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The Effect of Two Methods of Instruction on Parent Child Interaction.

Arlene Marie zielanis Fulton
Louisiana State University and Agricultural & Mechanical College

Fulton, Arlene Marie Zielanis

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Arlene Marie Fulton
B.S., Stout State University, 1967
M.S., Stout State University, 1970
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ABSTRACT

The purpose of this study was to compare two methods of instruction in the teaching of parent-child interaction skills. By comparing a highly structured method and a less structured method of instruction, data were compiled in order to determine the manner in which interaction skills could be most effectively taught to parents of three- and four-year old children.

The study was conducted in six parishes within Louisiana: Ascension, Lafourche, Livingston, Plaquemines, Pointe Coupee and Ouachita. Forty-five subjects in the study were volunteers who were recruited for parent-child interaction classes by the Extension Home Economist in each parish. The Extension Home Economist served as the teacher and received detailed instruction on conducting classes according to a prescribed format for each of the two instructional approaches being compared. The study was performed in a two year period beginning in the summer of 1980 and ending in the summer of 1982.

The first method of instruction involved a highly structured approach which utilized video taped demonstrations, written materials, role play, group discussion and nine weekly class meetings in teaching parents methods to interact with their preschool aged children. Nine toys designed for use by parents in teaching children concepts

such as color, size, shape, and spatial relationships were used by parents each week.

A second method of instruction, less structured and more self instructional, but utilizing the same content materials, was offered for nine weeks to a second group of parents. This second group of parents neither viewed the video taped demonstrations, nor met in weekly group sessions, but they received publications each week describing purposes and activities for the accompanying toy. Letters accompanied each publication which briefly described the major focus of learning for the week. The teacher was available for assistance and interpretation of activities during a designated weekly check out period.

A pretest was administered to all subjects in the week prior to the classes being offered in a parish, and a posttest was administered approximately eleven weeks later at the completion of the class period. The instrument used in the pretest/posttest was self constructed and consisted of 44 multiple-response items. The instrument was validated by a panel of experts and a field test established a reliability coefficient of .773 for the instrument. The instrument attempted to measure attitudinal change in the parents enrolled in both methods of instruction.

Pretests and posttests were administered to the children of the parents enrolled in both methods of instruction. The Cognitive and Perceptual Skills Test was

utilized in measuring skills taught the child by the parent through the learning activities described in class sessions or content materials. This instrument was developed and validated by University of Missouri researchers. Pretests were administered one week prior to classes being offered and posttests were administered one week after the last class session.

An analysis of covariance was used to determine whether a less structured method of instruction was as effective as a highly structured method of instruction in teaching parent-child interaction skills. The results were as follows:

1. There was a significant difference in test scores of the children favoring the highly structured method of instruction at the .01 level when pretest scores were used as the covariate.
2. There was no significant difference in the attitudinal change of the parents in either method of instruction at the .05 level when pretest scores were used as the covariate.

Research results indicate that method of instruction was a significant factor in teaching parents interaction skills with their preschool aged children. A highly structured method of instruction was more effective in teaching parents interaction skills than was a less structured method of instruction.

CHAPTER I

INTRODUCTION

The Problem

Educators have constantly searched for methods of instruction that will result in increased knowledge by parents of young children. Increasing parent-child interaction skills remains a prime factor in education. Within the past 20 years these skills have been linked to gains in a child's developmental ability and achievements. The method by which instruction has been provided to parents on increasing interactions with their preschool-aged child remains a continued interest of educators in the Louisiana Cooperative Extension Service. This was the problem.

Purpose of the Study

The purpose of this study was to compare the effectiveness of two instructions methods designed to promote a mother's interaction with her child. The following null hypotheses were formulated to guide the study:

1. There were no significant differences between the scores on tests of cognitive and perceptual ability of children whose parents enrolled in less structured classes as compared to children of parents enrolled in highly structured classes.

2. There were no significant differences in the attitudinal change of the parents enrolled in less structured classes as compared to the parents enrolled in highly structured classes.

Significance of the Study

The study provided knowledge on the effectiveness of a new, less structured method of instruction with Parent-Child Interaction Program materials. The original, highly structured method was used widely in counties in States outside of Louisiana, however, the equipment required for conducting the program was cumbersome and difficult to operate.

The less structured program was deemed more acceptable as a method of instruction by Extension Home Economists throughout Louisiana. The use of the new program permitted greater participation by parents of young children, and helped parents increase their skills in interacting with their children.

An additional significant aspect of the study was that it tested a less structured, self-instructional method in conveying information to parents of young children. The implications for further program development that utilized less structured or self-instructional materials for parents with limited contact with Extension Home Economists were significant. These audiences included working mothers, fathers as well as mothers and teen-age parents.

Rationale for the Study

The Home Economics program within the Cooperative Extension Service was established to provide individuals with education and inspiration. It was recommended in 1908 that each state college be empowered to organize a complete Department of College Extension to serve three functions. They were: (1) to conduct research, (2) to educate students, and (3) to distribute information to those who were unable to attend college.

In 1914, Congress adopted the Smith-Lever Act that created the Cooperative Agricultural Extension Service. The purpose of the Cooperative Extension Service was to diffuse among the people of the United States useful and practical information on subjects related to agriculture and home economics. The purpose of the legislation was to extend to the rural population a system of itinerant teaching in social, economic and financial activities. It was suggested that at least one trained demonstrator or itinerant teacher be allowed for each agricultural county to provide leadership and direction to programs developed for the rural populace.

In 1982, there were 59 Extension Home Economists in Louisiana that conducted programs for adults relating to family life, nutrition, home management, health, safety, house furnishings, energy conservation, clothing and food preparation. Approximately 19,151 adults were members of organized Extension Homemaker Clubs. Meetings were conducted

on a monthly basis and an Extension Home Economist planned and/or conducted an educational program on a topic of interest to the members.

The Extension Home Economist was involved in organizing programs of special interest to parish audiences. Through workshops, meetings and informal classes, educational information was offered to a diverse group of individuals from both rural and urban backgrounds. College students, homemakers, teen-agers and others benefited from the expertise of the Extension Home Economist.

Programs in family life, child development and parenting education were recent additions to the Louisiana Cooperative Extension Service's educational endeavors. During the past ten years different programs offered and conducted by Extension Home Economists included such topics as exploring careers, building communications skills, guiding children's behaviors, understanding human development and preparing for marriage.

The Extension Home Economist planned and conducted a variety of programs dealing with diverse subjects. Time commitment to the various areas of home economics was frequently influenced by particular interests and skills. It was not uncommon for the area of family and child development to be displaced by workshops or meetings which dealt with areas of foods, nutrition and clothing.

Extension Home Economists, who expressed an interest in programming involving family and child development,

pursued the subject area. In past years, many programs in this field of interest were planned and offered on four to six occasions each year. Planning for these programs included using exhibits, slide or filmstrip programs, demonstration kits, publications and mimeographed reference materials.

One particular program that required the use of the video-cassette recorder and a television set received considerable attention in family life education. The Parent-Child Interaction Program was introduced to Louisiana Extension Home Economists in 1979 as one educational method for helping parents interact with their preschool aged children. It involved a series of nine classes and toys which were distributed to the parent participants on a weekly basis. This highly structured program was successful in teaching interaction skills to parents in 19 states other than Louisiana.

The video-cassette recorder was used infrequently in audio-visual presentations in Louisiana. It required the presence of a television set for the playback of programs. The recorder unit was available in each of the nine Extension districts. The equipment was heavy and cumbersome and proved unpopular with Extension Home Economists.

Delimitations of the Study

The study was conducted in six parishes in Louisiana. They were: Ouachita, Plaquemines, Ascension,

Livingston, Pointe Coupee and Lafourche. All subjects in the study were volunteers recruited for Parent-Child Interaction classes by the Extension Home Economist in each parish. Methods of recruitment included written notices in newspapers, radio announcements, placement of brochures in public buildings and verbal announcements at Extension sponsored meetings and workshops.

The study was limited to mothers of children three- through five-years of age who had reading skills. Since written materials were of importance in understanding and utilizing the toys in weekly activities with children, the ability to read was necessary.

The study made no attempt to determine reading levels of mothers who enrolled in Parent-Child Interaction classes offered in the six parishes.

Limitations of the Study

Because of the nature of recruitment of the mothers for this study, randomization of classes was not possible. An analysis of covariance was used to statistically equate the highly structured and the less structured classes.

A second limitation existed in the Extension Home Economist variable. Differences undoubtedly existed in the training, experience and interest of the Extension educator who administered the nine-week class within each parish.

Definition of Terms

The following terms were defined and used in this study:

Extension Home Economist. This term defined an adult who was employed by the Louisiana Cooperative Extension Service to provide leadership in programs for adults in each of the parishes in the state.

Interaction. This word referred to the physical and verbal methods of communication used by parents when in the presence of their children.

Less Structured (Informal) Method of Instruction. The less structured method of instruction referred to an approach that required parents to read written materials in order to gain information on the purpose and use of toys for a particular time period. The teacher served as a resource person and assisted in answering questions about the activities described in each of the publications. No weekly classes were included in this instructional approach, although parents were required to check out toys on a specific day each week.

Parent-Child Interaction Program. The Parent-Child Interaction Program was an educational program that involved parents and their three- and four-year-old children. It was a highly structured program that utilized toys in helping parents to realize their importance in assisting their children to learn basic cognitive skills.

Preschool. This term included a period prior to a young child entering an elementary school setting.

Preschool Child. A young child was defined as a child less than six years of age.

Self-Instructional. The self-instructional process implied that parents read printed materials and developed an understanding for the use of different activities and selected toys in developing cognitive skills within their young children. The parents were self-instructed as to the use of program materials.

Structured (Formal) Method of Instruction. The structured method of instruction referred to an approach that required parents to attend a weekly class, view video-cassette programs and participate in discussions and demonstrations on the use of toys with young children. The teacher guided the parents through activities and discussions during the class sessions.

Young Child/Young Children. This term referred to a child who was less than six-years of age.

Procedure

A pretest-posttest design was selected to test two methods of instruction for this study. Six groups were involved in instruction in six different parishes. All teachers were Extension Home Economists who were randomly selected and received detailed instruction on conducting classes according to a prescribed format for each of the two

instructional approaches being compared. Six groups were involved in instruction in six different parishes. Subjects in each group were volunteers and were the female parent within families.

The first method of instruction involved a highly structured approach in teaching parents ways to interact with their preschool aged children. A second method of instruction, less structured and more self instructional, but utilizing the same content materials, was offered to a second group of parents. Each method of instruction involved nine-week sessions with the subjects.

Pretests were administered to both the subjects and their children one week prior to the classes being offered in a parish. Posttests were administered to the subjects and their children approximately eleven weeks later at the completion of the class period. The instrument used with the subjects was developed and validated by the researcher and measured attitudinal change. The instrument used with the children was developed and validated by University of Missouri researchers and measured changes in cognitive skills.

An analysis of covariance was used as the statistical procedure in analyzing data. In using this procedure, adjustments of the posttest scores were made to allow for initial differences among groups.

CHAPTER II

REVIEW OF RELATED LITERATURE

White (1976) and Schaefer (1972) have maintained that the family is the child's first educational system, and thus, should be given assistance in becoming the best educators possible for its children. Brofenbrenner (1975) supported this thesis maintaining that without family involvement, intervention programs achieved little success in fostering and sustaining a child's development.

Since the mid-1960's, many preschool intervention programs have been designed to offset the negative influence of poverty on intellectual development (Blossom, 1975). Much of the research on early family education programs has progressed from efforts that have attempted to educate the child through child-centered programs to programs that strengthened the family's contribution to the education of the child through parent-centered programs. The greater long term effectiveness of parent-centered programs as compared with child-centered programs has resulted in the utilization of parent education and parent involvement strategies in numerous research efforts (Schaefer, 1978; Stevens, 1978; Blossom, 1977).

In order to understand the overall goals in programing for parents of young children, it was necessary to

be aware of possible program outcomes and methods that proved effective in reaching these outcomes. To discuss these points adequately this chapter was divided into four sections. They were: (1) the value of parent interaction, (2) factors contributing to child achievement, (3) parent education programs utilizing toys, and (4) methods of parent education.

The Value of Parent Interaction

Increasing evidence has linked parent interaction in a young child's education and academic motivation (Honig, 1972) as well as increased cognitive and intellectual functioning (Gilmer, Miller, Gray, 1970; Goodson and Hess, 1975; Grantham-McGregor and Desai, 1975). Bloom (1964) reported similar results when he noted the close relationship between parent involvement and the child's increased language development, problem solving abilities and intelligence.

Honig (1980) examined research on the academic differences of children entering public schools and day care centers and noted that there existed a very different interactional and instructional history between parents and children. These interactional and instructional differences were labeled status variables and process variables. Status variables, such as parental income or educational level, were difficult to change. Process variables, such as the kinds of family interactions with preschoolers that

encouraged children's developmental achievements and social skills with peers and adults, were important predictors of later child functioning. Schaefer (1972) reviewed a variety of longitudinal and cross-sectional studies of parenting and concluded that family process was more highly related to intelligence and achievement than were social class or school quality variables.

Gordon (1977) noted that there were many indications, across culture, of common family variables that influenced achievement. They were concerned with whether: (1) parents saw themselves as teachers of their children; (2) they talked with them, not at them; (3) they took them to the libraries or the museums or the parks; (4) they sat around the dinner table and shared and planned; (5) they listened; (6) they displayed a child's work on the refrigerator or the wall; (7) they themselves read and talked about what they read. Further to be noted were such variables as communication processes, values, sense of family and family pride, self-concept and sense of potency of the family members, which also influenced the child's development in a positive direction.

Research focused on parent involvement with preschool aged children noted changes in the attitudes of mothers involved in these programs. The most clearly desirable changes were made by parents who were offered the opportunity for maximum participation (Radin, 1971). It was discovered that the parent involvement component in Head

Start resulted in parent's becoming more aware of their strengths and values and increasing their problem solving skills, leadership skills and interpersonal skills (Goodwin, 1973). More recently, Bronfenbrenner (1979) supported the concept that the participation of the mother in preschool experiences affected not only the intellectual development of the child but also the mother's own self concept and development. Researchers have suggested that the mother's positive self concept was directly linked to the child's opinion of himself as well as his language development (Strom, 1974).

In several parent-centered intervention programs, it was found that participating mothers were more likely to use elaborate complex language (Barbrack and Horton, 1970). They were also more likely to develop verbal skills (Lasater, Briggs, Malone, Gilliom and Weisberg, 1975), as well as to demonstrate greater awareness of the characteristics of their child, greater responsiveness, greater ability to understand a child's behavior and greater willingness to engage in reciprocal, cooperative play (Andrews, Blumenthal, Bache, and Wiener, 1975; Gordon and Guinagh, 1974; Kogan and Gordon, 1975). Likewise, a parent's skill in developing an optimal home environment improved as parents provided more appropriate play activities and play materials for their child's daily use (Andrews, 1975; Gordon and Guinagh, 1974; Leler, Johnson, Kahn, Hines and Torres, 1975).

Factors Contributing to Child Achievement

Literature has indicated that a major source of a child's pattern of achievement and motives for achievement was directly related to the relationship that existed between the child and his family, and the child and his mother. Therefore, it was important to consider the specifics within the family and the home that were contributing factors. Boger (1978) noted that parents as teachers were making investments in children through the time spent with them. This investment in human resource development occcurred both deliberately and incidentally. Much of the education that occurred in the family was informal and appeared as a by-product of other activities. Within the context of the home, the development of family members occurred through the informal transactions of family members with one another and with the materials in the home. Learning was achieved largely through imitation, identification and internalization of ways of behaving. This learning was imbedded in everyday activities, and it was often unconscious and unrecognized.

Gordon, Greenwood, Ware and Olmsted (1974) cited as important to child performance the amount of direct instruction in which parent and child engaged, parent's educational aspirations, the frequency of language interaction, and the intellectual stimulation parents provided. Books, magazines and toys were among the most important cognitive variables. Contributing emotional factors mentioned were parent's

belief in internal versus external control of the environment, willingness to devote time to their children, the parent's emotional security and self esteem, impulsivity, attitudes toward school and patterns of work. These factors appeared in all homes, regardless of social class or ethnic group. Bradley and Caldwell (1976) found that a mother's involvement with her child, provision of appropriate play materials and the mother's emotional and verbal responsiveness correlated highly with intelligence test scores at 24 and 54 months.

A study by Moore (1968) of 76 London, England, children from six months to eight years of age showed that early observations of parent behavior was predictive of the child's later intelligence and reading skills. Two of the early ratings which proved predictive up to eight years of age concerned the kinds of stimuli offered to the child: (1) the toys, books and experiences available, and (2) the example and direct encouragement to speak. The early ratings of the home predicted ability at eight years of age better than at intervening ages. In addition, it was noted that even with controlling for socio-economic status of the parents, sizeable correlations were found between early ratings of parent behavior and the child's development.

Parent Education Programs Utilizing Toys

An evaluation of parent education models found that successful programs centered on the parent interacting with

the child in a specific activity such as playing a game (Bronfenbrenner, 1974). Parent education programs that have utilized toys as a means for teaching skills and encouraging verbal interaction have varied in their scope and time commitment by parents. Nimnicht and Brown (1972) used toys in helping parents to provide educational experiences for their preschool children at the Far West Laboratory for Educational Research and Development. The parents were involved in eight two-hour sessions which met once each week. Child development topics were discussed, and a new toy was introduced at each meeting. Parents used each toy as instructed for one week in their home. The program results indicated that the toy used increased a child's problem-solving abilities and promoted verbal fluency as well as developed specific skills in understanding basic concepts such as color, space, size and identity.

Stevens (1973) reported that an 11-week program of small group parent meetings that included toy/book demonstrating and lending produced significant gains in intelligence scores for children of project participants. He noted that the program would have been even more effective had the parent consultants provided feedback to the parents on his or her interaction with a child in the home.

Coleman, Ganong and Brown (1981b), in a study involving 120 families in Missouri, found that parents enrolled in a Parent-Child Interaction Program were successful in teaching their children specific perceptual and

cognitive skills. Toys were used by parents for instructing their three- and four-year-old children. Videotapes, guide-sheets, role-playing and group discussion were utilized in eight weekly meetings to enhance the parent's ability in teaching skills to their young children. The encouragement of verbal interaction between parent and child was a key component in the success of this program.

Home visitation programs have been successful in utilizing toys as a means for parents to develop skills in teaching and interacting with their preschool children. As an early pioneer in the home visitation approach, Dr. Ira Gordon (1970) developed the Parent Education Program. This program provided low income mothers with concrete specific activities which were used in teaching cognitive and language skills to their preschool children. A parent educator visited each mother weekly for a two-hour session during which simple toy-making skills were taught through demonstration and the importance of language use was stressed. The toys and materials provided examples for words that were used with preschoolers. The results of this program revealed that program children out-scored control children on the Griffith Mental Development Scale as well as specially prepared series materials. Observations in the home gave indications of language and cognitive gains as well as of enlarged self-confidence of the mothers.

Rubin (1980) followed the parent education programs of Gordon from 1966 to 1978 and noted that home visitation,

parent involvement and home learning activities were basic components of each of his six projects. These were: Parent Education Project; Early Child Stimulation Through Parent Education Project; Home Learning Center Project; Instructional Strategies Infant Stimulation Project; Parent Education Head Start Planned Variation Program; Parent Education Follow Through Program. The home learning activities (HLA) were designed for the parent and child to perform together utilizing materials found in the home. In each of the six Gordon projects, evidences of success were reported for parents and children.

The Parent Education Follow Through Program (Rubin, 1979) targeted the home environment as having the greatest influence upon the development of children. Major features of the program included comprehensive social, psychological and medical services for participating families; home visitors, labelled as parent educators, who visited parents in their homes and worked in the classrooms with the parents' children; home learning activities, which were developed by parents and staff at various sites and brought into the home by the parent educator; and parent committees and meetings organized to facilitate increased parental involvement in the educational development of their children. The home learning activities included toys, games and household tasks such as food preparation, washing dishes and sorting clothes. All home activities placed emphasis upon parental teaching behaviors and the home environment. Over a period

of five years, results indicated that children of program participants made and sustained gains in cognitive skills and achievement levels. A second area of positive impact related to the parent's increased use of desirable teaching behaviors and improved parent child interaction. A third area of effectiveness was vertical diffusion whereby members of the family other than the target child were affected and showed positive effects on school readiness tests for siblings of program children.

Strom (1974) involved 70 mothers in Toy Talk, a program which used toys as the medium for adult-child conversation. Mothers were instructed on procedures to use with the prewritten units as a focus for learning. The program began with the child's choice of a play theme. The parent then administered a vocabulary pretest, which was followed by play. During play the adult introduced variations of the theme and emphasized unknown vocabulary. Later, children's books were used to reinforce and explore the theme. Finally, the parent gave the child a vocabulary posttest. After eight weeks of training at home it was found that significant gains were made in the mother's self-concept as a teacher and her knowledge of the teaching-learning process. In addition, Toy Talk resulted in significant changes in the children's self-concept as a learner as well as significant gains in word recognition, understanding and elaboration.

The Mother-Child Home Program (Rosenfeld, 1978) used home visits to encourage mothers to stimulate their children's intellectual development through verbal interaction involving two dozen specifically chosen toys and books called Verbal Interaction Stimulus Materials (VISM). The trained toy demonstrator encouraged mothers to use each toy and book to stimulate child language and extend conversations within the family. Home visits were made twice weekly during the school year for a period of two years. Results of this program indicated that children who participated were superior in reading and arithmetic achievement, in social-emotional competence and in intelligence scores.

Methods of Parent Education

Methods of educating parents in order to achieve desired changes in children were explored. Bronfenbrenner (1974) reviewed different methods of parent education and concluded that the widespread traditional forms of parent education involving courses, dissemination of information and counseling addressed solely toward parents produced no evidence of the effectiveness of these approaches.

A study by Nay (1975) tested four different instructional methods in teaching 77 mothers of young children time-out procedures. They were: (1) written presentation; (2) lecture presentation; (3) videotaped modeling presentation; and (4) modeling coupled with roleplaying. In addition, a no treatment control group was employed. Following

treatment, no significant differences were found between the four instructional techniques when questionnaire assessments for knowledge of time-out were evaluated; however, all instructional techniques were superior to no treatment. Assessment of the mother's ability to apply time-out to a child in a simulated situation indicated modeling coupled with role-playing was superior to either written presentation or lecture but not to modeling alone.

Webster-Stratton (1981a) utilized a videotape modeling group discussion program designed to teach parents ways of interacting and communicating with their children and in handling their children's behavior problems. Thirty-five mothers and their three- to five-year-old children participated in this study. Four weekly, two-hour videotape modeling discussion sessions were used which featured parent models who were nurturant, playful and sensitive to the individuality of their children as well as parent models who were rigid, controlling and concrete with their children. At the completion of the program, four behavior variables changed significantly among the mothers. They were: (1) lead-taking behaviors decreased; (2) nonacceptance behaviors decreased; (3) dominance behaviors decreased; and (4) positive affect behavior increased. Webster-Stratton (1981b) reported that six-weeks later, a post-treatment assessment indicated that the changes in the mother's behavior were maintained, and that the program seemed to have bolstered the self esteem of the parents.

Klock (1972) developed and tested a microtraining program to enhance empathic communication by parents of young children. This ten-hour program was highly structured and included reading materials, video models of specific behaviors, role-play exercises and home practice. A comparative group used reading materials and group discussion designed to meet the same goal. Both groups showed significant gain in knowledge of the principles of empathic communication; however, the microteaching group did not report significant gain over the discussion group. The groups reported similar amounts of learnings and similar proportions of transference to parent-child interaction.

Zuckerman (1978) compared two instructional approaches, lecture-discussion and lecture-discussion with the addition of self-instructional material, in Adlerian Parent-Study Groups. No significant differences were found between the groups in three areas studied: (1) parental child-rearing attitudes, (2) the acquisition and retention of cognitive child-rearing principles, and (3) the application of democratic child-rearing principles. A study by Matsen and Ollendick (1977) found that mothers who received instruction and supervision in addition to reading material were more effective in toilet-training their 20 to 26 month-old children then were mothers who received only reading material. The supervision took place in the home setting and during the actual toilet-training sessions.

O'Dell, Mahoney, Horton and Turner (1979) investigated the effectiveness of five training models designed to teach skills for administering time-out to children. Sixty parents were assigned to one of six groups: no-treatment control, training via a written manual, training via a film, training via a film plus a brief individual checkout of reading material, individual training via modeling and rehearsal and brief individual training via modeling and rehearsal. No differences between models were found in parents' attitude responses toward their training approach. Measures of parents' actual skills attained showed all models were significantly more effective than no treatment. A film plus brief individual checkout was superior to all other models followed by a film alone. The models using a written manual or individual modeling and rehearsal were all significantly less effective than the film plus checkout and equally effective to one another.

An effective method of instruction for parent education involved modeling behaviors learned through video-taped segments, live instruction or role play situations. However, only a limited effort was made to combine this instructional method for parents with the use of toys as a vehicle by which parents could influence their young child's cognitive skills. Nimnicht and Brown (1972) reported on a program using filmstrip instruction and toy lending as a method of educational intervention. The Parent/Child Toy Lending Library was a result of a project undertaken to

develop a program with modest resource requirements to serve families above the level of Head Start eligibility. This eight-week program instructed parents on the educational use of toys in the home. A Responsive Environment Test, developed specifically for the program, contained 13 subtests which included color matching, color naming, color identification, shape matching, letter recognition, numerical concepts, problem-solving, verbal communication and verbal comprehension. Pretest and posttest scores indicated significant gains were made by the children in most areas of the subtests. A significant improvement was noted in use of language. Limiting factors of experimental design restricted the ability to generalize from the findings of this study. They were: (1) no attempt was made to randomize the sample; (2) there was no control group; (3) testing was in two different geographical locations; (4) 31 children were pretested but only 19 were posttested; and, (5) many subjective comments of the parents were used in describing program gains.

Coleman, Ganong and Brown (1981a) reported on the Parent-Child Interaction Program (PCI) which combined the instructional components of toys, videotapes, guidesheets and role play in an attempt to enhance the mother's ability to teach her young children specific cognitive and perceptual skills. One hundred twenty children and their mothers served as subjects. Children were randomly assigned to control groups or treatment groups. In the treatment groups

mothers met for one hour per week for nine weeks. At each class meeting the mothers viewed a videotape explaining the use of the toy for the week, received a guidesheet, roleplayed the learning episodes from the videotape and guidesheet, shared insights and asked questions. Group facilitators were trained parent educators. One week prior to the first class meeting, both experimental and control group children were pretested with the Cognitive and Perceptual Skills Test (CAPS), a 63-item performance measure consisting of 13 subtests designed to assess skills taught by parents. Both groups were posttested within one week following completion of the program. Results indicated that children of mothers enrolled in the PCI program had significantly higher mean gain scores than control group children. Experimental group children had mean gains of 10.305 points, whereas the control group had a mean gain of only 4.183 points.

Summary

The following significant items summarize the research conducted in terms of the four sections reveiwed:

1. Parent interaction in a young child's education resulted in the child's increased academic success, increased self esteem and increased language development.
2. A major source of a child's pattern of achievement and motives for achievement was directly

related to the relationship that existed between the child and his mother.

3. Successful parent education programs centered on the parent interacting with the child in a specific activity.
4. An effective method of instruction for parent education involved modeling behaviors learned through video taped segments, live instruction or role played situations.

CHAPTER III

PROCEDURES USED IN THE STUDY

Two methods of instruction were tested through a pretest-posttest design selected for this study. Six groups were involved in instruction in six different parishes. Two groups were involved in a highly structured method of instruction (N=20), and four groups were involved in a less structured method of instruction (N=25). Gains in cognitive and perceptual abilities of the children were measured by the Cognitive and Perceptual Skills Test. Changes in parental attitudes were measured by a self developed and validated instrument.

Selection of the Population

This study was conducted in the Louisiana parishes: Ascension, Lafourche, Livingston, Plaquemines, Pointe Coupee and Ouachita. All teachers were Extension Home Economists who had masters degrees in either Home Economics Education or Extension Education with a minor in Home Economics. Teachers were randomly selected and received detailed instruction on conducting classes according to a prescribed format for each of the two instructional approaches being compared.

Subjects recruited for the Parent-Child Interaction Classes were volunteers recruited by the teachers in each of

their respective parishes. Active recruiting was conducted in each parish via mass media (television, radio, newsletters, or newspapers) and personal contacts. All applicants were accepted. The subjects were the female parents within families. The female parent's ability to read printed material was a requirement for program participation.

The study was implemented during a two-year period beginning in the summer of 1980 and ending in the summer of 1982. To be included in the study, it was necessary for participants to have scheduled and completed the pretest and posttest phases of the study.

Description of Treatment

A highly structured nine-week class, designed by the University of Missouri Cooperative Extension Service, was provided to parents of three- and four-year-old children. Nine toys were designed for use by mothers in teaching their children concepts such as color, size, shape and spatial relationship. At the same time, mothers were given the opportunity to share and learn effective ways of working and playing with their children. Pretest and posttests were administered by teachers to the parents (see Appendix A), and pretests and posttests, developed and validated by University of Missouri researchers were administered by teachers to the children. (See Appendix B.) The test for the parents was self-developed and was validated by a panel

of experts who were familiar with the University of Missouri Program.

A prescribed format was utilized in each of the nine classes. (See Appendix C.) Each one-hour session included the viewing of a video-cassette program which demonstrated ways parents used selected toys to encourage their young children to learn cognitive skills. A discussion and demonstration was included in the class sessions. Parents received publications (see Appendix D) during the class session which described activities and purposes for each of the toys utilized in the program.

A second class, less structured and more self instructional, that utilized the same content materials was offered for nine weeks to a second group of parents. This second group of parents neither viewed the video-cassette program, nor met in group sessions. However, participants did receive publications that described purposes and activities for each toy in teaching young children cognitive skills. Letters accompanied each publication which briefly described the major focus of learning for the week. (See Appendix E.)

The same pretests and posttests administered to the first group of parents were administered by teachers to the second group of parents. Likewise, the pretests and posttests administered to both groups of children were identical. In Table 1 was presented a visual representation of the tests administered to both groups of parents and

children. The instructional method was the major difference in the approaches studied.

Table 1

Tests Administered to Both Instructional Groups of Parents and Children

Method 1 (structured or formal)	Method 2 (unstructured or less formal)
T_1 Parents T_2	T_1 Parents T_2
T_3 Children T_4	T_3 Children T_4

T1 represents the pretest administered to the parents.
T_2 represents the posttest administered to the parents.
T_3 represents the pretest administered to the children.
T_4 represents the posttest administered to the children.

Prior to the pretesting period, teachers involved in the study were provided with procedures to be followed during the testing and administration of the class sessions. (See Appendix C.) These were read by the participating teachers and discussed to clarify and answer any questions regarding procedures. Testing procedures were demonstrated and discussed with each teacher. Except for the method of instruction, the same content materials were utilized in each class offered to parents. Pretests were administered by the teachers approximately one week prior to the first

class session, and posttests were administered within one week after the final class session met.

Both the pretests and posttests were scored by the teachers. The raw scores on both tests were the basis of the data reported in this study.

Instrumentation

Two instruments were utilized in measuring changes in the children and the adults in this study. The Cognitive and Perceptual Skills Test, developed and validated by University of Missouri researchers, was administered as a pretest and posttest to all children involved in the study. The Parent Survey, a self-designed and validated instrument, was administered as a pretest and posttest to the parents involved in the study. The length of time between the pretest and posttest, about ten weeks, permitted the same test to be administered on both occasions.

Cognitive and Perceptual Skills Test (CAPS)

The CAPS Test was developed for the assessment of selected cognitive and perceptual skill development in children whose mothers had participated in the Parent-Child Interaction Program. The CAPS test was designed to determine the skills taught the child by the mother through the learning activities described in class sessions or content materials. There were a total of 63 items in the test.

Parent Survey

In preparing the instrument to be used with parents in this study, professionals in the field were consulted. In addition, content material from the Parent-Child Interaction Program was included. Test items were selected which would evaluate attitudinal change in the parents. Guidance in selection of items was provided by Peggy Draughn, Associate Professor of Child and Family Development, Louisiana State University.

The researcher constructed the instrument consisting of 44 statements which measured 14 different attitudes that the Parent-Child Interaction Program influenced. (See Appendix F.) A panel of experts was selected for the validation of the instrument. (See Appendix G.)

The instrument was field tested in order to establish a reliability coefficient. Using the results from the field test and the Kuder-Richardson formula 21, a reliability coefficient of .773 was established for the instrument.

Statistical Procedures

Since the groups in the study were not equated on a one-to-one basis, an analysis of covariance was used as the statistical procedure in analyzing data. In using this procedure, adjustments of the posttest scores were made to allow for initial differences. The dependent variable was

the posttest score, and the independent variable was the method of instruction.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The purpose of this chapter was to present and analyze data that were obtained from the administrations of the Parent Survey and the Cognitive and Perceptual Skills Test. The Parent Survey was validated by a panel of experts and field tested to establish a reliability coefficient of .773 for the instrument. The Cognitive and Perceptual Skills Test was developed and validated by researchers at the University of Missouri.

Each instrument was administered as a pretest to both groups the week prior to the classes being offered. After completing the nine-week Parent-Child Interaction classes, the instruments were administered to both groups as a posttest. The time between the administration of the pretest and the posttest was approximately eleven weeks.

Both the pretests and posttests were scored by the teachers and rechecked by the researcher. Only those parents and children who completed the pretest and the posttest were included in the study. The frequency distributions of the scores for the children and for the adults were presented in Tables 2 and 4. The difference in the number of children and the number of adults in the study was due to six families having multiple children in the three- to five-year age group, four families had twins and two

families had two children each within the age grouping. The Group I category included participants in the highly structured method of instruction while Group II included participants in the less structured method of instruction.

Table 2

Frequency Distribution of Children's Scores for the Cognitive and Perceptual Skills Test

	Group I		Group II	
Score Intervals	Pretest	Posttest	Pretest	Posttest
71 - 80	1	3	0	2
61 - 70	6	11	4	2
51 - 60	3	5	0	9
41 - 50	4	2	5	6
31 - 40	4	1	6	4
21 - 30	2	0	8	5
11 - 20	1	0	4	1
1 - 10	1	0	2	0
N =	22	22	29	29
$\bar{X}$ =	46.00	60.64	33.62	47.86

The means of the children's scores for the Cognitive and Perceptual Skills Test were computed for Group I and Group II. The means of the children's scores were tabulated and appeared in frequency distribution form in Table 2. As shown in Table 2, the mean pretest score for Group I was

46.00 while the mean pretest score for Group II was 33.62. The mean posttest score for Group I was 60.64 and the mean posttest score for Group II was 47.86.

The pretest scores were used as a covariate since it was not possible to equate the groups according to their initial ability and skills in cognitive areas. The use of the analysis of covariance permitted statistically equating of the groups with regard to the pretest scores from the Cognitive and Perceptual Skills Test. The analysis of covariance using pretest scores as the covariate yielded an F-ratio of 8.20. In Table 3 were illustrated the results from the computations. An F-ratio of 8.20 was significant at the .01 level of confidence with 1/48 degrees of freedom. Therefore, Null Hypothesis 1 was rejected. These results indicated that a significant difference did exist in the cognitive change made by the children of parents enrolled in less structured classes as compared with children of parents enrolled in highly structured classes.

The means of the pretest and the posttest scores for the Parent Survey were computed and reported in frequency distribution form in Table 4. As shown, the mean pretest score of Group I was 75.00 while the mean pretest score of Group II was 70.92. The mean posttest score of Group I was 73.57, and the mean posttest score of Group II was 73.80.

Since the groups were not equated initially with respect to knowledge of interaction skills, an analysis of covariance was used to examine the difference between

Table 3

Analysis of Covariance of the Posttest Scores of the Cognitive and Perceptual Skills Test (CAPS)

Source of Variation	df	SS_x	SS_y	S_{xy}	$SS_{y.x}$	$MS_{y.x}(V_{y.x})$	$SD_{y.x}$
Among Means	1	1917.1	2041.4	1978.2	280.4	280.4	
Within Groups	48	15782.8	7844.5	9895.5	1640.5	34.18	5.85
Total	49	17699.9	9885.9	11873.7	1920.9		

F = 8.20

adjusted means of the two groups. As indicated in Table 5, the analysis of covariance using pretest scores as the covariate yielded an F-ratio of .073. For 1/42 degrees of freedom, an F-ratio of .073 was not significant at the .05 level of confidence. Therefore, Null Hypothesis 2 was accepted. These results indicate that no significant difference was noted in the attitudinal change of the parents enrolled in the less structured classes as compared with the attitudinal change of the parents enrolled in the highly structured classes.

Table 4

Frequency Distribution of Parent Survey Scores

	Group I		Group II	
Score Intervals	Pretest	Posttest	Pretest	Posttest
over 91	1	0	0	0
81 - 90	0	0	0	0
71 - 80	15	17	16	20
61 - 70	3	2	8	5
51 - 60	1	1	0	0
41 - 50	0	0	0	0
31 - 40	0	0	1	0
N =	20	20	25	25
$\bar{X}$ =	75.00	73.57	70.92	73.80

Table 5

Analysis of Covariance of the Posttest Scores of the Parent Survey

Source of Variation	df	SS_x	SS_y	S_{xy}	$SS_{y.x}$	$MS_{y.x}(V_{y.x})$	$SD_{y.x}$
Among Means	1	185.16	0.0	0.0	1.48	1.48	
Within Groups	42	4015.64	881.2	367.6	847.55	20.18	4.49
Total	43	4200.80	881.2	367.6	849.03		

F = .073

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this study was to determine the effect a highly structured and a less structured method of instruction had on the cognitive change of children and the attitudinal change of their parents. This chapter included a summary of the study, conclusions, implications that may be drawn and recommendations.

Summary

The pretest-posttest design was used to investigate the following questions:

1. Is method of instruction related to cognitive change in children whose parents are enrolled in a parent-child interaction program?
2. Is method of instruction related to attitudinal change in parents who are enrolled in a parent-child interaction program?

The following null hypothesis were tested using an analysis of covariance:

1. No significant difference results in scores on tests of cognitive and perceptual ability of children whose parents participated in less structured classes as compared to children of

parents enrolled in highly structured classes when cognitive and perceptual skills pretest scores are used as the covariate.

2. No significant difference results in scores of attitudinal change of parents enrolled in less structured classes as compared to the parents enrolled in highly structured classes when parent survey pretest scores are used as the covariate.

The subjects of the study were parents of three- and four-year old children who volunteered to participate in a parent-child interaction program. The experiment consisted of two methods of instruction being utilized to teach interaction skills. All content materials were identical. One father participated in a less structured class. Data from this participant were not included in the final tabulations. The experiment consisted of six classes being offered to parents in six different parishes in Louisiana with two classes utilizing the highly structured method of instruction and four classes utilizing the less structured method of instruction. All classes were conducted over a two-year period.

Two instruments were used in the study. The Cognitive and Perceptual Skills Test was used as a pretest and posttest for the children. This test was developed and validated at the University of Missouri. The Parent Survey was self-developed and consisted of a 44 question

multiple-choice test. The instrument was used as both a pretest and posttest for the parents and was field tested to establish a reliability coefficient of .773. The scores from the pretests and posttests of the Cognitive and Perceptual Skills Test and the Parent Survey provided the data used in this study.

These data were analyzed through the use of an analysis of covariance to determine if significant differences existed in cognitive gain of the children and attitudinal change of the parents. Pretest scores were the covariate in each analysis of covariance.

Conclusions

On the basis of the findings from this study, the first null hypothesis was rejected and the second null hypothesis was accepted.

Null Hypothesis 1 was rejected since the difference between posttest means of Group I and Group II was significant at the .01 level of confidence. An analysis of covariance indicated that this difference was not explainable by initial differences between groups, as indicated by student pretest scores. Therefore, it was concluded that a highly structured method of instruction served to increase the skills gained by children whose parents were enrolled in classes utilizing such an instructional approach.

Null Hypothesis 2 was accepted since the difference between posttest means of Group I and Group II was not significant at the .05 level of confidence. An analysis of covariance was used to determine that the difference between posttest means was not significant. Therefore, it was concluded that a highly structured method of instruction and a less structured method of instruction were equally effective in influencing attitudinal change.

Implications

The findings from this study provided several implications for educators:

1. Both highly structured and less structured methods of instruction resulted in gains being made by parents in developing interaction skills with their young children.
2. Less structured methods of instruction provided educators with a viable means for increasing interaction skills between parents and their young children.
3. A highly structured method of instruction produced greater gains in skills than a less structured method of instruction when utilizing the content materials from the Parent-Child Interaction Program.
4. Attitudinal change was affected similarly when

parents were enrolled in a highly structured or less structured instructional program.

Recommendations

While this study indicated that a highly structured method of instruction for parents can increase children's cognitive skills more than a less structured method of instruction for parents, it was noted that both approaches resulted in gains made by the children. Thus, the following recommendations were made:

1. A study should be conducted using other kinds of instructional approaches, such as live demonstration by the teacher educator, video taped instruction only, or programming on educational television channels within the state.
2. A study should be conducted using additional evaluative instruments which could provide more precise measures for identifying maternal attitudes.
3. Parent-child interaction programs should be developed and assessed for children of various ages to determine the diversity of effectiveness as an intervention technique.
4. The size of the study sample needs to be increased so that validity and reliability of the assessment instruments could be further developed.

5. An instructional approach needs to be tested which would use parents as teachers in a parent-child interaction program.
6. Fathers should be encouraged to attend interaction programs to permit acquisition of an ability to assist their young children to develop cognitive skills.
7. An additional observation noted that the mean gains between pretest and posttest scores on the children's test were 14.1 and 13.9. It is suggested that additional research be conducted in this area to determine whether the degree of differences in mean gains would be less comparable when pretest scores were similar.

BIBLIOGRAPHY

Books

Barbrack, C. R. and Horton, D. M. Educational Intervention in the Home and Paraprofessional Career Development: A Second-Generation Mother Study with Emphasis on Costs and Benefits. Nashville, Tennessee: DARCEE, George Peabody College, 1970.

Bloom, B. S. Stability and Change in Human Characteristics. New York: John Wiley and Sons, Inc., 1964.

Bronfenbrenner, U. The Ecology of Human Development. Cambridge, Massachusetts: Harvard University Press, 1979.

Goodson, B.D. and Hess, R.D. Parents as Teachers of Young Children: An Evaluative Review of Some Contemporary Concepts and Programs. Washington, D.C.: Bureau of Educational Personnel Development, 1975.

Honig, A. S. Parent Involvement in Early Childhood Education. Washington, D.C.: National Association for the Education of Young Children, 1972.

Honig, Alice S. "Working With Parents of Preschool Children." Parent Education and Intervention Handbook. Springfield, Illinois: Charles C. Thomas Publisher, 1980.

Schaefer, E. S. "Parents as Educators: Evidence from Cross-sectional, Longitudinal and Intervention Research." The Young Child: Review of Research Volume 2. Washington, D.C.: National Association for the Education of Young Children, 1972.

Periodicals

Bradley, R. H. and Caldwell, B. M. "The Relation of Infants' Home Environments to Mental Test Performance at Fifty-four Months: A Follow-Up Study." Child Development, 47:1172-1174, 1976.

Bronfenbrenner, Urie. "Is Early Intervention Effective?" Teacher's College Record, Vol. 76, Columbia University, New York, 1974.

Coleman, M., Ganong, L., and Brown, G. "Effects of Multimedia Instruction on Mother's Ability to Teach Cognitive Skills to Preschool Children." The Journal of Social Psychology, 115:89-94, October, 1981(a).

_____. "Parent-Child Interaction: A Successful Program Model." Journal of Extension, 14:9-12, July-August, 1981(b).

Gordon, Ira J. "Parent Education and Parent Involvement: Retrospect and Prospect." Childhood Education, 54:71-79, November-December, 1977.

_____. "Reaching The Young Child Through Parent Education." Childhood Education, 46:247-249, February, 1970.

Grantham-McGregor, S. M. and Desai, P. "A Home Visiting Intervention Programme with Jamaican Mothers and Children." Developmental Medicine and Child Neurology, 17:605-613, 1975.

Klock, Elizabeth M. "The Development and Testing of a Microtraining Program to Enhance Empathic Communication by Parents of Young Children." Dissertation Abstracts International, 38:7730559, February, 1978.

Kogan, K. L. and Gordon, B. N. "A Mother-Instruction Program: Documenting Change in Mother-Child Interactions." Child Psychiatry and Human Development, 5:189-200, 1975.

Matson, J. L. and Ollendick, T. H. "Issues in Toilet Training Normal Children." Behavior Therapy, 8:549-553, September, 1977.

Moore, T. "Language and Intelligence: A Longitudinal Study of the First Eight Years." Human Development, 11:1-24, November, 1968.

Nay, Robert W. "A Systematic Comparison of Instructional Techniques for Parents." Behavior Therapy, 6:14-21, January, 1975.

Nimnicht, Glen P., and Brown, Edna. "The Toy Library: Parents and Children Learning with Toys." Young Children, 28:110-116, December, 1972.

O'Dell, S. L., Mahoney, N. D., Horton, W. G., and Turner, P. E. "Media-Assisted Parent Training: Alternative Models." Behavior Therapy, 10:103-110, January, 1979.

Stevens, J.H. "Current Directions in the Study of Parental Facilitation of Children's Cognitive Development." Educational Horizons, 50:62-66, 1973.

_____. "Parent Education Programs: What Determines Effectiveness?" Young Children, 33:59-65, May, 1978.

Strom, Robert. "Play and Family Development." The Elementary School Journal, 74:360-368, March, 1974.

Webster-Stratton, Carolyn. "Modification of Mother's Behaviors and Attitudes Through a Videotape Modeling Group Discussion Program." Behavior Therapy, 12:634-642, November, 1981(a).

_____. "Videotape Modleing: A Method of Parent Education." Journal of Clinical Child Psychology, 10:93-98, Summer, 1981(b).

Zuckerman, Lawrence. "Effects of Learning in Adlerian Parent Study Groups Using Lecture-Discussion and Lecture-Discussion with Self-Instructional Material." Dissertation Abstracts International, 39:7816994, September, 1978.

Other Sources

Andrews, S. R., Blumenthal, J. M., Bache, W. L., and Wiener, G. "The New Orleans Model: Parents as Early Childhood Educators." Paper presented at the biennial meeting of the Society for Research in Child Development, Denver, Colorado, 1975.

Blossom, Marilyn Coleman. "Success in Mothers' Ability To Use Toys and Learning Episodes To Teach Their Children Perceptual and Cognitive Skills After Participating in Selected Instructional Strategies." Ed.D. Dissertation, University of Missouri-Columbia, 1975.

_____ and Ganong, L. "Parent Competency Through Parent-Child Interaction." Paper presented at the Interdisciplinary Conference on Parenting, Atlanta, Georgia, 1977.

Boger, Robert. "Parent as Teacher: Perspective of Function and Context." U.S., Educational Resources Information Center, ERIC Doucment ED 175 576, 1978.

Goodwin, J. "A Summary of Five Major Evaluation Reports on the Follow Through Program in Philadelphia, 1972-1973." U.S., Educational Resources Information Center, ERIC Document ED 104 550, 1973.

Gordon, I.J., Greewood, G. E., Ware, W. B., and Olmsted, P. P. "The Florida Parent Education Follow Through Program." Mimeographed Publication from the University of Florida, Institute for Development of Human Resources, University of Florida, Gainesville, 1974.

_____ and Guinagh, B. J. "A Home Learning Center Approach to Early Stimulation." U.S. Educational Resources Information Center, ERIC Document ED 115 388, 1974.

Lasater, T. M., Briggs, J., Malone, P., Gilliom, C. F., and Weisberg, P. "The Birmingham Models for Parent Education." Paper presented at the bienial meeting of the Society for Research in Child Development, Denver, Colorado, 1975.

Leler, H., Johnson, D. L., Kahn, A. J., Hines, R. P., and Torres, M. "The Houston Model for Parent Educaton." Paper presented at the biennial meeting of the Society for Research in Child Development, Denver, Colorado, 1975.

Mann, M. "Effects of a Preschool Language Program on Two Year Old Children and Their Mothers." U.S., Educational Resources Information Center. ERIC Document ED 045, 224, 1970.

Radin, N. "Three Degrees of Parent Involvement in a Preschool Program: Impact on Mothers and Children." U.S., Educational Resources Information Center, ERIC Document ED 052 831, 1971.

Rosenfeld, Anne H. "Mother-Child Home Program." U.S., Educational Resources Information Center, ERIC Document 175 184, 1978.

Rubin, Roberta I. "Comprehensive Model for Child Services: Parent Education Follow Through Program." U.S., Educational Resources Information Center, ERIC Document ED 181 353, 1979.

_____. "Tracing Trends in Child and Family Services: Ira Gordon's Programs." U.S., Educational Resources Information Center, ERIC Document ED 200 860, 1980.

Schaefer, Earl S. "Child Development Research and the Educational Revolution: The Child, The Family, and The Education Profession." U.S., Educational Resources Information Center, ERIC Document ED 078 972, 1978.

White, B. L. "Reassessing Our Educational Priorities." Report of the Early Childhood and Parent Education Committee. Compilation of reports presented at the Missouri Governor's Conference on Education, December, 1976, Columbia, Missouri.

APPENDIXES

APPENDIX A

PARENT SURVEY

PARENT SURVEY

Name_____ **Parish**_____

This is not a test. It is a survey of your opinions about children. Read each statement carefully and choose your agreement or disagreement by circling one of the numbers next to it.

Strongly Agree 1	Somewhat Agree 2	Somewhat Disagree 3	Strongly Disagree 4

1.	Children should not play for long periods of time.	1	2	3	4
2.	I get tired of my child wanting me to play with him.	1	2	3	4
3.	My child needs to play with me.	1	2	3	4
4.	Toys help my child to learn new ideas.	1	2	3	4
5.	My child bothers me when he asks me questions.	1	2	3	4
6.	I enjoy playing with my child.	1	2	3	4
7.	My child should play with toys when he chooses to play with toys.	1	2	3	4
8.	It irritates me to see a child play for long periods of time.	1	2	3	4
9.	I do not like for my child to be noisy when he plays.	1	2	3	4
10.	Being able to identify and name objects helps a child to organize his/her thinking.	1	2	3	4
11.	I don't know what to do when I spend time with my child.	1	2	3	4
12.	It is not important for me to tell my child he does things well.	1	2	3	4

	Strongly Agree 1	Somewhat Agree 2	Somewhat Disagree 3	Strongly Disagree 4
13. Children should be allowed to develop new ways of playing with their toys and games.	1	2	3	4
14. When my child needs to talk to someone, I like for him to talk to me.	1	2	3	4
15. Parents help children learn--toys do not.	1	2	3	4
16. Children can often sort objects by color before they learn to talk.	1	2	3	4
17. Although children can have similar characteristics, each has his/her own rate of development.	1	2	3	4
18. I enjoy spending time with my child.	1	2	3	4
19. My child should play with toys the way they were intended to be used.	1	2	3	4
20. Toys can be used in different ways by children.	1	2	3	4
21. I enjoy talking with my child.	1	2	3	4
22. I should let my child know I am proud of him when he does things well.	1	2	3	4
23. Children should be allowed time to play alone.	1	2	3	4
24. My child talks too much.	1	2	3	4
25. My child should not need to play with me.	1	2	3	4
26. The ability to listen is an important skill for young children to learn.	1	2	3	4

	Strongly Agree 1	Somewhat Agree 2	Somewhat Disagree 3	Strongly Disagree 4
27.	Children need toys to help them develop and learn.	1	2	3	4
28.	It's alright for my child to make mistakes.	1	2	3	4
29.	My child should be quiet when he plays.	1	2	3	4
30.	Parents are a child's first and best teachers.	1	2	3	4
31.	Talking helps children to develop language skills.	1	2	3	4
32.	Through play, children learn to understand their environment	1	2	3	4
33.	It is alright for my child to ask me questions.	1	2	3	4
34.	I do not like for my child to make mistakes.	1	2	3	4
35.	Toys should be difficult for children to handle and understand.	1	2	3	4
36.	My child asks me too many questions when he plays.	1	2	3	4
37.	My child should learn to play with other children.	1	2	3	4
38.	I am important in helping my child learn ideas.	1	2	3	4
39.	Children learn without much help from their parents.	1	2	3	4
40.	My child needs praise when he plays.	1	2	3	4
41.	Most children think learning is fun.	1	2	3	4
42.	Noisy play does not bother me.	1	2	3	4

	Strongly Agree 1	Somewhat Agree 2	Somewhat Disagree 3	Strongly Disagree 4
43. Children should play with a toy only as long as they are interested in doing so.	1	2	3	4
44. A parent who listens carefully can discover what a child is thinking and how he feels about himself.	1	2	3	4

APPENDIX B

COGNITIVE AND PERCEPTUAL SKILLS TEST

CAPS Cognitive and Perceptual Skills Test

Parent's Name_____ Child's Name _____ Pre ___

City_____ Date _____ Post___

Examiner_____ Score _____

A. COLOR NAMING

Material: 9 crayons with paper covering intact

Procedure: Present the crayons to the child in random order, one at a time.
Examiner: "What is the name of this color?"
If child understands after 2 or 3 presentations, "What is the name..." no longer needs to be repeated.

1. _____(Green)
2. _____(Orange)
3. _____(Yellow)
4. _____(White)
5. _____(Purple)
6. _____(Black)
7. _____(Blue)
8. _____(Brown)
9. _____(Red)

B. COLOR IDENTIFICATION

Material: 9 crayons with paper covering intact

Procedure: All crayons should be placed in a row on the table in front of the child.

The child is asked to select one of the nine crayons as the relevant color as named by the tester.

Present the colors to the child in random order.

Examiner: "Point to the (Green) color."

1. _____(Green)
2. _____(Black)
3. _____(Orange)
4. _____(Purple)
5. _____(Blue)
6. _____(White)
7. _____(Brown)
8. _____(Red)
9. _____(Yellow)

C. SHAPE NAMING

Materials: Four two-dimensional shapes 

Procedure: Shapes should be presented individually and in random order.

Examiner: "What is the name of this shape?"

1. _____(Circle) 2. _____(Triangle) 3. _____(Square) 4. _____(Rectangle)

D. SHAPE IDENTIFICATION

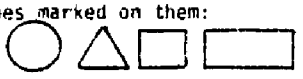
Materials: Six two-dimensional shapes

Procedure: Shapes should be placed in a row in front of the child.
Child is to point to the shape indicated.
Examiner: "Point to the (square)."

1 _____(Square) 2. _____(Circle) 3. _____(Rectangle) 4. _____(Triangle)

E. PROBLEM SOLVING: SHAPES

Materials: Four 4X6-inch cards with the following shapes marked on them:



Ten common objects, lsited 1-10 below.

Procedure: Place the four cards in front of the child.
Place the ten objects in front of the child in random order.
Examiner: "Do you see any things that are shaped like (circles)?
Put them on the card with the (circle) on it."
Continue with each of the remaining three shapes.

1. _____penny
2. _____bottle cap
3. _____nickel
4. _____round candy
5. _____square cracker
6. _____sugar cube
7. _____triangular block
8. _____rectangular postage stamp
9. _____small envelope
10. _____match box

F. LETTER NAMING

Materials: Five 3X5-inch cards with the letters N, B, A, D, S printed on them.

Procedure: Hold one card at a time in front of the child.

Examiner: "What is the name of this letter?"

Continue in random order.

1. _____(N) 2. _____(B) 3. _____(A) 4. _____(D) 5. _____(S)

G. LETTER RECOGNITION

Materials: Five 3X5-inch cards with the letters N, B, A, D, S printed on them.

Procedure: Arrange the five cards in front of the child.

Examiner: "Point to the letter (N)."

Continue in random order.

1. _____(S) 2. _____(B) 3. _____(N) 4. _____(A) 5. _____(D)

H. SET CLASSIFICATION

Materials: Two sets each of these two-dimensional shapes:

(1) 3 large red circles, 1 small red circle

(2) 3 small green shapes, 

and 1 red one 

Procedure: Arrange the sets, one at a time, in front of the child.

Examiner: "Point to the one that doesn't belong."

1. _____(3 large red circles, 1 small red circle)

2. _____(3 small green shapes  and 1 red one 

I. MATCHING PATTERNS

Materials: Two sets each of the following:

(1) Two-dimensional shapes all the same color (3 squares, 3 circles, and 2 triangles)

(2) Nine wooden cubes (2 blue, 3 green, 2 red, 2 yellow)

Keep identical sets of shapes and cubes in separate compartments, one set for examiner and one set for child.

Procedure: Arrange sample in front of child in any order.

Examiner: "Watch me. See what I'm making: You make one just like this. Make yours right here."

Indicate to child that his pattern should be below the examiner's on the table.

1. ____ 

2. _____ B G R Y G B R Y G

J. EXTENDING PATTERNS

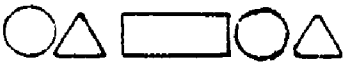
Materials: (1) 3 circles, 3 triangles, 3 rectangles, all one color

(2) 3 red cubes, 3 blue cubes and 3 yellow cubes

Procedure: Arrange five of the shapes/cubes as indicated, the child uses the other four.

Examiner: "Watch me. I am going to put the blocks out a certain way. Finish this row. Use all the shapes/cubes."

Be sure the child extends to the right of the pattern.

1. ____  ____ ____ ____ ____

2. _____R B Y R B __ __ __ __

K. POSITION NAMES

Materials: one small box and one toy car

Procedure: Direct the child to place the car in the specified position.

Examiner:

1. _____"Put the car in front of the box."
2. _____"Put the car under the box."
3. _____"Put the car between the two boxes." (Use upturned lid for second box.)
4. _____"Put the car behind the box."
5. _____"Put the box over the car."
6. _____"Put the car on top of the box."
7. _____"Take the car off the box."
8. _____"Put the car in the box."

L. COMPARING LENGTHS

Materials: (a) 10 graduated length strips, all the same color
(b) 2 strips of different colors, the same length
(c) 5 blocks of 4 different lengths; 2 blocks will be the same but should be neither the tallest nor the shortest

Procedure: (a) Lay the 10 graduated strips in front of the child in random order.

1. _____ Examiner places #7 strip apart from the others and says, "Look at all the strips. Point to all the strips that are taller than this one."

2. _____ Examiner places #5 strip apart from the others and says, "Look at all the strips. Point to all the strips that are shorter than this one."

Procedure: (b) Give child one strip. Hold second strip in front of child.

3. _____ Examiner: "Is mine taller than, shorter than, or the same size as the one you are holding?"

Procedure: (c) Place five blocks of four different lengths in front of child. The blocks should be standing on end.

4. _____ Examiner: "Point to the shortest."

5. _____ Examiner: "Point to the tallest."

6. _____ Examiner: "Point to the two that are the same."

M. NUMERICAL CONCEPTS

Materials: Six small, square blocks; four 3X5-inch cards with the numerals 4, 7, 1, and 3 printed on them

Procedure: (a) Place the blocks in a stack (6, 2) in front of the child

1. _____(6) Examiner: "How many blocks are in the stack?"
2. _____(2)

Procedure: (b) With the six blocks in front of the child, present the printed numeral 3 to him/her.

3. _____ Examiner: "Hand me that many blocks."

Procedure: (c) Put four blocks and the four cards in front of the child.

4. _____ Examiner: "Point to the card that has the numeral that is the same as this number of blocks."

N. DESCRIBING ATTRIBUTES

Materials: (a) one large and one small red triangle block
(b) two large triangle blocks, one red, one blue

Procedure: (a) Use one large and one small red triangle. Hand the small one to the child.

1. _____ Examiner: "How is your shape different from mine?"

Procedure: (b) Place two large triangles, one red and one blue in front of the child.

2. _____ Examiner: "How are these two alike?"
(Score 1 point for "both large" and
3. _____ score 1 point for "both triangles".)

APPENDIX C

PCI MEETING PROCEDURE

PCI MEETING PROCEDURE

Prior to the time of meeting:

1. Secure an audience.
2. Read and review guidesheets.
3. Arrange for pre-evaluation appointments -- (family questionnaire, parent survey, "Learning Is Child's Play", and CAPS Skills Test).
4. Set-up meeting time for parents to check-out toys each week.

First Week*

1. Welcome to program.
2. Distribute Guidesheet #1 ("Sound Cans") and letter which accompanies it.
3. Check out Sound Cans for parents to examine.
4. Questions and/or comments.

*Before the next meeting, call your parents to see if they have any questions or concerns about how to use the toys. (Repeat after second week.)

Second Week*

1. Have parents inventory their toys. Check in previous week's toys.
2. Brief discussion of participant's experiences with toy.
3. Check-out new toy (Feelie Bag) plus publication with accompanying letter to parents.
4. Questions and/or comments.

*Before the next meeting, call your parents to see if they have any questions or concerns about how to use the toys.

Third Week on through Ninth Week...will be the same as above in the following sequences:

3. Matching Board
4. Color Lotto
5. Color Blocks
6. Learning Squares
7. Comparison Blocks
8. Number Puzzle
9. Attribute Blocks

Tenth Week

1. Children are re-tested with CAPS Skills Test.
2. Parents fill in PCI Evaluations and Parent Surveys
3. Meet with parents for brief period of time to discuss child's gains during program.

APPENDIX D

PARENT-CHILD INTERACTION PUBLICATIONS

LOUISIANA COOPERATIVE EXTENSION SERVICE

Home Economics Guide 67

Learning Is Child's Play

To many parents, children's game playing seems to be just that—only playing and a waste of time. Yet, to preschool children, playing is the main way they come to understand and master their environment. Playing is a way of learning by trial and error to cope with the real world. It is a powerful means for learning. Parents know they are important to their child's development and that what they do with them affects their later learning but many are puzzled as to *what* they could or should be doing.

It's hard to play without toys; children need toys to develop and learn. On the other hand too many toys or poorly selected toys kill children's creativity in play. Just as parents carefully select "tools" for their own work, they should also carefully select the child's "tools" for play—play is child's work.

As well as providing good quality toys parents must love, trust, and respect the child. A parent must be a sensitive listener and be able to detect what the child is thinking and how he feels about himself.

The series of guides that follow this introductory guide are designed to teach parents how to play with their children in order to expand the child's knowledge and self-concept and also to help parents become more effective and satisfied in their roles. Each guide covers a specific game and explains the equipment needed, the purpose of the game, and contains specific instructions for playing. These games can be constructed at home or they can be borrowed from parish Extension offices. (For specific information contact your parish Home Economist).

When using these toys or playing any game with children, there are several guidelines that should be followed.

Guidelines for Play

- First, make sure you read the game's instructions carefully before starting to play with the child. It is important that you are not confused so the child will have an easier time understanding the rules himself.
- The physical setting is also important when playing with children. Parent and child should be on the same level. The child should be comfortable and not feel dwarfed by a chair or a table when he's trying to play a game or he may feel defeated to begin with. If you're not too uncomfortable, playing the games on the floor might be the best solution.
- Children should be allowed to examine the toy and play with it alone for a few minutes before beginning the actual game. This will give the child a chance to become acquainted with the toy's size, shape, color, etc., and will help him feel more comfortable with the toy when the actual game begins.
- Always remember to ask the child only once if he wishes to play the game. If he does, fine; if he doesn't then wait until another time and ask again. Avoid forcing a child to take part in any activity no matter how much you think he may learn from it. There may be a very good reason why he doesn't want to play. Perhaps he thinks he would fail and he can't face failure at the present time.

As you are playing a game, the child may want to change the rules or devise a new game plan. If he does this you should play by his rules. This encourages creativity and feelings of being worthwhile and important—someone who has ideas.

If parents force a child to play games the "right" way his ability to look at a variety of alternatives and to think of many ways to solve problems is limited. Chil-

dren need preparation in order to develop into creative thinkers.

- Only play a game with a child as long as he is interested and not bored. If he becomes bored or tired, go on to another game, or stop playing entirely. Be sure to encourage a child to play, but don't let your encouragement grow into forcing or nagging. To be effective the games must be fun for both of you.
- It's also important to remember how to react if the child gives a wrong answer in one of the games. Extremely negative reactions or put-downs may damage his self-concept and sense of well-being and should be avoided. Positive reinforcement is best. The way adults encourage or discourage a child may markedly effect his future learning.

Summary

The games discussed in these guides are designed for preschoolers. Children will learn something new each time you play the game with them.

The skills that can be learned with these games are basic and are needed to expand a child's knowledge of their everyday world and help them to function in a more mature way. They are skills that are necessary to succeed in school. By following these suggestions when playing with your child, you will be well on your way to helping your child learn important ideas through play.

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LOUISIANA COOPERATIVE EXTENSION SERVICE

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Learning Is Child's Play

Sound Cans

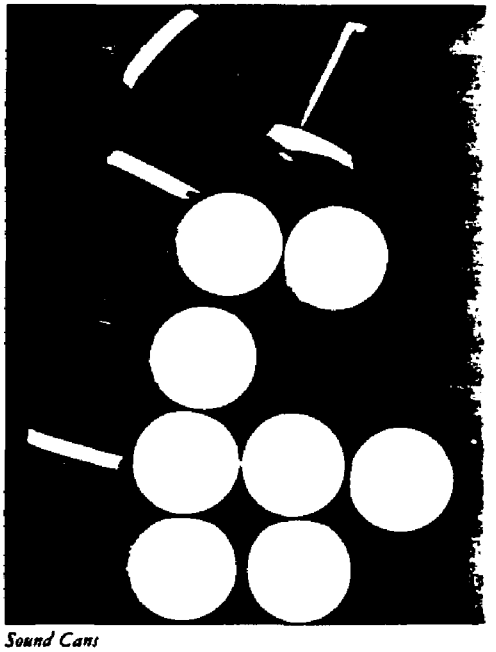
How many times have you missed hearing something because you simply weren't listening? Often our minds are on something else and we shut out what others say. Some of us have never really developed very good listening skills. But, the ability to listen is important and should be developed in young children.

An easy way to begin developing this ability is by playing sound games; games where children have to pay close attention to be able to tell if sounds are the same or if they are different. Children who are unable to do this have difficulty pronouncing words and understanding their meaning because so many words sound alike to them. These are the children who think "husks" are something on an elephant's head, etc. Poor listening skills develop into reading problems when a child is old enough for reading instruction.

Description

Sound Cans is a game that is played using small, capped metal film cans which have different objects or materials inside. You can also play this with empty plastic medicine containers that have been covered with contact paper or any small containers that look alike. It's important that these cans are not transparent so the child must match them by listening to the sound of the material inside.

Arrange the *Sound Cans* into two sets. Each set should contain one can each filled with unpopped popcorn, elbow macaroni, sunflower seeds, straight pins, rice cereal, and thumb tacks. Any small object can be used, but you must make sure the sets are exactly the same (same type of filling, size, amount, etc.).



Sound Cans

Purpose

The purpose of the toy is to teach children to listen closely to sound and be able to identify sounds as the same or different.

Game I

Divide the sound cans into two equal sets (each set would contain one can holding a paper clip, one that was empty, etc.). Put one set of sound cans in front of the child and one set in front of you. Most children will be curious and want to shake the cans and open them to see what is inside. It's fine to let them play with and shake the cans but it's best if the lids are difficult to remove. Otherwise, the child may become distracted from the game's objective of matching sounds by absorbing himself in discovering what's inside each can.

When you're ready to begin the game pick up one of your cans and shake it. Invite the child to shake it and then find the can in his set that makes the same sound." If he chooses the wrong can, shake both cans again and tell him, "Your can does not make the same sound as mine. See if you can find the can that makes the same sound."

To make the game harder change the materials inside the can. Different sized dried beans, for example, would be a real challenge to many preschoolers. If the game seems too difficult go back to sounds that are easier to identify. For example, see if the child can identify or match animal sounds, bells, a door slamming, or water running.

In addition to *Sound Cans*, try playing a game sitting quietly for a short time and listening carefully for as many sounds as possible. Ask your child questions about what he heard and let him question you.

Summary

Careful listening is an important skill to develop. An easy task to begin developing listening skills is identification of common sounds such as a door slamming, a dog barking, etc. Toys like the *Sound Cans* help a child develop the difficult skill of identifying sounds as the same or different.

Sounds carry messages and listening is an important way of learning about the environment. Listening games are fun and help a child become more aware of the messages about his surroundings that sound brings him.

Director, Cooperative Extension Service, Louisiana State University and Agricultural & Mechanical College, Baton Rouge, LA 70803

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Learning is Child's Play

Feelie Bag

Preschool children learn continuously from every incident from playing to just gazing at the clouds. However, touching is one of the first and most important ways that children are able to learn. They love to touch, to find out how objects feel. And, they soon learn to identify objects by the way they feel.

Developing the ability to identify and name shapes is important preparation for later learning. Children learn to use this information to describe the familiar as well as new and complex objects

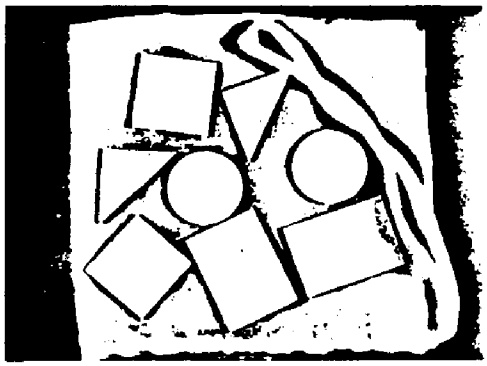
Parents are the first teachers of children, whether they realize it or not. Long before school days children are learning about the world by living and interacting with those who care for them. As infants, much of this early care consists of being fed, cuddled, changed, and bathed. The sense of touch is important to all these activities and babies quickly repond to feelings of tenseness or relaxation when they are touched.

As children grow older and continue to learn through touching, it's still important that they are played with in a happy, relaxed manner. Talk with, listen to, and encourage your child. Children need to feel they can solve problems and that their opinions are respected. Spending time in a shared game can help children gain self-confidence and improve their relationship with their parents.

Description

A simple game to help children recognize the basic shapes, circle, square, triangle, and rectangle, is the ***Feelie Bag***. This can be easily made at little expense.

The game consists of a drawstring bag with two sets of cut out shapes - preferably masonite or similar strong material. There are two squares, two circles, two triangles, and two rectangles.



Feelie Bag

Purpose

The *Feelie Bag* helps the child to recognize shapes by touch as well as by sight.

Game I

This game helps children learn how shapes look and feel. Children learn to identify shapes by feeling surface edges and pairing it with the shape the parent holds.

Put one set of shapes in the sack and the other on the floor next to you and your child. From the set on the floor pick up one shape, for example a circle. Now, ask him to put his hand in the bag and select the same shape as the one you have. The child should reach into the *Feelie Bag* until he draws one out.

The idea is for the child to feel the shapes in the bag without looking. If the child does look continue the game

and ask him if he can find the shape without looking. If he persists hold the *Feely Bag* so the child can't see inside.

Responding to mismatched shapes is also an important part of the game. If the child selects a circle to match the square you're holding, compare the two shapes and explain to him that the shapes don't match. For example, "You have a circle. My shape is a square. They are different. Try again." Avoid telling the child he is wrong.

If the child selects a shape that matches yours, explain to him in specific words the kind of shape they both are and that they are both alike. Also be sure to praise him. You can continue with this game until all the shapes are out of the bag.

Game II

Another game helps children recognize shapes by sight and by feel. The child feels a shape that has been tucked inside the drawstring bag. Then, he must find the shape from the set that is outside that looks like the shape he felt inside the bag.

Be sure one set of each of the four shapes is in plain view, while the other set is hidden from your child's view. Then, have the child close his eyes while you put one single shape inside the bag.

Say, "Feel the shape inside the bag and without looking at it, find a shape from the outside that is the same." If he selects a different shape, tell him they aren't the same. "These shapes aren't the same. Try again." By avoiding the word wrong, you help the child believe in himself and feel confident enough to enjoy this learning game.

When he matches the shapes correctly, hold them close together. This reinforces their sameness. "They are the same shape. They are both circles."

Game III

In the previous games the child has been asked only to *match* shapes. It's also important to be able to identify the shapes by name. Put the four different shapes in a pile. Pick them up one at a time and say, "Each shape has a name. This one is called a square, etc."

After you have done this at least twice and you feel the child is becoming aware of the names ask the child to look at all the shapes. Then say, "I am thinking of a shape. It's round and has no straight sides. Can you guess what it is?" Or, "I am thinking of a shape. It has three sides. Can you name it?"

Continue the game making your hints easier or harder depending on the child's ability to identify and name the shape. The clue should not be so easy that the game is boring nor so hard that it's frustrating. When the child becomes skilled at the game let him take a turn at giving the clues and see if you can guess which shape he is identifying.

This game not only gives the child practice at identifying shapes but also teaches him observation skills.

Game IV

Put the four shapes from the *Feely Bag* in a pile and ask the child to choose one. When he has made his selection ask him to look around the room and see if he can find a shape similar to the one he selected. After he identifies an object have him choose another shape and continue the game.

Typical objects he might select would include a rectangular window, door, or book, a plate, flowerpot, or wastebasket opening in the shape of a circle, a square table, napkin, or floor tile, or a triangular coat hanger.

He may need some help at first in identifying similar shapes since this is a more difficult job than identifying the objects in the *Feely Bag*.

Summary

The ability to identify and name shapes is important preparation for later learning. Games like the *Feely Bag* help a child learn to recognize shapes by feel as well as sight.

Feeling, comparing, identifying, and naming are skills needed throughout life and these games provide an enjoyable way to help a child understand more of his world. Your awareness of how a child learns and what he needs to know will help him as he tries to understand why things are the way they are in his surroundings.

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LOUISIANA COOPERATIVE EXTENSION SERVICE

Home Economics Guide

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Learning is Child's Play

Matching Board

Some parents believe play is something children do *because they have nothing more important* to do. Actually, through play children are able to learn many basic concepts that they need to understand more complex ideas or facts. It is hard for many people to realize that anything so enjoyable could be educational, too.

Of course, not all play has the same value to the child. Parents and other adults can help guide the child to many different kinds of meaningful play.

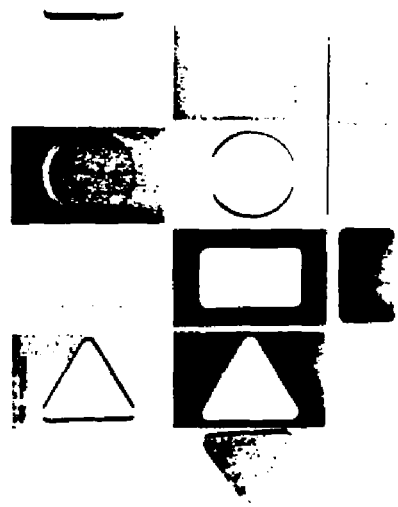
Some parents feel guilty because they do not have enough time to spend with their children. *It is important* for them to realize that the quality of the time you spend with your child is as *important* as the quantity. A parent who sits by a child and watches him play but does not talk with the child, or one who forces the child to play games by rigid rules, has not taken advantage of an opportunity to get to know more about how the child thinks and feels as well as to help the child learn from play.

Description

Many parents help their children learn to recognize shapes by talking with them about what they see and by playing games with them.

A *Matching Board* can be used to help a child learn about squares, rectangles, triangles, and circles. It has two differently colored pieces in each of these shapes. Very young children will enjoy just putting in and taking out the shapes.

The board and inset shapes can be made from masonite or plywood and painted with a non-toxic paint. The board is divided into eight sections and each is painted a different color. Each shape should be the same color as one of the rectangles into which it can be fitted.



Matching Board

Purpose

The *Matching Board* gives a child practice in identifying and matching shapes and also helps him identify colors.

Game I

One of the simplest games using this board can help a child recognize the shape of a circle, a square, a rectangle, and a triangle.

After you have given your child a chance to play with the board and the shapes for a while, take all the pieces from the board and give the child a triangle. Suggest, "Put the triangle in its place on the board". He may put it on the square on the board. Rather than saying, "No, that's wrong," it would be more helpful to say, "You have put it on the square's place". Simply remove it from the board and say, "Put the triangle in the triangle's place." If he does this correctly say, "Yes, you have put the triangle in it's place".

When you hand him the next shape, instead of just saying, "Now put this in its place," be more specific. Use the correct word for the shape you hand him. This will help him learn the words for these shapes. Continue the game in this way until the shapes have all been placed on the board. In this first game the child is only matching shapes. For example, the child does not have to correctly match the shape and its corresponding color slot.

Game II

Another way we can use the matching board will help children name colors as well as identify shapes. This is more difficult and involves more thinking than the first game.

We begin this time by putting all the pieces on the matching board with each shape placed on the same color background. Then ask the child to close his eyes while you take away one of the shapes.

Allow him to open his eyes and ask him which piece is missing. If he just says, "the square", you might say, "Yes, the purple square is missing".

If he was not correct and says a circle you can say, "The circles are still on the board". Point to the place where the piece is missing and say, "The purple square is missing". Continue playing the game asking which piece is missing.

Game III

Another game you can devise lets children become designers. Cut several squares. Some can be cut in half diagonally to make the triangles. By cutting some vertically or horizontally you will make twice as many as rectangles. You will want to leave some as squares. The children can arrange these shapes into many different designs. With a little help they can learn to draw around the outer edges. Later they can try to fit the pieces back on the outline if they wish. Children will also learn more about shape as they play with many different kinds of blocks. (See guide titled *Attribute Blocks* for information on learning games that use blocks of different shapes and sizes).

Summary

It takes time to play these games with your child but it can be very enjoyable. You may get to know him much better and you may even discover that learning really is child's play.

(The guide titled *Feelie Bag*, also discusses learning games that teach identification of common shapes).

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LOUISIANA COOPERATIVE EXTENSION SERVICE

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Home Economics Guide

Learning is Child's Play

Color Lotto

Parents who find time to play with their preschoolers often enjoy sharing the enthusiasm children have for discovering new information about the world around them. Until they are convinced otherwise, most children think learning is fun.

A child's parent can help him keep this outlook on life at the same time that he helps the child find ways to learn some important ideas the child needs to know. Equally important, when a parent and child play together they have a chance to get to know how each other thinks and feels. Every time they will have more to talk about and to share.

Parents should not wait until a child can talk to begin communicating with him. Many parents begin talking with their children even before they really expect them to understand the meaning of the words they are using.

Frequently conversations center around the things parent and child see around them. Because color is an element that makes our world more interesting, children often learn some basic ideas about color from these conversations.

Many children can sort objects by color or point to objects of certain colors before they can talk. How old a child will be before he can do this will vary a great deal. Children who have older brothers and sisters, parents, or other adults who have talked with them and asked them questions about color will usually have a head start in acquiring this knowledge.

Description

There are many games that can be played with children to help them learn about color. *Color Lotto* has long been a favorite for playing various kinds of color games.

Color Lotto

The *Color Lotto* board is a square wooden board divided into nine squares and each is a different color. There are also two sets of small matching colored squares, one to be used by the child and one by his partner. These boards can be purchased or made inexpensively by those who have a moderate amount of time and ability. Heavy cardboard or even colored construction paper can be used for the board and squares but masonite or one-fourth inch plywood would make a more durable toy.

You need an 11 x 11 inch board and 27 three-inch squares. A 1-inch frame should be placed on the board to keep the pieces from sliding off.

Use non-toxic paint. Paint three squares each with the following colors: red, yellow, blue, green, brown, white, orange, purple, and black.

One set of these squares is used on the board to serve as a pattern which the child will try to match in some of the games. He can rearrange these in any way that he wants so they do not need to be glued down.

Purpose

These games will help a child identify 9 basic colors by sight and name them. It will also help him learn to match a color from a sample of that color. With a little imagination, you and your child can dream up many different games to play with *Color Lotto*. To get you started thinking here are two lotto games you can play. Before you begin give the child a chance to examine the toy and to play with the squares in any way he wishes.

Game I

This game will help a child learn to match colors. Start the game by putting all the pieces in front of you. Select one square and say, "Find the square that is red, the same color as this square". If the child makes a mistake, help him to see the difference by moving your square closer to his. You might say something like, "These two squares are not the same color. Try again."

If he is correct, let him know his choice was correct. You could say, "Yes, these two squares are the same color. Both square red." Then you can tell him to put the square on his board.

The child may lose interest after a few more squares. If he does, drop the game until another day. If he is still interested, *continue the game until the board is full*. Then, you can have him take off squares that are like the one you're holding.

After playing this game, a child should be better able to understand what you mean by "the same as", "red", "yellow", and other color names used in the game. Also he may remember the names of these colors.

Game II

Put the lotto board and a set of squares in front of the child and without showing him an example ask him to find a yellow square. If he makes a mistake, you will need to pick up a yellow square and say, "*Find* a yellow square—the same color as this."

If he makes a lot of mistakes this game is probably too hard for him. You will want to go back to the first game.

If he is able to find a color correctly ask him again what color the square is. When he says it correctly have him put it on the board.

As in Game I, once the board is filled ask him to take off a square of a certain color. Continue in this way until the squares are all removed or until the child no longer is interested in the game.

Summary

In these activities use complete sentences to talk with your child about what is happening. Use the color names and the phrases "the same as" and "not the same as" frequently to help the child begin to get a feeling for their correct usage.

[illegible]

LOUISIANA COOPERATIVE EXTENSION SERVICE

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Home Economics Guide

Learning Is Child's Play

Color Blocks

The preschool years are extremely important. This is when the child developes and changes rapidly in growth, muscle coordination, speech, and language. The way in which parents and adults react to, work with, and play with the child are of special importance at this time. This is a time when parents should talk with their child as they work and play.

One thing to remember is that although children have some common characteristics, each is a separate individual with his own special rate of growth. And even though you may see descriptions of typical three or four-year-olds, there is probably no child that will ever exactly fit one of those descriptions.

Play is the method by which children learn and toys are one of the vehicles of play that provide learning experiences. Toys mean more than just fun and games to a child - they can help him grow and develop in many ways.

Blocks are one of the most versatile children's toys. They can be used in many ways such as building, counting, comparing sizes, colors, and many others.

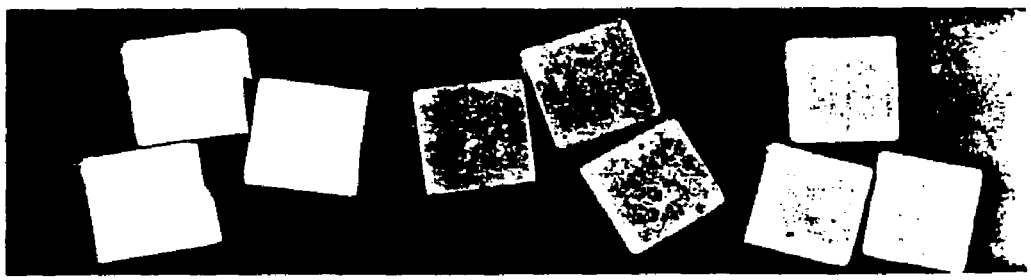
Description

Color Blocks consist of 16 blocks (four red, four blue, four green, four yellow) of the same size and an empty box.

Color Blocks are simple to make from materials that would be easily available to most parents. The 16 color blocks should be 1 inch square and could be made from any scrap lumber available. After cutting the 16 blocks with either a hand or electric saw, simply sand and paint them. The empty box used with this toy can be a wooden box, an old cigar box, or even a cardboard box.

Purpose

Color Blocks help children learn to see patterns and match them, to create their own patterns, and to learn words that tell where things are located.



Color Blocks

Game I

Game I is designed to teach a child words of position; words that tell where things are located such as on, under, beside, behind, and so forth.

Put the blocks and box on the table or *floor* and allow the child to play with them for a while without interference. This gives him time to become familiar with them and try out some of his own ideas.

After the child has played a while, put the box *in front of him*. Hand him a block (let's say a red block) and say, "Put your red block on top of the box."

If he puts the block in a different place, such as in front of the box, say, "you have put the red block in front of the box. Now put it on top of the box."

If he put the block on top of the box, say, "Yes, you put the red block on top of the box. Now put the block behind the box or put the block in back of the box."

Continue using these instructions:

- Put the red block ***underneath*** the box.
- Put the red block ***in front of*** you.
- Put the red block ***behind you*** or ***in back of*** you.
- Place the block on top of the box and say, "Take the block *off* the box."
- Turn the box over and say, "Put the block *in* the box."
- "Take your block ***out of*** the box and put it at the *side* of the box."
- Take two green blocks and place them a few inches apart and tell the child to put the red block ***between*** the two green blocks.

This can be continued until the child becomes bored or disinterested.

If the child wants to change the rules of the game or give instructions to you—play the game by his rules. This makes him feel important.

Game II

A second game, using the same equipment, is designed to help the child recognize colors, to see patterns; and to learn to extend pattern.

Again, as before, allow the child to play with the blocks for a while before starting the game.

Start with two colors of blocks (red and blue) and tell the child that you are going to place the blocks in a special kind of row. Say, "Now watch how I do this."

Now ask the child to take his blocks of the same colors and put them in a row so that they look like the row you made.

If the child is unable to copy the pattern, say, "First put down one red block, then one blue block, then one red block, and so on."

If the child is able to copy the pattern, make another one using three colors of blocks (red, green, blue). Say, "Put the blocks in a row so that they look like this one."

If the child is able to copy this pattern, make another one using all four colors of blocks.

Say to the child, "Put the blocks in rows so that they look like these blocks."

This game can be continued using various patterns and combinations of colors. The child may even develop his own patterns and combinations and ask you to make them.

Summary

The use of color blocks is simply a method of teaching the concept of position and patterning. Many other toys, objects, situations, and conversations can teach or reinforce these same concepts. Telling a child to sit in the *front* seat or the *back* seat of a car is use of words that tell position or location. Likewise telling a child to walk *beside* you or to stand *in front of* you are natural occurances of the use of words of position.

Color Blocks can serve as a starting point in developing a relationship in playing and talking with your child in a way that will be enjoyable and beneficial to both of you.

The child will learn; what he learns and how well he learns depends a lot on interested and loving mothers and fathers.

[illegible] Vice President for Extension, University of Missouri.

[illegible] Assistant Specialist, Family Life.

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LOUISIANA COOPERATIVE EXTENSION SERVICE

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Home Economics Guide

Learning Is Child's Play

Learning Squares

Whether we think about it or not, surrounding us are many different shapes, and sizes, and colors that are usually taken for granted. It's normal to be less aware of surroundings as you get caught up in everyday living. But, as parents of young children who are learning about shapes, sizes, and colors for the first time, you should be instrumental in helping them.

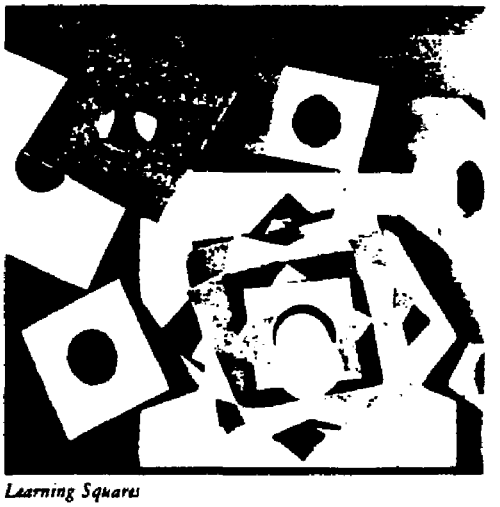
Look around the room you are sitting in right now. What are the *different shapes?* For example, are the doors in the room single doors, making a vertical rectangle; or double doors, making more of a square shape? What circles can be seen — a clock perhaps? Triangles may be a little harder to find, but if there's a coat rack in the room, what shape are the hangers? Many shapes may be identified by looking at or thinking about common things.

Looking around the same room again, what different colors do you see? What colors are you and the others around you wearing? And consider sizes; look for the big things like doors or windows or tables. Look for small things like books, or tiles in the floor.

When talking with a child about sizes — remember the perspective with which he looks at things. He is small himself, so what he considers "big" or "little" may be different than the way you'd think of it.

These activities help a child organize what he sees in his surroundings into his own understanding. First, he learns to recognize and identify objects according to shape, size, and color and then he begins classifying or grouping things on the basis of their similarities and differences. Being able to group or classify makes it possible for a child to deal with much more information than he could otherwise.

For example, he learns to classify dogs, cats, and cows as being in a group called animals. This saving in thought process can be compared to having one silverware drawer in your kitchen instead of having a separate drawer for forks, another for knives, one for spoons, etc. Knowledge



Learning Squares

can be unmanageable just as a kitchen can if it isn't classified.

Classifying, being able to group things on the basis of their similarities and differences, requires skill in observation. If a child does not learn to notice, study, and compare and contrast objects in his surroundings he will be unable to sort, arrange, and classify them according to their properties or characteristics.

It is easier for a child to learn the meaning of things if his parents talk to him about them and use toys or other objects to demonstrate the ideas. If a child is to learn, for example, the meaning of "big" and "little" he needs to talk about it and to handle objects or toys so he can compare and contrast. He learns through his eyes and hands what would be hard to describe using only words.

Just remembering to talk to the child about all these things — shapes, sizes and colors — will improve his awareness of the world around him.

Description

A toy that can be used to teach a child the concepts of same and different and the grouping that is an early step in classification skills is the *Learning Squares*.

The toy consists of 16 wooden squares that fit in order on a special wooden post. The squares must be stacked in the right order, by size, or they will not all fit. The four largest squares (one red, one blue, one green, and one yellow) go on the bottom. The four smallest squares (one of each color) go on the top. There is one of each color in each of the four sizes.

You can make your own *Learning Squares*. The wooden post and base can be made out of an inexpensive wood such as pine. The squares themselves can be cut out of ¼" thick masonite (or even cardboard). The base and post can be kept natural color, but the squares will need to be painted bright red, blue, green, and yellow. Be sure to use a non-toxic paint on the squares.

Purpose

It is fun to think of all the games that can be played with the *Learning Squares*. These games help your child learn:

- The concept of *same* and *not the same* as it relates to color and size.
- Recognition of patterns in groups of things and learning to eliminate those items that do not belong. (This is called classifying).
- Recognition of patterns and how to extend them.

Some game ideas follow to help get you started, but when your child wants to make up games on his own, let him. Children have amazing ability to come up with their own games. Allowing a child to do this encourages his creativity and self-expression — both of which are extremely important in the development of a preschool child.

Game I

The first game might be one that teaches the child that some colors are the same, and some colors are not. Using this toy will reinforce the child's knowledge of the four colors of red, blue, green, and yellow.

Spread the squares out in front of the child. Let him play for awhile to become acquainted with the parts of the toy. During this time it will be interesting for you to watch him. Does he stack the squares, or group them in any way? Does he use the wooden post, or does he ignore it and only play with the squares?

To begin the actual game, gather up the squares and remove any that the child put on the wooden post. Give him the eight largest squares and keep the other squares in front of you.

Pick up one of your own squares and say, "Please pick up one of your squares that is the same color as this red (blue or green or yellow) square."

If the child does not pick up a red square, say "That color is green (or blue or yellow). Please pick up a red square like mine."

If the child does pick out a red square, say, "Yes, both of these squares are red. Put your red square on top of my red square." If he does not know what "on top of" means, show him.

Continue the game in the same manner, using the other three colors, until his eight squares and your eight squares are matched.

Game II

Another game technique teaches sizes and their relationships. For example, place all of the green squares in front of the child and leave the others in front of you. Pick up any square of your own and say, "Show me one of your squares that is the same size as this square."

If the child picks up one that is a different size, place your square next to his. Wait for him to discover that they are not the same size. If he doesn't seem to see the difference, simply tell him that they are not the same. Encourage him to try again to find a square that is the same size as the one you are holding. Do this until all four of the child's squares are matched with squares of your own, or until he is tired and does not want to play anymore.

Game III

The object of this game is to help a child recognize patterns in groups of things and to learn to eliminate those things *that do not belong*.

If your child wants to play the game first spread the squares out before him to play with on his own. Watch him play. What does he do with the squares?

When the child seems ready to actually play a game, sort the squares so there are three small and one large square in front of him. Start with a statement like this: "Please point to all the squares in the group that are the same size; or "Please point to the square that is different than all the rest."

As you are discussing those squares that are different and those squares that are the same, tell how they are different, such as: "Yes, that square is bigger or larger than the others; or Those squares are the same size — they are all smaller than the large square".

By using these words appropriately in many situations, a parent can teach a child the correct meanings and concepts.

Recognizing patterns in colors as well as patterns in sizes is another way to teach patterning or classification skills. For example say: "Please pick the colored square that is different from the other three; or "That square is yellow - there are other yellow squares in the group. Try again to find the square that is a different color from all the *rest*."

Game IV

Learning patterns and how to extend them is the object of these games.

After the child has shown interest in playing the game and has had experience with Game III, let him play with the squares briefly in any way he chooses.

Then, gather up all the squares. First place all the largest squares in a row. Then take the remaining yellow squares and stack them in order.

Do this as the child looks on. Then say to the child, "What goes on the green square". If the child does not understand, stack up the squares in order in the green unit.

Once the child has this particular pattern learned — demonstrate a different pattern while the child watches:

1. Take the largest red square, the
2. next-to-largest yellow square, the
3. next-to-smallest red square, and the
4. smallest yellow square.

Then say: "I will start another stack and you can try to finish it."

1. Take the large blue square, and the
2. next-to-largest green square. Then, the child is encouraged to finish with the last two steps.
3. Take the next-to-smallest blue square, and the
4. small green square.

If the child does not know how to finish it—do step number 3 yourself (the next-to-smallest blue square) and say "What color square goes on the top?"

Every time you do something, give the child time to respond, but when you help him —explain to him exactly what you are doing—in clear, concise language. Though it may seem easy and obvious to you it's a difficult task to him. Simple clear directions help him master the task with correctness and ease. If directions are not clear and concise the child will become confused.

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LOUISIANA COOPERATIVE EXTENSION SERVICE

Home Economics Guide

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Learning Is Child's Play

Comparison Blocks

Playing with blocks is an extremely important activity in the life of a preschool child. It is considered by educators to be one of the most important activities in which preschoolers can engage.

Small blocks, such as the *Comparison Blocks*, provide opportunities for small muscle activities. And playing with these blocks can be an enjoyable learning experience for his parents—try using them to teach your child many concepts that he will be able to relate to the world around him. Playing with as well as talking with children is no waste of time. By doing these things a parent can help a child develop language skills, a healthy self-concept, and the ability to think, plan ahead, and make decisions.

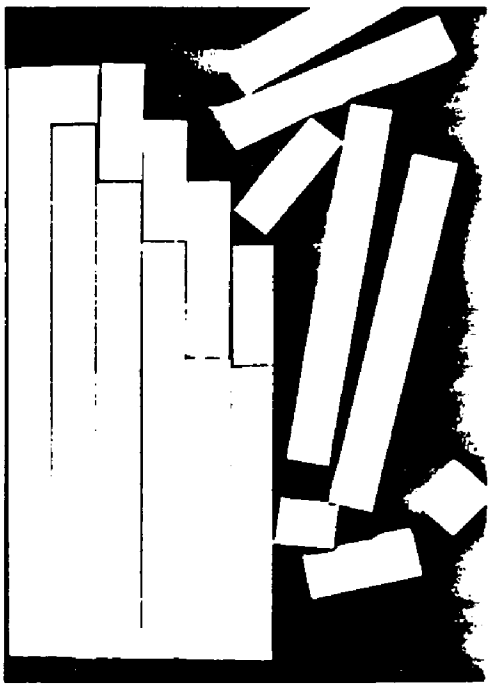
Description

Comparison Blocks consist of a wooden box containing 10 sizes of wooden blocks in units from one to 10.

The tallest block is 10 times as tall as the shortest. The other blocks are the units between one and ten.

You can make these toys yourself. Each block, no matter how long, is one inch square in depth. They range in length from 1 inch (11, one-inch blocks) to 10 inch (only 1 block). In blocks one through six there is more than one block. In numbers seven through 10 there is only one of each.

Probably the most practical wood (durable, clean, and inexpensive) is fir or pine. Any good lumber yard should be able to supply you with what you need.



Comparison Blocks

Purpose

Several games in which different sizes of blocks are compared follow. These games are designed to promote parent/child interaction and to teach the child size relationships: tallest; shortest; middle-size; taller; shorter; same; equal to.

It will be interesting for you to watch your child at play. Does he stack the blocks in any way? Does he lay them side by side? Consider what he might be thinking and learning as he does these things.

Game I

The first game that could be played with the comparison blocks is one that teaches the concepts of tallest and shortest. Out of the 10 sizes of blocks, select the number 2, 6, and 10 blocks - all fairly contrasting in size. Place these in front of your child and say something like this, "Please show me the block that is tallest." If he selects the tallest say, "Yes, that is the tallest block Please show me the shortest block".

If the child did not select the tallest block when you asked him, tell him what he selected instead. For example, "That is the middle-sized block. Try again to pick the tallest block."

When playing games with children be positive in attitude, rather than negative. Correct the child by showing and telling him the right way something is to be done, not by saying, "No, that's not right," or You're wrong!"

After the child seems to understand the meanings of tallest and shortest in the first game, try one more grouping of blocks to see if he really does understand. Take the number 3, number 5, and number 8 blocks this time. They are not as contrasting in size. Again ask, "Which block is the tallest?" or "Which block is the shortest?" Continue playing with the blocks in this manner until you are sure the child understands.

Game II

This game is designed to reach the child the meanings of taller and shorter. Lay out 10 differently sized blocks in front of the child. Pick up a number 4 block and say, "Please pick a block that is taller than this one."

It is good to hand the block to the child so he can compare it's size with the other blocks. It also helps him feel that he is in control and that he is really involved in decision-making.

If the child does select a taller one, hold them side by side so he can see that they are not the same size. Ask him which one is the tallest (going back to Game I procedure). From this, ease back into showing how one block is taller than another.

When the child understands taller, initiate the same kind of activity to help him know the meaning of shorter.

Once the child has learned taller and shorter, mention that the other block is middle-sized. However, it is only to expose him to the word. It is not so important that he knows it as well as the other terms: tallest, shortest, taller, and shorter.

If at any time, your child becomes tired or bored, stop playing. He will not be learning much if he feels this way. Perhaps you will need to stop playing games altogether for that day. You could also suggest playing another game, but ask the child only once.

Children love to make up their own games and usually have amazing abilities to do so. If at any time your child wants to do this, let him. Listen to his rules and play his way. You may both learn more and have more fun too.

Game III

A third game can be played after the child has completed games one and two.

This time, pick out only four blocks (e.g. number, 2, number 4, number 6, number 4). You will be stressing the concept of same size.

Say, "please pick out the two blocks that are the same size."

If he does not, say "These two blocks are not the same size. Please try again to pick the two blocks that are the same size."

If the child does select the blocks that are the same, continue selecting those blocks that are closer together in

size to make groupings that are more and more difficult. Then you will be sure that he understands the concept of same size.

This game can also be played quite successfully with empty thread spools that are the same size, or anything else that would make good comparisons.

Game IV

Now that the child knows the meanings of tallest, shortest, taller, shorter, same size, and has heard middle-size, he can learn the meaning of equal to.

Take one each of the number four and number six blocks. Put them and all of the number 1 blocks on the floor between you and the child. Stand up the number four block and say, "Please make a tower out of these smallest blocks that is equal to the size of this block (number 4)."

If the child does it correctly, say, "Yes, it takes four of these blocks to equal this one block."

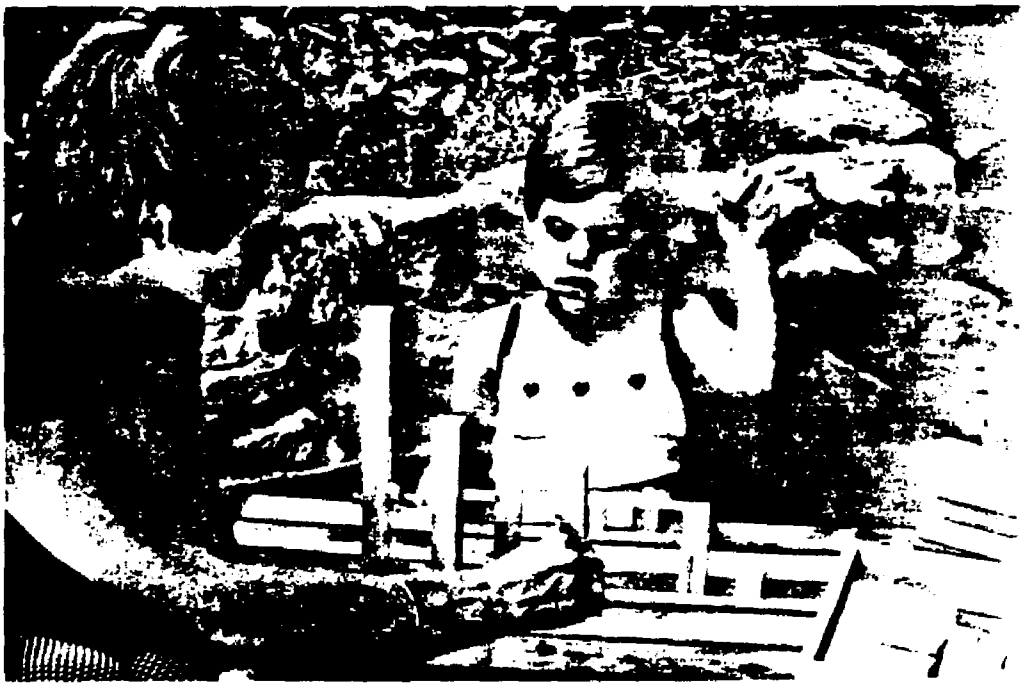
If he has trouble completing the tower, say something like this: "Your blocks are shorter than this block. Please add one more block to your tower. That will make it equal to this block."

Continue to play the game until the child understands equal to.

Summary

Now that you and your child have played with the *Comparison Blocks*, hopefully you realize their value and versatility. Children love to play - it's their business. And it's important. The *Comparison Blocks* are available to help you and your child achieve a working and playing relationship that can develop into a good educational experience.

Don't let your child's precious preschool years pass you by. You will both be missing out on a lot of fun — and a real opportunity to help him learn things that will aid him throughout life. And he will not only be learning the meanings of words like tallest, taller, shortest, shorter, equal to, etc, but also that he has a parent—a friend who loves him, who cares about him and what he thinks, who thinks that he is important, and can do things well. Isn't that what we all want?



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LOUISIANA COOPERATIVE EXTENSION SERVICE

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Home Economics Guide

Learning Is Child's Play

Number Puzzle

Parents of young children should take the time to play and talk to them. This is the way children learn about themselves, about the world, and about the concepts that will help them adjust to life.

Playing with children can and should be an enjoyable way of providing learning experiences. We often think about children's play only in relation to their playing with other children. Too many times the opportunities of adults playing games with children are overlooked. Parents are usually the most influential force on the child. They are children's first and best teachers. If children learn by playing, and if parents are influential, a wonderful opportunity for learning is available for parents who play games with their child.

Children love to play with numbers and should be encouraged to do so. But, when someone says a preschool child can count, he probably means the child can recall numbers in order just as he can recall a nursery rhyme. Actually, the child may have little understanding of the meaning of "number" or "counting". Memorizing numbers in order is not really counting. Only when the child can match the number with the quantity or amount it represents can he be said to be counting.

There are many ways to teach numerals, quantities, and number sequence. The *Number Puzzle* is one toy that can be used to provide this kind of learning experience for the child.

Number Puzzle

Description

The *Number Puzzle* consists of 11 rectangles representing the numbers 0 through 10. Each rectangle has notches on the left side that equal the preceeding number and notches on the right side that equal the numeral on that rectangle. This means that the rectangles only fit together *in proper order or numerical sequence*. On the right side of the rectangle there are also peg holes which represent the numeral on the rectangle. The pegs fit into these holes so that counting a numerical quantity *is part of this game.*

If you are interested in making a *Number Puzzle*, each of the 11 rectangular pieces should be 3 x 5 inches in size. Masonite works well for constructing these rectangles.

Each notch or cut should be ½ inch across and the hole drilled by each notch should be ⅛ inch in diameter. The pegs should be ⅜ inch in diameter at the large end and ⅛ inch in diameter at the small end and ¾ inch *in* overall length. These can be made from ⅜ inch dowel rods available at your local lumber yard or hardware store. Golf tees might also be used.

Purpose

The *Number Puzzle* helps the child learn to match numerals with the quantities they represent and to

identify, name, and count numbers in sequence from 0 to 10.

Game I

Pick up the number 1 rectangle of the number puzzle and while pointing to the numeral say, "This is the number 1. How many pegs are there? Let's count them." Then pick up the number 2 rectangle and while pointing to the numeral say, "This is the number 2. How many pegs are there? Let's count them."

This game can progress taking the number 3 rectangle next, then the number 4 rectangle and so on until you have counted all 10 sections of the puzzle. As you play this game, it is well to remember not to rush the child and not to get disturbed if he doesn't count along with you. Your child may even want to take the pegs out and put them back in the holes in the rectangles - this serves to reinforce the counting procedure and gives practice in eye-hand coordination at the same time.

Game II

The object of a second game that can be played with the Number Puzzle is to teach number sequence.

Take the number 1 rectangle of the number puzzle saying, "This is the numeral 1 and here is one peg. What numeral comes next?"

If the child picks the number 2 rectangle tell him, "Yes, that is correct, the numeral 2 comes next. Do you want to count the pegs?"

If the child picks the wrong numeral, pick up the number 2 rectangle and tell him that the numeral 2 comes next and ask him if he wants to count the pegs. In other words, if the child makes a mistake, tell him the correct answer rather than telling him that his answer was wrong. You should proceed through all of the numbers in order while playing this game with the child.

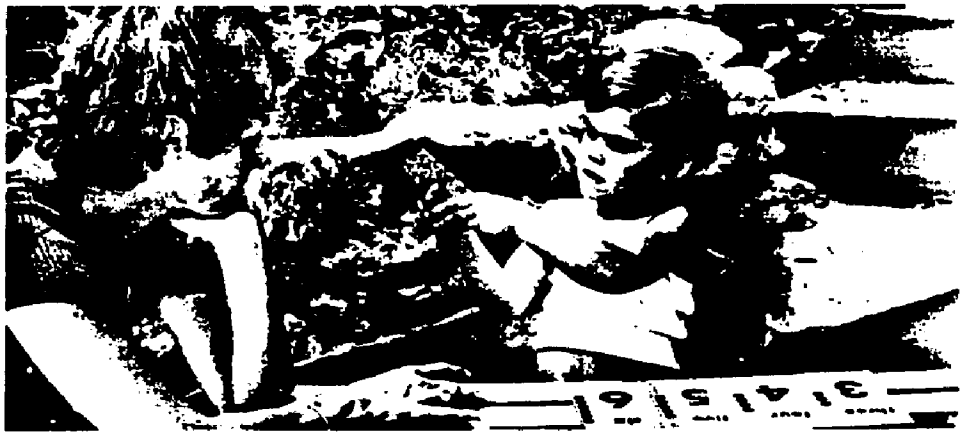
One purpose of this toy is to help the child learn that the numerals 1, 2, 3, 4, etc. represent certain quantities and have a certain order or sequence. These two concepts are stressed in the two games described.

This toy will probably require more practice than the others unless the child has had a lot of previous experience in counting. Don't be discouraged if it takes a long time for him to understand, counting is a difficult skill to learn. It may be easier if you break it down into smaller tasks and use only puzzle pieces 0 to 5 at first. Once the child has mastered identifying, naming, and counting those numbers you can add more.

There are many things available in most homes that can be used for teaching about numbers such as building blocks, clocks, etc.

The child's own body can be used to help him learn about numbers. For example say, "You have one nose." "You have two eyes." "You have two ears." "You have two hands." "You have 10 fingers." "You have 10 toes." Count them with him. This not only helps the child learn about numbers, but about his body as well. You can probably think of many other number learning activities yourself.

There are many games and variations of games that can be played with the *Number Puzzle*. Application of number games can be made to other objects, situations, and activities in the home. Don't overlook these. The child is learning all the time. It's up to us as mothers and fathers to provide good learning experiences for our child.



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LOUISIANA COOPERATIVE EXTENSION SERVICE

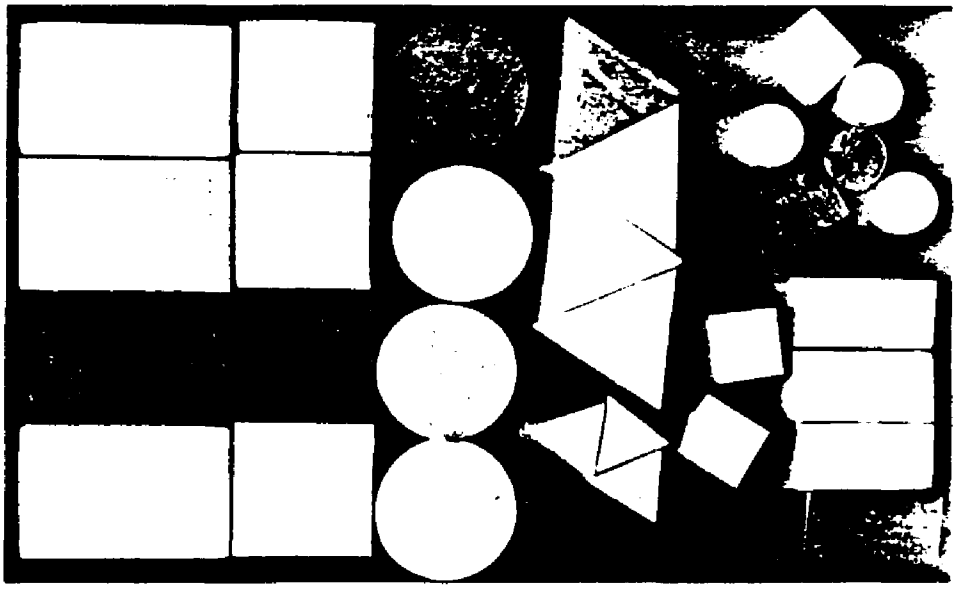
Home Economics Guide 89

Learning Is Child's Play

Attribute Blocks

Imagine how difficult it would be to describe people or objects if you couldn't refer to attributes such as shape, size, and color. People are often pointed out as being "the lady in the red dress" or "the large man wearing the blue suit." We identify and describe people and objects on the basis of such attributes as taste, odor, texture, size, shape, and color. Attributes may also be referred to as the properties, characteristics, or qualities that something has, the words all basically mean the same thing.

Being able to identify, name, and describe various attributes helps organize thinking. The world seems clearer when children can distinguish between big and small, blue and red, or sweet and sour. It's much easier to understand something you can describe.



Attribute Blocks

There's evidence that a child's feelings about learning are acquired early in life. To encourage him to observe, point out, identify, name, and describe people and things according to their attributes. This should be done long before the child begins to talk, perhaps even at birth.

The framework for grasping relationships and classifications is the ability to recognize shapes, sizes, colors, etc. Therefore it is important that the child develop an early ability to work within this framework and grow confident about his problem solving capacities.

A simple set of *Attribute Blocks*, which are easy to make, help children learn to identify, name, and describe sizes, shapes, and colors.

Description

You need one set of large shapes - a circle, a triangle, a square, and a rectangle with one of each in red, green, yellow, and blue. And, one set of small shapes - a circle, a triangle, a square, and a rectangle with one of each in red, yellow, blue, and green.

Your set of *Attribute Blocks* should be durable and different enough in size to be easily identified as small or large. All corners and edges should be smooth and the paint should be non-toxic and washable.

Purpose

These blocks are designed to help the child:

- learn to observe, identify, and describe things according to their attributes.
- understand that things can have more than one quality (blocks can be round and small as well as different colors).
- use memory and logic in solving problems.

Although the real world isn't as easy to describe as these *Attribute Blocks*, working and playing with this set is an experience that children can succeed at and feel good about.

Game I

This game is planned so that differences in color, size, and shape are discovered. Pick out eight blocks that are alike in some way - for example they could all be squares.

Have the child pick up one of the blocks. Ask him what it is. Then, select another block from the floor and tell him how it's different. "My block is different than yours because your block is blue and mine is yellow."

Using the specific color name and the word *different* tells the child much more than merely saying "This is different than that one."

Then, have him pick up another block from the set and tell you how it's different than yours. If he can't tell you how it's different, go ahead and tell him. Don't force him to describe the two blocks. This will make him feel pressured and take the fun out of the game. If he seems puzzled or upset you can ask him some leading questions: "Are they the same color?" "Are they the same size?" "Are they the same shape?" "Do they fit over each other?"

Continue until all the blocks are gone or until he gets tired, bored, or fidgety.

Game II

This approach emphasizes the idea of sameness or matching, that each block is like the others in at least one way.

Use any block assortment and put them between you and your child. Pick up two blocks that are alike in some way and tell him how they're the same. "Both of these blocks are squares," or "Both of these blocks are green."

Then, ask him to pick up two that are alike in some way and tell you how they're alike.

If he has trouble describing them, help him out with clues, "Have you looked at the color?", "Did you check them for size?" Always encourage effort and be alert to the child's feelings. If you pressure him or make him feel he has failed by not knowing the answer he will become discouraged with himself and quit trying. How you respond to a child's answers affects his desire to continue and his confidence.

Game III

When a child is comfortable about his ability to describe the blocks according to their color, shape, and size, he is ready for this more difficult game. You need eight blocks that go together in some way (for example, all the circles). Lay them all on the floor or table in front of the child. Mix them up so they aren't in any special order. Give him plenty of time to see and play with them. Ask him to close his eyes. Take one block away. Ask him to try to guess which block is missing. If he has an idea of what the group was, how they all were alike, he can logically guess which one you hid. If he doesn't guess, ask him what color or size he thinks it is? It's helpful to see and examine the one's still there. If the child is helped to pair up circles, he'll be able to discover which color doesn't have a partner.

If he still doesn't guess, show him the block you hid. Put it back with the others.

Always show the child the missing block as soon as he guesses—right or wrong. Tell him what it is—it's size color, or shape. "The one missing was the large red circle."

Game IV

An advanced form of Game III uses all 32 blocks. Spread them on the floor in no particular order. Give the child time to look at and play with them. Then, as in Game III, ask him to close his eyes while you take away one block. Ask him to guess which block is missing.

To develop a greater sense of partnership switch roles. Let the child hide a block and see if you can figure out which one is missing.

It's not easy, is it? How did you go about determining which block was missing? To gain some insight into the child's thinking ask him how he knows which block is missing.

Summary

Children need to feel they are able to learn and that learning can be fun as well as rewarding. The *Attribute Blocks* are designed for this purpose. Identifying, naming, and describing objects based on their attributes, these games concentrate on logic and reasoning ability rather than memorization.

Attribute Blocks allow youngsters to make discoveries on their own. The games set the stage for the higher level of logical thinking that will be required to solve problems throughout life. Children are eager to learn if allowed to move at their own pace, play freely, ask questions, and become a part of the kind of daily happenings that can help them gain knowledge about themselves and their role in life.

Reprinted with permission of authors, Sharon Hunt and Marilyn C. Blossom, child and family development specialists, and the Missouri Cooperative Extension Service, Carl N. Scheneman, Vice-President for Extension, University of Missouri.

Distributed in Louisiana by Arlene M. Fulton, Assistant Specialist (Family Life)

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APPENDIX E

LETTERS TO PARENTS

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

Welcome to the Parent-Child-Interaction program! We are happy to have you join us during the next nine weeks and share in the fun of helping your child learn through his or her play activities.

Please read the attached publication so that you can become familiar with several guidelines you can follow in the weeks ahead.

Sincerely,

Your Parish Home Economist

LEARNING IS CHILD'S PLAY

A Progressive Agriculture for a Permanent Republic

LOUISIANA STATE UNIVERSITY & A. & M. COLLEGE, U.S. DEPARTMENT OF AGRICULTURE, AND LOUISIANA PARISHES COOPERATING

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

Is listening an important skill for young children to develop? The attached publication will answer this question, and it will describe the first game you will use in the Parent-Child-Interaction program.

We know you will enjoy this game almost as much as your child! Read the description and summary about this toy and see if you can think of other ways you can talk about listening and sounds with your child.

Sincerely,

Your Parish Home Economist

SOUND CANS

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

Our game for this week is called the "Feelie Bag." We think your child will enjoy recognizing shapes by touch as well as sight!

This second game helps children learn to identify and name things in the world around them. Can you think of objects you could substitute for the shapes in this game?

Sincerely,

Your Parish Home Economist

FEELIE BAG

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

The "Matching Board" will help your child to identify shapes as well as colors. This is the third game in the Parent-Child-Interaction program and it has eight colorful shapes. Most children will say this is a puzzle or a shape puzzle.

Can you think of other ways you can talk about shapes or colors with your child?

Sincerely,

Your Parish Home Economist

MATCHING BOARD

A Progressive Agriculture for a Permanent Republic
LOUISIANA STATE UNIVERSITY & A. & M. COLLEGE, U.S. DEPARTMENT OF AGRICULTURE, AND LOUISIANA PARISHES COOPERATING

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

Our game for this week has many pieces. It is a color matching game and should be a fun way for your child to recognize and identify colors.

We are almost halfway through our Parent-Child-Interaction program and have many interesting toys left for you to use in the weeks ahead.

Sincerely,

Your Parish Home Economist

COLOR LOTTO

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

The game you use with your youngster this week will help him or her to understand that there can be differences between shapes, sizes, and colors. This is an interesting game which can be used in different ways - be sure to read the attached publication for these different ideas.

Has your child been enjoying the games you take home each week?

Sincerely,

Your Parish Home Economist

LEARNING SQUARES

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

When you were a child, did you build cities or trains with wooden blocks? Most children will do this with blocks.

The toy for this week is called "Comparison Blocks." Your child may try building cities or structures with these small blocks. Read the attached publication and see if you can encourage your youngster to play one or more of the games described. Notice some of the words you can use with these games: taller, smallest, equal to, same as, etc.

Sincerely,

Your Parish Home Economist

COMPARISON BLOCKS

A Progressive Agriculture for a Permanent Republic

LOUISIANA STATE UNIVERSITY & A. & M. COLLEGE, U.S. DEPARTMENT OF AGRICULTURE, AND LOUISIANA PARISHES COOPERATING

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

Did your child enjoy the Color Lotto game from last week? This week's game may encourage some building and stacking of blocks. The blocks will continue to help your child to think about colors.

Read carefully the descriptions for the different games you can play with these blocks. Try the games. Does your child seem to have a favorite?

Sincerely,

Your Parish Home Economist

COLOR BLOCKS

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

One, two, three, four, five...children love to play with numbers and to count objects. The "Number Puzzle" is a way for your child to play and learn about numerals, counting, and number sequences.

Please tell your child not to put the small pegs in his or her mouth. This could result in your youngster swallowing or choking on these small objects.

Sincerely,

Your Parish Home Economist

NUMBER PUZZLE

LOUISIANA COOPERATIVE EXTENSION SERVICE

KNAPP HALL, UNIVERSITY STATION
BATON ROUGE, LOUISIANA 70803

Dear Parents:

Our last game will help your youngster to think about the properties, characteristics, or qualities that an object has.

Read the publication attached to this letter and play several of the different games with your child. Did your youngster play the fourth game? Try using only eight blocks. Did your child recognize which block you removed?

This is the last toy in our program. We will see you next week when we meet with your child and you for our final meeting.

Sincerely,

Your Parish Home Economist

ATTRIBUTE BLOCKS

APPENDIX F

PARENT ATTITUDES

PARENT-CHILD INTERACTION PROGRAM

PARENT ATTITUDES

1. Play is important to children.
2. Parents help their children learn through play.
3. It's alright for children to make mistakes.
4. Toys help children learn.
5. Parents talking to children help children learn.
6. Parents should spend time with their children.
7. Noise is sometimes important to a child's learning.
8. Answering a child's questions is important.
9. Children should feel free to talk to parents about anything.
10. Children need success in activities.
11. Recognition of child's success is important.
12. Parents influence what children learn.
13. Toys can be used in different ways.
14. Children need to play with parents, other children and alone.

APPENDIX G

VALIDATING PANEL

VALIDATING PANEL

Mrs. Ruth Amos
Child and Family Development Specialist
Missouri Cooperative Extension Service
314 Highway 19 South
Owensville, Missouri 65006

Dr. Gregory Brown
University of Missouri
Missouri Cooperative Extension Service
214 Gentry Hall
Columbia, Missouri 65201

Dr. Marilyn Coleman, Chairperson
Department of Child and Family Development
31 Stanley Hall
University of Missouri
Columbia, Missouri 65201

Mrs. Roberto De Cocq
Child and Family Development Specialist
Missouri Cooperative Extension Service
P.O. Box 168
Ozark, Missouri 65721

Dr. Larry Ganong
431 School of Nursing
University of Missouri
Columbia, Missouri 65201

VITA

Arlene Marie Fulton, daughter of Alfred and Pauline Zielanis, was born on March 9, 1945, in Stanley, Wisconsin. She attended Pineland State Graded School in Thorp, Wisconsin, and graduated from Thorp High School in 1963. Following her graduation, she attended Stout State University in Menomonie, Wisconsin, where she received her Bachelor of Science degree in Home Economics Education (1967) and a Master of Science degree in Home Economics Education (1970).

She began teaching Home Economics at J.I. Case Senior High School in Racine, Wisconsin, in 1967. In 1969 she became a Graduate Teaching Assistant in the Child Study Department at Stout State University, and for the summer of 1970 she became an instructor in the same department. In 1970 she accepted a position as an instructor and laboratory teacher in the Department of Child Study, Stephens College, in Columbia, Missouri. In 1974 she became Child Development Specialist at the Mid-Missouri Mental Health Center in Columbia, Missouri, and after two years accepted the position of assistant specialist in family life with the Louisiana Cooperative Extension Service, Louisiana State University, Baton Rouge, Louisiana. In 1982 she accepted a position with the Family Relations and Child

Development Department of Oklahoma State University in Stillwater, Oklahoma, where she is presently employed.

Arlene married Robert Wesley Fulton in 1975, and she and her husband have two children: Kristin Marie born on November 22, 1978, and Glenn William born on May 26, 1982.

EXAMINATION AND THESIS REPORT

Candidate: Arlene Marie Fulton

Major Field: Education

Title of Thesis: The Effect of Two Methods of Instruction on Parent Child Interaction

Approved:

J. Berton Gremillion
Major Professor and Chairman

William Coyle
Dean of the Graduate School

EXAMINING COMMITTEE:

Date of Examination:

November 30, 1982