "poor eye-hand control," "exceptionally aggressive behavior," or "poor body balance."<sup>24</sup>

It is to be noted that the number of referrals at the second and third grade increased over kindergarten and first grade at a ratio of almost six to one. Eymann and Huebert's survey of referral reasons for the children of second and third grade levels seen at the Prescriptive Learning Center included "inability to read," "cannot remember number facts," "illegible printing," "previous retentions have not helped," and

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<sup>23</sup>Edythe Eymann and Stan Huebert, "A Year-end Survey of the Services Performed by the Prescriptive Learning Center," (Reedley, California: Kings Canyon Unified School District, 1971). (Mimeographed.)

<sup>24</sup>Ibid.

"withdrawal and daydreaming."<sup>25</sup> The Center staff noted that as the children advanced in school grades, the referral reasons became more specific in pinpointing actual academic or physical deficiencies.

#### Racial Composition of the Kings Canyon Unified School District

Of the 5,352 students enrolled in the subject school district during October, 1973, 46.3% were children with Spanish surnames, 46.2% were white, and the remaining 7.5% were of Indian, Negro, and Oriental heritage. (See Appendix A for statistical data.)

Four of the six schools in this study had a greater percentage of Spanish-surname children than of white. (See Appendix B for data on the six subject schools.)

Manuel,<sup>26</sup> Christensen,<sup>27</sup> Farias,<sup>28</sup> and others have discussed the special problems which Spanish-surname children often experience in the educational environment. These problems may include language differences, lack of knowledge regarding the Spanish or Mexican-American culture on the part of the classroom teacher, conflict with parental training, low ego-concepts, and academic deficits caused in part by a migratory or disadvantaged background.

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<sup>25</sup>Ibid.

<sup>26</sup>Herschel Manuel, Spanish-Speaking Children of the Southwest (Austin: University of Texas Press, 1961).

<sup>27</sup>Jack Christensen, "The Effects of Teacher and Curricular Variables on the Self-concept and School Related Behavior of Mexican-American Children" (unpublished Doctor's dissertation, Stanford University, 1972).

<sup>28</sup>H. Farias, Jr., "Mexican-American Values and Attitudes Toward Education," Phi Delta Kappan, June, 1971, pp. 602-603.

### Statement of the Problem

If "strengthening the role of the family as the first and most fundamental influence on child development"<sup>29</sup> has veracity as an educational goal, then the following questions, asked by Thomas Gordon, must be considered: "Who is helping parents?" "How much effort is being made to assist parents to become more effective in raising children?" "Where can parents learn what they are doing wrong and what they might do differently?"<sup>30</sup> The Education Commission of the States reported that "in many instances, the home situation with minimal professional guidance could prepare a child to enter a formal learning situation with adequate expectation of success."<sup>31</sup>

Stearns,<sup>32</sup> Lombard and Stern,<sup>33</sup> and Emmerich and Smoller,<sup>34</sup> substantiated research to indicate that parents could be effective in reducing early educational deficiencies. Therefore, it seems probable that a parent program could be designed to assist the educational system in early intervention for learning and developmental progress.

### Significance of the Study

Buck, et. al.,<sup>35</sup> and Hayes and Dembo,<sup>36</sup> substantiated the current

<sup>29</sup>Education Commission of the States, op. cit., p. 15.

<sup>30</sup>Thomas Gordon, Parent Effectiveness Training (New York: Peter H. Wyden, Inc., 1970), p. 1.

<sup>31</sup>Education Commission of the States, op. cit., p. 52.

<sup>32</sup>Stearns, loc. cit.

<sup>33</sup>Lombard and Stern, loc. cit.

<sup>34</sup>Emmerich and Smoller, loc. cit.

<sup>35</sup>Carol Buck, et. al., "Effect of Kindergarten Experience Upon IQ Test Performance," Psychology in the Schools, VIII (January, 1971), 62-64.

<sup>36</sup>Hayes & Dembo, loc. cit.

interest in early childhood education by research attesting to its potential effectiveness on the later success of students. In addition, several local considerations guided the researcher in the design of the study. These included; (1) the subject school district had no preschool program; (2) parent education classes have never been conducted within the district on an experimental basis; (3) parent education classes conducted in Spanish are vital if the large percentage of Mexican-American mothers are to be included, and (4) no empirical study has ever been designed in the subject district to determine the effect of parent education on the academic achievement of the children involved.

The current project was developed to study the effectiveness of two methods of parent education at the kindergarten level for children evaluated as being deficient in readiness skills. The writer felt that teaching mothers to remediate readiness deficiencies during the early months of kindergarten might offer an effective approach to prevention of later academic problems.

The current research was felt to be important for the following reasons:

1. The concept of failure, especially of early childhood educational failure, has very limited application to present-day educational theory.

2. Gordon,<sup>37</sup> has suggested a need for a program for parents which might assure successful experiences for their children upon school entrance.

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<sup>37</sup>Gordon, loc. cit.

3. Experience of the investigator has shown that mothers of kindergarten children are motivated to continue attendance at group meetings through discussions concerning their children's problems and/or achievements.<sup>38</sup>

4. The effectiveness of using toys and games for the remediation of readiness-skills deficiencies has not been widely documented. This project, therefore, provided toys and games to the mothers of one experimental group of kindergarten children who had deficiencies in certain areas of readiness skills.

5. Utilization of school guidance personnel such as counselors, home-school coordinators, or psychologists to conduct the training sessions for community aides and parents appears to be a desirable means for developing paraprofessional strength within a school district.

#### Procedures

The ABC Inventory was used to screen the 360 kindergarten children in the subject school district during September, 1973. Children with readiness ages six to eighteen months below their chronological age, as measured on the Inventory, comprised the experimentally accessible population from which seventy-two were randomly chosen as subjects for the study. Six schools were involved and randomly assigned to one of the two experimental methods or the control group.

Two types of parent education classes were formed: in E<sub>1</sub> "Study-Discussion-Games" the mothers were encouraged to present child-rearing

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<sup>38</sup>Edythe Eymann, "Logs and Attendance Reports of Parent Groups Conducted at the Prescriptive Learning Center" (Reedley, California: Kings Canyon Unified School District, June, 1970; June, 1971; June, 1972; June, 1973). (Thermofaxed.)

problems for which the group sought solutions. In addition to assigned reading, each mother was instructed to use a specific toy or game for remediation the ensuing week. The toys were provided by the investigator at weekly intervals throughout the experimental period of ten weeks. The majority of the toys were of the home-made variety, and instructions for their use in the home were a part of each week's lesson.

The second parent education classes,  $E_2$ , were "Study-Discussion" and differed in format from  $E_1$  only in that no toys or games were included. The control group parents received no parent education during the ten-week period of the experiment.

Children from three of the six schools in the study were pre-tested on the Brenner Gestalt Test of School Readiness and the Peabody Picture Vocabulary Test, patterned after the Solomon Research Design.<sup>40</sup> (Refer to Figure 1, Chapter III for results of random assignment to treatment methods.)

### III. HYPOTHESES

The following is a list of the hypotheses that were tested:

1. Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion techniques have a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.

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<sup>40</sup>D. T. Campbell and J. C. Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally & Co., 1963), pp. 24-25.



2. Kindergarten students whose mothers participate in parent-training sessions which utilize the study-discussion-games techniques have a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten than those children whose mothers participate in the study-discussion training sessions.
3. Kindergarten students whose mothers participate in parent-training sessions which utilize the study-discussion-games techniques have a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.
4. The combined mean score on the Peabody Picture Vocabulary Test after four months in kindergarten is higher for the kindergarten students whose mothers participate in parent-training sessions than for those children whose mothers do not participate.
5. The effectiveness of the treatments is the same for the Mexican-American children as for the Anglo children on the readiness gains as measured by the Peabody Picture Vocabulary Test.
6. Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion techniques have a higher mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.
7. Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-games techniques have a higher mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten than those children whose mothers participate in the study-discussion training sessions.
8. Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-games techniques have a higher mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.

9. The combined mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten is higher for the kindergarten students whose mothers participate in parent-training sessions than for those children whose mothers do not participate.
10. The effectiveness of the treatments is the same for the Mexican-American children as for the Anglo children on the readiness gains as measured by the Brenner Gestalt Test of School Readiness.

#### IV. PURPOSE OF THE STUDY

It was the purpose of this study to compare the academic gains of kindergarten children showing six to eighteen months' deficiency in readiness skills as measured by the ABC Inventory in September, 1973. This comparison was based on parent education experiences and a structured mother-child games technique during the early months of the subjects' kindergarten school year.

In order to collect evidence of academic readiness gains, the investigator used scores from three standardized test instruments. The ABC Inventory was administered to all kindergarten children in the subject school district by the staff members of the Prescriptive Learning Center in September, 1973. Selection of children with readiness ages six to eighteen months below their chronological ages was made from the ABC Inventory scores. Following the randomized selection of subjects for this study, the Brenner Gestalt Test of School Readiness and the Peabody Picture Vocabulary Test were administered to thirty-six children\*

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\*Because of the use of the Solomon pre-post test design, only one-half of the seventy-two subjects in the study were pretested.

as pretests. The two measures were administered to all seventy-two children as posttests after four months in kindergarten.

## V. ASSUMPTIONS AND LIMITATIONS

The assumptions upon which this research was based are as follows:

### Assumptions

1. Mothers could be taught to use specific techniques for remediation of their children's readiness-skills deficiencies through the utilization of toys and games selected by the investigator.
2. The period of time during which the study was conducted included sufficient time for a comparison of the achievemental results from the methods of parent training. This study extended from September, 1973 through January, 1974.
3. The characteristics of the participants of this investigation--school district, pupils, teachers, mothers, community aides, and training-session leader were sufficiently representative of the target population to afford adequate external validity.

This research was also based upon certain limitations.

### Limitations

1. The pupil target population was restricted to those kindergarten children who scored six to eighteen months below their chronological age level, as measured on the ABC Inventory.
2. The study was limited to those students and parents residing in the Kings Canyon Unified School District of Fresno County, California.

3. The study was limited to the parent-education classes taught by the investigator, a school psychologist, assisted by a Mexican-American community aide as co-teacher.

4. The results of the study were limited to the reading assignments, methods of problem-solving, and toys and games selected by the investigator.

5. The investigation of the results of the experimental treatments was limited to those of academic achievement as measured by the Peabody Picture Vocabulary Test and the Brenner Gestalt Test of School Readiness.

#### VI. DEFINITION OF TERMS USED

The following definitions of terms have been used throughout this study:

1. Academic Readiness: "Academic readiness" includes those planned experiences intended to prepare the child for various tasks in the school setting, and to help him to continue to grow to meet new academic demands. For example, it may be intended to ready the student to learn new words, to absorb new ideas or attitudes, to enjoy materials, and to comprehend thoroughly, to mention but a few types of readiness.<sup>41</sup>
2. Games Approach: For the purpose of this study, "games approach" referred to the parent-training sessions in which toys or games were lent to the parents with instructions for their use at home in remediating readiness skills deficiencies of the kindergarten child.
3. Kindergarten Student: Within this study, "kindergarten student" or "kindergarten child" were used interchangeably as terms to describe those children entering kindergarten for the first time in September, 1973, and who were between the ages of 4.9 and 5.9 at that time.

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<sup>41</sup>George Spache, Reading in the Elementary School (Boston: Allyn & Bacon, Inc., 1964).

4. Mexican-American: For the purpose of this study, "Mexican-American" refers to those children with a Spanish surname.
5. Parent-training Session: "Parent-training session" in this study referred to the sessions taught by the investigator and a community aide, and which were held for three-hour periods once a week for ten weeks beginning the first week of October, 1973.
6. Readiness-skills Deficiencies: For the purposes of this study, "readiness-skills deficiencies" referred to readiness age scores on the ABC Inventory which fell six to eighteen months below the chronological age of the child.
7. Study-discussion Approach: "Study-discussion" designated the method of parent education used in one of the two experimental groups. This approach utilized an informally structured format, which included a question-answer period, sharing of experiences and problems, and certain reading assignments.
8. Study-discussion-games Approach: This term described the parent-training method paralleling the "Study-Discussion" experimental group, with the addition of toys or games for the proposed improvement in readiness skills. The toys are described in Chapter III, along with the objectives for their use. Instructions for using the toys or games are included in Appendix D.

## VII. SUMMARY

The first chapter of this study has presented an introduction, pointing out that there is a growing need for preschool programs to remediate readiness-skills deficiencies. It was suggested that parents may be taught effectively with minimal professional guidance to prepare their children to enter formal learning situations with adequate expectations of success.

The first chapter also included a statement of the problem, the hypotheses to be tested, the purpose of the study, the assumptions and

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<sup>42</sup>Norman Adair and George Blesch, Manual for the ABC Inventory (Muskegon, Michigan: Educational Studies & Development, 1965), p. 3.

limitations upon which the study was based, and the definitions of significant terms used throughout the study.

There are four additional chapters in this study. They are: (1) Chapter II: Review of Selected Related Literature, (2) Chapter III: Description of the Procedure and Research Design for the Study, (3) Chapter IV: Presentation of the Collected Research Data as Revealed by the Investigation, and (4) Chapter V: Summary, Conclusions and Recommendations.

## CHAPTER II

### REVIEW OF SELECTED RELATED LITERATURE

The literature relating to the subject of learning deficiencies of the preschool child and the use of parents as remediators could be divided logically into five major categories. This review will adhere to the following outline on aspects of the preschool child: (1) Intellectual Development, (2) Cultural Differences of Preschool Children, (3) Evaluation and Diagnosis, (4) Parental Involvement in the Development of Preschool Children, and (5) The Use of Toys and Games.

#### I. INTELLECTUAL DEVELOPMENT

##### Factors Affecting Intellectual Development

The literature reviewed would indicate that factors such as (1) kindergarten experience, (2) genetic and environmental influences, (3) development of verbalization and language skills, and (4) social skills development may affect the intellectual development of preschool children.

The preschool years would appear to be the most important for attaining maximum learning potential, according to various researchers in education and psychology. Bloom<sup>1</sup> asserted that fifty percent of measured adult intelligence is established by the age of four, and an additional thirty percent by age eight. He further asserted that seventeen percent of educational achievement takes place between the ages of four and six. While these periods as postulated by Bloom would appear to be inflexible,

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<sup>1</sup>Benjamin Bloom, Stability and Change in Human Characteristics (New York: John Wiley & Sons, 1964).

one must take into account the knowledge that developmental rates are not uniform for all individuals.

Kindergarten Experience. In a study to determine the impact of kindergarten experience on the IQ test performance of young children, Buck, et. al.,<sup>2</sup> administered the Stanford-Binet (Form LM) to 387 children at about age three, with a follow-up test three years later. Results at age six indicated a positive gain in IQ scores for those children who had attended kindergarten as compared with those children who had not attended. Results of this study warrant continuation of early intervention methods for children from impoverished environments.

Dodson stresses that nursery, preschool, day-care centers or Head Start programs should be of the "cognitive" curriculum:

I am firmly on the side of the 'cognitive' . . . group. I see no reason for the nursery school and kindergarten curriculum to stay the same as it was in the 1930s and '40s. . . . We have accumulated a considerable mass of research evidence showing that it is important to give cognitive stimulation to preschool children if we are going to help them develop their maximum intelligence in later life.<sup>3</sup>

Genetic and Environmental Influences. The debate concerning the relative influence of heredity and environment in the determination of individual differences has long existed. Bloom,<sup>4</sup> and Hunt,<sup>5</sup> noted psychologists, are among those who indicate that learning potential is

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<sup>2</sup>Carol Buck, et. al., "Effect of Kindergarten Experience Upon IQ Test Performance," Psychology in the Schools, VIII (January, 1971), 62-64.

<sup>3</sup>Fitzhugh Dodson, How to Parent (Los Angeles: Nash Publishing, 1970), p. 180.

<sup>4</sup>Benjamin Bloom, loc. cit.

<sup>5</sup>Jane Hunt, "The Psychological Basis for Preschool Enrichment," Merrill Palmer Quarterly, X (1964), 209-243.



determined by an interaction between heredity and environment. Ausubel, famed in the field of child development, discusses the regulatory function of heredity and environment in development:

Genic factors set absolute limits of growth for both individuals and species which cannot be exceeded in any environment, as well as determining capacity for profiting from environmental stimulation. Environmental factors similarly limit the extent to which existing genic potentiality can be realized in individuals or species. In a generally optimal environment, phenotypic actualization of the genotype is enhanced for everyone, and the prevailing range of variability is widened.

Both factors in varying degrees contribute to the patterning of traits, i.e., determining the direction, differentiation, content, and sequence of development.<sup>6</sup>

Ames and Ilg felt that for children with a developmental lag, existing educational programs might be inappropriate:

These are the children who so frequently need remedial help; we need to know more than we do about the method and rate of growth of such children. . . . We need to find out how to tap the inner sources . . . how to discover their individual interests, which can be very strong if only they can be identified.<sup>7</sup>

Development of Verbalization and Language Skills. Evidence accumulated by various researchers indicated that children from disadvantaged homes had difficulties mastering skills and concepts. Edwards and Stern<sup>8</sup> conducted a study observing 163 children from three research projects whose main problem was that of language deficiency. All the children were below five years of age, with IQ's slightly below 100 on the average. Results of pretesting, instruction, and posttesting

<sup>6</sup>David P. Ausubel and Edmund V. Sullivan, Theory and Problems of Child Development (New York: Grune & Stratton, Inc., 1970), pp. 54-55.

<sup>7</sup>Louise B. Ames and Frances L. Ilg, School Readiness (New York City: Harper and Row, Publishers, 1965), p. 12.

<sup>8</sup>Joseph Edwards and Carolyn Stern, "A Comparison of Three Intervention Programs with Disadvantaged Preschool Children," Journal of Special Education, IV (Spring/Summer, 1970), 205-214.

indicated that children at some school sites performed better than others; i.e. children in ghetto areas appeared to be less motivated. The authors concluded that positive results were produced when a minimal daily intervention with a language-based program was introduced.

In a project of only 32 days' duration, Dusewicz<sup>9</sup> provided ten young children with an academically-enriched program stressing language development. The children were under three years of age, and posttesting indicated a mean gain of 6.95 months in the 32 days. This phenomenal mental growth may have been due in part to the young age of the participants. The author concluded that a preschool program might benefit from an emphasis on fundamental language abilities with children under three. This study may be criticized because of its short duration and small number of participants. A longitudinal replication with a larger n would appear advisable.

A home intervention program, reported by Karnes,<sup>10</sup> appeared to warrant much respect from educators in the preschool field. In this program, mothers of children not attending a preschool program were provided eleven weekly two-hour sessions at a neighboring school. These sessions taught mothers procedures for increasing the language abilities of their children with opportunities to prepare inexpensive instructional materials for home use. The three-month program resulted in a seven-point Binet IQ increase for the experimental children and no IQ gain for the controls.

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<sup>9</sup>Russell Dusewicz, "Early Childhood Education for Disadvantaged Two-year-olds," Psychological Reports, XXVI (June, 1970), 954.

<sup>10</sup>Merle B. Karnes, et. al., An Approach for Working with Mothers of Disadvantaged Children, (Urbana, Illinois: Institute for Research in Exceptional Children), (n.d.).

Greenberg<sup>11</sup> designed a study to test Bernstein's contention that different types of speech patterns can be identified for lower- and middle-class children, and that lower-class children may, because of their speech behavior, have difficulty in performing cognitive tasks necessary for success in school. The authors found that the language used by the two groups of mother-child pairs (fifty middle-class and fifty lower-class) fell into divisions similar to the modes described by Bernstein, with a lower overall verbal productiveness being typical of the lower-class group. The authors felt that if the observations were valid, the middle-class children had an important advantage in school, and compensatory programs for lower-class children were warranted.

The hypothesis that the general and verbal intelligence of children from low-income families, exposed to stimulation of verbal interaction in mother-child dyads, would rise significantly, was tested by Levenstein<sup>12</sup> as reported following a three-year study. In each of the three years, there was confirmation of the hypothesis. The close tie between language and cognition was demonstrated. Program children made and retained significantly higher gains than did children in control groups. The method used to stimulate mother-child verbal interaction operated around gifts of eleven toys and twelve books, and semi-weekly half-hour home visits by "Toy Demonstrators." Follow-up testing after

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<sup>11</sup>S. Greenberg and Ruth Formanek, "Social Class Differences in Spontaneous Verbal Interactions," (paper read at the American Educational Research Association annual meeting, February, 1971, New York City.)

<sup>12</sup>Phyllis Levenstein, Verbal Interaction Project: Aiding Cognitive Growth in Disadvantaged Preschools Through the Mother-Child Home Program (Mineola, N.Y.: Family Service Association of Nassau County, Inc., February, 1971).

twenty months with forty-one subjects showed an IQ gain retention of 15.9 points.

The use of puzzles for young children demonstrated dramatic gains in children's ability to verbalize appropriate concepts in a study undertaken by Lombard and Stern.<sup>13</sup> These authors attempted to determine the effect of verbalization on the acquisition of manipulative skills through the use of jigsaw puzzles. They grouped the children into four areas for study: Control, Practice with Verbalization, Practice, and Verbalization. Results indicated that pictures or demonstrations are less meaningful to the child than his own manipulations and experience. These findings are consistent with those of Devor and Stern<sup>14</sup> who found that more learning took place as the child verbalized the task.

Almy adds, with reference to training in verbalization:

Findings . . . suggest that middle class children early acquire sufficient vocabulary to describe their own observations and manipulations reasonably well. . . . Training designed to increase the appropriate vocabulary might considerably facilitate the later development of logical thinking of these (disadvantaged) children.<sup>15</sup>

Social Skills Development. It has been discovered by a number of investigators that a simple one-to-one relationship of love, consideration, attention, and instruction could be successful in the development of social skills with some young children who showed deficiencies in this area.

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<sup>13</sup>Avima Lombard and Carolyn Stern, "Effects of Verbalization on Young Children's Learning of a Manipulative Skill," Young Children, XXV (May, 1970), 282-288.

<sup>14</sup>Geraldine Devor and Carolyn Stern, Objects Versus Pictures in the Instruction of Young Children, Technical Report for Research Projects in Early Childhood Learning (University of California, Los Angeles, 1968).

<sup>15</sup>Millie Almy, Edward Chittenden, and Paula Miller, Young Children's Thinking (New York: Teachers College Press, 1966), p. 20.

One group of children, enrolled in a Head Start program, was the subject of a study by Allen, et. al.<sup>16</sup> The authors' project utilized behavior modification procedures to produce desired changes. The procedures were employed by the preschool teachers, but could have been readily adapted to parent instruction for home intervention. This study was well-designed with careful adherence to all techniques of reinforcement and extinction. The teachers' responsiveness was the variable in determining what and how the children learned, but the results pointed out that parents must be directly involved in any attempt to change a social behavior at school.

A stark example of anti-social behavior in kindergarten children was that in a modest study by Sibley, et. al. with two Negro children who were considered "total isolates." Social reinforcement treatments were begun and continued for only thirteen days; reinforcement was then decreased to bring on extinction, and this was followed by a return to treatment. The techniques employed successfully in this study were relevant to behavioral management systems with disadvantaged children. The beneficial aspects of having more than one adult in any classroom with young children was confirmed because of the one-to-one treatment necessitated here. The importance of employing a one-to-one relationship within a structured behavioral-changing program for severe behaviors is further emphasized by the researcher who stated:

Although this general approach probably has been used without design in many classrooms, the systematic application of positive social reinforcement provides a teacher with powerful guiding techniques

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<sup>16</sup>Eileen Allen, Keith Turner, and Paulette Everett, "A Behavior Modification Classroom for Head Start Children with Problem Behaviors," Exceptional Children, XXXVII (October, 1970), 119-127.

to be used within her classroom, (for) teacher attention was evidently crucial in maintaining interactive play. . . .<sup>17</sup>

Summary. The literature reviewed reiterated the importance of early intervention for maximum development of intellectual potential. Exposure to nursery school, day-care center, and kindergarten experiences appeared to be beneficial in raising the IQ scores of children, particularly those from disadvantaged environments. In some cases, it was found that existing educational programs are inappropriate for children with developmental lags, and that special planning should be undertaken for this group of students. Language skills were shown to be enhanced through mother-child interaction and through small-group intensive language training within schools. It also was shown that the younger the child at inception of training, the greater the gains in IQ and language skills. For children with severe deficiencies in social skills, behavior modification methods proved effective and the methods could be adjusted for parental use as well as for classroom control.

The studies reviewed for this section relate to the current investigation for, through parent education meetings, attempts were made to assist mothers in several areas of instruction. These areas included: (1) play with toys and games to develop verbal interaction, fine-motor skills, auditory perception; and (2) general and specific behavioral problems.

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<sup>17</sup>Sally Sibley, et. al., "Modifying Behavior of Kindergarten Children," Young Children, XXV (September, 1970), 352.

## II. CULTURAL DIFFERENCES OF PRESCHOOL CHILDREN

Valid studies of cultural differences of preschool children do not appear in great numbers in the literature. However, research has been conducted to determine whether modification of the environment of culturally different children might be effective in producing intellectual gains. As an example, Spicker described some of the critical variations among preschool programs and discussed the manner in which such variations seemed to affect the intellectual development of disadvantaged or culturally different children. He studied and reported on several different models of curriculum offerings:

Cognitive Development Models. These models attempt to improve aptitudes for and attitudes toward school by improving oral language abilities, memory discrimination learning, problem solving ability, concept formation, general information, and comprehension. The major features that differentiate the various cognitive development programs are the specific strategies each uses to achieve the above goals.

Perceptual Motor Development Model. This model is exemplified by the classic Montessori curriculum. Visual discrimination and visual motor integration are the key elements. The Montessori program in particular stresses sensory training and psychomotor learning through independent manipulation of didactic materials. The approach is thought to teach independence, self control, and concentration which in turn provide the child with greater self confidence, maturity, and readiness for school learning.

Academic Skills Development Model. This model is the most direct of the three intervention approaches. It is best illustrated by the Bereiter and Engelmann curriculum. The model assumes that disadvantaged children fail in school because they receive ineffective instruction. The approach, therefore, attempts to provide systematic direct instruction in oral language, reading, and arithmetic prior to first grade school entrance.<sup>18</sup>

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<sup>18</sup>Howard Spicker, "Intellectual Development Through Early Childhood Education," Exceptional Children, May, 1971, p.630.

After a study of the results of the various modes of intervention with preschool children, Spicker concluded:

1. Curriculum models which stress cognitive or academic skill development produce the largest IQ score increases.
2. 'Traditional' curriculum approaches produce significant intellectual growth only when the programs contain specific short- and longterm goals including language development. . . .
3. Structured programs other than cognitively or academically oriented ones produce intellectual gains only when they incorporate strong oral language development components.
4. A preschool academic skill oriented program such as that developed by Bereiter and Engelmann tends to produce rote reading and arithmetic computation skills rather than improved reading comprehension and arithmetic reasoning skills.
5. Unless the primary grade curriculum can be modified, preschool programs must develop the fine motor, memory, and general language abilities of disadvantaged children. These skills, rather than abstract reasoning, critical thinking, and creative thinking, appear to be needed to succeed in the primary grades of many existing elementary schools located in inner city ghettos and rural communities.<sup>19</sup>

Stearns<sup>20</sup> discussed various types of programs currently in operation and others being organized. Some included modification of the home environment, others emphasized prenatal and early infancy conditions. Stearns felt that one of the most dramatic attempts to modify children's environment without putting them into a classroom was the "Sesame Street" television program. The author cited several factors from related research which seemed important in early childhood: orderliness in the home, doing things at regularly appointed times, child-rearing practices based on positive reinforcement, and having parents who provided an adequate language model. In the current study, all the former factors

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<sup>19</sup>Spicker, op. cit., p. 635.

<sup>20</sup>Marian S. Stearns, "Early Education: Still in its Infancy," American Education, August/September, 1970, pp. 3-5.



except "orderliness in the home" were included in the structure of the parent-training sessions.

### Studies Involving Mexican-American Children

The investigator reviewed with particular interest those studies which centered around children of the Mexican-American cultural background. Because approximately one-half of the children in the present study are Mexican-American, research about their cultural differences seemed especially appropriate for review.

Firma. This author believed that Mexican-American children are handicapped by poor academic performance and low self-esteem. She hypothesized that reinforcement and reward techniques used to promote self-esteem should include activities relevant to both Mexican and American cultures. Fifty-six low-achieving Mexican-American children in grades one to four were reinforced for specific academic tasks. The rewards were in several categories: those acceptable to the Mexican community, those considered non-Mexican rewards, and a combination of these. Her general hypothesis of a bicultural approach to improve Mexican-American children's self-esteem was supported by the findings, and she concluded:

. . . Mexican-American children with low self-esteem should receive a socio-emotional treatment (typically Mexican) as a first step to enhance self-esteem. After self-esteem has been raised to some extent, the achievement treatment (typically American) may become more appropriate for promoting further self-esteem enhancement. In classrooms with children at different levels of initial self-esteem, teachers should use both reinforcement treatments, perhaps varying the mix from child to child, to make use of the values of both cultures.<sup>21</sup>

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<sup>21</sup>Thereza P. Firma, "Effects of Social Reinforcement on Self-Esteem of Mexican American Children," (unpublished Doctor's dissertation, Stanford University, 1967), p. 5 of abstract to Department of Health, Education and Welfare, 1967.

Stedman. In a search for the environmental antecedents of competence in young children, Stedman investigated several parameters of a population of disadvantaged Mexican-American children. The sample consisted of 134 five-year-old children in a Head Start program. After the teachers had rated the subjects on behavioral adjustment and language ability, twenty were selected for a high-adjustment, high-language (H-H) group, and twenty others for a low-adjustment, low-language (L-L) group. Familial data were collected for fifteen children in each group. There was a moderate relationship between behavioral adjustment and language ability. His data provided for several conclusions and implications:

First, they indicate that lower socioeconomic, Mexican-American families differ on a number of important variables and that these differences are associated with preschool child adjustment and linguistic ability. Results follow a consistent pattern in which H-H families show signs of more adequate family adjustment and more favorable 'semantic structures' regarding school-related concepts. These data add to the scanty empirical research programs designed to intervene in the family forces affecting the child's early school adjustment.<sup>22</sup>

Plant. Seven groups of disadvantaged Mexican-American children, aged 3 to 5, were the focus for a study reported by Plant. Group leaders were high school students of the same racial background who worked under the supervision of experienced primary teachers during two successive ten-week summer sessions prior to kindergarten entry. This longitudinal study followed the subjects through second grade in school and found that in general there were some short-term gains but that few differences

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<sup>22</sup>James M. Stedman and Richard E. McKenzie, "Family Factors Related to Competence in Young, Disadvantaged Mexican-American Children," Final Report on Head Start Evaluation and Research, 1968-69, to Office of Economic Opportunity (Austin, Texas: University of Texas, August, 1969), p. 21.

existed between the training and comparison groups after second grade. This regression was discussed by the author who cited several reasons why it may have occurred:

First, there were really no differences between intellectual functioning level of training and comparison groups even at the beginning of kindergarten. . . . A second possible explanation is that during kindergarten, comparison Ss received more individual attention and assistance than did training unit Ss. . . . In addition to the possibility of differential teacher attention, it is possible that training unit Ss experienced a sort of 'cultural shock' by moving from the situation of one adult to five children to a situation of one adult to 35 children. Adequate transfer from the preschool to the school setting probably did not take place.<sup>23</sup>

Plant's discussion of the study concluded with a statement relevant to the current investigation:

In order to enjoy school success, children must internalize and work easily within the so-called 'middle-class ethos' of the school. Young Mexican-American children may find it more difficult . . . to accept and use the needed middle-class values and attitudes. Thus it may be the case that more intensive preschool training, or longer periods of preschool training are required to bring the lower SES Mexican-American child to the point of being able to cope with the quite different demands of the middle-class school system.<sup>24</sup>

Summary. Most of the studies on the culturally different preschool child centered about environmental remediation, whether within the home or in the classroom. Within the home, several factors were deemed important in early childhood. These included orderliness, regular schedule, positive reinforcement, adequate language models, and educational television. School studies have concentrated on small-group instruction for preschool children with developmental lags based on cultural differences or deprivation.

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<sup>23</sup>Walter T. Plant and Mara Southern, "Effects of Preschool Stimulation Upon Subsequent School Performance Among the Culturally Disadvantaged," (San Jose, California: San Jose State College, September, 1970), pp. 41-42.

<sup>24</sup>Ibid., p. 43.

Studies with Mexican-American children have used behavior modification techniques to increase academic achievement and behavioral controls; small-group techniques within schools have employed tutors of the same cultural heritage; and studies of the home environment have been undertaken to determine which familial factors apparently contribute to positive gains in language development or cognitive skills. Parent contacts with the schools, and teacher understanding of the children were stressed by several authors as vital to the progress of this group of children.

This latter point was particularly important to Farias. He felt the urgent need for teachers to understand the ethnic backgrounds of their Mexican-American students, and stated that what the Mexican-American student learns in school frequently comes into conflict with what he has learned from his parents. Among the cultural differences he noted were: loyalty to the family, loyalty to the ethnic group, the authoritative role of the father, the persistence of folk medicine, value conflicts, and lack of goal orientation. He stated firmly:

Mexican-Americans and their schools must be drawn closer together. Priorities must be established for programs that will bring more teachers and parents together in a learning situation. . . . If necessary, the federal government should pay Mexican-American parents to attend sessions where they become involved with schools.<sup>25</sup>

### III. EVALUATION AND DIAGNOSIS

#### Rationale for Early Diagnosis and Intervention

Emphasis on the increased importance of the earliest years of a child's life is a fairly recent development. Early childhood education

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<sup>25</sup>Hector Farias, Jr., "Mexican-American Values and Attitudes Toward Education," Phi Delta Kappan, June, 1971, p. 604.

has been established as a first order national priority.<sup>26</sup> Educators and other people concerned with the development and well being of young people have been accumulating knowledge about the critical effect the earliest years have on a child's later development.

The national investment in early childhood education has resulted in a large number and variety of approaches to the education of young children. These approaches generally encompass one or more of the three areas of development: cognitive, social-emotional-physical, and sensory-motor. Once a child enters a formal school setting, the teacher must cope with all three areas. Learning deficiencies demonstrate the existence of an imbalance in the development of these areas, according to Coon-Teters who stated:

Most of the problems which occur in the school setting have their roots in the early years of the child's life. It is encouraging that early identification is becoming more and more the focus of attention. . . . Developmental lag frequently becomes a complex problem. . . . A child who cannot make a circle or a square . . . tends to have reading problems. Too often, in the early years, this child is moved along through kindergarten, first and second grade, in the hope he will establish form and size constancy along the way . . . directed experiences are needed when the developmental lag is present.<sup>27</sup>

The cause for early diagnosis and intervention was well put by Buktenica when he stated:

. . . Young children must be studied in order to determine the precursors to school learning problems. . . . We tend to examine children after their optimal point for recovery, when the learning problem has been compounded by emotional reactions and effective remediation is less possible.<sup>28</sup>

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<sup>26</sup>Flora Coon-Teters, "A Developmental View of Children's Learning," Academic Therapy Quarterly, I (Summer, 1966), 220-224.

<sup>27</sup>Ibid., p. 224.

<sup>28</sup>Norman A. Buktenica, "Identification of Potential Learning Disorders," Journal of Learning Disabilities, VII (August/September, 1971), 39.

The concern for the child's emotional stability was also indicated by Slingerland in her statement:

In making screening-test evaluations, it is better to err in judgment on the side of more-than-enough rather than not-enough preventive training. . . . Success rather than failure will then set the child apart. . . . The child who does not experience failure, even though progress may be slow, is far less apt to develop faulty learning patterns, to resist, to feel inept, feel 'stupid,' and to become warped in personality.<sup>29</sup>

A common denominator in the literature on intervention for children with learning problems appears to be that the sooner the intervention takes place, the more lasting the results. Sheperd, for example, in discussing projects underway at the University of Oregon's Research and Demonstration Center for Early Childhood Education felt very strongly about the failure and eventual categorizing or labeling of children:

If a child at this early primary level does not learn or does not achieve, he starts falling behind. The further he falls behind, the greater the gap becomes and pretty soon someone labels him. . . . The intent is to reach them at an earlier stage of their education . . . with the expectation that they will not eventually be labeled or categorized.<sup>30</sup>

A strong case for careful test evaluation was made by Coleman, et al.<sup>31</sup> who felt that severe learning problems should be referred to specialists early in the child's educational experience. He also stated that the assumption of deprivation might label a child who would then receive

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<sup>29</sup>Beth H. Slingerland, "Early Identification of Preschool Children Who Might Fail," Academic Therapy, IV (Summer, 1969), 246.

<sup>30</sup>Evelyn Blum, "An R & D Center Focuses on Early Childhood Education," (Interview with George Sheperd), Exceptional Children, May, 1971, p. 676.

<sup>31</sup>Howard Coleman and Sarah Dawson, "Educational Evaluation and Visual-Perceptual Motor Dysfunction," Journal of Learning Disabilities, II (May, 1969), 242-251.

special attention based primarily on his environmental deprivations, barring him from the necessary evaluation of his particular learning problems, and precluding remediation for them.

#### Authoritative Opinions on Early Intervention

Several additional well-known authors contributed to the rationale for early intervention and are worthy of review for the purposes of this section. These authors stress several aspects which were also incorporated in the present research study described in Chapter Three. These included: (1) involvement of parents, (2) use of paraprofessionals, (3) utilization of team screening, and (4) remediation of deficiencies.

Grotberg<sup>32</sup> discussed some of the factors of deprivation which might have a bearing on a child's later performance in school. These included: malnutrition, understimulation or overstimulation, limited language or social-emotional experiences, and others. She felt that the more extended the time of deprivation, the greater the problem of amelioration. Children experiencing early deprivations do respond to early intervention and improve their performance; this intervention may take many forms and to some extent depends on the observed deprivation or assumed deficit. In her review of outstanding intervention programs she found:

. . . (the programs) have in common clearly stated objectives, curricula consistent with objectives, high professional-paraprofessional ratio, individual instruction and attention, and parent involvement. . . . In order to gain permanent results, we should (1) find ways to develop the children's intelligence instead of merely teaching

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<sup>32</sup>Edith H. Grotberg, "Early Intervention for the Disadvantaged: Does it Influence Reading Achievement?" (paper read at the International Reading Association meeting, April 19-23, 1971, Atlantic City, New Jersey).

the skills; (2) seek the help and cooperation of parents as well as the involvement of the entire community; and (3) initiate follow-through programs to provide a continuity of good programs.<sup>33</sup>

DeHirsch<sup>34</sup> discussed some major approaches used in intervention projects with which she was familiar. Recurring strategies she noted in her review were (1) use of health personnel; (2) emphasis on the importance of parent participation; (3) development of parental competence and self-image. She recommended children be prepared for effective school participation by focusing during the preschool years on large motor, visuo-motor, perceptual, and oral language training. In her opinion, establishment of a series of operational intervention centers should be explored, which centers would feed information into a central agency designed to evaluate strategies and formulate policies for a national program.

Severson<sup>35</sup> offered, in addition to a method for identifying children in need of remedial instruction, a description of how paraprofessional school personnel should carry out the instruction. He stated that for slight weaknesses in learning skills, or for those children whose difficulties were related to cultural deprivation, remedial instruction was appropriate. But he voiced the philosophy which underlay all the other projects reviewed, that children displaying serious deficiencies in

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<sup>33</sup>Ibid., p. 19.

<sup>34</sup>Katrina DeHirsch, "Preschool Intervention," (paper read at the Interdisciplinary Committee on Reading Problems, April 6, 1972, Center for Applied Linguistics).

<sup>35</sup>Robert A. Severson, Training Paraprofessionals for Intensive Skill Building in an Early Detection and Intervention Program (Washington, D.C.: Department of Health, Education & Welfare, April 29, 1971).



learning skills should be referred to specialists for thorough physical, intellectual, and/or psychological diagnosis.

#### The Importance of Sequential Learning and Perception in Early Childhood

Children have many unique ways of developing their "sense-ability," according to Weiser.<sup>36</sup> Most children utilize natural modes of learning through use of senses in normal ways. These may include digging in sand, running with the wind, splashing in puddles, and rolling down a grassy hill. Weiser felt that when a child finds meaning in an experience, he will be interested and attentive. Readiness for reading follows improved perceptual abilities of young children, and this behooves educators to avoid prematurely presenting the printed word.<sup>37</sup>

Sequential Learning. The effectiveness of a new sequential learning program was studied by psychologists in a 1967 project which brought a group of twenty-four culturally deprived five-year-old children into a program of planned and guided learning experiences.<sup>38</sup> A matched control group was exposed to a "traditional" program and a second matched control group received no preschool program. Nine months after the experiment began, developmental measures were obtained from each child. These included general intelligence, perceptual motor skills, vocabulary development, school readiness skills, ability to

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<sup>36</sup>Margaret Weiser, "Awareness--One Key to Reading Readiness," Young Children, XXV (September, 1970), 340-344.

<sup>37</sup>Ibid.

<sup>38</sup>Vernon Van de Riet, Hani Van de Riet and Herbert Sprigle, "The Effectiveness of a New Sequential Learning Program with Culturally Disadvantaged Preschool Children," Journal of School Psychology, VII (Spring, 1968-69), 5-15.

express ideas, verbal reasoning ability, language comprehension, spatial abilities, gross motor coordination, and concept formation.

The above comprehensive evaluation of all three groups provided information indicating that the performance of the experimental group on all of the measures was significantly superior to that of both control groups. The "traditional" group's performance was superior to that of the no-treatment group on about one-half of the measures. A follow-up evaluation at the end of the first grade indicated that a significant developmental superiority remained for the experimental group.

Perception. Experimenters have emphasized the role of age in the increased ability to process information. A study by Kraynak and Raskin<sup>39</sup> found that the older children made more correct responses in a three-dimensional task than all the other children. They were able to use the dimension of depth while the younger children could not. Other conclusions of importance to the current study were: (1) performance of all older children was better than all younger ones; (2) the lack of effect owing to sex of the child agrees with prior evidence, and this factor was not important in form perception; (3) learning took place during the course of the experimental sessions. Although this study tended to say that the older the child was, the better he learned, one could not negate the earlier education of all the children, for it was verified that if early education was neglected, the child would not learn as well as he got older.

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<sup>39</sup>Audrey Kraynak and Larry Raskin, "The Influence of Age and Stimulus Dimensionality on Form Perception by Preschool Children," Experimental Psychology, IV (May, 1971), 389-393.

Haworth, et. al.<sup>40</sup> reported on new teaching procedures used by the nursery school staff at the Meyer Therapy Center for Children at Omaha, Nebraska. The revision of normal-child teaching methods was mandated when the staff found that handicapped children were unable to pursue and utilize many of the experiences to which they were exposed. The revisions were incorporated into a perceptual training program, and an exploratory research project was conducted to test the program with a small group of children. A graded sequence of activities was developed to help each child acquire an awareness of and discrimination between simple geometric forms, and finally to translate these concepts into drawings of specific figures.

The Meyer staff was aware that a structured teaching program was diametrically opposed to the usual nursery school procedures. However, these children were all past the age at which representational drawing should be in evidence. Therefore, it was apparent that extra effort would be needed to replace random scribbling with patterned structures. The children were encouraged to use more than one sensory pathway (visual, auditory, motor, kinesthetic) at one time and in various combinations. The investigators' conclusions were that their successful experience, as well as that of Santostefano and Stayton,<sup>41</sup> whom they quoted, indicated parents could be instructed to utilize the training program under professional supervision.

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<sup>40</sup>Mary Haworth, Corinne Auvinen and Karlyn Scott, "Improving Perception: A Multisensory Approach," Teaching Exceptional Children, Winter, 1969, pp. 33-41.

<sup>41</sup>Sebastiano Santostefano and Samuel Stayton, "Training the Preschool Retarded Child in Focusing Attention: A Program for Parents," American Journal of Orthopsychiatry, XXXVII (1967), 732-743.

Many of the studies on perceptual motor training used adults or older children as subjects. Painter's study<sup>42</sup> differed in that she worked with kindergarten children who were considered "low functioning." One-half of her group of twenty was given a special program of perceptuo-motor training. An equal number, matched for IQ, CA, MA and sex served as controls. Training was continued over a seven-week period. Following training, the experimental group showed marked improvement in the Goodenough Draw-a-Man-Test and in various elements of the Illinois Test of Psycholinguistic Abilities.

#### Diagnostic Instruments for Measuring Preschool Children

When a study is conducted which requires much pretesting in order to screen subjects for the project, ease of administration becomes an important aspect to consider. Scales or batteries utilized in the reviewed projects ranged from teacher-devised to full-profile clinical measures. Some were combinations of sections from various well-known testing instruments such as the Illinois Test of Psycholinguistic Abilities, the Frostig Test of Visual Perception, and subtests of the Wechsler Intelligence Scale for Children and the Stanford-Binet (Form L-M) Intelligence Test.

Illinois Test of Psycholinguistic Abilities (ITPA). Any number of investigators have used the Illinois Test of Psycholinguistic Abilities to diagnose children's difficulties at the preschool age. Hayes and Dembo<sup>43</sup>

<sup>42</sup>Genevieve Painter, "The Effect of a Rhythmic and Sensory Motor Activity Program on Perceptual Motor Spatial Abilities of Kindergarten Children," Exceptional Children, XXXIII (2), 113-116.

<sup>43</sup>Mabel Hayes and Myron Dembo, "A Diagnostic-Prescriptive Approach to Preschool Education," Psychology in the Schools, VIII (January, 1971), 37-40.

described the use of the ITPA to diagnose the language patterns of preschool children and the prescriptive techniques to be used by teachers. The prescriptions were obtained by analyses of the ITPA subtests which profiled weak and strong areas in language development. Because there is a problem with preschool children in obtaining and sustaining attention for even short periods of time, the authors suggested that motivation was more easily obtained when the tasks were selected which pertained to each child's particular strengths. Successful activities were followed by the gradual introduction of tasks in deficient areas. The use of successful activities to solicit further endeavor from young children is a technique familiar to behavioral scientists.

Schenectady Kindergarten Rating Scales (SKRS). Tobiessen, et. al.<sup>44</sup> sought the relationship between the Schenectady Kindergarten Rating Scales and first-grade achievement and adjustment. The SKRS, a battery of teacher-administered behavior rating scales, have been developed as an economical means of screening large numbers of children in kindergarten so that preventive or remedial programs can be provided. Deviant scores on scales involving impulse control and language and perceptual-motor skills predicted similar problems in first grade with considerable accuracy. Profiles reflecting withdrawn or hostile kindergarten behavior were less accurate predictors of similar behavior in first grade. Overall, the SKRS profiles were only moderately successful as predictors of specific first-grade diagnoses. However, some profiles were identified that provided an

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<sup>44</sup>John Tobiessen, Barbara Duckworth, and W. Glenn Conrad, "Relationships Between the Schenectady Kindergarten Rating Scales and First Grade Achievement and Adjustment," Psychology in the Schools, VIII (January, 1971), 29-36.

accurate means of screening children who definitely would be impulsive nonlearners in the first grade.

Denver Developmental Screening Test (DDST). Another study, that of Frankenburg, et. al.<sup>45</sup> was undertaken to evaluate the validity of the Denver Developmental Screening Test in view of its widespread use for screening the development of preschool children. Two hundred thirty-six subjects were evaluated with the DDST and the Stanford-Binet, Revised Yale Developmental Schedule, Cattell, and the Revised Bayley Infant Scale as criterion tests. The DDST agreed very highly with IQ's and DQ's obtained on the criterion tests.

Pupil Behavior Rating Scale (PBRs). Bryan and McGrady<sup>46</sup> conducted a study of the Pupil Behavior Rating Scale to determine its usefulness for screening children at the elementary level for potential learning disabilities. The scale consists of five categories with from four to eight items in each category. Teachers rate the child on each item on a five-point scale. In their study, the researchers found that teachers consistently rated the learning disabled group below those children without apparent problems. They concluded that the PBRs provides an efficient and economical measure for screening purposes, but its usefulness depends upon an intensive follow-up evaluation to determine the exact nature of the disability.

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<sup>45</sup>William Frankenburg, Bonnie Camp, and Pearl VanNatta, "Validity of the Denver Developmental Screening Test," Child Development, XXXII (June, 1971), 475-485.

<sup>46</sup>Tanis Bryan and Harold McGrady, "Use of a Teacher Rating Scale," Journal of Learning Disabilities, V (April, 1972), 26-33.

Combined Subtests of Well-Known Instruments. Many studies in the literature reported utilizing combinations of test instruments, selecting specific subtests and combining them to provide a profile of children's strengths and weaknesses. A project by Gordon and Hyman<sup>47</sup> combined subtests of various diagnostic instruments, seeking to measure aspects of visual-motor, auditory, fine-motor, and abstract-drawing abilities. In all, fourteen encompassing measures were used to study disadvantaged children, ages four to seven and one-half. These were Head Start youngsters with a noticeable deficiency in one or more areas of learning skills. The concept of developmental age levels for skills was supported by a high correlation between the scores on copying tasks and age. The results with a sizeable n of 168 children, and the high correlations obtained, furnished a strong argument to the question of whether it was possible to develop a battery of perceptual-motor tests appropriate for screening children from impoverished backgrounds.

Summary. In conclusion, the researcher discovered that many screening devices have been subjected to rigid field study for determining weaknesses in the young child's learning skills. Some of the kindergarten scales have proved to be predictive for behaviors and/or learning abilities in the first grade. In screening young children, the problem of maintaining attention to tasks is facilitated by starting with successful experiences, and inserting more difficult tasks periodically. The majority of the screening methods provide a valuable profile of strengths and weaknesses which enable

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<sup>47</sup>George Gordon and Irwin Hyman, "The Measurement of Perceptual-Motor Abilities of Head Start Children," Psychology in the Schools, VIII (January, 1971), 41-64.

the instructors to provide specific help in areas of deficiencies. Studies using combinations of well-known subtests were successful in screening children with suspected problems in specific areas of learning skills.

#### Assessments of Recent Programs

Numerous projects were described in the literature, all with similar goals but individualized approaches to achieving these goals. The multitude of variations incorporated in attempts to prevent or remediate learning problems warrant brief reviews of some which have proven beneficial.

The Fort Worth Project.<sup>48</sup> Underprivileged children, ages two to five, were provided opportunities and experiences to help develop academic skills, positive self-image, confidence in capability, and to provide essential physical necessities. The program began instruction at a level consistent with the child's experiences and paced each sequential step. Although the cost of approximately \$3000 per year per student appeared prohibitive, the author of the report felt that it was balanced by benefits in affective, cognitive and psychomotor development. He stated further:

Intervention is necessary for disadvantaged children to have a reasonable opportunity to be ready for school, and intervention employing this instructional program is more effective . . . than that of conventional day care programs.<sup>49</sup>

The Fort Worth Independent School District Project.<sup>50</sup> This project selected the preschool children with IQ's under 80 from the above early

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<sup>48</sup>John Barnett, Fort Worth Project: Central Cities Educational Development Center, (Report #-TX-1 [06719] 1972).

<sup>49</sup>Ibid.

<sup>50</sup>Fort Worth Independent School District; Special Education Early Childhood Project in Fort Worth Independent School District, Title VI, ESEA, (Final Report, 1971).



childhood education project. The component's purpose was to determine if children deviating from their peers could be educated as an integral part of the regular class. They were provided individual prescriptions and received additional instruction outside the regular classroom. Posttesting indicated that they had scores only slightly below those of the other children, and above those of day care and kindergarten comparison groups. Most of the children entering with IQ's under 80 were able subsequently to enter regular first grade classes.

The Union Township (New Jersey) Project.<sup>51</sup> Two successive kindergarten classes (1967 and 1968) received three and two years of training, respectively. This was a program for early identification and remediation of perceptual deficiencies to prevent or minimize learning disabilities. Posttest results indicated improvement for project children in areas of visual-motor integration, certain aspects of gross motor development, associative processes and sequencing. Carryover from training success to academic achievement was also noted. Teachers, specialists, and administrators provided written statements which demonstrated project effectiveness. They felt that children in the training program were more attentive and better organized. While perceptual motor match and/or associative processes improved the most in those children deficient in those areas, auditory dynamics seemed the most difficult to remediate.

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<sup>51</sup>Jane P. Padalino, A Program for the Identification and Remediation of Perceptual Deficiencies in Kindergarten and Primary Grade Students (Final Interim Progress Report), (Union Township, New Jersey: Union Township Board of Education, 1969).

The Staten Island Summer Head Start Program.<sup>52</sup> Although this program with disadvantaged children lasted only eight weeks, its effect on the subjects' subsequent performance in kindergarten and first grade was carefully observed. Measures were taken periodically through the first year of school and during the first six months of the second year of school. Because no control group was used, the substantial gains of the children in all performance areas on the posttests could not be credited solely to the Head Start experience. The gains might have been due to simple maturation and resulting general development. A real distinction was made, however, in the fact that Head Start pupils had better school attendance in first and second grade than children who had not participated in the program.

The Montgomery County (Rockville, Maryland) Public Schools Project.<sup>53</sup> Serving kindergarten through grade 5, this project was designed to improve the educational performance of children with learning problems (without regard to categorical labels) as a supplement to the classroom in the normal school setting. Team screening processes were developed to identify preschool or school-age children with learning problems; assessment, intervention, and followup procedures were also developed, involving teaching teams and resource staff. The project was coordinated and integrated with the school system and the community, and staff development and training procedures were a continuing aspect for project personnel.

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<sup>52</sup>Sherwood Chorost, An Evaluation of the Effects of a Summer Head Start Program (Staten Island, N.Y.: Wakoff Research Center, June, 1967).

<sup>53</sup>Montgomery County Public Schools, Focus on Children with Underdeveloped Skills: End of Budget Year Report (Rockville, Maryland: Montgomery County Public Schools, 1968).

Summary. In summarizing aspects and results of these programs, the following factors appear to be vital to the success of special programs undertaken for the young child: (1) early intervention with disadvantaged children is vital, with success being noted for children who enter special programs as early as two years of age; (2) individual prescriptions for each child's particular needs should be considered; (3) remediation of perceptual deficiencies aids in preventing later learning disabilities; (4) the amount of time a program lasts does not appear to be as important as the quality and concentration of the special help; (5) followup procedures and long-term evaluations are an important adjunct in any program seeking permanent gains; and (6) staff development should be an integral component of any project.

#### Summary on Evaluation and Diagnosis

Early intervention, diagnostic instruments and the profiles they provide are only as useful as the prescription and instruction which is derived from them. Valett,<sup>54</sup> one of the acknowledged authorities in the area of prescriptive programming for learning disabilities, expressed the belief that careful initial diagnosis and teacher involvement in systematic appraisal of the pupil is required in the development of a program to meet the individual's needs.

Van de Riet and Van de Riet,<sup>55</sup> and Karnes, et. al.<sup>56</sup> reported significant gains for disadvantaged children with the use of highly structured

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<sup>54</sup>Robert Valett, "A Developmental Task Approach to Early Childhood Education," Journal of School Psychology, V (1967), 136-147.

<sup>55</sup>Van de Riet and Van de Riet, loc. cit.

<sup>56</sup>Merle Karnes, et. al., An Approach for Working with Mothers of Disadvantaged Preschool Children, (Urbana, Illinois: Institute for Research in Exceptional Children), (n.d.).

programs stressing multisensory approaches to concept development. Working with a program which stressed personalized programming, Coffman and Dunlap<sup>57</sup> found significant gains in the areas of audition, vision, cognition, and language.

There was consistent agreement among the reports of various intervention programs that early diagnosis and remediation of weaknesses in learning skills were vital to the later development and school achievement of young children. Furthermore, some studies reported that when parents and teachers were provided with the evaluation results and specific remediation techniques were outlined and taught to them, significant improvement in the children was noted, even after a lapse of one year or more without further remediation.

The latter findings are pertinent to the present study, for it centers about early diagnosis and intervention, and one important aspect is the involvement of the mothers in providing remediation experiences for their kindergarten children within the home.

#### IV. PARENTAL INVOLVEMENT IN THE DEVELOPMENT OF PRESCHOOL CHILDREN

The family, as the fundamental unit of a democratic society, maintains prime rights and obligations regarding the education of the child. In a policy-statement draft by the Council of Exceptional Children (CEC) Policies Commission, the statement was made that "the school should establish whatever structures are needed to create a genuine partnership

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<sup>57</sup>Alice Coffman and James Dunlap, The Effects of Assessment and Personalized Programming on Subsequent Intellectual Development of Pre-kindergarten Children (Washington, D.C.: United States Department of Health, Education, and Welfare, 1967).

with parents . . . in designing and implementing educational programs."<sup>58</sup> Parents, as the consumers of education services, are participating to a greater extent in policy-making in recent years.<sup>59</sup>

### Inherent Problems

Some specific problems are delineated in the literature referring to parent involvement in program planning for preschool children. A review of one project has identified four areas of concern which emerged as the work with parents progressed.<sup>60</sup> These problem areas were: (1) many parents did not possess basic knowledge about child development; (2) many parents did not have the skills to provide stimulating experiences to enhance the cognitive development of their children; (3) many parents had faulty perceptions of the nursery school role; and (4) many parents had personal needs which could not be neglected if they were to become competent in the first three areas.

The Dubnoff School for Educational Therapy in North Hollywood emphasizes parent participation in meeting the goals for their students. The school's founder and director, Belle Dubnoff,<sup>61</sup> recognizes the vital role parents exert in their children's education. She stresses, therefore, parent discussion groups, parent-teacher conferences, parent-administration consultations, crisis interviews, and family counseling.

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<sup>58</sup>Maynard Reynolds, Chairman, "Policy Statements: Call for Response," CEC Policies Commission, Exceptional Children, February, 1971, p. 421.

<sup>59</sup>Ibid., p. 433.

<sup>60</sup>Dorothy C. Adkins, Home Activities for Preschool Children (Honolulu: University of Hawaii, September, 1971).

<sup>61</sup>Belle Dubnoff, Parents Can Be Allies (North Hollywood, California: Dubnoff School for Educational Therapy, 1969). (Mimeographed.)

Through utilization of all these methods, parents are oriented to ways in which to help at home with educational and disciplinary goals.

#### Effect of Parents on Children's Learning and Behavior

Family members have been involved in programs for early childhood education for handicapped children in a variety of ways. The nature of their involvement, however, has often been random or accidental, usually reflecting pressures of the immediate program rather than the result of careful planning. Of the 179 project proposals that were disapproved under the Federal Handicapped Children's Early Educational Assistance Act (Public Law 90-538) in the first year of funding (1969), Calvert,<sup>62</sup> in his 1971 report, stated that more than three-fourths were disapproved for reasons related to inadequate participation of parents in the proposed programs. The generation of parents now experiencing active participation in the education program at the early educational level may not be content in the future with passive and peripheral involvement.

Stearns<sup>63</sup> became specific in describing environmental aspects in the preschool child's life which researchers have found important in early childhood besides the obvious ones: orderliness in the home, doing things at regularly appointed times, child-rearing practices based on positive reinforcement, and having parents who provide an adequate language model. All of the foregoing except one (orderliness in the home) were included in the parent training course which was the basis for this current study. For this reason, the findings of Stearns were extremely important, for

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<sup>62</sup>Donald R. Calvert, "Dimensions of Family Involvement in Early Childhood Education," Exceptional Child, May, 1971, pp. 655-659.

<sup>63</sup>Stearns, loc. cit.

they indicated that when mothers are interested in their child's development and take an active part in group instruction, they will be motivated to alter certain environmental conditions which may have been inhibiting factors to the full development of their child.<sup>64</sup>

#### Recent Studies of Parents as Modelers of Behavior

Several studies on adult modeling of behavior patterns for their young children were well-designed and the results proved of interest for the purpose of this study.

Mischel and Liebert.<sup>65</sup> Conclusions by Mischel and Liebert based on a "reward" research indicated that adult models who behaved self-indulgently produced similar behavior in their children. These effects were more extensive than direct rewards for self-indulgent behavior. When the model preached unfriendly or uncooperative behavior but behaved in an opposite manner, the child was more likely to do what the adult preached. It was discovered by these investigators that the higher social status the model held for the child, the more effective that model was in inducing responsible behavior.

Emmerich and Smoller.<sup>66</sup> In a study to determine role-patterning of parental norms, Emmerich and Smoller found certain behaviors to be valued by middle-class parents: friendly behavior to peers, cooperation

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<sup>64</sup>Ibid.

<sup>65</sup>Walter Mischel and Robert Liebert, "Effects of Discrepancies Between Observed and Imposed Reward Criteria on Their Acquisition and Transmission," Journal of Personality and Social Psychology, III (1966), 45-53.

<sup>66</sup>W. Emmerich and F. Smoller, "The Role Patterning of Parental Norms," Sociometry, 1964, pp. 382-390.

with adults, achievement orientation, dominance, and purposiveness. When the parents ranked the least valued behaviors, aggression, avoidance, and dependency were at the top of the list. This study found, as hypothesized by the authors, that children will pattern after their parents. They concluded that the positively-valued attributes found in this study probably have survival value for the individual in the society of the United States today.

Baumrind (1966),<sup>67</sup> and Baumrind (1967).<sup>68</sup> In two related investigations, Baumrind found support for her position that authoritative control can achieve responsible conformity with group standards without loss of individual autonomy or self-assertiveness of the child. Ninety-five nursery school children and their parents were involved in the first study. Authoritative parents were described as warm, rational, and receptive to the child's communications, while yet maintaining control of the child. The author cautions that the use of "authoritative" in describing a parent should not be confused with the term "authoritarian" in which parents are controlling but detached. Baumrind's second study, which enhanced the findings of the first, tended to condemn "permissiveness" as far as the development of the child's personality and social skills was concerned. She summarized her findings as follows:

1. Parents of the most self-reliant, self-controlled, explorative and content children were themselves controlling and demanding;
2. parents of children who were relatively discontented, withdrawn, and distrustful, were themselves detached and controlling, and

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<sup>67</sup>Diana Baumrind, "Effects of Authoritative Parental Control on Child Behavior," Child Development, XXXVII (1966), 887-907.

<sup>68</sup>Diana Baumrind, "Child Care Practices Antecedent Three Patterns of School Behavior," Genetic Psychology Monographs, 1967, pp. 43-88.



somewhat less warm than other parents;

3. parents of the least self-reliant, explorative and self-controlled children were themselves non-controlling, non-demanding, and relatively warm.<sup>69</sup>

Saxe and Stollak.<sup>70</sup> These authors found very few investigations on the relationship between children's curiosity and the parental use of reinforcement, positive feeling, attention, and punitive discipline. They therefore utilized the social-learning theory of Bandura<sup>71</sup> in working with four groups of first-grade boys and their mothers and were able to find high correlations between the mothers' curiosity and their children's curiosity toward novel stimuli.

Summary. Parental cooperation and sustained motivation are vital for any program designed specifically to remediate learning deficiencies of the preschool child, if for no other reason than the fact that the majority of a preschool child's hours are generally spent within a home situation. The nonworking mother, by virtue of the number of hours spent with her child, is conceded by many sources including Perkins and Wicas,<sup>72</sup> Heffernan,<sup>73</sup> Jacobs,<sup>74</sup> and others to have the most influence on the child

<sup>69</sup>Ibid., p. 88.

<sup>70</sup>Robert Saxe and Gary Stollak, "Curiosity and Parent-Child Relationship," Child Development, XXXII (1971), 373-384.

<sup>71</sup>Albert Bandura and Richard Walters, Social Learning and Personality Development (New York: Holt, Rinehart & Winston, 1963).

<sup>72</sup>John Perkins and Edward Wicas, "Group Counseling Bright Under-achievers and Their Mothers," Journal of Counseling Psychology, XVIII (1971), 273-278.

<sup>73</sup>Helen Heffernan, "There was a Child Went Forth--A Philosophy of Early Education," Child Welfare, XXXIX (December, 1970), 545-552.

<sup>74</sup>John Jacobs, "Evaluation of Mother Teaching Style in High Ability Families," The Gifted Child Quarterly, XV (Spring, 1971), 32-35.

during his first five years of life. After that, the child is greatly influenced by teachers and peers.

#### Group Instruction for Parents

The problems previously cited by Adkins,<sup>75</sup> including the fact that many parents did not have basic knowledge about child development nor the skills required for remediating their child's developmental deficits, have been of concern to many staff members in various projects. Some of the programs which sought to orient and train parents in early childhood development were reviewed in the literature. Several authorities are cited below.

Galloway and Galloway.<sup>76</sup> Parent training classes which taught the techniques of behavior modification were conducted by Galloway and Galloway. They sought to assist parents in achieving behavioral goals for their children. These classes differed from the "traditional" training group in that the goal of the latter structure is to deal with the parents' psychological states as they directly or indirectly are associated with a problem child. The Galloways' goal, however, was to help the parents deal directly with the behaviors in such a way that the children's education could be extended into the home. They concluded that the tools of behavior management worked well for the described groups because the parents were cooperative and interested in obtaining results.

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<sup>75</sup>Adkins, loc. cit.

<sup>76</sup>Charles Galloway and Kay Galloway, "Parent Classes in Precise Behavior Management," Teaching Exceptional Children, III (Spring, 1971), 120-128.

Thomson.<sup>77</sup> Mothers began to join groups in a pilot project which had been designed to train preschool staff members to deal with family-life and sex-education questions which children ask. The director's objectives were to develop the children's ego strength in a healthy climate within which attitudes toward self and sexuality could grow naturally. Although the mothers drifted into the groups in order to learn how to answer their children's questions with more equanimity, perhaps the greatest service this study provided was the confidence gained by the mothers through group activities.

Parke.<sup>78</sup> The matter of punishment and its effect was the subject of a study in which the author found that by symbolically reinstating a deviant act, explaining the reason for punishment, and telling the child exactly what he should do, the need for intense or instantaneous punishment was obviated. His conclusion was that when a child is conditioned through fear to avoid deviant behavior, he is not helped to control himself consciously and willfully. Achieving behavioral conformity by aversive conditioning fails to provide the child with cause-and-effect information and transfer to other situations does not take place. This study was of value to the present investigation because the parent groups would emphasize positive reinforcement for good behavior with de-emphasis on aversive conditioning.

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<sup>77</sup>Peggy Thomson, "Preschoolers Pose Some Tough Questions," American Education, VI (October, 1970), 16-19.

<sup>78</sup>Ross Parke, "Some Effects of Punishment on Children's Behavior," Young Children, XXIV (1969), 225-240.

Oxman and Justman.<sup>79</sup> Meetings and workshops for parents were held by project personnel in poverty area schools of New York City. Goals with which parents assisted were: (1) to overcome deficits in verbal, conceptual, and cognitive development; (2) to develop personal relationships with peers and adults; (3) to develop critical thinking and problem solving; (4) to develop a feeling of self-worth; and (5) to improve vocabulary and reading skills.

Jaffe.<sup>80</sup> In many instances, mothers do not want their children in readiness programs because they believe immaturity in their child reflects on their own inadequacies. Recognizing this as a problem, and in an attempt to publicize the value of a readiness program, Jaffe compiled a description of various programs in New Hampshire. She discussed readiness tests in use, the training of parents, teachers and principals, and the ways in which mothers could volunteer their help to the classes. The author concluded that if the mothers could be encouraged to work within the classroom as volunteers, their resistance to programs would be solved.

Summary. The value of parent orientation and instruction in child-rearing techniques was stressed in the works reviewed for this section of the chapter. The development of parental competency ranged from skills in controlling behavior, overcoming cognitive deficits, assisting in personality development, through the skills required to

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<sup>79</sup>Wendy Oxman and Joseph Justman, An Evaluation of the ESEA Title I Program 'Strengthening Early Childhood Education in Poverty Area Schools' (Brooklyn, N.Y.: New York City Board of Education, August, 1971).

<sup>80</sup>Dorothea Jaffe, "Ready, Set, Go!" American Education, VI (August-September, 1970), 9-12.

assist with preschool and readiness programs by direct involvement in the classroom.

#### Parents as Instructors of Their Children

The work of Hess and Shipman<sup>81</sup> has documented the importance of the mother in establishing the essential basis for cognitive and language development of the child. The extent of the child's growth seems to be determined by the mother's ability to provide learning tasks, feedback as the task is learned, and positive reinforcement as the child works toward the goal. They believe that the lack of cognitive meaning in the mother-child relationship is a factor which contributes to the problem of the child with learning deficiencies. Their concern is expressed in this excerpt:

It appears, then, that in spite of a mother's good intentions, if she fails to inject sufficient cognitive meaning into her interactions with the child, she may end up structuring the situation so that he not only fails to learn, but develops a negative response to the experience. . . . We believe that this kind of communication failure is a primary factor in the mother-child interaction patterns of the culturally disadvantaged and that it has far-reaching and cumulative effects which retard the child's cognitive development.<sup>82</sup>

It would seem that preschool programs directed at the child with learning deficits without involving the mothers are accepting a challenge beyond the capacity of any educational curriculum. The problem appears to be that one must restructure the mother-child interaction pattern. The use of parents as instructors of their young children was a major aspect in many of the projects reviewed for the current investigation. Some of the varied programs are cited below.

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<sup>81</sup>R. D. Hess and V. C. Shipman, "Cognitive Elements in Maternal Behavior," A Chapter in First Minnesota Symposium on Child Psychology (Minneapolis: University of Minnesota Press, 1967).

<sup>82</sup>Ibid.

Karnes.<sup>83</sup> A twelve-week study by this investigator centered around a project which involved the use of toys for home instruction. Because the current researcher designed a similar project for one of the experimental groups, it was interesting to note that Karnes' results indicated a seven-point increase in Binet IQ's for the participating children. The study, however, was not directed toward children with learning deficits but paralleled the current investigation in the factor of parental involvement as remediators within the home.

Jacobs.<sup>84</sup> A limited study of twenty gifted children and their mothers' teaching methods was performed to ascertain whether the mothers utilized uniformly expansive teaching styles as had been suggested in previous studies. Jacobs found that eight of the twenty mothers tended toward restrictive teaching which was defined as relying on "specific information, negative motivation, physical feedback requests, and limited use of general verbal feedback."<sup>85</sup> Nine of the mothers relied on expansive teaching which Jacobs defined as "positive motivation, specific verbal feedback requests, general verbal feedback requests, and limited use of specific information."<sup>86</sup> Three of the mothers were so varied in their teaching style that he found them difficult to classify. The value of this finding to the current investigation lies in a conclusion of the author that:

. . . (it) should be noted that the cognitive environment provided these gifted children . . . does not differ from the cognitive environments provided to average and below average children. . . . There exists among all children, regardless of ability, a communality of difficulty in cognitive environment with which each need(s) cope.<sup>87</sup>

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<sup>83</sup>Karnes, loc. cit.

<sup>84</sup>Jacobs, loc. cit.

<sup>85</sup>Ibid., p. 34.

<sup>86</sup>Ibid.

<sup>87</sup>Ibid.

Nimnicht.<sup>88, 89</sup> One carefully designed study involving mothers as teachers of their preschool children was that conducted by Far West Laboratories of Berkeley, California. Nimnicht reported on this project with considerable enthusiasm. The toy-lending aspect of the parent-child interaction component was not specifically aimed at learning deficits, and it was also limited to three- and four-year-old children. In these two ways it differed from the current research study; however, the objectives on which the project was based are listed here for they comprise the rationale on which this investigator's work was undertaken: (1) to aid parents to help their children develop a healthy self-concept; (2) to help parents promote their children's intellectual development through toys, and (3) to help parents stimulate their children's intellectual abilities by improving interaction between parent and child.<sup>90</sup> In the estimation of the project evaluators, the objectives were reached for the Toy-Lending project.

Rayder.<sup>91</sup> Cognitive growth factors, as measured on the thirteen subtests of the Responsive Test, were reported by Rayder concerning the Toy Lending Program conducted by the Far West Laboratories. Parents

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<sup>88</sup>Glen Nimnicht, An Evaluation of Nine Toys and Accompanying Learning Episodes in the Responsive Model Parent/Child Component (Berkeley, California: Far West Laboratories for Educational Research and Development, June, 1970).

<sup>89</sup>Glen Nimnicht, A Progress Report on the Parent/Child Course and Toy Library (Berkeley, California: Far West Laboratories for Educational Research and Development, August, 1970).

<sup>90</sup>Ibid.

<sup>91</sup>Nicholas Rayder, An Assessment of Cognitive Growth in Children Who Have Participated in the Toy-Lending Component of the Parent-Child Program (Berkeley, California: Far West Laboratories for Educational Research and Development, June 18, 1970).

participated in courses within a classroom setting for two hours a week, ten weeks, and were taught how to teach their three- and four-year-old children through the use of educational toys. It was concluded through use of pre- and posttesting, that the children had learned considerable skills and concepts over ten weeks of involvement in the parent-child course, and that a large part of the learning could be attributed to the course itself. Control groups had allowed for the effects of maturation and practice.

Levenstein.<sup>92</sup> An experiment to raise the initial low verbal and general IQ's of low-income preschool children through double intervention proved successful for a small group of children in Nassau County, New York. The intervention was in two forms--one group of children received home visits by social workers (single intervention), and a second group received home visits by workers who had been trained as "toy demonstrators," (double intervention). A third group had no home visits. Two types of women were given training as "toy demonstrators"--family agency volunteers and women who had formerly been mother-participants themselves. Both types of "toy demonstrators" proved equally effective in obtaining results for the double intervention experimental children. In this particular project, controls were not established as to the effectiveness of non-professionals compared to professional social workers.

Murray.<sup>93</sup> In a parent-training project using second-grade youngsters as subjects, remedial reading instruction by their parents

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<sup>92</sup>Levenstein, loc. cit.

<sup>93</sup>Beulah Murray, Individualized Amelioration of Learning Disability Through Parent-Helper-Pupil Involvement (Clarksville, Tennessee: Austin Peay University, April, 1972).



was found to be statistically significant at the .001 level for improvement in learning rate. Parent involvement in remediation was preceded by group instruction in personality and learning theory, reading methodology, and demonstration lessons.

#### Summary of Parental Involvement in the Development of Preschool Children

Parents are usually considered to be the first teachers of their children. Because one problem area in parent-child interaction was identified as a lack of skills to enhance the cognitive development of young children, it seemed apparent that instructing parents in specific techniques for behavioral control, academic and cognitive growth, and personality enhancement was of utmost importance. A number of studies on parental involvement were cited which indicated that growth could be measured following interventions as brief as ten weeks. However, it was stressed that instruction for parents must be specific and goal-oriented, for if un-directed, reverse effects could be anticipated.<sup>94</sup>

### V. THE USE OF TOYS AND GAMES

#### The Value of Toys and Games for Cognitive Development

Although most children follow the sequential developmental patterns of all human beings, each does so at his own pace. Piaget's description of the stages of intellectual development discusses the logical sequence of their appearance:

. . . they are a logical self-supporting series of changes which can be set out with approximate chronology, allowing a leeway of a year or two here and there. . . . we cannot, under any circumstances, change the order of progression, for this would make a logical non-

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<sup>94</sup>Hess and Shipman, loc. cit.

sense of the whole sequence. . . . Although chronological age is used to give the span of the periods, this criteria is approximate and can be treated as a general guide only. The order of stages must be regarded as fixed, but there are ways in which variations can occur.<sup>95</sup>

It has been accepted by authorities in early childhood development such as Ames and Ilg,<sup>96</sup> Montessori,<sup>97</sup> and others, that growth proceeds through categories which can be labeled (1) self-awareness, (2) sensory-motor perceptual development, (3) language, communication, and cognition, and (4) social development. Each of these stages is sequential and each overlaps the other; therefore curricula for each child should be developed around input, integration, output, and feedback in the normal developmental categories. For the purposes of the current study, the investigator emphasized the intensification of experiences in stages (2) and (3) above, with the implication that stage (4) will subsequently be enhanced through success with the preceding two.

Toys and games occupy an integral place in the young child's development of sensory-motor, language, communication and cognitive skills, for they are, as Nimnicht defines toys: "a learning material . . . those things which stimulate children to discover relationships."<sup>98</sup> As an authority on the use of toys for cognitive development, he went on to say:

It is through toys that a child understands certain aspects of the physical world. A good toy is attractive and inviting, well constructed . . . and fun. It also stimulates a child's curiosity and imagination.<sup>99</sup>

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<sup>95</sup>P. G. Richmond, An Introduction to Piaget (New York: Basic Books, Inc., Publishers, 1971), pp. 63-64.

<sup>96</sup>Ames and Ilg, loc. cit.

<sup>97</sup>Elizabeth Hainstock, Teaching Montessori in the Home (New York: Random House, 1968), p. 8.

<sup>98</sup>Glen Nimnicht, O. McAfee, and J. Meier, The New Nursery School (New York: General Learning Corporation, 1969), p. 88.

<sup>99</sup>Ibid.

Zimmerman and Calovini<sup>100</sup> felt that toys should be selected on the basis of the child's developmental level and that toys for any developmental age should be challenging, for this challenge moves the child to the next higher functional level. They stated that children with special problems might need specific toys to provide practice at that particular developmental stage. Provision of practice with special toys and games for remediation of learning-skills deficits is one of the aspects of the current study.

#### Reports of Several Studies Using Toys and Games

Crawford and Crawford.<sup>101</sup> In an article which was especially pertinent to the investigator's study, the authors stated:

. . . next step in the use of toys and games in the education of children--especially valuable for the disadvantaged--is that of involving parents. Parent participation and involvement effect a growing sense of the relationship between family and school, helping to relieve the estrangement between these two major areas of children's lives.<sup>102</sup>

Levenstein,<sup>103</sup> in describing the Toy-Demonstrator intervention program, detailed how the toys were presented to the children twice weekly over a seven-month period. The Toy Demonstrator attempted to stimulate verbal interaction by modeling for the mother. As a result of the mother-child verbal interaction which developed, the subjects made significant growth in cognitive and verbal skills.

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<sup>100</sup>Lyndall Zimmerman and Gloria Calovini, "Toys as Learning Materials for Preschool Children, Exceptional Children, May, 1971, pp. 642-654.

<sup>101</sup>Randall Crawford and Ahleen Crawford, "Learning with Toys and Other Tangibles," Instructor, December, 1970, p. 28.

<sup>102</sup>Ibid.

<sup>103</sup>Levenstein, loc. cit.

Far West Laboratories.<sup>104</sup> A current project being conducted to study several aspects of parent-child interaction somewhat paralleled the present research with the exception that the program of Far West Laboratories was not specifically oriented toward remediation of preschool learning-skills deficits, and it was limited to children aged two to four years of age. The premise, however, was that interaction of parents and children through the use of toys and related learning episodes could both teach the child certain behaviors and help the parent provide an environment conducive to learning. The Far West Laboratories project does not attempt to measure the extent to which each different toy in the study substantiates the initial premise. Two reasons were extended to preclude empirical testing of the toys: (1) the impracticality of testing both the child and the parent before and after playing with each toy, and (2) the impossibility of separating the effects of simultaneous learning of concepts through other experiences.

Nimnicht<sup>105</sup> reported that the parents in the Toy-Lending project of Far West Laboratories evaluated the course in 1971 on an open-ended questionnaire. Results indicated that the parents felt more competent to help their children and had a better understanding of what to expect from their child after they had completed the parent-child interaction training program. The children's achievement was evaluated through comparisons of pre- and posttest scores of the Responsive Test. Results indicated that the children's gains in cognitive skills had probably been due to their involvement in the program.<sup>106</sup>

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<sup>104</sup>Glen Nimnicht, A Report on the Evaluation of the Parent/Child Toy-Lending Library Program (Berkeley, California: Far West Laboratories for Educational Research and Development, August, 1971).

<sup>105</sup>Ibid.

<sup>106</sup>Ibid.

Strom.<sup>107</sup> Toys served as the medium to encourage adult-child conversations in a project initiated by Strom. Before the encounter between players (adult and child), the adults were reminded that the child's imagination should be complimented by their own vocabulary and that the worst thing they might do would be to resort to baby talk. In the toy talk setting, the adults were expected to remain adults, for through the merging of their strengths with the child's strength (imagination) both parties could learn. The major finding of this experiment was that the toy talk could be a natural training tool for development of vocabulary and concepts.

Busse, et. al.<sup>108</sup> Another aspect of adult intervention in children's play was studied by these authors. When teachers encouraged various uses of the toys, changes in the children's behavior emerged. Teacher "encouragement" included (1) exhortation toward use of equipment, (2) physical assistance in the use, (3) descriptive instruction, (4) instruction about methods of use, and (5) questions leading to use of equipment. Findings showed that enrichment significantly altered the classroom environment in the experimental classes, with experimental boys showing more cooperative attitudes than control boys. The results of this study indicate, with reference to the present investigation, that adult encouragement and demonstration of how to play with toys is important for behavioral reasons as well as for cognitive growth.

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<sup>107</sup>Robert Strom, "Toy Talk: A Medium for Respect," Theory Into Practice, VIII (June, 1969), 186-191.

<sup>108</sup>Thomas Busse, Malcolm Ree, and Marilyn Gutride, "Environmentally Enriched Classrooms and the Play Behavior of Negro Preschool Children," Urban Education, V (July, 1970), 128-140.

## VI. SUMMARY

The literature reviewed for the current investigation provided documentation to substantiate the importance of a number of factors in the intellectual development of young children. Among these were early experience, genetic and environmental influence, development of verbalization and language skills as well as social-skills development. There was confirmation of various hypotheses that general intelligence of children from low-income families would rise significantly when the children were exposed to mother-child interaction. It was further shown that the younger the child at inception of training, the greater the gains in IQ and language skills.

Cultural differences of preschool children were discussed, with special attention given to studies on Mexican-American children. This emphasis in the review of the literature on cultural differences was based on the fact that about one-half of the children in the current research project were of Mexican-American background. The need for greater understanding on the part of school personnel of the ethnic backgrounds of their students was cited. In addition, several factors were isolated which appeared to be important in early childhood. These factors included orderliness, regular schedule, positive reinforcement, adequate language models, and educational television.

Important aspects in the young child's developmental progress included sequential learning and perception. These areas were discussed and reviewed in the literature, and a portion of the reviews centered about diagnostic instruments for measuring these factors in preschool children. Some scales used as early as kindergarten years proved successful for

predicting future learning and behavior characteristics. When the screens provided profiles of strengths and weaknesses, they increased their usefulness to the classroom teacher for providing specific assistance in areas of deficiencies.

Reviews of outstanding recent programs and projects for early childhood education provided some aspects in common which appeared to be vital to the success of the undertakings. These six points appeared in the majority of the evaluations: (1) early intervention, (2) individual prescriptions, (3) remediation of perceptual deficiencies, (4) quality and concentration of special help, (5) followup procedures and long-term evaluations, and (6) staff development.

One major problem uncovered by most personnel seeking to assist young children in developmental learning programs was that parents were not always adequately prepared to enhance the school learning at home. In some cases, their well-meaning attempts led to rejection of the task by the children. Vital to the involvement of parents was specific instruction for them in a variety of areas. Some researchers emphasized behavioral control methods, others encouraged mother-child interaction for cognitive development. Many stressed the verbal interaction through utilization of toys and games at home.

Because of the importance of toys and games to one portion of the current investigation, Section V of this chapter reviewed some of the more pertinent contributions in the recent research on toys and games. It seemed that parents must be instructed in how to teach children with toys, and that the toys should be at the child's developmental level in order to maintain challenge to move to a higher level. Practice with toys for remediation of learning-skills deficits was encouraged, and verbal

interaction between mother and child, or adult and child, aided in cognitive growth of the children. Adult encouragement of play behaviors in children was found to be important in developing cooperative attitudes during play.

The implications for the present study are that parents are valuable allies in the school's programs for early childhood education, that when properly instructed, these parents can then instruct their children towards maximum development. In addition, the use of toys or games to encourage parental interaction with their children can be beneficial for growth in verbal, behavioral, cognitive, and motor skills.



## CHAPTER III

### DESCRIPTION OF THE PROCEDURE AND RESEARCH DESIGN FOR THE STUDY

The procedures used in collecting the data and the research design for this study are presented in this chapter in such a manner that they could be replicated by another investigator who might wish to do so. Each of the hypotheses related to this study is also presented in its null form.

#### I. IDENTIFICATION OF THE POPULATION

##### Selection of the Sample

Kings Canyon Unified School District. Reedley is the administrative center of this district which covers 545 square miles as a result of unification in 1965. It is located in the eastern portion of Fresno County, California, and its fifteen elementary and one high school serve approximately 5600 students from the valley floor to the Indian settlement of Squaw Valley, about one hour away by school bus. The elementary school children encompass all socio-economic classes with the majority falling into the lower-middle class. About one-sixth of all the families are in some way supported by agricultural industries. These industries include the lowest-to-highest incomes in the area, ranging from hourly-wage field workers to wealthy ranchers and packers. Reedley has a population of approximately 9,000 persons whose dominant ethnic origin is Northern European. There is an estimated Mexican-American population of 43 percent with a smaller percentage of Japanese and Korean.<sup>1</sup> (See Appendix A for

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<sup>1</sup>Reedley District Chamber of Commerce, October, 1972.

racial and ethnic statistics of the Kings Canyon Unified School District.)

Target Population. Kindergarten children between the chronological ages of 4.9 and 5.9 with readiness ages six to eighteen months below their chronological ages as measured by the ABC Inventory comprised the target population for this study.

Experimentally Accessible Population. Kindergarten children of the subject school district who scored six to eighteen months below their chronological age on the ABC Inventory became the experimentally accessible population for this study.

Sample. Seventy-two of the experimentally accessible population were randomly chosen as subjects for the current study.

#### Sampling Method

The following method was used to assign schools to one of the three treatment levels, and to select subjects for the study:

1. Three boxes had been randomly assigned the colors red, white, or blue, and randomly labeled "E<sub>1</sub>", "E<sub>2</sub>", and "C" by drawing a colored poker chip from a box containing only one red, one white, and one blue chip, at the same time a label was drawn from another box.
2. The names of the six schools in the district which had kindergarten classes were placed in a box; two each poker chips of red, white, and blue were placed in another container. When a name of a school was drawn, a poker chip was simultaneously taken from the box, thus randomly assigning a school to one of the three treatment levels.
3. Within each of the six schools, only those kindergarten children with readiness ages between six and eighteen months below their chronological age as measured on the ABC Inventory were eligible for the pool from which the subjects were randomly selected. The investigator wanted to work with those children diagnosed as having deficient readiness skills, and it was felt that children showing readiness-skills deficits of less than six months based on their chronological age might not have identifiable

problems. Also, because the study was not designed for the extremely deficient child, any child exhibiting readiness-skills deficits greater than eighteen months on the ABC Inventory was excluded from the study.

4. From the pool of children obtained as indicated in number 3 above, twelve names were randomly chosen for each school and thus became the subjects for the group to which their school had been assigned. In this manner, with two schools in each of the three treatment levels, a total of 24 children was included in  $E_1$ , 24 in  $E_2$ , and 24 in C.
5. Because the nature of the investigation required the voluntary attendance at parent-training sessions of the mothers of some of the subjects, four alternate names were drawn at each school to be used as substitute subjects in case some mothers did not join the original groups. The same criteria applied to the four alternate subjects at each school as were used to select the sample.

## II. EXPERIMENTAL DESIGN

### Design of the Experiment

The six schools in which the 72 kindergarten children were enrolled were randomly assigned to one of three treatment groups. The experimental design was similar in form to the modified Solomon pre-post control group design.<sup>2</sup> In this design, only one-half of the pupils within each treatment group are pretested. This procedure allows a control for the effects and advisability of pretesting procedures. According to Campbell, the design controls and measures both the main and interaction effects of testing, as well as controlling for history, maturation, regression, selection, etc.<sup>3</sup> A graphic portrayal of the design can be found in Figure 1. This design was chosen to control for possible pretest

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<sup>2</sup>D. T. Campbell and J. C. Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally & Co., 1963), pp. 24-25.

<sup>3</sup>D. T. Campbell, "Factors Relevant to the Validity of Experimentals in Social Settings," Psychological Bulletin, LIV (July, 1957), 303-304.

effects since the Brenner and Peabody pretests were also used as posttest measures. The analyses of the posttest scores were used to test the hypotheses which dealt with comparative academic achievement. The design employed in this study differed from the Solomon Pre-Post Control Group design in that the schools, rather than the pupils, were randomly assigned to the treatment groups. This practical restriction, however, does not weaken the design except in the area of not providing a control for a possible selection bias. This potential threat to internal validity was partially controlled statistically by the use of the analysis of covariance procedures to equate the groups. In addition, the pretest means for the groups were examined along with the characteristics of the schools and communities involved.

The design was chosen to maximize both internal and external validity. The randomization (both in schools and in children participating) provided the necessary internal controls for history, maturation, testing, regression and experimental mortality.<sup>4</sup> Because two separate experimental treatments were involved in the study, the design was altered from the Solomon Four-Group by the addition of two groups.

The kindergarten children were grouped as follows as a result of the random selection:

Group A. This group consisted of twelve students and was one of the control groups. Group A was given pretests in order to determine each child's scores at the beginning of this study. No treatment was given to the mothers of the children in this group. After four months in kindergarten, these children were posttested.

Group B. This group consisted of twelve students and was one of the control groups. Group B was not pretested and no

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<sup>4</sup>Campbell and Stanley, loc. cit.

treatment was given to the students' mothers. After four months in kindergarten, this group was given the posttests.

Group C. This group consisted of twelve students and was one of the treatment groups. Group C was given pretests at the start of this study. The mothers of Group C children participated in ten weekly sessions of Experimental Group 1 -- Study-Discussion-Games. After four months in kindergarten, this group was posttested on the two measures.

Group D. This group consisted of twelve students and was one of the treatment groups. Group D was not pretested, but the mothers of these children participated in ten weekly sessions of Experimental Group 1 -- Study-Discussion-Games. After four months in kindergarten, these children were posttested.

Group E. This group consisted of twelve students and was one of the treatment groups. Group E was pretested at the beginning of this study. The mothers of these children participated in ten weekly sessions of Experimental Group 2 -- Study-Discussion. The children were posttested on both measures at the conclusion of four months in kindergarten.

Group F. This group consisted of twelve students and was one of the treatment groups. Group F was not pretested. The mothers of these children attended ten weekly sessions of Experimental Group 2 -- Study-Discussion. After four months in kindergarten, the children were posttested on both measures.

<u>Group</u>		<u>Pretest</u>	<u>Treatment</u>	<u>Posttest</u>
A	R	$O_1$		$O_2$
B	R			$O_2$
C	R	$O_1$	$E_1$	$O_2$
D	R		$E_1$	$O_2$
E	R	$O_1$	$E_2$	$O_2$
F	R		$E_2$	$O_2$

Figure 1. Solomon Pre-Post Control Group Design

R = Random Assignment of School to Treatment

$O_1$  = Pretest Scores

$O_2$  = Posttest Scores

$E_1$  = Experimental Variable (Study-Discussion-Games)

$E_2$  = Experimental Variable (Study-Discussion)

### The Comparison Study

The study was a comparison of two approaches to training for mothers of kindergarten children diagnosed as deficient in readiness skills, and both of these approaches were compared to a group whose mothers had received no training. Both the Study-Discussion-Games method ( $E_1$ ) and the Study-Discussion method ( $E_2$ ) were structured to help parents deal with various aspects of child rearing. In addition,  $E_1$  mothers were taught techniques using a new game or toy each of the ten weeks in the study.

### Instructors Involved in the Study

In any study in which behavioral and/or intellectual changes are measured, the question immediately arises as to the possible effects of differences in instructor behavior upon the research findings. This potential variable was accounted for in the following manner: all parent-training sessions were co-taught by the writer and a community aide. The community aide had been employed by the subject school district for her competencies in conducting parent meetings, her ability to communicate with the Mexican-American population, and her high recommendations for professional and ethical conduct in previous employment with other school districts. The writer instructed the aide weekly prior to each parent-training session, and during the meetings both instructors had equal responsibility for the lesson and group discussion.

### Pretesting

Immediately following the selection by random sampling, the thirty-six children in schools A, C, and E were pretested on two instruments: the Peabody Picture Vocabulary Test and the Anton Brenner Developmental Gestalt Test of School Readiness. Both the Peabody and the Brenner were

administered by the investigator and the staff of the Prescriptive Learning Center, with the assistance of bilingual aides, to the children in the three groups. All pretesting was completed prior to the fourth week of September, 1973. Uniformity of testing conditions and examiners was provided for by conducting the pretests during one week at the children's school sites, with a staff accustomed to working with young children in diagnostic situations.

The Peabody Picture Vocabulary Test. This test is designed specifically to measure the student's hearing vocabulary. Words which are biased culturally, regionally, and racially are not included. Lyman, in the Sixth Mental Measurements Yearbook,<sup>5</sup> describes the test as an untimed individual test administered in fifteen minutes or less, consisting of a booklet with test plates. The examiner presents the stimulus word orally for each item and the subject responds by indicating the picture best illustrating the word. This test is simple to administer and score, and provides a Verbal IQ score. Alternate-form reliability coefficient, as calculated by age levels, ranges from .67 to .84. The instrument correlates for validity with the Stanford-Binet at .71.<sup>6</sup>

The Anton Brenner Developmental Gestalt Test of School Readiness. This test assesses school readiness of children and consists of five perceptual or conceptual differentiation tasks: number producing, number recognition, ten-dot gestalt, sentence gestalt, and draw-a-man tasks. The

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<sup>5</sup>Howard Lyman, The Sixth Mental Measurements Yearbook, Oscar Buros, ed. (Highland Park: The Gryphon Press, 1965).

<sup>6</sup>American Guidance Service, Inc., Aptitude and Achievement (Circle Pines, Minnesota: American Guidance Service, Inc.), (n.d.).

Brenner is almost culture free and may be used with non-English speaking children. It is individually administered, paced, and takes 3 to 10 minutes. No special training is required to administer the test. On a test-retest for reliability, correlations ranged from .68 to .76 with significance at the .01 level of confidence.<sup>7</sup>

#### Posttesting

Posttesting was conducted after four months in kindergarten (during January, 1974) with the same measures as were administered in pretesting: the Peabody Picture Vocabulary Test and the Anton Brenner Developmental Gestalt Test of School Readiness. Children from all six groups were post-tested at their school sites by the same staff members who had conducted the pretesting.

### III. EXPERIMENTAL PROCEDURE

#### Parent Training Procedures

Following the screening and sampling to determine the groupings of the schools and subjects for this study, a bilingual community aide was trained by the investigator in the methods under experiment. The aides for the control-group schools were not trained in any method, but were encouraged to make whatever home contacts would have been conventional for their site assignment.

By the last week of September, 1973, the community aide, with the assistance of the home-school coordinator for the district, had completed

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<sup>7</sup>Anton Brenner, Manual for Anton Brenner Developmental Gestalt Test of School Readiness (Los Angeles: Western Psychological Services, 1964), p. 20.



all home visits to enroll mothers for the classes which began October 2nd. Personal contacts were made with the mothers of kindergarten children who would be the subjects of the four experimental groups in the study. In addition, letters of invitation (see Appendix C) were sent home with all kindergarten children in these four schools. The decision to invite all these mothers to parent training sessions was based on the fact that for purposes of public relations within the school district, opportunity should be given for enrollment if they desired. The fact that some mothers whose children were not in the sample might attend meetings would not bias the study because only sampled children were pre- and/or posttested. In addition, kindergarten teachers and principals from the two control schools were advised that parent-training sessions would begin for their populations with the second semester of school, February, 1974.

The groups met as follows:

Groups C and D. Study-Discussion-Games. Meetings were held at the Prescriptive Learning Center from 7:00 to 10:00 p.m. for ten weeks as follows:

October 4, 11, 18, 25  
 November 1, 8, 15, 29  
 December 6, 13

Groups E and F. Study-Discussion. Meetings were held at the Prescriptive Learning Center from 7:00 to 10:00 p.m. for ten weeks as follows:

October 2, 9, 16, 23, 30  
 November 6, 13, 27  
 December 4, 11

The investigator held weekly instructional meetings with the community aide and co-taught the parent meetings with her. At the weekly instructional meeting the materials for study and discussion were examined, and the toys or games for the Study-Discussion-Games group were presented.

Procedures for Experimental Group 1--Study-Discussion-Games. An integral part of the meeting procedure was the introduction of a new toy or game each week which the mothers were instructed to use in a structured manner with their kindergarten children. Demonstrations were made for using the toys or games to help the child learn skills and concepts. In several instances, the mothers constructed the toys at the meeting from components prepared ahead of time. For example, the alphabet letters were cut from sandpaper and glued to tagboard squares during the course of one meeting. The mothers were asked to provide discarded materials from their homes: e.g. the egg cartons used for the button-counting game and the margarine tubs used to store the buttons. Printed instructions accompanied each toy or game. The use of the toys or games was cumulative, with those toys introduced in the first weeks continuing to be used throughout the experimental period. The child-rearing lessons were distributed and assigned for reading and discussion for the following week. (See Appendix D for an outline of the course content.)

Procedures for Experimental Group 2--Study-Discussion. Group  $E_2$  differed from  $E_1$  in that the lessons and assigned reading became the major focus for the group discussion rather than toys or games. The time schedule for both groups allowed for approximately a thirty-minute discussion and thirty-minute problem-solving session. This was followed by an hour's presentation of the lesson on child-rearing and the reading assignment from Dreikurs.<sup>8</sup> Role-playing and social hour occupied the last sixty minutes of the evening. Mothers were encouraged to present child-rearing

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<sup>8</sup>Rudolf Dreikurs, Children the Challenge (New York: Duell, Sloan and Pearce, 1967).

difficulties or concerns for group discussion. This first hour of each meeting was structured by the group leaders as an adaptation of Gordon's Parent Effectiveness Training<sup>9</sup> according to these six steps: (1) defining the problem, (2) generating possible solutions, (3) evaluating the various solutions, (4) deciding on a mutually acceptable solution, (5) implementing the solution, and (6) evaluating the solution.

Toys and Games in Experimental Group 1. In order to test the effectiveness of toys or games for remediation of readiness skills deficiencies, the following items were chosen with certain generally-accepted learning objectives in mind:

1. Mystery Mitt: A cloth mitt into which various objects of different shapes and textures are placed and which the child withdraws from the bag after identifying and describing by touch alone.

Objectives:

to develop the ability to identify and match objects through tactile integration

to develop the ability to recall prior visual experiences

to develop the ability to recognize by touch class identities and use them in establishing logical relationships

to develop recognition of basic geometric shapes by touch

to develop tactile and kinesthetic discrimination

to encourage language facility in the use of adjectives

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<sup>9</sup>Thomas Gordon, Parent Effectiveness Training (New York: Peter H. Wyden, Inc., 1970)..

2. Sound Cylinders: Metal film canisters into which an assortment of objects is placed, and which the child must identify by matching the sound of one shaken by his mother.

Objectives:

- to develop auditory perception and discrimination
- to promote auditory memory
- to develop ability to complete task assignment successfully

3. One Inch Colored Cubes: Six wooden blocks of each of nine colors: white, black, brown, red, orange, yellow, green, blue, and purple. Useful alone as well as with Mystery Mitt, Color Lotto, Colored Design Cards.

Objectives:

- to teach color names
- to aid in eye-hand coordination in games
- to develop fine motor control
- to promote color discrimination

4. Color Lotto: A masonite board with colored squares in red, orange, yellow, green, blue, purple, white, black, and brown. Foundation for a number of games which the child plays with colored cubes, number cards, or buttons.

Objectives:

- to promote learning color names and visual discrimination of colors
- to develop the ability to identify and match colors through visual modes
- to stimulate interest in number games
- to encourage visual memory development

5. Colored Design Cards: A set of design cards using colored blocks to reproduce the designs. Progressive difficulty.

Objectives:

- to develop eye-hand coordination
- to develop visual discrimination
- to encourage visual memory development
- to enhance spatial relationships
- to develop ability to complete task assignment successfully
- to develop color perception sense
- to provide training in left-right sequencing

6. Button Games: A variety of games for mother-child interaction. Utilizes egg carton for counting, sorting.

Objectives:

- to stimulate interest in numbers
- to enhance rapid, automatic counting
- to develop eye-hand coordination
- to develop motoric manipulative ability
- to promote left-right progression

7. Alphabet Cards: Cut from sandpaper and glued to four-inch poster board squares, these are used individually and in connection with several games.

Objectives:

- to teach alphabet identification through tactile and visual modes
- to develop visual and auditory memory
- to promote phonic skills for beginning reading

8. Alphabet Card Game: A set of alphabet cards, illustrated, in both upper and lower case. Two cards of each are included allowing for games to be played with a partner.

Objectives:

to teach alphabet identification through recreational activities

to teach distinction between upper and lower case alphabet

to provide beginning phonic understanding

#### IV. STATISTICAL PROCEDURES

Each of the hypotheses stated in Chapter I was restated in the null form and tested by analyses of variance or covariance. Two-tailed tests were applied in all cases, and the level of significance for rejecting the null hypotheses was set at .05.

The following hypotheses were tested by means of a three-way analysis of covariance:

H<sub>1</sub>: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion techniques do not show a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.

H<sub>2</sub>: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-games techniques do not have a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten than those children whose mothers participate in the study-discussion training sessions.

- H<sub>3</sub>: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-games techniques do not have a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.
- H<sub>4</sub>: The combined mean score on the Peabody Picture Vocabulary Test after four months in kindergarten is not higher for the kindergarten students whose mothers participate in parent-training sessions than for those children whose mothers do not participate.
- H<sub>5</sub>: There is no interaction between the treatment variable and the ethnicity of the pupil on readiness gains as measured by the Peabody Picture Vocabulary Test.
- H<sub>6</sub>: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion techniques do not have a higher mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.
- H<sub>7</sub>: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-games techniques do not have a higher mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten than those children whose mothers participate in the study-discussion training sessions.

- H<sub>8</sub>: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-games techniques do not have a higher mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.
- H<sub>9</sub>: The combined mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten is no higher for the kindergarten students whose mothers participate in parent-training sessions than for those children whose mothers do not participate.
- H<sub>10</sub>: There is no interaction between the treatment variable and the ethnicity of the pupil on readiness gains as measured by the Brenner Gestalt Test of School Readiness.

The data on this research investigation was analyzed by using the Burroughs' B6700 Computer facilities of the University of the Pacific.

## V. SUMMARY

In this chapter, the description of the study and procedures used have been described in these areas: (1) the identification of the population, (2) experimental design, (3) experimental procedures, and (4) statistical procedure.

The study was conducted in six schools of the Kings Canyon Unified School District, located in Fresno County, California. The selection of the six schools was based on the fact that these were the only schools in a district of fifteen elementary and one high school which had kindergarten classes. From the population of 360 kindergarten children, all those



scoring on the ABC Inventory between six and eighteen months below their chronological age level in readiness skills were pooled. From this pool of 112 children, seventy-two children were randomly selected for the investigation, twelve from each of the six schools.

The subjects in this study included 47 boys and 25 girls, randomly assigned by school to a modified Solomon pre-post control-group design. The design was modified by the investigator to include two experimental treatments: Study-Discussion-Games ( $E_1$ ) and Study-Discussion ( $E_2$ ).

Testing instruments used in this study included: ABC Inventory, the Peabody Picture Vocabulary Test, and the Anton Brenner Developmental Gestalt Test of School Readiness.

Ten hypotheses stated in the null form were presented for acceptance or rejection at the .05 level of significance. Analyses of variance and analyses of covariance were used to test the null hypotheses. Subjects' posttest scores on the two testing instruments were used as measures of the dependent variables.

Chapter four of this report will present an analysis of the statistical data from the experimental study. Brief interpretations follow each of the sets of data presented.

## CHAPTER IV

### PRESENTATION OF THE COLLECTED RESEARCH DATA AS REVEALED BY THE INVESTIGATION

#### I. INTRODUCTION

The purpose of this study was to compare the academic readiness gains of kindergarten students whose mothers had participated in parent-training groups during ten weeks of the school year following kindergarten entrance with those kindergarten students whose mothers had not received parent training.

##### Procedure of the Study

Seventy-two students were randomly selected and assigned to a modified Solomon (Six-group) Design. One of the two Experimental One groups, one of the two Control groups, and one of the two Experimental Two groups received pretesting; the remaining three groups did not receive pretesting. The mothers of the Experimental One group ( $E_1$ ) met for ten consecutive weeks, one evening per week, for a three-hour parent group designated Study-Discussion-Games. The mothers of the Experimental Group Two ( $E_2$ ) also met for ten consecutive weeks, one evening per week, for a three-hour parent group designated Study-Discussion. The Control Group (C) mothers did not meet for any parent-training sessions. All seventy-two children in the study were posttested following four months in kindergarten. The numbers involved in the testing and treatment groups are presented in Table 1.

Table 1  
Numbers Involved in the Testing  
and Treatment Groups

Groups	Treatments		
	Pretest	Experimental Variable	Posttest
Control (A)	12	12	12
Control (B)		12	12
E <sub>1</sub> (C)	12	12	12
E <sub>1</sub> (D)		12	12
E <sub>2</sub> (E)	12	12	12
E <sub>2</sub> (F)		12	12
Totals	36	72	72

In order that the effects of the experimental training program be adequately evaluated, two test instruments (the Peabody Picture Vocabulary Test and the Brenner Gestalt Test of School Readiness) were used in this research as measures of the dependent variables. An additional instrument, the ABC Inventory, was used to determine the population to be sampled. Each of these instruments was described in Chapter III, and the posttest scores on two, the Peabody and the Brenner, constituted an operational definition of a dependent variable. Descriptive statistics for each of these instruments, as well as the inferential tests of the null hypotheses, were computed. All data were analyzed through the Burroughs' B6700 Computer facilities of the University of the Pacific.

The investigator had intended to equate the groups statistically through the analysis of covariance procedures; however, the data for the Brenner Gestalt Test of School Readiness failed to meet the required assumption of homogeneity of regression coefficients. A two-way analysis of variance, therefore, was utilized on the posttest Brenner scores rather than the analysis of covariance. In addition, all children in the study were randomly selected within their schools which had been randomly assigned to one of the six groups. The experimentally accessible population within each school was those kindergarten children who scored six to eighteen months below their chronological age on the ABC Inventory. The descriptive statistics of the ABC data for the three treatment groups are shown in Table 2.

Table 2  
Mean Scores on the ABC Inventory  
When Classified by Group

Group	Mean Score	s.d.	n
C	50.8	9.91	24
E <sub>1</sub>	56.9	11.58	24
E <sub>2</sub>	53.3	13.63	24

An analysis of variance of these ABC data indicated that at the .05 level there was no significant difference between the three treatment group means at the outset of the study. A summary table of these results is presented in Table 3.

Table 3

Analysis of Variance of the ABC Inventory  
for the Three Treatment Groups

Source	SS	df	MS	F	Significance*
Between	451.44	2	225.72	1.62	NS
Within	9617.69	69	139.39		

\*An F value of 3.15 is required for significance at the .05 level.

### III. PRESENTATION OF THE FINDINGS

This chapter presents the set of null hypotheses for one dependent measure followed by a summary table of the analysis of variance or analysis of covariance indicating the degree of statistical significance that was revealed. A discussion of the acceptance or rejection of the null hypotheses concludes the discussion of the findings for each measure.

Peabody Picture Vocabulary Test. The findings for which the Peabody Picture Vocabulary Test posttest scores were utilized as measures of the dependent variable are presented in Table 4. Five null hypotheses were tested simultaneously in this design:

Hypothesis 1: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion techniques do not show a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.

Hypothesis 2: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-

Table 4

Analysis of Covariance of Posttest Scores from  
the Peabody Picture Vocabulary Test

Source	SS	df	MS	F	Significance*
Treatment	71.1	2	35.55	.61	NS
Ethnic	1020.3	1	1020.3	17.36	*
Treatment X Ethnic	266.1	2	133.05	2.26	NS
Error	3819.2	65	58.76		
Total	5176.7	70			

\*F of 3.15 required for significance at the .05 level.

games techniques do not have a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten than those children whose mothers participate in the study-discussion training sessions.

Hypothesis 3: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-games techniques do not have a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.

Hypothesis 4: The combined mean score on the Peabody Picture Vocabulary Test after four months in kindergarten is not higher for the kindergarten students whose mothers participate in parent-training sessions than for those whose mothers do not.

Hypothesis 5: There is no interaction between treatment variable and the ethnicity of the pupil on readiness gains as measured by the Peabody Picture Vocabulary Test.

Table 4 data indicated that the means for the  $E_1$ ,  $E_2$ , and C groups did not differ significantly. From an analysis of this data, the researcher concluded that the experimental methods produced no significant effect for the dependent variable, posttest scores on the Peabody Picture Vocabulary Test. Analysis of the data further indicates that there was no significant interaction effect on the dependent variable between the group treatments and the ethnic background of the children. Therefore, null hypotheses one through five relating to this measure of the dependent variable were accepted.

Brenner Gestalt Test of School Readiness. The findings in which the Brenner Gestalt Test of School Readiness mean posttest scores were the dependent variable are presented in Table 5. Five null hypotheses were tested simultaneously in this design:

Hypothesis 6: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion techniques do not have a higher mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.

Hypothesis 7: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-games techniques do not have a higher mean score on the Brenner Gestalt Test of School Readiness after four months

Table 5

Analysis of Variance of Posttest Scores from the  
Brenner Gestalt Test of School Readiness

Source	SS	df	MS	F	Significance*
Treatment	2303.8	2	1151.9	9.12	*
Ethnic	81.5	1	81.5	.65	NS
Treatment X Ethnic	360.1	2	180.05	1.43	NS
Error	8212.9	65	126.35		
Total	10958.4	70			

\*F of 3.15 required for significance at the .05 level.

in kindergarten than those children whose mothers participate in the study-discussion training sessions.

Hypothesis 8: Kindergarten students whose mothers participate in parent-training sessions which utilize study-discussion-games techniques do not have a higher mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten than those children whose mothers do not participate in any parent-training sessions.

Hypothesis 9: The combined mean score on the Brenner Gestalt Test of School Readiness after four months in kindergarten is no higher for the kindergarten students whose mothers participate in parent-training sessions than for those children whose mothers do not participate.



Hypothesis 10: There is no interaction between treatment variable and the ethnicity of the pupil on readiness gains as measured by the Brenner Gestalt Test of School Readiness.

From an analysis of the data presented in Table 5, the researcher found that the posttest means for the  $E_1$ ,  $E_2$ , and C groups differed significantly on the Brenner Gestalt Test of School Readiness. The Newman-Keuls multiple comparison procedures<sup>1</sup> were employed to ascertain which treatment mean differences were significant. The obtained  $q$  values, the studentized range statistics derived from the Newman-Keuls procedures, along with critical values for statistical significance are depicted in Table 6.

Table 6

Q Statistics on Ordered Pairs of Means  
for the Brenner Gestalt Test  
of School Readiness

	Control	Discussion $E_2$	Games $E_1$
Control	0	2.88 <sup>a</sup>	6.61 <sup>b</sup>
Discussion	2.88 <sup>a</sup>	0	3.73 <sup>a</sup>

<sup>a</sup>2.83 required for significance at .05

<sup>b</sup>3.40 required for significance at .05

<sup>1</sup>B. J. Winer, Statistical Principles in Experimental Design.  
(New York: McGraw-Hill Book Company, 1962), pp. 77-85.

The summary table for the analysis of variance statistical procedures presented in Table 5 indicates there was no significant interaction effect on the dependent variable between the group treatments and the ethnic background of the children. Null Hypothesis 10 with regard to the Brenner Gestalt Test of School Readiness is therefore retained: the interaction effect for treatment and ethnic background was not significant at the .05 level. There is no basis to conclude that the differences between the effects of  $E_1$ ,  $E_2$ , and C for Anglo students is different from their effects upon the Mexican-American students. That is, for both ethnic groups,  $E_1$  results in the highest achievement,  $E_2$  the next highest, and C the lowest.

The information derived from the data in Figure 2, which depicts the mean posttest scores by way of a histogram, reveals a substantial difference of 16.7 was obtained in means between  $E_1$  and the Control groups, with the Experimental group mean significantly higher. The probability of such a difference under the null is less than .01. The  $E_1$  and  $E_2$  difference was also significant:  $E_1$  mean was 9.5 points greater than  $E_2$  which was significant at the .05 level. The difference between  $E_2$  and the Control groups was 7.2 points, with the  $E_2$  making the greater mean scores. The probability of a difference this great was less than .05 under the null. Thus it would appear that parent education which employed study-discussion techniques was more effective on the Brenner means than no parent training at all, but somewhat less effective than parent training which included study-discussion-games techniques.

The four hypotheses relating to the Brenner Gestalt Test of School Readiness posttest mean scores could be rejected, because  $E_1$  exceeded  $E_2$ ,  $E_1$  exceeded C, and  $E_1$  and  $E_2$  combined means exceeded C.

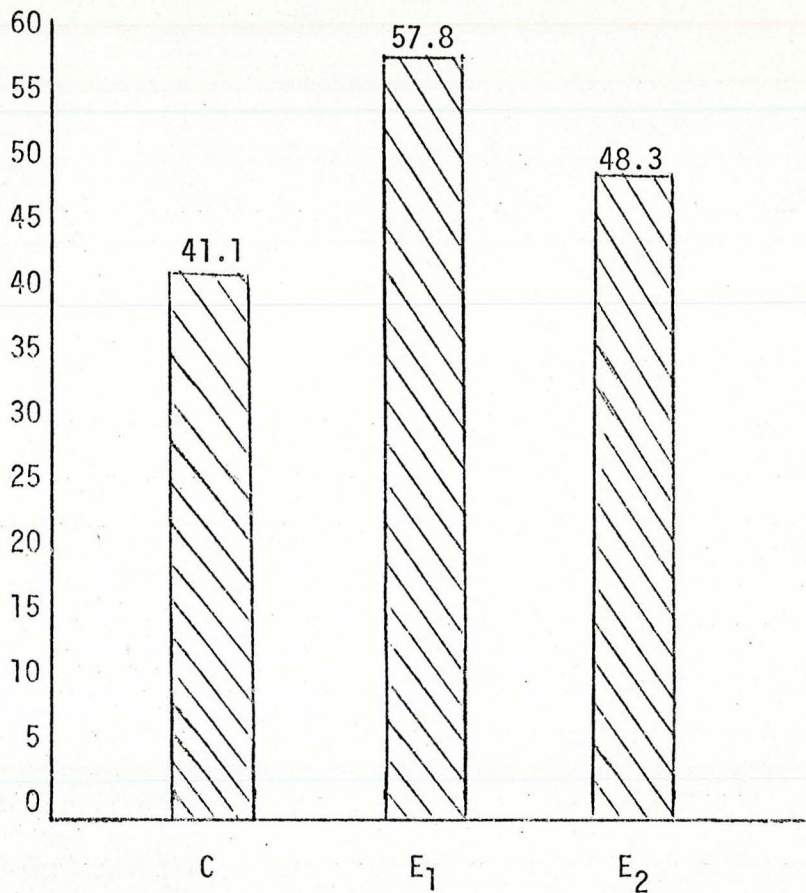


Figure 2. Mean Posttest Scores on the Brenner Gestalt Test of School Readiness for the Three Groups.

#### Findings with Reference to the Research Design

The modified Solomon design (see pages 70-72 in Chapter III of this study) was employed to control and measure both the main and interaction effects of pretesting, as well as controlling for history, maturation, regression, etc.<sup>2</sup> One each of the Control, Experimental One and Experimental Two groups were pretested on the two dependent variables, and the remaining three groups were not pretested. The random assignment of subjects made it possible to assume that the pretest scores for groups

<sup>2</sup>D. T. Campbell, "Factors Relevant to the Validity of Experimentals in Social Settings," Psychological Bulletin, LIV (July, 1957), pp. 303-304.

B, D, and F (see pages 71 and 72 of this study) would have been similar to the pretest scores attained by groups A, C, and E.

Peabody Picture Vocabulary Test. An analysis of covariance comparing pretested with non-pretested groups on the posttest scores of the Peabody provides the following data:

Table 7

Analysis of Covariance of the Posttest Scores  
on Peabody Picture Vocabulary Test with Regard  
to Pretested and NonPretested Subjects

Source	SS	df	MS	F	Significance*
Between	155.58	1	155.58	2.13	NS
Error	5021.13	69	72.77		
Total	5176.72	70			

\*F of 3.15 required for significance at the .05 level.

Brenner Gestalt Test of School Readiness. An analysis of covariance was also made of the posttest scores on the Brenner comparing the pretested with the non-pretested groups. Table 8 includes a summary of the data.

A study of Tables 7 and 8 shows that the means for the two groups (pretested and non-pretested) do not differ significantly for either dependent variable. No testing effect was demonstrated by these data.

Table 8

Analysis of Covariance of the Posttest Scores on the Brenner Gestalt Test of School Readiness With Regard to Pretested and NonPretested Subjects

Source	SS	df	MS	F	Significance*
Between	31.04	1	31.04	0.19	NS
Error	10927.32	69	158.36		
Total	10958.36	70			

\*F of 3.15 required for significance at the .05 level.

### III. SUMMARY

This chapter has presented the ten null hypotheses in the study which dealt with effects of treatment on the measures of the dependent variable. Results of statistical investigation are presented in this chapter: (1) Summary tables for analysis of variance and analysis of covariance procedures testing the ten null hypotheses, and (2) tables of mean scores when significant differences were found, and (3) summary tables of the analysis of covariance comparing the pretested and non-pretested groups.

The .05 level of significance was required for the rejection of the null hypotheses. The first five null hypotheses dealing with post-test scores on the Peabody Picture Vocabulary Test were accepted, for no significant difference for treatment methods was found.

Null hypotheses 6 through 9, dealing with posttest scores on the Brenner Gestalt Test of School Readiness, were rejected based on the significant differences produced by treatments.

Null Hypothesis 10, related to effectiveness on the Brenner mean scores of treatment methods for either of the two ethnic groups studied, was discussed and tables were presented which indicated no significant interaction effect. This hypothesis was therefore retained.

The effects of pretesting as opposed to no pretesting were discussed and illustrated. No significant differences were found on either measure of the dependent variable for these two categories of subjects.

Chapter five will summarize the findings, relate these findings to the literature of previous studies as detailed in Chapter two, and discuss the recommendations and conclusions based on the findings of the research.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### I. INTRODUCTION

This experimental study was conducted to compare the effects of no parent training, study-discussion parent training, and study-discussion-games parent training for mothers of kindergarten children who had been diagnosed as deficient in readiness skills. The comparison was based on the children's scores on two measures of the dependent variable (Peabody Picture Vocabulary Test and Brenner Gestalt Test of School Readiness) after four months in kindergarten. As described in Chapter III, analysis of covariance and analysis of variance procedures were used to analyze the data for significant differences on the measures of the dependent variable. The results of this statistical analysis were reported in Chapter IV.

In this chapter, the investigator has presented: (1) a summary of the study, (2) generalizations of the study, (3) conclusions relating to the hypotheses, (4) implications of the study, and (5) recommendations for further research.

#### II. SUMMARY OF THE STUDY

A brief summary of the study includes the following: (1) the setting and selection of participants, (2) the procedures, and (3) analysis of the data.

### The Setting and Selection of Participants

The setting for the study in parent education was in the Kings Canyon Unified School District, Fresno County, California. Six of the fifteen elementary schools in the district had a total of twelve kindergarten classes with an enrollment of 360 children between the ages of 4.9 and 5.9 which became the population for the study. Subjects in the kindergarten classes were further delimited to those children with readiness ages six to eighteen months below their chronological ages as measured by the ABC Inventory administered at school entrance. From this population, seventy-two subjects were randomly selected for the experiment, twelve from each of the six schools.

### The Procedure of the Study

The six schools were randomly assigned for the experiment: two for the Control (C), two for the Experimental Group One ( $E_1$ ), and two for the Experimental Group Two ( $E_2$ ). A modified form of the Solomon Four-Group Design was used, becoming a Six-Group Design with one school in each designation receiving pretesting and the other school in each designation receiving no pretesting. (The modified Solomon is fully described on pages 70 and 71 of this study.)

For ten weeks,  $E_1$  group mothers met for a three-hour period one evening a week (Thursday) beginning October 4, 1973, and  $E_2$  group mothers met for a three-hour period one evening a week (Tuesday) beginning October 2, 1973. Recessing for Thanksgiving week allowed both groups to conclude their ten sessions the 11th and 13th of December, 1973.

Each parent training session began with the co-leaders asking for questions or comments regarding the previous week's assigned reading.



Specific behavior problems of children were discussed, and problem-solving techniques were taught. Mothers were invited to share experiences, feelings were probed, and consequences were explored. Appendix D details the group training procedures more fully.

For  $E_1$  and  $E_2$  the parent-training procedures were identical in format and content. In addition,  $E_1$  mothers received a new toy or game each of the first nine weeks of attendance. Specific instructions were then given on how the games or toys were to be used at home for play with their kindergarten children. (See Appendix D which includes a description of the toys and games and the instructions to the mothers for their use.)

#### Analysis of the Data

The investigator used three instruments in the study: (1) the ABC Inventory, (2) the Peabody Picture Vocabulary Test, and (3) the Brenner Gestalt Test of School Readiness.

Following the posttesting, after the children had been in kindergarten for four months, the investigator performed several two-way analyses of variance and covariance of the measures of the dependent variable, the subjects' posttest scores on the latter two testing instruments. A .05 level of significance determined the acceptance or rejection of the null hypotheses.

### III. GENERALIZATIONS

The findings of this study, to be reviewed in the next section, "Conclusions Relating to the Hypotheses," should be viewed with the following parameters in mind:

1. Readers should generalize conclusions and implications drawn from this study only to those kindergarten children found to be between

six and eighteen months deficient in readiness skills upon kindergarten entrance as measured by the ABC Inventory.

2. Readers should generalize conclusions and implications drawn from this study to students and parents residing in rural agricultural communities having characteristics similar to those described in the Kings Canyon Unified School District of Fresno County, California.

3. Readers should be cognizant in their application of the conclusions and implications drawn from this study that one school psychologist with the assistance of a Mexican-American community aide as co-teacher was responsible for the investigation. In order that the study could be replicated in other settings, a detailed presentation of the procedures which were followed in parent training is included in Appendix D.

4. Readers should apply conclusions and implications drawn from this study only to parent-training groups using the specific reading assignments, toys and games selected by the investigator.

5. Readers should generalize conclusions and implications drawn from this study only to the academic achievement as measured by the Peabody Picture Vocabulary Test and the Brenner Gestalt Test of School Readiness.

#### IV. CONCLUSIONS RELATING TO THE HYPOTHESES

The primary objectives of this study were to investigate the effectiveness of two methods of parent training on the posttest scores of kindergarten children who had been diagnosed as being six to eighteen months deficient in readiness skills.

Hypotheses Relating to the  
Peabody Picture Vocabulary Test

The findings of this study did not support the hypotheses that children whose mothers participated in parent-training groups using either study-discussion or study-discussion-games method would have a higher mean score on the Peabody Picture Vocabulary Test after four months in kindergarten.

Hypotheses Relating to the Brenner  
Gestalt Test of School Readiness

The findings of this study supported the hypotheses that children whose mothers participated in parent-training groups using either study-discussion or study-discussion-games method would have a higher mean score on the Brenner Gestalt Test of School Readiness.

Hypotheses Relating to Interaction Between  
Method of Treatment and Ethnic Background

The findings of this study supported the hypothesis that the differences between the effects of treatment would be similar for both the Mexican-American and the Anglo children in the study.

## V. IMPLICATIONS OF THE STUDY

The investigator viewed with encouragement the results of the experiment. The significant differences in mean Brenner posttest scores for the kindergarten children whose mothers had participated in parent-training groups over those whose mothers had not participated indicate that the treatment methods can help certain children who have deficiencies in readiness skills. Although many of the subjects experienced positive gains, others did not gain to any degree. (See Appendix E for raw data from the study.)

The recognition of the importance of parent training for the improvement of readiness skills in the young child leads to the following suggestions:

1. Parent-training groups may be structured for specific outcomes for the children involved. Even a training period as short as ten weeks, three hours per week, may be effective in achieving the desired results. This study appears to verify the findings of Haworth and Auvinen<sup>1</sup> who used structured and sequential parent training methods in diametric opposition to the usual nursery procedures.
2. A positive increase in intellectual measurement may be shown when a parent is trained to instruct the child within the home in specific remediation techniques, as was also found by Santostefano and Stayton.<sup>2</sup>
3. Parent-training groups may be organized around behavioral problem-solving techniques without the addition of specific toys and games and still be effective in the development of readiness skills in young children.
4. Parent-training groups which include toys or games for home play between mother and child in addition to behavioral problem-solving techniques may be significantly effective in the development of readiness skills.

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<sup>1</sup>Mary Haworth and Corinne Auvinen, "Improving Perception: A Multi-sensory Approach," Teaching Exceptional Children, (Winter, 1969), pp. 33-41.

<sup>2</sup>Sebastiano Santosfefano and Samuel Stayton, "Training the Preschool Child in Focusing Attention: A Program for Parents," American Journal of Orthopsychiatry, XXXVII (1967), 732-743.

5. Parent training for this study did not significantly affect the children's scores on a test instrument measuring vocabulary development (Peabody Picture Vocabulary Test), but did appear to make significant differences in their performance on the Brenner Gestalt Test of School Readiness, an instrument measuring perceptual and conceptual differentiation tasks. This finding implies that the Peabody, if it is to be used for a program of this type, needs to be re-examined as to its degree of sensitivity.

6. Although this current investigation was concerned only with kindergarten children and not designed to follow them into their first grade at school, the finding of Tobiessen<sup>3</sup> that diagnostic instruments, when utilized early in the year of original kindergarten attendance, might prove successful as predictors of specific first-grade readiness is of interest to this investigator. Wyatt,<sup>4</sup> also, found that developmental competence in motor, social and academic skills might be enhanced through a systematic program of early identification and intervention.

A replication of this study using some of the recommendations which follow would be encouraged by the investigator.

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<sup>3</sup>Jon Tobiessen, Barbara Duckworth, and W. Glenn Conrad, "Relationships Between the Schenectady Kindergarten Rating Scales and First Grade Achievement and Adjustment," Psychology in the Schools, V (Jan. 1971), 29-36.

<sup>4</sup>Gertrud L. Wyatt, Early Identification of Children with Potential Learning Disabilities, Report of Title VI Project, 1968-69 (Washington, D.C.: U. S. Department of Health, Education and Welfare, 1970).

## VI. RECOMMENDATIONS FOR FURTHER STUDY

The findings at the conclusion of the study give evidence that one or both methods of parent training could be helpful in the development of school-readiness skills in young children. One should not conclude on the basis of this single study that parent training in specific methods is the perfect solution to the problem of deficient readiness skills; therefore, the investigator recommends that further study be made in the following areas:

1. Parent educators, counselors, social workers, and/or school psychologists should perform replications of the parent-training methods in an effort to substantiate the study's findings and to generalize them to wider school populations.
2. Parent-training groups of varying socio-economic and racial backgrounds should be formulated, and research conducted with their children to determine whether there is any significant difference in method; that is, whether the addition of toys or games does, indeed, consistently produce a divergence of scores as was shown in this study.
3. The same procedures should be replicated but using a different battery of instruments as measures of the dependent variable. Because the findings in this study revealed no significance for the Peabody, it would be well to substitute another instrument in an effort to determine whether vocabulary measures are unaffected by the group-training procedures.
4. Parent-training classes should be formed by school districts for parents of children not yet in school, who might otherwise not receive any parent training until their children entered formal school.

5. A study should be undertaken to find the age of child and the period of time required for parent training to provide the greatest longterm gains for the subjects. This would require several parallel studies involving numbers of groups with children of varying ages, and for varying lengths of time of parent training.

## VII. SUMMARY

The investigator has summarized the experimental study in parent-group training and reviewed its findings. Although stated limitations had to be observed, the significant findings of the study indicated that parent-training methods demonstrated effectiveness as a model in improving the mean posttest scores on the Brenner Gestalt Test of School Readiness of kindergarten children whose mothers had participated in the groups. In addition, those children whose mothers had participated in the Study-Discussion-Games groups showed significantly higher mean scores on the Brenner than those children whose mothers had attended only the Study-Discussion groups.

The investigator urged that other people concerned with parent education, such as counselors and social workers, conduct replications of the study. In this way, the findings could be further verified and generalized to wider populations, including those at the preschool level.

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APPENDIX A

## KINGS CANYON UNIFIED SCHOOL DISTRICT

## RACIAL AND ETHNIC STATISTICS

OCTOBER 1973

Reedley, California 93654

SCHOOL	INDIAN	NEGRO	ORIENTAL	SPANISH	WHITE	STUDENT ENROLLMENT
ALTA/SMITH MOUNTAIN	5 1.2%	---	34 8.4%	200 49.4%	166 41%	405 100%
CITRUS	2 .9%	---	4 1.8%	135 60.3%	83 37%	224 100%
DUNLAP	16 19%	1 1.2%	---	---	67 79.8%	84 100%
GENERAL GRANT	2 .5%	---	37 9.2%	187 46.6%	175 43.7%	401 100%
GREAT WESTERN/ NAVELENCIA	7 1.6%	2 .5%	3 .7%	235 54.3%	186 42.9%	433 100%
JEFFERSON	4 1.1%	---	18 4.8%	237 63.9%	112 30.2%	371 100%
KINGS CANYON H. S.	2 3.3%	---	---	20 33.3%	38 63.4%	60 100%
LINCOLN	---	---	20 4.5%	181 40.2%	249 55.3%	450 100%
MCCORD	3 .9%	---	15 4.3%	198 57.2%	130 37.6%	346 100%
MIRAMONTE	5 5.1%	---	2 2.1%	6 6.2%	84 86.6%	97 100%
REEDLEY HIGH	13 .8%	1 .1%	146 9.4%	620 40%	771 49.7%	1,551 100%
RIVERVIEW	---	---	15 13.5%	37 33.3%	59 53.2%	111 100%
SHERIDAN	1 .2%	---	12 2.9%	277 67.3%	122 29.6%	412 100%
WASHINGTON/ WINDSOR	---	---	32 7.9%	143 35.1%	232 57%	407 100%
TOTALS PERCENTAGE	60 7.1%	4 .1%	338 6.3%	2,476 46.3%	2,474 46.2%	5,352 100%

APPENDIX B

## KINGS CANYON UNIFIED SCHOOL DISTRICT

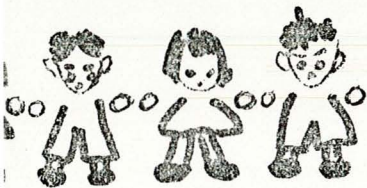
## RACIAL AND ETHNIC STATISTICS OF

## THE SCHOOLS IN THIS STUDY

October 1973

SCHOOL	INDIAN	NEGRO	ORIENTAL	SPANISH	WHITE	ENROLLMENT
A	7	2	3	235	186	433
B	1	--	12	277	122	412
C	--	--	20	181	249	450
D	4	--	18	237	112	371
E	--	--	32	143	232	407
F	5	--	34	200	166	405

APPENDIX C



SEPTEMBER 19th

DEAR KINDERGARTEN MOTHER:

YOU ARE INVITED TO ENROLL IN A SERIES OF PARENT-EDUCATION MEETINGS WHICH BEGIN THE FIRST WEEK OF OCTOBER. THESE WILL BE EVENING MEETINGS, ONCE A WEEK FOR TEN WEEKS.

IF YOU ARE INTERESTED, PLEASE CONTACT YOUR CHILD'S TEACHER ANYTIME THIS WEEK.

A VARIETY OF TOPICS, PLUS A CHANCE TO GET INVOLVED IN PROBLEM-SOLVING, WILL BE THE FOCUS FOR THESE TEN MEETINGS.

JOIN US! NO COST!

BABY-SITTING PROVIDED AT NO CHARGE.

APPENDIX D

COURSE OUTLINE



## Meeting I

Registration  
Orientation to parent education philosophy  
Introduction to the materials & charting of behaviors  
Reading assignment for Meeting II: (Dreikurs)  
    "Encouragement"  
    "Natural Consequences"  
Presentation of Toy Kit and first toy or game (E<sub>1</sub> only)  
Role-playing and discussion  
Social hour

## Meeting II

Discussion and problem-solving  
Lesson "The Most Important Years"  
Reading assignment for Meeting III (Dreikurs)  
    "Action Instead of Words"  
    "Take Time for Training"  
Presentation of second toy or game (E<sub>1</sub> only)  
Role-playing and discussion  
Social hour

## Meeting III

Discussion and problem-solving  
Lesson "Preparing Your Child Emotionally"  
Reading assignment for Meeting IV (Dreikurs)  
    "Firmness Without Domination"  
    "Efficiency of Withdrawal"  
Presentation of third toy or game (E<sub>1</sub> only)  
Role-playing and discussion  
Social hour

## Meeting IV

Discussion and problem-solving  
Lesson "Broadening Your Child's Experience Background"  
Reading assignment for Meeting V (Dreikurs)  
    "The Fallacy of First Impulses"  
    "Understanding the Child's Goal"  
Presentation of fourth toy or game (E<sub>1</sub> only)  
Role-playing and discussion  
Social hour

## Meeting V

Discussion and problem-solving  
Lesson "Selecting Toys and Games"  
Reading assignment for Meeting VI (Dreikurs)  
    "Withdrawing from Provocation, Not from the Child"  
    "Inducing Compliance and Respect"  
Presentation of fifth toy or game (E<sub>1</sub> only)

## Meeting VI

Discussion and problem-solving  
Lesson "What is Readiness?"  
Reading assignment for Meeting VII (Dreikurs)  
    "Stimulating Independence"  
    "Minimizing Mistakes"  
Presentation of sixth toy or game (E<sub>1</sub> only)  
Role-playing and discussion  
Social hour

## Meeting VII

Discussion and problem-solving  
Lesson "The Beginning of Mathematical Skills"  
Reading assignment for Meeting VIII (Dreikurs)  
    "The Danger of Pity"  
    "Non-Interference in Children's Fighting"  
Presentation of seventh toy or game (E<sub>1</sub> only)  
Role-playing and discussion  
Social hour

## Meeting VIII

Discussion and problem-solving  
Lesson "Learning to Listen"  
Reading assignment for Meeting IX (Dreikurs)  
    "Disregarding the Influence of Other Adults"  
    "Setting the Stage"  
Presentation of eighth toy or game (E<sub>1</sub> only)  
Role-playing and discussion  
Social hour

## Meeting IX

Discussion and problem-solving  
Lesson "After Your Child Starts School"  
Reading assignment for Meeting X (Dreikurs)  
    "Having Fun Together"  
    "Family Council"  
Presentation of ninth toy or game (E<sub>1</sub> only)  
Role-playing and discussion  
Social hour

## Meeting X

Discussion and problem-solving  
Discussion of previous week's assigned reading  
Informal evaluation and wind-up of sessions  
Discussion of further reading and available sources  
Social hour

MATERIALS FOR MEETING I

1. Eight printed lessons -- adapted from Head Start materials.
2. Articles from current journals.
3. Bibliography:

Dobson, James. Dare to Discipline. Wheaton, Illinois: Tyndale House Publishers, 1971.

Dodson, Fitzhugh. How to Parent. Los Angeles: Nash Publishing Company, 1970.

Dreikurs, Rudolf. Children: The Challenge. New York: Duell, Sloan, Pearce, 1967.

Gordon, Thomas. Parent Effectiveness Training. New York: Peter H. Wyden, Inc., 1970.

Patterson, Gerald R. and M. Elizabeth Gullion. Living With Children. Champaign, Illinois: Research Press Co., 1971.

## THREE METHODS OF PROBLEM SOLVING:

METHOD I -- The authoritarian method--uses of power for reward/punishment.

## WHAT WE KNOW ABOUT METHOD I:

1. Takes less time--at least to arrive at the solution.
2. Selling the solution (or getting the other person to accept it) may take a long time. Method I is a two-step process--decision plus selling.
3. If you are not successful selling it, you either have to resort to your power or give up in defeat and let the other person win.
4. Method I does not foster "acceptance of the decision" on the part of the other person. There is less chance for "self-motivated" implementation.
5. Produces resistance and resentment on the part of the other person. Resentment is from the other person to you.
6. May foster dependence and submissiveness--poor method for helping the other person become responsible.
7. Best solutions may not come from Method I--the other person's data and feelings are left out of the problem-solving.
8. You may not have any power to make the other person accept the solution or to enforce it (especially with adolescents).
9. Often makes you feel guilty (especially when power has to be used).
10. Puts tremendous burden on you to know what the "best" solutions are to problems.

METHOD II -- Where the kids "win," "Peace at any price!"

WHAT WE KNOW ABOUT METHOD II:

1. You may feel resentment--resentment is from you to the other person.
2. If you do not like other person's solution, you are in a tough spot--you either have to accept it or veto it.
3. Other person may feel your disapproval or resentment--other person feels guilty or rejected.
4. Solution may be inferior because your data and experience are left out of the problem-solving.
5. Individuals who are afraid of conflict (peace-at-any-price) often resort to Method II.
6. The other person may feel you do not really care enough.
7. The other person will lose respect for you if you let him win while you lose.

## METHOD III -- "No-Lose Situation"

## WHAT WE KNOW ABOUT METHOD III:

1. Takes more time to arrive at solution, but no "selling" is required--hence, real saving of time. Method III is a one-step process.
2. Solution more likely to be of high quality--both you and other person contribute data.

"Do you know best as compared with BOTH you and the other person?"

3. Fosters growth and development of the other person, yet does not "throw the other person into the water to learn on his own."
4. Motivation to implement the solution is very high.  
(Principle of participation.)
5. No resentment on part of either you or the other person.

## KEY POINTS:

1. Never introduce Method III by bringing in as a problem the person's not doing something that had previously been decided by you.  
Example: Child not carrying out the trash when parents had previously decided he was required to do so. In this case, it is far better to open up the whole question of chores, forgetting all previous Method I decisions.
2. Don't try to problem-solve a complex problem when you have only a brief period of time. Set up a time in the future convenient to you and the other person.
3. Don't introduce Method III by bringing up only those things that are problems to you. Open up the agenda for problems suggested by other person.
4. Introduce Method III by first explaining what the method is and how it is different from Method I and II.
5. Include in each problem-solving only those persons involved in the problem.
6. Try not to go into Method III problem-solving with a preconceived and fixed solution.
7. Don't rely on traditional or stereotyped solutions (or those of your neighbor). Your solutions may have to be unique ones because they will come out of a unique relationship.



SIX STEPS IN PROBLEM-SOLVING (From Thomas E. Gordon's Parent Effectiveness Training)

STEP I: DEFINING THE PROBLEM

This is a critical step in problem-solving. First, your statement of the problem should be stated in a way that does not communicate blame or judgment. Sending "I-messages" is the most effective way for stating a problem.

Second, after you have stated your feelings, try to verbalize the other person's side of the conflict. If you don't know his side, ask him to state it for himself.

Frequently, it will take awhile to get the problem or conflict defined accurately. The other person may need to take some time to get his own feelings off his chest. He may initially get angry or defensive. This is the time to use ACTIVE LISTENING. He must have a chance to get his feelings out or else he will not be ready for the remaining steps in the problem-solving process.

Don't be in a hurry to get to Step II. Be sure you understand the other's point of view, and be sure you state yours accurately and congruently. Don't undershoot your own feelings. If you do, the other person may not feel very motivated to enter into problem-solving.

Frequently, a problem will get redefined as it is discussed--the initial statement of the problem will turn out to be a superficial one. Or, the other person's statement of his feelings may cause you to see the problem in a new light.

Before moving on to Step II, be sure both of you accept the definition of the problem. Test this out--ask if he accepts that this is the problem you both are going to try to solve.

Last, make certain he understands clearly that you both are looking for a solution that will be acceptable to both--nobody is to lose.

## STEP II: GENERATING POSSIBLE SOLUTIONS

This is the creative part of problem-solving. It is frequently hard to come up with a good solution right away. Initial solutions are seldom adequate, but they may stimulate someone coming up with better ones.

Ask the other person first if he has any possible solutions--you'll have plenty of time to offer yours.

At all costs, avoid being evaluative and critical of his solutions. Use ACTIVE LISTENING. Treat his ideas with respect.

Try to get a number of possible solutions before evaluating or discussing any particular one. Discourage evaluation until a number of possible solutions are generated. Remember you are trying to arrive at the best solution, not just any solution.

If things bog down, state the problem again. Sometimes this will start the wheels turning.

Generally, it will become apparent when to move into Step III--when you have generated a number of reasonably feasible solutions, or when one appears to be far superior to the others.

STEP III: EVALUATING AND TESTING THE VARIOUS SOLUTIONS

This is the stage of problem-solving where you must be honest; and of course you want the other person to be honest, too. Both of you will want to do a lot of critical thinking. Are there flaws in any of the possible solutions? Any reason why a solution might not work? Will it be too hard to implement or carry out? Is it fair to both? USE ACTIVE LISTENING.

Sometimes in evaluating the solutions already generated, a brand new one will be thought of, better than any of the others. Or an earlier one will be improved upon by some suggested modification.

Failure to test solutions at this stage of the process will increase the chance of ending up with a poor solution, or one that will not be carried out earnestly.

STEP IV. DECIDING ON A MUTUALLY ACCEPTABLE SOLUTION

A mutual commitment to one solution must be made. Usually when all the facts get exposed, one clearly superior solution stands out.

Don't make the mistake of trying to persuade or push a solution on the other. If he doesn't freely choose a solution acceptable to him, chances are he will not carry it out.

When it appears you are close to a decision, state the solution to make certain you both understand what you are about to decide.

Frequently, writing down the solution will be necessary in order that later misunderstandings can be checked against the decision you both agreed upon.

## STEP V: IMPLEMENTING THE SOLUTION

It is, of course, one thing to arrive at a creative solution, another to carry it out. Immediately after a solution has been agreed upon, it is generally necessary to talk about implementation.

WHO is to do WHAT and by WHEN?

The most constructive attitude to have is one of complete trust that the other person will faithfully carry out his part of the decision, rather than raise the question of what is to be done if he doesn't. Consequently, it is not wise to talk about penalties for failure to implement a solution at this time.

However, if later the other person fails to carry out his end of the agreement, confront him with "I-messages." You also may be able to offer suggestions to help him remember to do his job.

Don't fall into the trap of reminding the other to carry out his tasks-- he will grow dependent upon your reminders rather than assume full responsibility for his own behavior.

Persons unaccustomed to Method III Problem-Solving in the past may at first be lax in carrying out the solution, especially if they have been used to Method II. Be prepared to do a lot of confronting until he gets used to the idea that you are not going to permit him to "get by."  
Don't delay too long before confronting him.

## STEP VI: EVALUATING THE SOLUTION

Not all solutions from Method III Problem-Solving turn out to be the best. Sometimes you or the other person will discover weaknesses in the solution, in which case the problem should be returned for more problem-solving.

Sometimes it is important to go to the other and ask how he feels about the solution.

Both of you should have an understanding that decisions are always open for revision, but that neither of you unilaterally can modify a decision. Modifications have to be mutually agreed upon, just as was the initial decision.

Sometimes those new to Method III will discover that they over-committed themselves--in their enthusiasm agreed to do too much or to do the impossible. Be sure to keep the door open for revision if this happens.

### REMEMBER:

Your best tools for effective problem-solving will always be:

ACTIVE LISTENING

CLEAR AND HONEST SENDING

RESPECT FOR THE NEEDS OF THE OTHER

TRUST

BEING OPEN TO NEW DATA

PERSISTENCE

FIRMNESS IN YOUR UNWILLINGNESS TO  
HAVE IT FAIL

REFUSAL TO REVERT TO METHOD I OR II

## How to Improve Your Child's Behavior

There's something new in the air and its name is Behavior Modification. It is a clearly defined, hardheaded and very specific method of modifying child behavior, of preventing behavior that you, the parent, do not like, and of substituting behaviors which you prefer.

Leading behavior modifiers may be surprised to find Gesell people with at least one foot in their camp. This is because the traditional behavior modification proposals tend to state some things which Gesell and his followers strongly oppose.

Thus the outstanding behavior modifier, Professor B. F. Skinner, author of the new and controversial book, Beyond Freedom and Dignity (Knopf), claims that all behavior can be controlled from the outside and that each person is a unique bundle of behaviors determined by the environment--only that and nothing more.

Though many of us would, up to a point, like to control our children's behavior, or at least some of their behavior, somehow most of us do not like the notion that all human behavior, including our own, can be controlled and manipulated. And certainly most of us do not want to go beyond freedom and dignity, even were such a thing possible.

Skinner's position is not new. Psychologists have long disputed whether you have to take your children as they are, or can make them into anything you wish. We at Gesell, like other more biologically oriented specialists, take the position that to understand any child's behavior, it is not enough to know about his environment. Rather, you need to know as much as you can about three separate factors: your child's individual personality, the stage of behavior he has reached

and, only third, what environment does to him. Skinner, on the other hand, puts forth a theory called operant conditioning, which holds that rewarding desired responses shapes behavior as a sculptor shapes a lump of clay.

We have long argued against this lump-of-clay theory. We do not believe that the young child's behavior is merely clay to be molded or shaped by you in any way you wish. You can smooth off the rough edges; you can give a push or pat or even a shove, but the shape of the final product--your child's basic personality--is, in our opinion, inherent in his genes and is potentially present at the time of birth.

However, though operant conditioning as expressed by Skinner seems extreme, an outgrowth of his theories, called Behavior Modification, offers practical possibilities that many may find helpful. Behavior modification is a technique that stresses the value of positive reinforcement. Simply stated, this theory says that people will work for a reward and will repeat rewarded behavior. To put this theory into practice requires that you ignore that part of your child's behavior which you are attempting to discourage; provide him with an alternate, desirable behavior; and then consistently reward the desired behavior.

For instance, let's say your six-year-old's mealtime behavior is driving everybody up the wall. You know, of course, that six-year-olds characteristically do have bad table manners. You know from past experience that time will take care of much; you don't have to do it all. But your child's behavior is so very bad, so upsetting to the whole family that you cannot wait for Time.

As with any other undesirable behavior which you might decide to improve by means of behavior modification, your first step is to observe



and analyze the situation for three or more days without trying to change it. If both mother and father will observe, so much the better. Hopefully, they will agree on the elements or details of table behavior that bother them most. They may observe that their child wiggles in his chair, kicks under the table, whines about what is being served, eats with his fingers, spills his food, doesn't finish what is on his plate, plays with his food, stirs his food with his fingers.

Next, you choose one of the elements of this undesirable behavior and begin with this. Do not try to tackle the entire load of bad table manners all at once. This does not mean that you should let everything else go. You merely treat these other bad behaviors in the same way you have always treated them. Admittedly your old way hasn't been very successful. But the new method will not work if you try it on more than one element of behavior at a time.

The behavior that you choose to work on must be clearly identifiable, and all adults present, hopefully including father, must agree on the specific behavior you are going to work on. An important consideration in choosing a target behavior is to select a behavior for which there is a clear and simple alternate behavior that you wish to encourage. For bad table manners, the alternative would be good table manners, but that is such a vague concept as to be useless. You need something simple and clearly definable.

For wiggling in chair, sitting still for a specific period of time would be a possibility, but might be too difficult. For kicking under the table, the nonbehavior of not hitting anyone with his kicking could be the desirable alternative to be rewarded. (But simpler than that might be to avoid the possibility of the behavior by changing the position of

his chair so that there is no one within range of his legs to kick.) For whining about what is served, the alternative behavior could be that he compliment some aspect of the food.

If he doesn't finish what is on his plate, you give small portions or perhaps allow him to select what he wants. The alternative behavior to not finishing what is on his plate is, obviously, eating all that is on his plate. Eating most of what is on his plate is too vague a concept and would not be useful. If he stirs food with his fingers, the alternative, of course, would be not stirring with his fingers. These are all possibilities.

But let's say you have decided to work on your child's finger feeding, which you want to discourage. The desired alternate behavior here is eating with a fork, which is what you want. So, you have chosen the behavior you wish to do away with and the behavior you wish to encourage. Now you must think of a suitable reward. (Some parents do not believe that any behavior should be rewarded. They would like to have their child behave because he wants to. That time may come, though even here there is a reward involved. The child who behaves well or who has good table manners just because he likes to behave well is actually rewarded by the constant approval which adults give to the well-mannered child.)

But, for the young child, some rather specific and immediate reward and something he wants and likes must be provided. The easiest reward available for eating with a fork is dessert. It might be worthwhile to provide desserts that the child especially likes while you are training him. (Of course, if your child doesn't care for dessert, you'll have to select a different reward...perhaps pennies?)

Now you have selected the behavior you want to modify, have determined an alternative behavior you wish to encourage, and have selected the reward. Next, all people in charge should agree on what it is you're going to do.

So you're all ready to go. Now comes the hard part. If your child now eats with his fork, you give the reward. (That's easy.) But if he continues to eat with his fingers, you ignore the finger feeding and, of course, he gets no reward. Any question from the child is to be answered with a positive statement of your rule: "When you eat with your fork, you get your dessert," or, "When you eat with your fork, you get a penny."

After you have formulated the rule and told him once, do not change the statement or elaborate or explain. If he really does not understand, you have made too complicated a rule. (Forget what you think he should be able to understand. Work with what he actually does understand.)

Now remember, you work only on the desired behavior. All other bad behavior, such as wiggling, kicking his chair or the table leg, knocking over his milk, grabbing for food, sliding off his chair, you handle as before, as you usually do. But if dessert is his reward for fork using, then it cannot be taken away, as a punishment, for some other kind of undesirable behavior.

It may help and encourage you to keep a chart whereby you count how much time is spent with fingers in his food or in conveying food to his mouth. You are aiming, of course, at cutting down both the number of times and the amount of time.

With any behavior you are trying to modify, you must expect for the first days that your child will test the rule and that his behavior will thus get worse. In times past, finger feeding has at least gotten him attention, even if scolding attention. It will at first be hard for him to realize that nobody is going to pay any attention to his finger feeding, so he will do it all the more, trying to make you do something about it.

These first few days are hardest for the parent who is starting any new technique--for you, the parent, need an immediate reward, too. It would be very encouraging for you if your child started to behave better right away. But he usually does not. So you must be content with a delayed reward and remember that once the shift from fingers to fork has finally been made, it is likely to continue forever.

One special caution: Don't use a technique such as this with too young a child. The task you require, that is the preferred alternate behavior that is to be rewarded, must be both physically and behaviorally possible for your child. If he is too young, or handicapped, or emotionally disturbed, or otherwise unready or unable, the whole effort will be impractical. This is where common sense--and knowledge of child behavior in general and of your own child in particular--comes in. You must determine that what you are asking is reasonable. Your child must be old enough, bright enough to cope with the behavior you are trying to encourage.

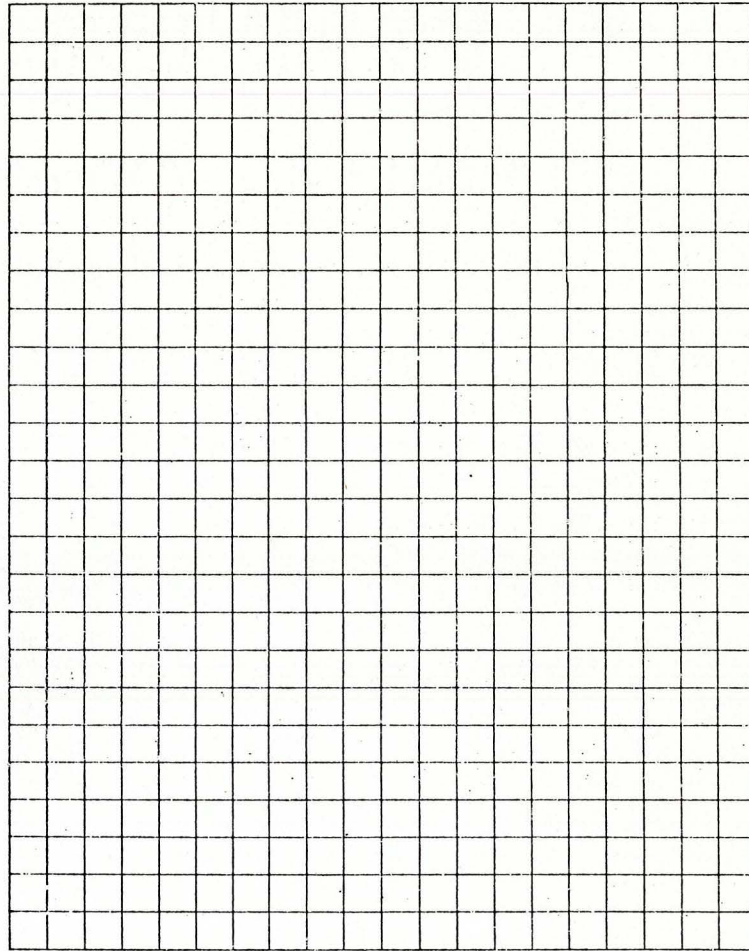
If he is, and if you have taken this reasonable precaution, Behavior Modification experts assure us, and we can share this assurance with you, chances are that with stamina and skill you can modify your child's behavior in the direction you want. But feeding is just one tiny

example. Other, more serious and perhaps more important behaviors also will fall into line. Try it and see!

**BEHAVIOR GRAPH**

Daily Observations of \_\_\_\_\_'s \_\_\_\_\_  
 (name) (behavior)

Number of times counted



Days

DATE	POINTS	DATE	POINTS	DATE	POINTS

Encouragement -- (Summary of Dreikurs, Chapter 3, pp. 36-56)

The child needs encouragement as a plant needs water. At the present time children are exposed to a sequence of discouraging experiences. Deliberate encouragement is essential to counteract them. The child misbehaves only if he is discouraged and does not believe in his ability to succeed with useful means. Encouragement implies your faith in the child. It communicates to him your belief in his strength and ability, not in his "potentiality." Unless you have faith in him as he is, you cannot encourage him.

Natural Consequences -- (Summary of Dreikurs, Chapter 6, pp. 76-85)

Since you no longer have the power to control the child and to enforce your will directly, you can and must learn to utilize the situation which can exert the necessary pressure to stimulate proper motivation. The child understands reality and its demands, provided you do not protect him from unpleasant consequences when he disturbs order. Interfering with the consequences of a disturbed order deprives the child of corrective experiences and hinders his learning to respect reality and order. Only in moments of real danger is it necessary to save the child from the natural consequence of his disturbing behavior. However, these dangers are far less frequent than anxious parents assume. The techniques for the proper use of natural consequences are not easy to learn. It requires, first, understanding of the characteristic elements which distinguish consequences from punishment, second, considerable training to discover the wide range of possible consequences and their proper utilization. Anger, retaliatory intent, and punitive considerations turn the best possible natural consequence into punishment and thereby deprive it of its effectiveness in stimulating proper motivation.

## MYSTERY MITT

**Purpose:** To help the child learn to identify and match objects by touching them when they are inside the padded cloth mitt.

To encourage the child in the use of descriptors ("round," "hard," "square," "stretchy," etc.)

To develop the child's memory of what he has seen before and to locate a matching article by touch only.

**General Instructions:** The mother will gather an assortment of small articles from around the house and place them inside the drawstring bag which accompanies the mitt.

1. Once a day during this next week, ask your child if he wants to play the mystery game.
2. The child may make and change the rules of the game at any time--the mother follows his lead in this.
3. The game ends when the child loses interest in it.

**Specific Instructions:**

1. Show the child three articles from the drawstring bag.
2. Describe them in simple terms as they are placed inside the mystery mitt. (Example: "This is a rubber band--it is stretchy and breaks easily.")
3. Have the child reach into the mitt and describe the article; when mother guesses what it is, she takes a turn.
4. As language develops and child describes more difficult items, number of items may be increased.
5. To develop memory--show child 3, 4, or more articles before they are placed inside the mitt; have him tell you as many as he can remember without reaching his hand inside the mitt.
6. Variations on #5 game--have child tell you the order in which you placed the articles inside the mitt. (Example: "The toy car was first, the penny was second, and the thimble was third.")



MATERIALS FOR MEETING II

## Lesson One -- The Most Important Years

The early years of school are very important--these are the years when your child acquires his first attitudes toward school. If he starts off right, school is a happy place and learning is joyful. If a child feels comfortable with the teacher and with other children, he will be more interested in all his school experiences and his chances of success will be much better. If, on the other hand, he gets off to a bad start, he may have problems all the way through school.

You should do everything in your power to prepare your child so that he looks forward to the school experience. A child who comes to school eager to learn has a head start. Some of these things you may do naturally, but others you may need to think about, and plan for.

If a child is to be a good learner, he needs to be in good health. Most parents, of course, are aware of this, but they often overlook the need for a thorough physical examination before the start of school, particularly with regard to hearing and vision.

With preschool youngsters it is often difficult to know when a child has poor hearing or vision, but these problems are enlarged many times in a school setting. How can he follow instructions if he is never sure what the teacher has said? How can a child learn to read if the words on the page are a blur?

It is a good idea to prepare a child for what will take place at a health examination. Make sure he understands that anything the doctor does, he does to help the child stay well. If there is going to be a shot of some kind, tell him it will hurt for just a short while. You want to build trust with the child and it is better to tell him the truth, for if you tell him it won't hurt and it does, he may not believe you after that.

Another thing you should do is help the child learn to take more and more responsibility at home before he starts school. This would include learning to button and zip his clothes, putting on his coat, putting away his toys, hanging up his clothes. If you have been doing all these things for him, start now to give him the responsibility gradually.

How much experience has he had playing with other children? Perhaps he has only one or two friends--in school he will have many more. You don't want your child to feel lost and alone in school, and you should help him learn to develop warm relationships with as many children as possible. Having brothers and sisters helps, but this is not quite the same as being with children of his own age group. Some children may have attended nursery school, day care centers or the like. These are all important experiences in helping him develop the wider friendships needed for school.

If, however, your child has been only inside his own neighborhood, or inside his own back yard, you may want to take him to visit other children his age, or invite them to your home. It might be well to start with one new friend at a time, and see how he reacts. Keep in mind that gradual growth is the idea, and move just one step at a time beyond the familiar.

Because the teacher will be so important in your child's new life at school, you also should consider how he reacts to grownups. Here again, if his experiences have been limited, help him to branch out by meeting new, unfamiliar adults. Perhaps a friend of yours would be willing to take him on an outing to the park, or just come to visit. Make this gradual and easy for your child. You want it to be an enjoyable experience so he will want to do it again.

If a child has a nice, warm feeling about a number of adults, it will be much easier for him to develop the same kind of feeling for the teacher. If, however, the child has had no close relationships with adults other than his parents, he might be frightened at first by the school experience.

Learn what you can expect from the school and what the school expects from you. Remember, teachers are used to working with children of different abilities and interests. As a matter of fact, for many teachers, it is the differences in children which make them all delightful. It is true that teachers probably work best with children who are interested in new activities, and who can accept reasonable rules.

However, your child does not have to be perfect, and his teacher won't expect him to be. For your child's sake, it is better for him to be comfortable and natural than that he go to school feeling afraid.

Action Instead of Words -- (Summary of Dreikurs, Chapter 18, pp. 162-171)

Corrective measures consisting of "talk" have become almost entirely ineffective. Children no longer listen--they become "mother-deaf." This is a result of a variety of factors involved in the customary use of words to impress children. Most mothers talk if they do not know what to do. They feel that they should do something, but unable to find any effective means to correct the child, they just talk. And as the child does not listen, they keep on talking until their raised voices imply some impending action. Then the child may respond momentarily. Another reason for the utter ineffectiveness of most verbal corrections is to be found in the very function of words. Talking means communication. Therefore, it can only be effective if the addressed is willing to listen. This is never the case in a moment of conflict of clash of interests. Talking in such a situation, therefore, cannot possibly evoke favorable responses. In a conflict situation, words are not only useless, but they usually aggravate the opposite effect. All corrective verbal efforts are ill-advised. The conflict situation requires action and not words. Since most parents can, under these circumstances, only think of severely punitive actions which they do not really intend to use, they substitute punitive action in the moment of conflict which can consist of natural consequences, physical motion, or, if these are not possible, self removal from the scene.

Explanations are advised only if the child really did not know what is now explained to him. In most instances he knows it very well since he heard the same explanations many times before. If verbal instruction has to be given, it should be as short as possible. Never use ten sentences when you can say it in one, nor ten words for what you

can say in two or three. Talking should be restricted to friendly conversations and words should not be used as disciplinary means.

Take Time for Training -- (Summary of Dreikurs, Chapter 13, pp. 122-127)

The need to set aside a specific time for training a child in different performances is easily overlooked. Teaching the child essential skills or habits requires definite instruction and training. They cannot be acquired by incidental comments, threats, bribes, or punishment in the moment of need. A conforming and cooperative child may learn all the necessary rules by himself, by observation. But if the spontaneous process of learning does not take place, special instruction is necessary. How to eat, how to dress, how to cross the street, and similar performances should be taken up one at a time, in repeated routine, until each is learned. If a mother does not have time for such training, she will spend more time correcting the untrained child. When guests are present, or in public places, training is not possible. Then the child merely acts as he is accustomed to act. In such situations, quiet removal is the only practical solution.

## SOUND CYLINDERS

Twelve metal cans with tight lids--such as can be obtained from film developers.

Purpose: To help the child learn to identify and match sounds of various kinds.

To help the child's auditory memory and sequencing skills.

General Instructions; The mother will put six varying materials into two each of the canisters; one set of six will be coded with nail polish on the lid to identify it as "mother's set." The items in the canisters range from salt, through rice, sand, mashed potatoes (dry), pennies, thumb tacks, etc.

1. Once a day during this next week, ask your child if he wants to play the "sound-shaking" game.
2. The child may make and change the rules of the game at any time--the mother follows his lead in this.
3. The game ends when the child loses interest in it.

Specific instructions:

1. Show the child that he has a set which matches mother's in sounds.
2. Describe the sounds as they are produced by shaking the canisters. (Example: "This is a soft, quiet sound." "This sound is louder and it rattles.")
3. Pick up one of the cans, shake it briefly and tell the child, "Find one of your cans that makes the same sound as the one I just made." Then allow him to shake any can, and you match it.
4. Shake the cans in varying sequences--fast, slow, long gaps between, two rattling ones, then a soft one, etc. Have the child repeat the sequence.
5. Ask the child for ideas of articles to put in the cans for the next day's game. If he suggests something that you feel would not work, do not tell him "It won't work" but rather encourage him to experiment and tell you why it isn't suitable.

MATERIALS FOR MEETING III



## Lesson Two -- Prepare Your Child Emotionally

When your child starts school, he is starting a rich, new experience, but he is also going into the unknown. He is starting on the road to independence. But he is also leaving behind the comfortable world he has known.

There are many things you can do as a parent in the early months of his school experience to help your child build good feelings about himself, and prepare him to meet new experiences.

One way for you to find out how your child meets new experiences is to watch him to see how he acts while at home.

Some children reach out for new experiences quite happily. Others are bothered by anything that is different. Some children try to find out everything at once--others don't do anything new because they don't want to risk making a mistake, doing something wrong.

It is very important for you to accept your child as he is, and show respect for his own way of doing things and learning patterns. For example, if he wants to put a difficult new puzzle together by himself, stand by to give a helping hand if it is too hard. But don't do the job for him--just help him be successful by himself.

If, however, he is the type of child who won't try anything new and hard, give him help getting started, showing lots of encouragement. Show him you are willing to help him if he needs it, but gradually over a period of time, let him do it himself if you are sure he can.

All this is not as easy as it may sound--of course, it is quicker and easier if you just do it for him. Also, it is often hard to know when a child can really do something by himself or whether he needs your help. Your job is to keep your jobs for him in agreement

with his growing ability to do them. Don't expect too much, but don't ask for too little.

Be sure to listen to what other children are telling your child about school. Some youngsters like to scare little children with such things as "They won't let you do that in school," or, "If you act that way in school, they'll think you're a baby." Sometimes other children like to describe school as a hard, unhappy place where you only have to work all the time and someone is waiting to scold you if you make a mistake.

Try to keep other children from talking like this around your young child, and don't let them use school as some sort of threat for your little one. At the same time, you must be careful, too. You might find yourself saying, "You'll have to stop doing that, because you go to school and children who are big enough to go to school don't do things like that." These kinds of things we may say only make a young child uncertain about school.

If your child comes home some day and says he never wants to go to school again, don't be surprised. But don't make a big thing of it--you'll ask him why, of course, but maybe he won't even be able to explain. If this happens, it is a good idea to talk to his teacher to see if something happened to make him feel this way. The teacher might be as surprised as you are, but she will try to help you find out what happened.

The decision to go to school or not to go to school is for you as his parents to make. Don't discuss it in front of your child--just be very matter-of-fact about it and take him to school or see that he gets there. If you decide that staying home one day might be a good idea,

then do it. But do NOT entertain him all day. Let him discover that his friends are all at school and everyone else is busy and it's not interesting to stay at home.

Many parents feel both glad and sad when their child starts to school--this is a very natural feeling and should not upset you. But if you have prepared your child and yourself for going to school, it can be a wonderful experience for both of you.

Firmness Without Domination -- (Summary of Dreikurs, Chapter 7, pp. 86-90)

Your firmness will gain you the child's respect, while your domination will make him rebellious. Firmness indicates your action, your refusal to give in to the child's undue demands. Domination implies your concern with what he does and your efforts to impose your will on him. He has the right to decide what he intends to do, but you have no obligation to give in. The distinction between respect for the child and indulgence for his wishes is often as subtle and difficult as the distinction between firmness and imposition. The child has the right not to eat if he does not feel like eating, but you have no obligation to cook special food, nor the right to press him.

Efficiency of Withdrawal -- (Summary of Dreikurs, Chapter 16, pp. 145-154)

Withdrawing from the scene when the child demands undue attention or tries to involve you in a power contest, is a most effective training tactic. There is no fun losing one's temper if there is no audience, nor any satisfaction in being annoying, actively or passively, if nobody pays attention. Withdrawal is not surrender, but on the contrary, effective counteraction. You do not let the child "get by" with what he does wrong, you merely defeat his bid for attention or power over you.

## COLOR CUBES

Six each of nine basic colors in one-inch wooden cubes.

Purpose: To teach color names, to aid in eye-hand coordination during games.

## General Instructions:

1. Only once a day ask your child if he wants to play with the blocks; it is important to keep these put away when the play period with mother is finished.
2. The child may make and change the rules of the game at any time--the mother follows his lead in this and encourages any new ideas he may have.
3. Play with blocks is over whenever the child loses interest or mother must leave the game.

## Specific instructions:

1. Watch and respond to what your child does with the blocks. (Example: If he builds a tower, you say "You are building a tall tower with five red blocks," or "You are making a long railroad car with three green blocks." etc.)
2. If he sorts by color, you say "You have all the blue blocks in one pile and the black blocks in another pile," or "You are putting the yellow blocks next to the orange ones--do you see how much alike they are?"
3. Encourage the child to count the blocks, placing his finger on each as he counts aloud. Ask him to do any of the following: "Give me two green blocks and put one yellow one behind you," "Put a red block on top of a black block." etc. This trains him to listen to instructions. Correct him gently if he does it in the wrong order by repeating the request.
4. Colored blocks may be added to the mystery mitt game at this point, with the child drawing the blocks out of the mitt and telling you what color he has in his hand.

MATERIALS FOR MEETING IV

### Lesson Three -- Increasing Your Child's Experiences

The child's world begins to grow just as soon as he is born. Just how much it grows, and in which directions, depends on his parents. It depends on the experiences planned for him, the places he is taken, and the materials provided for his use.

Creating new interests and enlarging your child's experiences is one of the most wonderful parts of being parents. It is also the best possible way to prepare him for school.

Much planning is needed, and it means more than just letting him sit in front of the television set to keep him quiet. There is much to be learned from watching television, of course--it brings the world right into your home. But too much of this kind of learning lets the child just sit and be entertained, and your child really needs to be more active in his learning experiences.

One of the first things you will notice is that your child is curious--he often asks more questions than you think you can answer. But it is through these questions that your child learns. Answer him if you can. For example, if your family has a new kitten, get your child to pet the kitten and you pet it yourself. Then talk to him about the way the kitten's fur feels--so soft, warm, smooth. You can keep him interested by asking such questions as "Have you noticed the kitten's nose?" "Did you see that funny tail wiggle?" But only ask questions as long as your child is still interested. Remember, if you try to make a "lesson" out of it, he may lose interest.

Remember, too, that if you answer your child's questions with just a "yes" or "no" he really hasn't learned much. Try to answer so that you give him more knowledge than he had before. Maybe you can

even follow your answer with a question for him, such as "What do you think?" or "Why do you ask about it?"

If your child asks questions and you say "I don't have time," or "Wait until Daddy comes home," you will soon discover that your little child isn't interested in that answer any more, and maybe he will not ask many questions again. Also, when you answer a question, don't give him too much information. If you tell him more than he needs to know right then, he will get bored and not listen.

Every parent knows that when a child goes to school, he must spend a lot of time just listening. What we don't always know is that we must teach children to listen. (We will talk more about this in a later lesson.)

When you talk to your child, be sure he is paying attention. Don't make a practice of saying everything twice, otherwise he will learn to listen only the second time, or when you talk louder.

In the same way, when your child is talking, be sure you are paying attention to him. Don't make him say everything twice. He needs to know that what he says is important to other people as well as to himself.

Small children like to help around the house (even though some outgrow this.) While it may seem to be more of a bother than a help to you, it is important for them to know they have opportunities to help. Both girls and boys like to help with cooking. They particularly like cooking when it is active--like stirring, beating, scraping, or pounding. They also enjoy measuring, and like to talk about the color of the food.

It is just as important that both girls and boys learn to help their father. They can wash the car with daddy, help rake the leaves,



learn to handle simple tools. Of course, little children aren't much help, and whatever you ask them to do, you might have to do over again, but that isn't the important thing...What's important is that your child is learning more about the world he lives in, he is learning new words, and he is learning to take responsibility for small jobs. All of these will be very important when he is in school.

The Fallacy of First Impulses -- (Summary of Dreikurs, Chapter 21, pp. 181-186)

We are inclined to respond to a child's transgressions without much thought or consideration. Acting as we feel compelled, we do not correct the child's transgression schemes, but actually succumb to his provocation and satisfy his unconscious schemes. When we feel annoyed and feel we must remind and coax him, then he probably wanted our attention and service. When we feel provoked and want to show him that he can't do that to us, then he probably has succeeded in getting us involved in a power contest so that he can defeat us. When we feel deeply hurt, then he probably wanted to hurt us, and we obliged him with our reaction. When we feel inclined to throw up our hands in despair, then we merely react to his scheme of impressing us that there is nothing we can do about him and, therefore, we should give up and leave him alone. As long as our responses are based on our immediate impulses, we are more likely to fortify the child's mistaken attitudes than correct them.

Understanding the Child's Goal -- (Summary of Dreikurs, Chapter 4, pp. 57-67)

Without realizing when the child's disturbing behavior is merely a bid for attention and service, or part of a power contest, we are in no position to respond adequately. Recognition of the child's unconscious scheme may prevent parents from falling for the provocation. Withdrawal is still the best answer if no other approach to changing the child's intent seems available. Most dangerous is yielding to the child's conviction that he is bad or can't be liked. Retaliating for being hurt by the child pushes him deeper into the conviction that only by hurting others does he count, and falling for the child's conviction of being

deficient, stupid, and utterly inadequate, only increases his deficiency. Without recognizing the child's goals, no one can successfully counteract them.

## COLOR LOTTO

12-inch square masonite board with nine squares painted in the same colors as the color cubes.

Purpose: To develop the ability to match color by name and sight.

To stimulate interest in color and number games.

To encourage visual memory development.

## General Instructions:

1. Only once a day ask your child if he wants to play the color lotto board game.
2. Encourage the child to make any new rules or create a new game for the play period.
3. The game board is put away whenever the child loses interest in playing, or if mother must leave the game.

## Specific instructions:

1. Place the lotto board and one set of 9 colored blocks on a table or play space on the floor.
2. Show the child how the colored cubes match the colors of the 9-square board. Have him place the cubes on their matching square. As he matches, you say "Yes, you are matching the red block to the red square," "That one is blue and you did it correctly--it looks a little like the purple, doesn't it?" etc.
3. If he does not match correctly, give him a chance to see the difference, then if he doesn't change it, you say "These two are not the same color. Try again."
4. For another game using the board and cubes, put one each of the nine blocks into the mystery mitt; then, taking turns, mother and child draw a block at a time and place it on the correct square; the first person to make a row across, down, or diagonally, wins. This teaches visual memory, in that the child must remember which blocks he drew and placed on the game board.

MATERIALS FOR MEETING V

## Lesson Four -- Selecting Toys and Games

Children develop in many ways between birth and the start of school, and the toys and games you select for your child can make a tremendous difference in preparing him for the experiences he will have during his school years. You should provide toys which encourage him to develop and help him to learn and understand the world about him.

This raises a double question: What does the toy do for the child, and what will the child do with the toy? It does no good to buy the best educational toy on the market unless the child likes it and plays with it. So choose your child's playthings carefully. Remember, too, that safety is an important consideration. Watch out for rough edges, sharp points, small parts that could be swallowed or could hurt the child's eyes. Make sure that the paints used on toys is not poisonous, for it will surely find its way into the child's mouth. If toys are not used properly, even the safest toy can prove dangerous to small children.

All young children need and enjoy the experience with toys and play equipment that builds the large muscles. Any kind of climbing equipment will serve a good purpose--tricycles, wagons and wheelbarrows are other examples of toys that stimulate large muscle development and are greatly enjoyed by youngsters.

Toys that develop the small muscles are needed too. These would include wood blocks, water paints and large brushes, plastic buckets for water and sand. Simple put-together toys such as puzzles or peg sets, as well as blunt scissors, large crayons and pencils with pieces of paper are also good for small-muscle growth. The first puzzles should have just a few pieces so they can fit together easily.

As the child gets older, puzzles with many pieces become easier to put together.

During the child's early years it is wise to avoid small pieces of paper, very small pencils, and other playthings which require a high degree of coordination. It is usually better to let a child scribble all over a large piece of paper than to try to keep him "coloring inside the lines" of a colorbook.

Provide playthings that stimulate the child's curiosity, imagination, and creativity. Some of the best and cheapest things are materials such as sand, clay and paints. A small child can use these things well at nearly every stage of his development. Such simple things as small magnifying glasses and toy magnets are helpful, too.

Blocks are great, too, for stimulating the imagination. For best use, the blocks should be large enough so that the child can build pretend houses, cars, and airplanes. Wooden blocks of this size are expensive, but cardboard boxes are free at the store, and work just as well. With a cardboard box, a child can pretend he's in a house, cave, or whatever. And don't throw away the smaller boxes--with a little help from you, they can become service stations, doll houses and stores.

With materials found at home you can make other toys such as stick horses, bean bags, and various kinds of noise makers. Let your child help you make these things. He'll have as much fun helping you as he will in playing with these things later.

Young children like to play house, and this comes quite naturally to them. If you give them small play equipment, make sure it is simple but strong. For instance, the play irons that little girls love should have no cords or heating elements. The trucks and cars for little boys

should be the simple kind that can be pushed along, rather than the kind you wind up.

Your child should have a generous supply of toys that are helpful in building a good background for reading, writing, and other school skills. Keep in mind that books and magazines are available at the local library.

Most children enjoy a blackboard. You may be able to buy the special paint that will turn part of a piece of wood into a blackboard. Other games to build readiness for school include alphabet blocks, dominoes, peg boards, large beads and simple games which one or two children can play with a grownup. Whenever possible, join your child at play. Give him the help he needs to be successful at putting together a puzzle. Share with him the joy he finds in making a bowl from clay or building an airport from blocks. With your encouragement, he will try longer and more complicated projects.

This does not mean you should always let him interrupt you when you are busy. But you should try to plan some time each day when you can help your child without taking time away from your household responsibilities.



Withdrawing from Provocation, Not from the Child -- (Summary of Dreikurs, Chapter 17, pp. 155-161)

Not falling for the child's provocations is an important counter-measure with strong corrective effects. But silence when attention is sought and physical withdrawal in a power contest does not mean ignoring or neglecting the child, only his provocations. While one should not talk in the moment of conflict, friendly conversation and communication is always essential, the more so if one stops paying attention to the child's demands for undue attention. Withdrawal from disturbing behavior requires deliberate efforts to arrange pleasant contacts. It is essential to have fun and to play together. The less attention the child gets when he disturbs, the more he needs while he is cooperative.

Inducing Compliance and Respect -- (Summary of Dreikurs, Chapter 7, 8, 9, 10, pp. 86-102)

A child who does not listen to you is considered disobedient. Putting pressure on him to mind only intensifies his rebellion and brings more defeat. A disobedient child is usually tyrannical. While refusing to do what he is told, he succeeds in making others do for him what he wants. You can teach him respect and impress him with the futility of trying to make him do what you want, but at the same time by carefully avoiding giving in to his persistent pressure. Then he will listen to you and learn to accept "no" as an answer. However, this can only be done in action, without words. If your refusal to submit is accomplished with an exchange of words, the power struggle still continues, and the child does not learn to respect your decision.

## COLORED DESIGN CARDS

A commercial set of 32 colored design cards using the inch cubes to form designs on a flat or vertical plane. Progressive in difficulty.

Purpose: To develop the child's visual discrimination of pattern and color.

To encourage memory development of patterns he sees.

To provide left-to-right training and eye-hand coordination.

## General Instructions:

1. Only once a day ask your child if he wants to play the colored cards game.
2. Start him with the easiest cards so he may feel successful and not experience frustration right in the beginning.
3. The set of cards and blocks is put away whenever he loses interest or if mother is interrupted and must leave the game.

## Specific Instructions:

Take out the box of 54 colored cubes and the first two design cards. Let the child work as long as he wishes, move on to more difficult designs requiring more colors and greater number of blocks.

After he has achieved this quite successfully, and it may take as long as two weeks to get through all designs, use these to build memory--that is, show him a card, remove it and ask him to make the design without looking. If he gets frustrated, show him the card. Remember, the practice is important, not how quickly he masters the task.

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MATERIALS FOR MEETING VI

## Lesson Five -- What is Readiness?

As a parent, you naturally want to do all you can to help your child do well in school. If you are giving your child the experiences that will broaden his world and increase his curiosity, then you are already doing much to prepare him for school activities such as reading.

There are, however, three specific things you can do:

1. Help him increase the time he is able to spend in one activity.
2. Help him develop an interest in books.
3. Help him build his knowledge of words.

The time that a child will spend with a single toy or give to a single activity is very short when he is only two or three years old--he probably couldn't spend more than a few minutes at a time on any one thing.

However, as he grows older, he should be able to increase the time span. This is an important factor in what teachers call "reading readiness." In learning to read, a child must be able to sit quietly and pay attention to the teacher, give careful attention to what is in the book, and watch when the teacher writes on the blackboard.

You can use everyday activities around the house to help your child increase his attention span. First, it is important to learn which things are especially interesting to your child. Most children begin to show their special interests quite early, so if you give your child a variety of experiences, you should have no trouble discovering what he particularly likes.

Help these interests grow--for instance, if he is fond of animals, take him to visit a farm or to see the neighbor's kitten or puppy, or to a pet store. Get him some books, maybe from the library, with lots of animal pictures. Get some toy animals. Maybe you can help him build a toy barn from a cardboard box.

Whatever his special interests are, encourage him to let those interests grow. But don't turn these experiences into lessons or chores-- and don't let him become bored. Encourage the interest, don't smother it!

The use of books and magazines provides an important way to increase your child's span of attention. Learning to enjoy books begins as early as the first time you show him a picture on a printed page, or say a nursery rhyme with him.

Most children like being read to even before they can talk very much. If you read to your child or take him to the library's story hour, you are teaching him that reading is a delightful experience. This is a vital step in developing his interest in reading. It is a good idea to build the "library habit" early in childhood.

When your child is able to handle books, you can check them out of the library or buy him some of the inexpensive books from the supermarket. Excellent books for children are often found at rummage sales or shops.

Because a child likes to hear a story over and over, you may become tired of the book or story long before he does. But do more than just read the stories to him. Talk to him about the characters, explain words he might not understand, and see if he can tell you the story just by looking at the pictures.

The written word is all around us--on television, on signs, in newspapers and books, on your child's toys, on cereal boxes. Usually the first letters a child is interested in are those in his own name, and he will soon recognize these letters in other places too. ABC picture books, toy blocks and plastic letters are interesting and important for your young child.

Another important factor in building readiness for schoolwork is vocabulary development. There are many ways you can provide your child with the experiences that will increase his ability with words and language. For instance, his trips to the grocery store may give him an opportunity to learn such words as shelf, sack, cart, bag, carton, butcher, clerk, and the names of the different food items. But this will be true only if someone talks with him.

Wherever you go with your child, be awake to the chance to teach him new words. Encourage questions and answer them. Always encourage your child to talk with you. He will surely make mistakes, but don't make an issue of these mistakes--merely answer, using the correct words. Your child will gradually begin to use the proper words without having been made uncomfortable about the way he talks.

There is a great difference between encouraging your child and pushing him. You are pushing him when you show off to a neighbor how well he can do, or when you expect more from him than he is able to give. Encourage, but don't push! Remember, his success in little steps will lead to satisfaction for him in trying to take bigger steps. This is the way he learns.

Stimulating Independence -- (Summary of Dreikurs, Chapter 23, pp. 193-200)

A so-called "dependent" child who depends on others for help and assistance is always a demanding child. He usually uses his weakness to get undue service and attention. He can do many things for himself, but will not because of the service accorded him. Never do for a child what he can do for himself! Beware of your own doubt in his abilities which permits him to impress you with his assumed weakness. Children can do many more things, have many more abilities, intellectual and moral, than we accredit them with. All of us are inclined to underestimate our abilities, as well as children's. Children become irresponsible only if we fail to let them take on responsibility. They are parasites only to the extent to which we serve them unduly.

Minimize Mistakes -- (Summary of Dreikurs, Chapter 11, pp. 106-115)

We are culturally induced to overestimate the significance of mistakes and devote an inordinate amount of time in trying to prevent or to correct them. It is human to make mistakes and only few have dangerous consequences. Emphasis on his mistakes has an inevitably discouraging effect on the child. One cannot build on weaknesses, only on strengths. It is more important to let the child experience what he can do than to impress him with his deficiency or a possible calamity. Your own fearfulness gives the child a chance to play upon it in order to get special service and attention. You, too, are bound to make mistakes, and there is no need to feel guilty. The courage to be imperfect is a prerogative for adequate functioning.

## BUTTON GAMES

A margarine tub with buttons of various colors and sizes; one-half of which should be of the same color--black or white, or whatever is available in quantity. (About 100 buttons are desirable.) An egg carton with numbers penciled in the cups in sequence--1, 2, 3, 4, etc.

Purpose: To develop eye-hand coordination and speed.

To encourage development of memory and color perception.

To train in left-to-right sequencing.

## General Instructions:

1. Only once a day ask your child if he wants to play the games with the buttons.
2. Let him make up new games or change the rules of old ones.

## Specific Instructions:

1. Have him put a button into each of the egg-carton spaces. Challenge him to speed this task up without fumbling.
2. Have him count the buttons, showing him that when he has counted "8", for instance, the number 8 is in the bottom of the egg cup.
3. As he learns to handle buttons quickly, ask him to put only "black buttons" or "bigger buttons" etc. into the cups.
4. Once this is mastered (one button per cup) show him that one can go into the "1" cup, two buttons into the "2" cup, etc. For this part of the game, do not go beyond the number "6" until he has learned to recognize groups up to six.
5. To develop listening and memory skills for what he hears, give him such instructions as: "Put a black button into the cup marked "2", put a red button into the "5" cup, and give me a white button." Keep these instructions simple--do not give him too many at once--it will only confuse the child.



MATERIALS FOR MEETING VII

## Lesson Six -- The Beginning of Mathematical Skills

Children establish the beginnings of mathematical skills and understanding long before they enter school. Some of the judgments a child has been making for several years are the beginning of the reasoning process, as when he tries to decide the space he needs to get his trike through the door, or when he takes a chair to climb up to the cookie jar in the cupboard.

When a child first learns to say "one, two, three," he is using numbers but he is not really counting. Repeating the numbers shows an interest in the words, but they will not have a real numerical meaning for him until he uses them to count the marbles in his hand or the apples in a bowl.

When a youngster holds up four fingers to show his age, he may know how many four is, but he will have no idea of what a "year" is. Since a young child can best develop meanings through his own experiences, his daily play and work activities provide some of the best chances for mathematical concepts to develop.

He is interested in the numerals which identify the TV channel of his favorite program. He wants to learn to dial the telephone, and plays this way with a toy telephone long before he can actually dial a real telephone. He soon learns that numbers identify houses and automobiles, and that they appear on clocks and on calendars.

Almost all young children have an early interest in counting which you can stimulate by such counting rhymes as "One, Two, Buckle My Shoe," and with the simple counting books available at the library, supermarket, or dime store. Familiarity with number names is important for counting, of course, and it will be helpful to a child when he starts

to count the number of pieces of candy in a bag, or the number of candles on a birthday cake. Some children learn to count by playing games with grownups or older brothers and sisters. A good example is a simple game using dice or a spinner which tells the player how many spaces to move forward.

When the child first starts to play such games, he will need help. He may be able to recite the number called for, and he may pretend to count the spaces, but he will not likely have the concept of one-to-one relationship between the space and number, and will not necessarily move the number of spaces counted.

Remember, the child's enjoyment of playing the game is the important thing. Be there to help, but do not make a lesson out of the counting. If he likes the game, he will play it over and over again until he is able to count the spaces. Counting the spaces is just part of the game, but you can be sure it will not be long before he realizes that he can get more spaces if he gets a six on the spinner than if he gets a two.

As you know, it is difficult for children to wait their turn when playing a game they enjoy. This is a good place for you to teach the ordinal numbers by stressing that Alicia is first, Timmy is second, and Bobby is third.

Everyday activities can give you chances to help your child with numbers. At the supermarket you may buy a pound of butter, a dozen eggs, a quart of milk, or five pounds of apples. At the department store you may buy a pair of shoes or a yard of ribbon. Use the words in your conversation with the child so that he becomes familiar with them and gets a small idea of what they mean. Another activity involving measurement that children really enjoy is getting weighed and measured. They also enjoy helping chart their own growth in pounds and inches.

Cooking is an especially enjoyable and helpful activity for small children, and some of the learning in cooking involves measurement. A child can begin to learn such measures as teaspoon, tablespoon and cup. Later, he will enjoy using these some measures as he plays with sand or water, pouring it back and forth from one container to another.

Young children are interested in money as soon as they learn that it enables them to buy something they want such as an ice cream cone, a piece of candy, or a toy. You can help a child understand money by letting him handle it for simple purchases. Tell him the names of the coins as you give them to him, and help him pick out the coin he will need for his purchase. Since sizes of coins can be confusing, it may be easier for him to learn what coins are needed for a certain purchase, rather than how many cents are actually involved.

It is important for a child's learning that he understand the meanings of such terms as: more, less, taller, shorter, larger, smaller, younger, older; also such concepts as big, little, heavy, light, over, under, above, and below. If you use these words in everyday situations such as "That tree is taller than that bush," or "The kitten is under the table," your child will gradually begin to use these words himself.

Telling TIME is difficult for most young children. However, they can begin to use words associated with time. Words such as now, soon, night, day, week, days of the weeks, hour, minute, and so forth, can be used in relation to his activities and those of the family.

Even though all these experiences build a background for learning, remember that learning is gradual. A few experiences may not be enough for the child to understand the meaning of some mathematical concepts, even though it may seem quite simple to you. Even though the child

becomes confused, this does not mean that the confusion will last very long. Give him time to grow and learn, help him as best you can, and one day the pieces and ideas will fit together for him.

The Danger of Pity -- (Summary of Dreikurs, Chapter 27, pp. 236-247)

Children who experience tragedy are often less harmed by the consequence of such events and circumstances than by the pity and concern of well-meaning friends and relatives. Feeling sorry for the child is only natural, but it adds immeasurable harm to an already tragic situation. If you feel sorry for the child, regardless of how justifiable it may be, he responds by also feeling sorry for himself, and nobody is as miserable as one who feels sorry for himself. Our satisfaction in life depends on our ability to take whatever may come, in our stride; then we can consider what we can do. But if a child thinks that life owes him something, he waits to get what he has coming instead of realizing what he can do about the situation.

Non-interference in Children's Fighting --- (Summary of Dreikurs, Chapter 24, pp. 201-214)

The child's ability to resolve his own problems is greatly hampered by your interference and your efforts to solve them for him. If you feel obligated or inclined to separate your children when they fight, or to find out who is right or wrong, you deprive them of their ability to resolve their own conflicts. In many cases you actually stimulate them to fight more, since one or the other provokes the fights for your benefit, in order to get you involved. Very often, the weaker or smaller one provokes more or less subtly the older or stronger one so that you will come to his rescue and bear down on his opponent. When parents stay out of the children's fights, they usually begin to get along much better. Even the small and seemingly weak one can learn to keep an older sibling at a safe distance, with a well-placed kick.

## ALPHABET CARDS

Four-inch squares of tagboard with large letters of the alphabet cut and pasted onto them. One set of capital (upper-case) letters only.

Purpose: To teach alphabet recognition by feeling and sight.

To develop memory for what the child hears and sees.

To begin promoting phonic skills towards future reading.

## General Instructions:

1. Only once a day ask your child if he wants to play with the sandpaper alphabet.
2. Let him explore the feel of these letters with his eyes closed or blindfolded, and you do the same. You will be surprised at the difference when you cannot SEE the letters!

## Specific Instructions:

1. Teach the alphabet by saying the letters to the child, having him repeat them and touch them as he says each letter.
2. If your child does not know the alphabet by sight, this game will be expected to take several weeks or more. Do not rush his learning of the letters.
3. Once mastered, use a blindfold to teach him to identify by touch alone. Take turns, so that he may have the fun of "fooling" you too.

MATERIALS FOR MEETING VIII



## Lesson Seven -- Learning to Listen

As we all know, the ability to listen is very necessary to success in school. The ability to distinguish between similar sounds may determine how quickly a child is ready to move into reading. You can help your child develop an awareness of sound when he is very young.

Play simple question-and-answer games with your young child: "I hear the television, what do you hear?" "I hear the refrigerator running, what do you hear?" Sometimes it is fun to just have a quiet moment, where you and the child are perfectly still, and then have him tell you all the different sounds he heard.

In the city, one can hear the sounds of fire trucks, motorcycles, trucks and cars, or sometimes even the sound of a street-cleaning machine. Away from town, one can hear the roar of a jet, the songs of birds, or the barking of dogs. A child can listen for Dad's car, for the newspaper to hit the porch, for his brother to run up to the doorway.

You can play a game with your child by putting various sound-making objects into a box--such things as beans, rice, a penny, a bell, or a block of wood--and ask him to identify the objects one at a time while you shake the box.

A fun way for your child to experiment with sounds is by filling water glasses to different levels with water--they will produce different sounds when tapped lightly with a spoon. Some children can even arrange these glasses on the table, with sounds pitched from high to low. Real musical instruments offer many opportunities for distinguishing sounds. If a piano is available, the child can easily learn to identify low notes and high notes. The same thing can be learned on a toy xylophone such as one you can buy in a dime store.

It is very important for you to watch your own speech--if you run sounds together, leave off the endings of words, or talk too fast, he cannot hear all the different sounds of speech.

A child develops the speech patterns he hears in his home and neighborhood. It helps a lot if what he hears is correct. If the sound of the word as he knows it is different from the sound he will hear in school, he will find learning more difficult.

We have been talking about helping our children learn the differences in sound. But his ability to LISTEN to sounds is a different kind of task. This willingness to listen is of great importance to the young child, for when he is in school, he spends a great part of his time listening. Learning to listen is a great way to increase his attention span.

Music can be a great help in teaching your child to listen. Young children can become interested in many different kinds of music. If you have a record player in your home but do not have a great variety of recordings, these can be borrowed at your library.

In the beginning, it is usually easier for a child to listen when the music is with a story, nursery rhymes or songs. Try to make these as interesting as possible, but be sure to stop whenever the child's interest starts to fail. Nothing is gained by insisting that a child listen when he doesn't want to.

It will help if you choose a quiet place so that you won't be disturbed by older children or the television. It will help, too, if you don't choose a time to play a listening game when your child wants to be doing something else. Choose materials that are short because of his short attention span. It is better to have him ask for more than to have him get tired of a long song or story.

If you start to talk or read, or play the record, before you have your child's attention, or if you talk too much, you may be actually teaching your child NOT to listen. Children simply tune adults out if their voices go on too long.

When you say something to your child, make sure that it is interesting so that he will want to listen. Let him know that listening is important; do not keep repeating explanations or directions. Avoid yelling above noise and confusion; go to the child, get his attention before giving him your message. Speak distinctly, loudly enough to be understood, but don't yell or scream at him.

As we said earlier, part of learning to be a good listener is being listened to--so set a good example. When your child is talking to you, look into his eyes and really listen to what he says. Try to understand the exact meaning, and if you don't understand, encourage him to talk more. Above all, give him a thoughtful reply so that he can have the satisfaction of a good audience.

It is important for a child to know what it means to be listened to, especially since listening in the classroom is more difficult than in a home conversation, and since other children are less able to hold his attention than are adults. Much of his classroom listening will be to the teacher, but of course some listening will involve other children.

Disregarding the Influence of Other Adults -- (Summary of Dreikurs, Chapter 26, pp. 224-235)

This is one of the most difficult but necessary assignments, and it is contrary to our traditional concepts. In a democratic atmosphere we can no longer concern ourselves with what others should do, but accept the responsibility for what we have to do and discover the tremendous strength and potentiality which we possess, often without knowing it. A mother who is concerned with what father or grandparents should do, thereby reveals her doubt in her own ability. There is a direct correlation between our concern with what others are doing and our sense of deficiency. The more sure I am that I can handle the situation, the less I am inclined to pay attention to what the others may be doing. Actually, if we take our own responsibility seriously and devote ourselves to the task of doing what we should do, then we have neither time nor inclination to watch others do things.

Other members of the family, like all outside influences to which the child is exposed, form the reality which confronts him. It is futile, in most cases, to try to change the environmental influences. It is more important to fortify the child against them if they are detrimental. Your responsibility is to be a constructive influence in his life. Therefore, you have to deal with him and his actual situation as realistically and effectively as possible. If you utilize the full potential of your constructive influence, then you do not have to worry what others may do to him. If he learns from you a good relationship and a cooperative interaction, others can hardly disrupt it. Therefore, for you it is less important what the others are doing than what you can do.

One important safeguard is needed. Many parents try to "compensate" for what they think are the damaging influences on the part of another adult in the family by going in the opposite direction. If father is too lenient, mother tends to be too strict, or vice versa. Such "compensation" does not correct the mistakes of the others, but rather exposes him to additional disturbing influences.

Neither would it be helpful to side with the child against whoever may do him wrong. This neither fortifies the child nor corrects mistaken impressions. Instead of freeing himself from detrimental influences and impressions, the child may even provoke more of them in order to get your support, protection, and sympathy. One can and should show him sympathy if he encounters unfair treatment, but he can improve his predicament or make it worse. All depends on his courage and resourcefulness. Your over-protection may rob him of both.

This is particularly important when the child is exposed to teachers whom the parents may consider unjust, hostile, or inadequate. Protecting the child from them and siding with him against them usually aggravates the situation beyond repair. It would be equally harmful to take the side of the teacher, which the child may justifiably resent. "Fortifying" the child against a hostile or unfair outsider implies stimulating in him such attitudes which may better equip him to deal with such a force effectively, and perhaps to correct the situation. He can learn to withstand unfavorable situations without discouragement, undue hostility or withdrawal. To a certain extent, the principles of Non-interference in Children's Fighting applies here also. As a friendly bystander, you do not take sides, but express understanding and encouraging attitudes from which the child may gain strength in coping with

this predicament be it with other members of the family or with persons on the outside.

Setting the Stage -- (Summary of Dreikurs, Chapter 31, 32, 33, pp. 264-274)

It has often been said the the "attitude" of the mother to the child is the most important factor for his personality development. While the mother undoubtedly exerts the strongest influence on him, she does not do so merely through her direct dealing with the child, and less so through her emotions, which may be warm, loving, and pleasant, and yet can have a harmful effect. Love and affection are most important, but in themselves not sufficient; the child may be spoiled by love and affection. The influence of the mother expresses itself mainly through her way of managing the total family situation. The child develops his personality in interaction with all the members of the family, and not exclusively with mother. Mother, who is the one to spend the most time with the children, who arranges the routine of the household, creates a favorable or unfavorable atmosphere for the growth of each child. We found mothers who are highly emotional, even disturbed and upset, who occasionally lose their tempers and lack what has been called "emotional stability" or "maturity" and yet are excellent mothers with very beneficial effects on their children. The crucial point is a mother's ability, or lack of it, to establish order. If she is able to arrange without fighting, a regular routine of everyday life, then the children have a chance to move into line, to accept the established order. Too often, mothers forget about the necessary routine which they can maintain, because they become too much concerned with each transgression of every child. Instead of going ahead with what she knows should be done, she tries to make others do

what they should do, and in the process, refrains from doing her part. The order which she maintains has a built-in safeguard, because the children will experience the natural consequences if they do not fit into it. Reality by itself has a stronger corrective influence than any bribe or threat, reward or punishment on the part of the parents.

## ALPHABET CARD GAME

An illustrated set of alphabet cards, two each of upper and lower-case letters.

Purpose: To teach distinction between upper and lower case letters in a game activity.

To promote beginning phonic understanding.

## General Instructions:

1. Only once a day ask your child if he wants to play the alphabet card game.
2. This is the only toy or game which he may play with older brothers or sisters or neighbor children rather than just with mother. This task requires much memory and attention and the more practice the better.

## Specific Instructions:

1. Cards are divided up after shuffling, among whoever is playing the game. Leader begins, trying to match as many as he can for "pairs" and the object of the game is to end with none in your hand. If unable to match, must draw from neighbor to the left, etc. (Instructions for various versions are given in leaflet accompanying card game.)

## Assignment for next week:

Instead of providing an additional toy or game for next week's session, you are requested to bring an original idea for some game you have played with your child this past eight weeks. The group will discuss each game presented by the members, and will be expected to use one during the ninth week of these meetings. If you developed some unique ideas or materials while playing with your child, please bring them to class--our own version of "Show and Tell!" Thank you.



MATERIALS FOR MEETING IX

## Lesson Eight -- After Your Child Starts School

The first year of school is very significant in the life of a child. He begins to form his opinions and attitudes toward school, and begins the behavior patterns which will help him or hinder him as he progresses from year to year. You as parents must be helpful and patient.

Some children take starting to school in stride, with little or no indication of the great difference it makes in their lives. Other children experience difficulties which are reflected in quite different ways, and for which the specific cause may never be identified.

How you treat the problem probably is more important than its cause, particularly if the child's new behavior is a direct result of his increased feelings of independence and growing up.

He may use language he has never used at home and which you have no intention of permitting him to use...he may become quite bossy and independent, insisting on more freedom in some areas while at the same time needing more help with tasks he has long performed independently. He may decide the teacher is infallible, and relegate you to a second rate role. Maintain your balance--this should be a passing phase.

Your child will need you to maintain the limits to his behavior that you believe are essential. Part of his growing up is in knowing that you will protect him and not let his behavior get out of hand. It may be wise to keep these limits to a minimum during this period, for it is important to the child to test his mental and physical muscles against the world.

Some children starting school revert temporarily to their earlier infantile habits such as thumb-sucking, bed-wetting, or whining. Be patient. Pay as little attention to these specific habits as possible, but do find extra time to spend with your child, and give him much reassurance that you

love him. Do all you can to provide a home situation with a minimum of frustration for the child, particularly until going to school becomes an accepted part of his routine.

Most children are eager to share school experiences with their parents. Your response to the paintings he brings home is very important. It is better to say something like, "Tell me about it," than to shrug it off with, "Isn't that nice," or to criticize with, "Surely, you can do better than that."

You want to keep your child enthusiastic about bringing home his work, and to feel that it is appreciated. You may be able to fix a place in his room where he can display examples of his efforts, changing the display from time to time.

If your child is one of those who doesn't want to talk much about school, don't push him. Of course, you are interested, but frequently the best way to find out is not to ask directly. Show interest when he volunteers information, supply any materials he needs for a school project, and take an interest in the samples of art and other work he brings home. Eventually he probably will open up with you.

Sometimes you can bridge the gap between home and school by letting him share some of his things with the other children. He can take to school a favorite record, for instance, or an especially interesting book with good illustrations, or a tadpole found on an outing into the country. It is unwise, however, to send such things as toy guns, books that belong to an older brother or sister, games that have many pieces, or toys that will break. If he begs to take something to school that is unsuitable, it is better to deal with this at home than to let him take it and be disappointed when the teacher does not use it.

Dress your child in clothing appropriate for school--clothing that can be subjected to the dirt of the playground and the paints and clays of the classroom. Clothing which is too tight is hard to manage. Missing buttons or broken zippers cause problems for both the teacher and the child. To help guard against loss, label all his clothing with his name or a mark he can identify or show the teacher.

Your child will continue to need a stimulating environment at home, but an added dimension must be considered: his time is not as free as it was, and he is having experiences at school which may lead to new interests.

After the child begins school, education is a shared experience between the home and the school, and one does not get along very well without the help of the other. What your child is interested in at home often depends directly on what he has been doing at school.

He may be interested in reading at home while father is reading his newspaper and sister is doing her homework. But he may reveal none of this interest at school, where he would rather paint or work with clay. Both kinds of experiences are needed. Continue to play games with your child, because the teacher seldom can give the attention needed to make games satisfying to children.

Also continue to read stories, because the closeness a child feels to his parents when being read to is not easily found in other ways. During this period he may become really interested in learning to read. Adjust your teaching to what he wants to know, and don't try to push him farther or faster than he wants to go. The main thing is that you continue to spend time with him in activities that are intellectually stimulating and fun.

Finally, become as involved as possible in the activities of the school which are open to parents. This is the best way to become familiar with the school's program. It is also difficult for parents to help their children be successful in school if they have no knowledge of the program and the way teachers would like parents to help. You can help your child tremendously by assuming your share of this joint responsibility.

Having Fun Together --- (Summary of Dreikurs, Chapter 35, pp. 282-285)

Winning the child's cooperation presupposes a good relationship. We can describe such a relationship as being based on mutual respect, on love and affection, on mutual confidence and trust. These elements are truly characteristic for a good relationship, but they are of such abstract nature that it is difficult for many parents to know exactly how to "do it."

It seems that in the act of having fun together, all the above elements of a good relationship come into play. It is impossible to have fun with anyone whom we don't like and respect, at least in this moment of highly stimulating interaction. Laughing and playing together, enjoying pleasant experiences, bring parents and children together in a most natural and easy way and establish a bond of friendship. Common tasks which require devotion, concentration, and effort, leading to satisfactory achievement, are another way of establishing an even closer and deeper form of cooperation. But in a sense, such experiences are also interpreted by the child as "having fun together." They evoke mutual interest, a feeling of belonging and enjoyment and exciting experiences all fall in this category of "having fun." It can hardly be established if each member of the family, and particularly each child, goes his own way in looking for excitement, satisfaction, and fun.

Family Council --- (Summary of Dreikur, Chapter 39, pp. 301-305)

The growing rights which society gives children, and their awareness of their status as equals, makes it essential that they are accepted as equal partners in the affairs of the family. Equality in this sense does not mean identical functions. But these differences can

no longer imply any lowering of status, otherwise they lead inevitably to resentment and unwillingness to discharge the function which provides less social prestige.

The greater freedom which the contemporary democratic atmosphere grants each member of the family requires also the realization of the greater responsibility which each one has for the welfare of the whole. As long as parents, and particularly the mother, take on all the responsibility and the children enjoy all the freedom to do as they please, an unbalanced equilibrium results with the children deprived of useful functioning and inclined to be demanding and tyrannical. The family council gives every member of the family a chance to express himself freely in all matters pertaining to the family as a whole. He can object and criticize whatever he does not like, and seek solutions to his liking. At the same time he has to accept responsibility for what goes on in the family to take his share in the contributions which all have to make.

It is truly education for democracy which the family council accomplishes and such educational experiences are equally important for the parents and for the children. Since tradition has not provided us with clear-cut guiding lines for living with each other as equals, we have to establish them. And the institution of the family council facilitates the application of democratic principles to family life.

This difficulty to establish and maintain a democratic relationship of equality is often responsible for the breakdown of family councils. Parents may start off with good intentions and enthusiasm, but before long either they or the children violate all the basic principles of such a democratic procedure so that it becomes futile and meaningless. It requires considerable persistence, a willingness to see mistakes and

learn from them, the ability to change one's attitude and to respect those of the others, in order to make the family council a permanent institution. But without it, there is hardly a way for the discussion of mutual difficulties and conflicts in an atmosphere of respect and understanding.



APPENDIX E

## RAW DATA FROM THE STUDY: CONTROL SCHOOL, GROUP A, PRETESTED

I.D. #	ABC SCORE	B.G. PRE	B.G. POST	GAIN	PPVT PRE	PPVT POST	GAIN	M.A.	ANG.	BOY	GIRL
1	48	42	44	2	59	55	-4		X		X
2	50	14	26	12	33	38	5		X	X	
3	58	34	56	22	42	41	-1	X			X
4	48	38	48	10	48	52	4	X		X	
5	40	16	22	6	39	52	13		X	X	
6	52	60	66	6	54	57	3		X	X	
7	42	32	30	-2	44	41	-3	X		X	
8	52	30	47	17	54	57	3		X	X	
9	48	26	52	26	38	47	9	X			X
10	66	28	48	20	57	55	-2		X		X
11	48	39	62	23	42	43	1	X		X	
12	64	30	42	12	49	56	7		X	X	

## RAW DATA FROM THE STUDY: CONTROL SCHOOL, GROUP B, NOT PRETESTED

1	54		46			61			X	X	
2	38		48			17		X		X	
3	54		46			30		X			X
4	48		30			39		X			X
5	48		32			46			X	X	
6	64		30			45		X		X	
7	60		32			53			X	X	
8	68		50			52			X	X	
9	40		34			45		X		X	
10	44		36			54			X	X	
11	48		32			37			X		X
12	28		26			31		X		X	

## RAW DATA FROM THE STUDY: EXPERIMENTAL SCHOOL, GROUP C, PRETESTED

I.D. #	ABC SCORE	B.G. PRE	B.G. POST	GAIN GAIN	PPVT PRE	PPVT POST	GA GAIN	M.A.	ANG.	BOY	GIRL
1	66	20	49	29	35	37	2	X			X
2	68	50	42	-8	35	51	16		X		X
3	74	44	47	3	43	45	2		X	X	
4	46	29	50	21	40	56	16	X		X	
5	66	36	61	25	62	63	1		X	X	
6	54	12	42	30	47	56	9	X			X
7	48	25	65	40	50	49	-1	X		X	
8	52	24	52	28	44	51	7		X		X
9	68	50	71	21	35	44	9	X		X	
10	78	44	51	7	41	50	9	X		X	
11	38	35	54	19	39	39	0		X	X	
12	66	68	70	2	43	48	5		X	X	

## RAW DATA FROM THE STUDY: EXPERIMENTAL SCHOOL, GROUP D, NOT PRETESTED

1	64		72			49		X			X
2	64		70			58		X		X	
3	52		64			54			X	X	
4	48		67			47		X		X	
5	52		48			57			X	X	
6	42		59			55			X		X
7	68		62			53			X	X	
8	62		58			46		X			X
9	46		32			42		X		X	
10	34		72			55		X		X	
11	58		62			54			X	X	
12	52		71			33		X		X	

## RAW DATA FROM THE STUDY: EXPERIMENTAL SCHOOL, GROUP E, PRETESTED

I.D. #	ABC SCORE	B.G. PRE	B.G. POST	GAIN	PPVT PRE	PPVT POST	GAIN	M.A.	ANG.	BOY	GIRL
1	52	34	40	6	53	54	1		X	X	
2	72	46	60	14	60	59	-1		X		X
3	60	26	57	31	50	50	0		X		X
4	68	42	60	18	15	32	17	X		X	
5	66	62	64	2	61	55	-6		X	X	
6	58	46	44	-2	55	55	0		X		X
7	48	22	31	9	52	63	11	X			X
8	68	20	57	37	45	43	-2	X		X	
9	50	23	32	9	35	41	6	X			X
10	68	50	64	14	57	55	-2		X	X	
11	28	18	39	21	43	46	3	X			X
12	50	36	64	28	52	51	1		X		X

## RAW DATA FROM THE STUDY: EXPERIMENTAL SCHOOL, GROUP F, NOT PRETESTED

1	50		30			33		X		X	
2	26		28			25		X		X	
3	60		58			42		X		X	
4	48		55			41		X		X	
5	56		55			39		X		X	
6	26		24			48			X	X	
7	58		59			49			X		X
8	54		42			51		X		X	
9	46		45			43			X		X
10	64		61			56			X		X
11	68		70			51			X		X
12	34		31			40			X	X	