THE EFFECT OF PARENT EDUCATION ON KNOWLEDGE ABOUT AND ATTITUDES TOWARD CHILDREN'S PLAY

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ABSTRACT

THE EFFECT OF PARENT EDUCATION ON KNOWLEDGE ABOUT AND ATTITUDES TOWARD CHILDREN'S PLAY

By

Alice Phipps Whiren

A learning-focused approach to parent education was used in a six-week program designed to increase material knowledge about child play. The preplanned program was based upon slide-tape presentations which were followed by group discussion. Topics discussed were: home environments for stimulating play, principles of interaction to foster self-control, the development of dramatic play, and promoting learning through manipulative toys.

Two groups of mothers with preschool children who were associated with local libraries were compared in this study. The control group (n = 21) from Pigeon, Michigan, was younger and had been married for a shorter time than the experimental group. The control group also was found to score significantly higher on the knowledge about children's play at the pretest than the experimental group.

The experimental group (n = 23) from Millington, Michigan, participated in a six-week workshop on play while their children attended a one-hour program in the library.

The primary design was a quasi-experimental two-group pretest-posttest model. The MANCOVA was used to test the effect of the parent

education program on attitudes toward and knowledge about play. The experimental group improved significantly over the control group on knowledge about play. No significant differences between the two groups on attitudes toward children's play were observed after treatment.

Multiple regression analysis, stepwise procedure, was used to determine the amount of variance in gain scores on the knowledge and attitude dimensions that could be attributed to known independent variables.

Sixty-seven percent of the variance for gain on the knowledge of children's play was accounted for by the combination of the following variables: pretest knowledge, developmental conception of the family, pretest attitude, SES, number of children in the family, and number of toys owned. Only the first two were significant, accounting for 59% of the variance. With further analysis, the subscale conception of the child was the primary contributor to the conception of the family.

In comparing treatment and control, the direction of change in attitude toward children's play was in the desired direction but was not significant. Using multiple regression analysis, only the pretest on the attitude variable was a significant predictor of attitude gain, with mothers who had the lowest scores on the pretest improving the most. The pretest on the attitude toward children's play accounted for 22.5% of the variance, with the remainder of 38.9% of the variance being accounted for by number of children in the family,

pretest on the knowledge scale, developmental conception of the family, SES, and toys owned, in that order.

The direction and significance of predicting gain for knowledge about and attitude toward play are indicated in Tables 4-3 and 4-5. Lower pretest scores, SES values, and fewer toys at home predicted gain on posttest scores. Not all of these factors were significant, however, for the attitude and knowledge dimensions.

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Alice Phipps Whiren

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Lysa Whiren, aged four, and Anne Janette Whiren, aged eight, were patient most of the time while I was completing the research. All of us missed our play time, when it, too, had to be eliminated.

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CHAPTER I

OVERVIEW

Socialization of the young is a major function of the family; consequently, parental knowledge about the social, physical, emotional and intellectual needs of children is necessary for successful integration of the young members into society. The ways in which these needs are or are not met influence a child's over-all functioning.

The parents in the American culture have been under enough pressure of various kinds from numerous sources to be confused and uncertain as to how to perform this crucial role (Callahan, 1974). Today's parents of young children have come from families in which children were few in number and generally planned so that as youth they did not necessarily participate in the rearing of younger siblings.

With the increase of frequency in which youthful parents are geographically separated from their families of origination, they are unable to utilize the accumulated experience in parenting from the older generation on a day-to-day basis.

In addition, people have come to believe that parents can and do control the outcome of children's behaviors through their performance as parents. LeMasters (1970) in his discussion on the folklore about parenthood and of the role analysis of mother's role describes some of the other pressures on parents to perform. Thus, in a rapidly

changing society, a young couple is charged with rearing their offspring to become the competent adults in a future culture that may indeed be distinct from today's. Today's children, as adults, may live in a society far removed from the family of origination. Young parents attempt to prepare their children rather anxiously and uncertainly, not having a clear understanding of how to perform this task.

Flexibility, creativity, and versatility are characteristics that are assets now for adults and are likely to be desirable characteristics in the future (Buckland, 1971).

A varied play experience stimulates the development of these characteristics as well as provides a powerful medium for the child to learn about himself and his environment. Limited scientific interest in play over the last 40 years is the result of unsupportive cultural values and consequently weak economic support. The family has been long recognized as the primary institution for the socialization and education of the young. Recent accumulation of evidence stressing the first five years of life as being a critical period for the total development of the child makes it imperative that attention be focused on the young child and his principal learning environment. Rural families have limited community resources, such as nursery schools and play groups, and those that exist in the villages may not be accessible. Head Start programs are operating in many communities for a few families. Even though many other families desire and need the intellectual and social stimulation for their children, the family income may exceed Head Start minimum guidelines, and they are, therefore, ineligible for the program.

The attitudes and knowledge that these parents have regarding their children's play affect the decisions made on a daily and even hourly basis. The accumulation of these decisions builds a long-range accumulative effect (White, 1973). Because of their total dependence upon a nurturing adult, young children usually do not decide for themselves when or where they will play or with whom. Parents and other family members control the range of toys and materials available to the child through their acquisitions and the application of the family rules or habits. If children are to realize their intellectual potential in the home environment, parents need positive attitudes toward play and some understanding of how play contributes to the overall development of the child.

To date, the scientific literature concerning parental knowledge about and attitudes toward play has been limited. Intervention programs aimed toward maximizing the developmental potential of play in the family have been restricted in their focus to the urban poor. Very few programs exist for a large population of rural families who are essentially self-reliant but who have had very limited access to intellectual and physical resources necessary to stimulate optimal intellectual development in their children. The programs that have been developed have not been adequately studied (Brown, Note 2). Effective parent programs about child development and play would be useful to public school personnel in working with parents before children enter formal schooling, to home economists in family living extension programs, and to other adult educators.

Objectives

The effect of a parent education program focusing on play and development on parental knowledge about and attitudes toward play will be studied. The degree to which conceptions of parenthood, and the number and use of toys, influence the effect of information on parents will also be investigated. More specifically:

1. Will a planned short-term program about the value of play and parental play skills affect the knowledge and attitudes of parents about play?

2. Will developmental conceptions of parenthood, and the presence of a variety of play materials, affect the knowledge and attitudes parents have toward play?

3. Will demographic factors such as age, sex, number and age of children, and socioeconomic status affect attitudes and knowledge of parents about play?

4. Will the availability of instruction sheets with toys in a toy library affect the knowledge and attitudes parents have toward play?

Assumptions

The following assumptions underlie this study:

1. Parental behavior in relation to child's play is within volitional control of the adult considering the limitations of economic, physical, and social environment of the family.

2. Information about child's play may influence decisions made by the parent in socializing the child.

3. Through parent-child interactions over a long period of time, the child learns general behavior patterns, attitudes, and skills that enable him to relate to his environment.

4. The family is a system. As such, any influence upon one member of the family affects the other members of the family and their collective use of environmental resources.

Conceptual Definitions

The following terms have been used throughout the dissertation:

The attitude toward children's play is the respondent's opinion about the most appropriate behavior for the typical parent or child in various situations, types of toys, rights of children in play, and the relations among children and parents in play (Bishop & Chace, 1971).

A closed system is one in which boundaries have been set up to prevent information flow.

A developmental family conception reflects the acceptance of internal dynamics as standards for performing a role.

An element is the smallest observable unit in the system. The unit may be human, animate or inanimate.

An ecosystem includes the living organisms and the environment in which they live.

A family is the functioning group living in one household having at least one adult female (mother) and at least one child under six years of age.

A family ecosystem is the set of members of the family, the dwelling and its associated land, and all objects, materials, and organisms within the household or on its associated land.

Knowledge about play reflects information about the age at which specific play behaviors are likely to occur; the role of adults in stimulating play behavior; and the relation of play to intellectual, social, and motor development.

An open system is one in which the boundaries are permeable, permitting information flow.

Parent education as used in this study is a group of parents meeting with a trained leader for the purposes of fulfilling determined educational objectives.

Play is a large category of behaviors which are self-initiated, pleasurable experiences. Play includes exploration and investigation of the environment, with the locus of control within the player (Neuman, 1970). The player is freed as far as possible from reality and constraints imposed by antecedent events. The player is emitting the behavior for the rewards associated with the process (Berlyne, 1960), rather than for externally obtained gratification. More specifically, it includes manipulative activities, motor testing, imaginative play, games, and voluntary participation in art, music, and literary pursuits.

A role is a set of shared expectations.

A system refers to the mutually interdependent patterns of interaction among associated elements such that each element influences

all of the others and is in turn influenced by them; the elements form the system as a whole.

A traditional family conception reflects the acceptance of externally imposed standards for performing a role.

Transformation processes "refer to the sum total of transactions by which inputs are converted into outcomes" (Buckland, 1971, p. 57). The teaching-learning strategies and the learning environment created by all of the inputs are included.

Conceptual Framework

An ecological approach to viewing the family allows for the study of the relationships between family members and the near environment (toys, play materials, furnishings used in play) and the mechanisms by which these relationships can be influenced by systems outside the household. It allows for the examination of the processes of change as the alteration of one element in the ecosystem affects all the other elements. Therefore, if the family system is open to outside inputs, then planned inputs into the family ecosystem should effect some change in the total pattern.

The degree to which the family ecosystem is open may be influenced by internal and external conditions. Internal conditions such as the health, education, attitudes, skills, and values of the adult members as well as materials and objects within the home influence individual and family decisions and actions. External conditions such as community resources, economic conditions, and information sources circumscribe the degree of openness of the family ecosystem as well as limit the alternatives of individual or group decisions.

Both internal and external variables were examined in this study. The internal variables include: conception of the family, toy inventory, and socioeconomic status of the family. Two external variables--size and location of community, and availability of library books and toys--are controlled. A third external condition, information sources, is varied for two groups of families so that changes in the mother can be observed.

Buckland (1971) contends that parent education can be viewed as an independently functioning system. As such, it has both intended and unintended outcomes. The transformation of objectives into outcomes can be evaluated to determine impact upon the individuals and other family members by objective procedures. The intersection between the parent education system and the family system in the community library is the point of focus of this study.

The intersections between the three systems, those of the family, the library, and parent education, are illustrated in Figure 1-1.

As can be seen in Figure 1-1, intersection A, all three systems are in simultaneous interaction during the process of the intervention program. The transformation processes of the parent education program are linked with maternal learning and family processing as well as being connected to the family's use and availability of library toys and books. The tertiary interaction occurs within the library structure and within the general social context of the community.

As can be seen from intersection B, in the diagram, the linkage between the parent education system and the family system extends

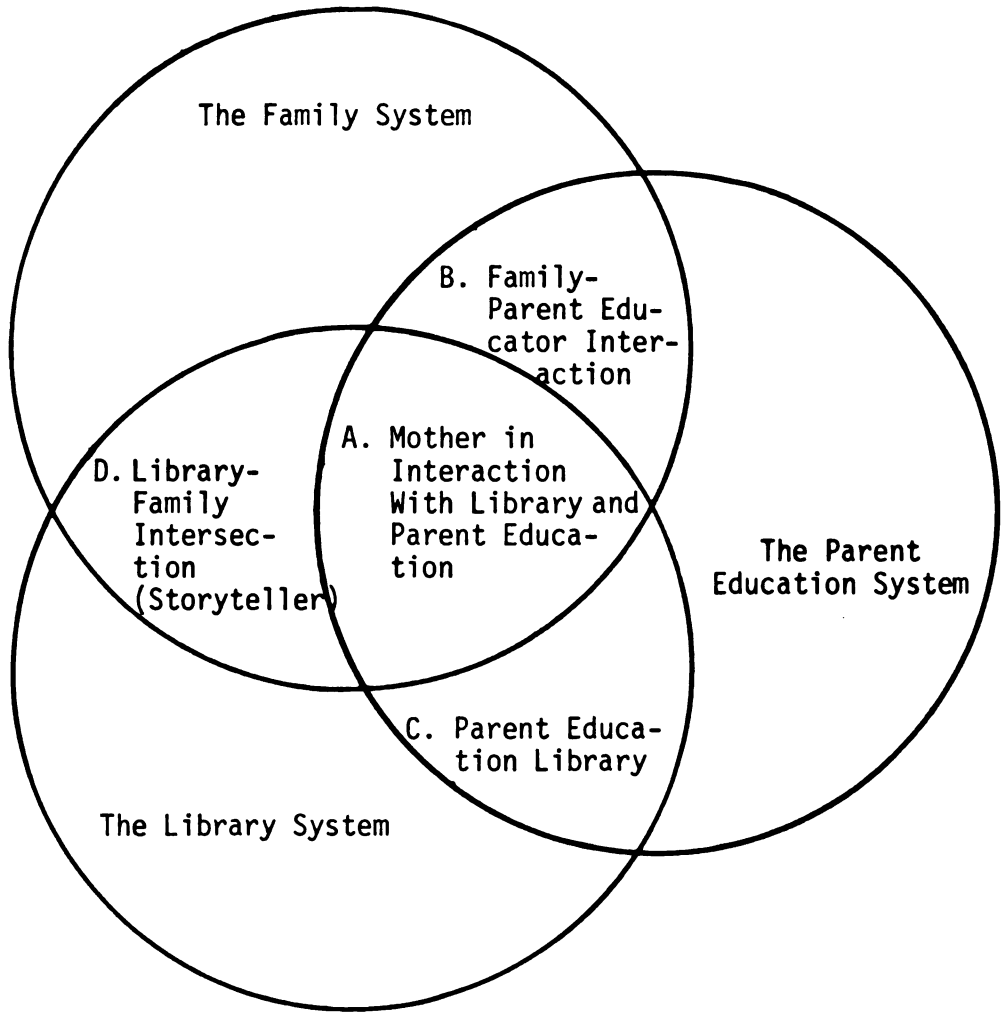

Figure 1-1. The intersection of the family system, parent education system, and library system

beyond the library system. Mothers share information on family development, housing, and toys at home with the parent educator. In return they receive books and learning guides for effective parent-child interaction through play in the home.

The intersection between the family and the library system (intersection D) is characterized by the transfer of information and service from the library in the form of the story hour, book and toy loans. The family pays for this service through taxes and direct fees. This relationship, though not analyzed for this paper, is being evaluated independently.

The intersection between the library system and the parent education system (intersection C) is characterized by the exchange of information and the performance of complementary roles. The parent educator selected and purchased toys for use in the library circulation system. The library catalogued the toys, supervised the circulation, and managed the story hour program for children of mothers participating in the parent education program.

The library and the parent education systems are both forms of informal educational inputs available to families that are open to inputs from systems external to the family unit.

Therefore, when family members encounter parent education in an informal educational setting, it can be hypothesized that observable change should occur. However, the degree of change may vary with differing internal conditions of the family or by varying inputs and transformational processes of the parent educational system.

Overview

Relevant literature on play and parent education is reviewed in the second chapter. The design of the study, instrument development, and program development are discussed in the third chapter, with the analysis of the results in the fourth. A discussion of the findings is presented in the fifth chapter with recommendations for further research.

CHAPTER II

LITERATURE REVIEW

Two major areas of scientific literature are considered relevant for review. Parent education literature is reviewed for effective methodology and for applicability to rural populations. The theory and research on play are reviewed to examine the appropriateness of the content in planning an intervention program for the families.

Maternal Influence on Cognitive Development

Information sources which relate to the attempt to understand the whole of the tremendous influence parents have upon their children have varied widely. Backed by a heavy accumulation of evidence concluding that the first years of life are instrumental in terms of cognitive development, Caldwell (1967) calls for supplementing the family environment with priming resources.

In their analytical review of the effects of mother-child interaction and cognitive development, Strassguth and Bee (1972) concluded that differences in learning environments are related to differences in cognitive functioning and motivational characteristics, that contingency of social reinforcements is important in modifying behavior, and that the teaching styles and patterns of feedback used by mothers may be important in shaping cognitive functioning. Additional detailed reviews of maternal impact on cognitive functioning

support Caldwell's basic position (Hess & Shipman, 1967; Hess, Bloch, Costello, Knowles, Largay, 1970; Hess, 1969; Litchfield & Norton, 1972).

When the environment provides very little stimulation, children make minimal gains in mental and physical development. Saunders and Keister (1973) at the University of North Carolina have found that many very young children in family day care settings actually lost ground in their mental and physical abilities over a two-year period.

In a laboratory study of mother-child interaction, Brophy (1970) suggests that there should be a shift of interest from bipolar dimensions such as love-hostility or strictness-permissiveness to a model characterized by restriction and limitations versus differentiation and elaboration in parental behavior. Brophy argues that the amount of stimulation given the child is not as important as the way in which the stimulation is organized in the home. Not only the organization of stimulation is important but the mother's impression of herself can influence the child's achievement (Strom & Greathouse, 1974).

White (1973), in his longitudinal study of competency in childhood, suggested that successful parenting is not dependent upon money, education, a happy marriage, or two parents in the home. Instead, success in the parenting role is more closely related to the adult's understanding of the factors affecting the child's development, the quality and use of the home as a play environment, and the nature of the interaction between parent and child. Success in parenting is defined as the rearing of a child who is generally competent intellectually as well as socially.

In a follow-up study Watts (1973) investigated the nature of the interaction between parent and child that produced competent compared to less competent children. Regardless of socioeconomic status, mothers of the more competent children used intellectually stimulating techniques of teaching, justifying, and conversing. Direct participation in child-initiated activities by the mother who had acquired an understanding of what was developmentally appropriate and intellectually stimulating was the key attribute of mothers of competent children. Mothers of less competent children spent less total time in direct participation with the child, but when they did participate they assumed a playmate role.

Franklin (1973), in her paper on children's capacity for symbolic representation, notes the developmental changes in specific rules for problem solving with symbols. The capacity to use several rules in coordination appeared in spontaneous play situations before they could be elicited on demand by the researcher. In the studies reviewed, play was evaluated in order to explain nonverbal representation in young children. Possibly parental interaction influences the child's competencies by influencing the child's ability to symbolize. Children's motor involvement which is characteristic of play is significant in their learning (Wolf, Leven, & Longobardi, 1974).

Bing (1967), in her study of differential cognitive abilities and the corresponding characteristics of the child's home in terms of human interaction as well as physical exploration, states:

> The essential condition for the development of verbality is probably the close relationship with an adult, and verbal ability is fostered by a high degree of interaction between mother

> and child. In contrast, the development of number ability requires, above all, concentration and the ability to carry through a task by oneself. Similarly spacial ability is probably developed through interaction with the physical rather than the interpersonal environment (p. 120).

Although there were no differences in the number of toys owned by children with high verbal ability in contrast to those of high numerical or spacial ability, the latter group was allowed a greater degree of freedom to explore and to use the toys during early childhood.

Grant (1971) further indicated that considerable research proves that the home is of crucial importance in preparing the child for success in school and maintaining his achievement through his school years.

Evaluation of Parent Education Programs

Parent education programs have proliferated in the past without much objective evaluation and with little research on effective methodology (Pickarts & Fargo, 1971). Programs were based upon the assumption that if the participants liked the program, the program was successful. Program goals were only vaguely specified if reported at all. Content of these early programs was totally dependent upon the participant's interests, personality, and knowledge and could not be replicated. Dinkmeyer (1973) described most succinctly the modern version of these early groups. The "C" parent group calls upon the participants to collaborate, consult, clarify, confront, be concerned, maintain confidentiality, and be committed to change.

In contrast, Pickarts and Fargo (1971) suggested that the "learning-focused" approach may more readily lend itself to evaluation

because it has more clearly defined goals that can be translated into specific behaviors or tasks that will indicate whether or not the parent understands his role as parent and its significance to the development of the child. The learning-focused approach frequently focused upon the parent as teacher of the child as well as care giver. The content and methodology of the more recent versions were specified though they varied considerably from one another.

Affective, self-examination approach. The early work in parent group education reported by Brim (1965) and Auerbach (1968) was primarily focused upon improving the mental health of parents and it was assumed, though proof was lacking, that the mental health of children would also be improved. In evaluating the few research studies that had been done before 1960, Brim (1965) states that the results are inconclusive.

Hereford (1963) conducted a large-scale parent education program in Austin, Texas, that combined elements of the mental health approach and the learning-focused approach. The experimental group composed of parents who attended at least one meeting of a discussion series was compared to a lecture-control group composed of parents who attended at least one of a lecture series, a nonattendant-control group who registered for an educational program but did not attend, and a random control group composed of parents whose names were selected at random from school files. Trained community volunteers led discussion groups for parents that were sponsored by the local PTA and the local mental health association. A film on child development was followed by open discussion by participants. The lecture-control group was led by

various professionals in the community and covered similar topics as those covered in the discussion group.

The parents who attended the discussion group series did show significant (.05) changes in their attitudes and behaviors as compared to the control groups. Children of parents in the experimental group improved significantly in peer relations but not in teacher ratings. The number of sessions attended, the amount of verbal participation, and the individual nonprofessional leader proved unrelated to the attitudinal changes that took place. This study did not settle the issue as to whether parent groups should be led by professionals or laymen.

Buckland (1971) conceptualized the parent discussion group as an important means for stimulating adult socialization in the parental role and proposed standards of excellence for parent education to be used as a theoretical guide to the researcher and practitioner.

Comparison of methods. Peine (1971), however, found no differences between group when he compared lecture-discussion parent groups to operant-conditioning parent groups. Both groups were led by professionals and covered similar content. Only a difference in method was evaluated.

Boger, Kuipers, and Berry (1969, Note 1) compared the effects on children in a Head Start classroom of three types of programs for parents. The developmental language program was designed to stimulate interaction between mother and child through a natural, playful mode. The structured program provided a script for the parent and child to follow. The placebo group was designed to provide a comfortable

climate for the parents to discuss the Head Start program and child development in general. In instances in which positive changes occurred, both experimental treatments improved child performance more than the placebo but there were no clear-cut differences between the developmental and more structured groups. Boger et al. also found interesting interaction effects between the Head Start eligible and noneligible children and the treatment the parents received. This indicated that the effectiveness of a particular program may vary for different populations. All parent groups were led by the Head Start teachers. The sample in the study was 72 families drawn from six classes of Head Start children.

The research and development of compensatory programs during the last decade have led to numerous approaches to involvement of low-income parents. Chilman (1973) offers a comprehensive review of these diverse programs and their effects. In the studies she reviewed, parent education groups on the whole have not proven to be effective in drawing and holding an audience, or in making significant changes in parent information and attitudes in the low-income populations. The contrast between the learning-focused approach and the affective, self-examination approach was not drawn in her study.

Some notable exceptions to the general trend of ineffectiveness with low-income parent education efforts are those by Nimnicht & Brown (1972), Levenstein (1971), Karnes, Teska, Hodgkins, & Badger (1970), and Radin (1972).

Learning-focused approaches. Nimnicht & Brown (1972), from the Far West Laboratory for Educational Research and Development, are the

creators of the Parent/Child Toy Lending Library. In this project, parents are trained in a series of eight sessions to use a basic set of eight toys with their preschool children to stimulate the child's intellectual skill development and self-concept. The parents are permitted to borrow eight other toys to use with their children after they have completed the training. The program has been very effective for the participating parents and their children. One drawback in this approach is that many parents are unable or unwilling to attend eight training sessions and therefore are ineligible to borrow toys for their children. The number of toys (16) is also a limiting factor in meeting a wide variety of levels, needs, and interests.

Levenstein (1971) directed the Mother-Child Home Program in Long Island, New York, in which "toy demonstrators" were trained to visit mothers and their two-year-old children in their homes twice a week. The demonstrator showed, by playing with the child, how the mother can verbally interact with her child. Toys and books were the focus of the play. The toys and books which the demonstrator brought into the home were left as gifts for the family. Levenstein concluded that children can learn best through their mothers if the mothers have a chance to watch and participate in a demonstration of conversational techniques functional for the child's cognitive growth. The identification and training of toy demonstrators, the staff time for numerous home visits, and the expense of the toys for each family are limitations which many communities would face if they attempted to implement this project.

The cost and the extent of intervention are significant factors in two other programs of parent education that appear in the literature. Karnes et al. (1970) in their study on educational intervention with mothers of disadvantaged infants found that children made significant IQ gains when measured at three years of age in comparison to a control group whose mothers did not receive an educational program. The intervention program had two distinct parts. Experimental mothers met for two hours once a week to participate in a group program. One week the program was child-oriented. The next week it focused on mother-centered activities. Group meetings were followed up by a home visit on a monthly basis to reinforce the principles introduced in the meetings and to help the mothers practice skills in developing a relationship with their children. Toys were the instructional media for the intellectual and language stimulation of the infant, but books and other materials for play were also provided on a loan basis. Each family was supplied with a child-size table and chair set and a laundry basket to store the toys and materials. The project was carried out over a two-year period with seven months of programming during the first year and eight months during the second. Parents were paid for participation. The design of the program was geared to foster instructional skills in the mother and mastery skills in the child. Children also participated in a preschool program. The Karnes program was staffed with one full-time professional for 20 children over a 15-month period. The cost was increased by the need to provide toys, furnishings, and play materials to each family.

Radin (1972) conducted a study that used both parental and child measures. Parents of three matched groups of children in a compensatory program received different levels of parent involvement while children were enrolled in a program. At the end of the year there were no significant differences among the three groups of children. Significant changes on parent measures were found for the two groups with moderate or maximum involvement. However, one year later, a smaller sample of the earlier group was retested. Children whose parents had more involvement had significantly greater scores on the Peabody Vocabulary Test. These findings indicate that the long-range effect of the parent education program is greater than was apparent from the evaluation procedures made at the conclusion of the program. The cost of the program was high because one full-time teacher was needed for every 10 children. The program included a four-day preschool class and biweekly home tutorials in addition to the parent group activity for nine months.

These successful programs of parent education have other things in common. They have all been conducted with low-SES families, have used a learning-focused approach, and they have all been directed toward improving child function in the school. Only one recent study with a randomly selected sample from a large population was located that is similar.

Perez (1972) conducted a study in which she measured the achievement of 50 children whose parents attended a series of six workshops with 50 who had no treatment. The content of the workshop was focused on readiness activities including (1) oral language concepts,

(2) visual perceptual skills, and (3) body image. Parents received 20 minutes of instruction, evaluated learning kits prepared for the group, and discussed experiences in using kits. She reported that the performance of the children increased on all three areas of instruction in the experimental group but that only in the area of oral language was it significant ($p < .01$).

Part of the contradictory evidence in the evaluation of parent group education may be accounted for by the variation of goals and content of the educational program and the means by which change is measured. Brim's (1965) earlier review indicated that the affective, self-examination approach showed equivocal results. Hereford's (1963) research supported the self-examination approach but Chilman (1973) questioned the effectiveness of parent group education for low-income families. Nimnicht & Brown (1972), Levenstein (1971), Karnes et al. (1970), Radin (1972), and Perez (1972) indicated that change in child behavior could be attributed to intervention with a learning-focused approach. All of them used techniques in addition to group participation such as learning kits, home visitors, and toys in the home. The instrumentation used in the self-examination approach may not be sufficiently sensitive to measure the goals of that approach or as Radin (1972) found may be evaluating long-range goals with short-term research. Or as Boger, Kuipers, and Berry (1969) indicated, there may be an important interaction between the type of group served and the treatment used.

Lane (1975), having used the self-examination approach extensively, did match the type of parent involvement sponsored by her

centers to the specific groups and the community in which they worked. In reporting the evaluation of her eight-year study, she states:

> . . . The idea emerged of training parents to be teachers of young children. This marked a sharp turn in parental involvement. Up to this time the major effort had been an examination of the role of mother or father in child rearing. Now the concept was how to be a more effective teacher of your child and other children. . . . This concept seems a sounder base for parental involvement (p. 32).

Although the project directed by Lane included active parent groups, it also had many diverse elements of parental involvement associated with it, including components of community action, political activity, direct social services, and referral services.

Hess, Block, Costello, Knowles, and Largay (1971) support this view in their review:

> Programs which attempt to improve parents as primary teachers of their own children appear to have positive effects on the cognitive achievement of their children. These effects appear to spread to other siblings and to children in the neighborhood who are not involved in the program, although it is difficult to identify the factors which led to these effects (p. 278).

In Schaefer's (1972) review of the research, he concludes that parents have great influence upon the behavior of their children, especially their intellectual and academic achievement. Programs which teach parents skills to become teachers of their children are effective supplements to, or alternatives for, preschool education. The question of the influence of intervention programs designed to affect higher SES groups has yet to be determined. Schaefer suggests that a comprehensive educational system that strengthens education in the home, the collaboration of home, school and community and mass media be initiated. As Schaefer suggests, research on general programs

of parent education for working and middle-class families are very limited in the literature, and intervention programs have not been investigated in populations different from those for whom they were originally conceived.

Honig (1975) suggests that "citizens have a right to such tools for optimizing parenting just as they have a right to literacy and job skills for work and participation in our society" (p. 1). Such tools would include knowledge about child development, child observation skills, and the ability to compare what the child is doing with what he needs to do, alternative strategies for problem prevention and for discipline, methods of utilizing the home for learning experiences, and skill in using language to stimulate positive development.

Selected information on child development, methods of problem solving and alternative techniques of child discipline, as well as techniques for promoting learning through the use of toys, were included in the design of the intervention program of this study (Appendix A) and are discussed in greater detail in Chapter III.

The Relevance of Play as Content in Parent Groups

Origins and cultural conditions of play. Play is natural to man, who is the supreme player among animals. Like other human behaviors, the nature and content of play are as variable as are cultures and individuals within cultures.

> When play is suppressed, both the individual and society suffer. When play is encouraged, both benefit. The reasons for this are not clear, but somehow play is essential for man and many other social animals (Norbeck, 1971, p. 46).

Aries (1962), Illick (1974), and Stone (1971) offer accounts of the official suppression of play in western cultures and particularly in the Protestant countries following the Reformation. Norbeck (1971), an anthropologist, points out that the notion that play is a sin or even a foible is foreign to nonwestern societies. On the contrary, play is generally viewed as an "outstanding, socially approved feature of life and often has held a position of honor in religious observances" (p. 48). However, in western cultures, particularly in the United States, human play as an aspect of behavior is either ignored, deplored, or renamed.

Play, for all species, is pleasurable behavior, separated in time and space from other activities. Play is not reality bound, but has an element of make believe. Though this study is focused upon the play of young children, the phenomenon of play occurs in man from birth to death. It is known by numerous words, some of which are play, sports, recreation, leisure, pastime, hobbies, games, and dancing. Usually other words are used to give social respectability to the activity in question. Play is universal though modified by culture and circumstances. Play is innate behavior for the entire class of mammals though man is the supreme player. The variety of play behavior is greater in man as is the complexity of play; only man plays extensively past the juvenile period of development (Norbeck, 1971; Dolhinow, 1971; Suomi and Harlow, 1971).

Dolhinow (1971), in discussing her field research, highlights the biological origins of play behavior:

> If the hours a young monkey spends each day in play are any indication, then play must be a major category of primate

> behavior. This conclusion is underscored by the complexity of play and by the amount of energy a young monkey devotes to it.
>
> Play is probably important in the development of all mammals, but it appears to be particularly important for the slow-maturing monkeys and apes. Juvenile monkeys play for years, investing thousands of hours of activity, energy, and emotion. Such an expenditure of biological resources must serve important biological functions. The theory of natural selection compels us to look for the adaptive reason for this behavior (p. 66).

Toward a theory of play. Play is an important phenomenon in man. Cultural values negating play have prevented much research on play. The theories about play, lucidly reviewed by Ellis (1973), are for the most part either arm-chair philosophy or ancillary propositions associated with other theoretical constructs. In attempting to simplify the more cogent theories, Ellis (1973) considers why they have not been integrated into fewer but more inclusive formulations.

> First, play is a complex phenomenon with many variables and manifestations. . . . Secondly, theorists have, in general, approached their explanations with a view blinkered by their academic affiliation with a discipline. . . . Thirdly, since the organisms observed grow along some trajectory of development it is possible to force on to that trajectory separate stages of development. . . . Fourthly, the early theories of play tended to be merely ingredients in a broad theoretical conception of behavior. The question of play was not central to any of these theories. . . . Lastly, methodological difficulties, and difficulties in persuading peers and funding agencies that play is a class of behaviors worthy of serious attention, have militated against a concerted theoretical and empirical push into the realms of play behavior (pp. 112-13).

Any sound theory of play must account for biological origins of the behavior, cultural and individual variability, and the mechanisms that initiate and maintain the behavior. Ellis's (1973) integration of elements from numerous disciplines meets these criteria.

Ellis (1973) indicates that man has inherited the capacity to adapt and tolerate large and rapid change and a

> . . . predisposition to be rewarded by the emission of new responses and the occurrence of novel stimulus events. This reinforcement of behavior leading to novel sensations will naturally increase the probability of novel responses by virtue of the Law of Effect (p. 114).

Through the learning mechanisms the "gene pattern delegates part of its control over the organism to the environment" (Ashby, 1960, p. 234).

The inherited mechanism of optimum arousal levels first proposed by Schultz (1965) would push the organism into engagements with the environment. Ellis (1973) states that these

> . . . engagements are rewarding if they tend to move the animal toward optimal arousal, and since the arousal potential of such an interaction depends on its novelty, complexity or dissonance, then the animal is in constant contact with the elements in its environment that are changing or are changeable. . . . Thus stimulus events and configurations in the environment that are novel, complex, and dissonant elevate arousal and to the extent this moves an individual toward optimal level, it is accompanied by positive affect or pleasure (p. 115).

The arousal-seeking model provides for the motivation for behavioral flexibility. In addition, secondary reinforcers also condition behaviors emitted by the organism. Therefore, through experience the organism learns to predict probable outcomes of its behavior. The accumulation of such predictions allows for an increase in complexity of behaviors. The learning mechanisms condition the play behavior that has been motivated by the arousal-seeking mechanism.

Inasmuch as a specific behavior is related to the physiology of the species (running), it is characteristic of the group and can be predicted on the developmental trajectory. However, individual variability of experience of the organism accounts for other related

variations (putting). Children learn to put; it is not automatic, nor likely to occur unless taught.

Ellis's (1973) explanation of play included a broad spectrum of human behavior including curiosity and creativity. For greater detail into types of play behavior Berlyne (1960) has major contributions in curiosity behavior, and Reilly (1974) pursues in greater detail various forms of symbolic play. Torrance (1962, 1963, 1969) is well known for his work in creativity.

Piaget, as discussed by Ellis (1973) and Herron and Sutton-Smith (1971), attempted to conceptualize play through intellectual development. Though Piaget's powerful theories of intellectual development explain the increasing complexity of early play behavior, they do not explain the mechanisms that stimulate play such as curiosity except as instinctual. In addition, Piaget does not account for the playful behavior of adults nor the peculiar function of games and play in human development. Herron and Sutton-Smith (1971) state that:

> The present criticism of Piaget's theoretical system which focuses on the inadequacy of his epistemology when applied to play probably has relevance for the interpretation of divergent-thinking activities in general, such as creativity, originality, expressiveness, etc. At the same time this criticism probably has less relevance to such convergent-thinking operations such as the understanding of physical causality, spacial relations, etc., with which Piaget is mainly concerned and for which his copist assumptions may be more intrinsically relevant (p. 335).

Herron and Sutton-Smith (1971) and Sutton-Smith (1971) suggest that play serves a function in human development that is unique to that behavioral phenomenon. Play is related to intellectual development but not restricted to it. Play serves an integrative function to all aspects of development that leads toward greater flexibility and adaptability of the organism.

The discussion of play theory presented here built a basis for a general framework from which developmental concepts, useful to parents, may be brought together as viable aspects of the whole child. Some of the concepts are that the origin of play is biological, that specific play behaviors are learned through modeling and reinforcement, and that play is elicited through novel or dissonant experiences. These concepts have been incorporated in the development of materials in this study.

Play and development. Lichtenberg and Norton (1972) organized and codified the findings of research on children under five years of age sponsored by the National Institute of Mental Health completed at the time of their study. In the summary of general themes, their synthesis reveals the significant relationship of play to general development.

> The child's growth and development happens when he is engaged in actions with other people that bind the child and the others in mutually fulfilling ways. Such actions entail the child's self-regulation, his initiative in dealing with the others, and a reciprocity of self-regulation and initiative on the part of the others. Such actions take place for the child under conditions of playfulness and pleasure. The mutual construction of actions that bind adult and child in real, concrete, and satisfying forms, rather than training imposed upon the child to implant the proper ways of living, is the caretaking process most associated with productive growth.
>
> Disadvantaged children are turned off by failure to create such actions. Autistic children are never turned on due to failure to create such actions. Mutuality and pleasure may be difficult to establish if the child's constitution is outside the normal range or if the caretakers are burdened by worries and cares of their own. Such actions come about only when stimulations and challenges in the environment are within the range of capacities of the child and of the adult.
>
> With normal growth and development, the child is increasingly open to and interested in novelty in his world. He explores further and further; creates more complex encounters; develops cognitive and language capacities which enable him to discover

> and regulate himself more intricately and to discover and handle the world in new and unique ways (p. 1).

The role of parents in stimulating play. Lichtenberg and Norton (1972) contend that mothers need assistance in teaching and stimulating their children and that it does not come naturally nor does the relief of economic pressures alone enable parents to facilitate development necessarily.

> Most of us in society today qualify as having had limited environments in our own upbringing; our views of child rearing are probably more disparate with the beliefs of experts than we realize. For example, the view that parent-child relations first and foremost should be playful, pleasurable engagements is not widely understood and accepted (p. 88).

Considering the importance of mutuality of the interaction between parent and child referred to on the preceding page, Lichtenberg and Norton point out most succinctly that the parent is the other side of the mutuality. Playful behavior only occurs when survival needs are met. Laughter, curiosity, and openness to new experiences are necessary for the adults if they are to interact productively with their children. These behaviors can be produced by parents only when the basic demands of living are being adequately met.

White and Watts (1973), in a study of child-rearing antecedents of competent children, describe their most effective mothers:

> [They] do not devote the bulk of their day to rearing their young children. . . [instead they] perform excellently the functions of designer and consultant. By this I mean they design a physical world, mainly in the home, that is beautifully suited to nurturing the burgeoning curiosity of the one- to three-year-old. It is full of small, manipulable, visually detailed objects, some of which were originally designed for young children (toys), others normally used for other purposes (plastic refrigerator containers, bottle caps, baby-food jars and covers, shoes, magazines, television and radio knobs, etc.). It contains things to climb, such as chairs, benches, sofas and stairs. It has

> available materials to nurture motor interests, such as tricycles, scooters, and structures with which to practice elementary gymnastics. It includes a rich variety of things to look at. . . . (p. 243).

In addition to designing an appropriate environment, the more effective mothers were described as "generally permissive and indulgent" who generally encouraged the exploration of the child. They carried out a consultant role with the child by responding to the child as he confronted new, interesting, or difficult situations. These interchanges were short (10 to 20 seconds), oriented toward interests of the child, and carried out while the mother was engaged in other chores or activities.

The effective mothers were described as high-energy people who apparently enjoyed their children and were themselves alert and interested in their surroundings. Watts (1973) also indicated that these mothers apparently understood what constituted an intellectually valuable experience for the child at his stage of development as well as having the skills of teaching, justifying, and conversing.

Saxe and Stollack (1963) found a strong relationship between the curiosity of the mother and the curiosity behaviors of the child in a controlled environment. The only other study that focused upon play behavior of children in the family and parental characteristics and behavior was done by Bishop and Chace (1971). They investigated parental attitudes toward play and practices regarding the playfulness of their children's home play environment. They found that conceptually abstract mothers were more likely than concrete mothers to enhance the playfulness of the home play environment, and the children of more abstract mothers showed evidence of greater creative potential. Since

parental attitudes about child rearing, sex roles, and morals are reflected in behavior via parental decisions about play activities, settings, and procedures, Bishop and Chace encourage investigation of these attitudes as a fundamental part in understanding the family system.

Parent education and play behavior. Information about play for parents is rather limited. The recent book by Sutton-Smith and Sutton-Smith (1974), How to Play With Your Child and When Not To, integrated findings in child development with those on play. Arnold (1968) wrote an earlier guide to play for parents, Your Child's Play. Other resources such as Marzallo and Lloyd's book (1972) have made suggestions for specific crafts and activities parents might use to stimulate the child.

In her investigation of the advice given parents about preschoolers' play through popular magazines (Parents' Magazine, Family Circle, McCalls), Leyden (1971) found only six articles published in the 1960's. Although the professional journals were reporting some cognitive-development-oriented play research in the 1960's, this topic was absent from the articles. Commercial themes dominated the advice, with the majority being published late in the year prior to Christmas.

Strom and Greathouse (1974), in their paper, "Play and Maternal Self-Concept," reported significant changes ($p \leq .0005$) in the mothers' self-concept as teachers and in knowledge of the teaching-learning process, and a change ($p \leq .005$) in children's self-concepts as learners. The children's verbal ability improved in vocabulary growth ($p \leq .01$). The 12 parent-child pairs participated in a planned

instructional program at home. Parents participated in three demonstration and discussion meetings as well as receiving individual assistance through home visits on a weekly basis over an eight-week period. Toys were used as the medium of instruction to "allow[s] both mother and child to share in being a teacher and learner. The priority play assigns to the imagination encourages respect for the child" (p. 299). The small sample size limits the generalizability of this study.

No other studies on parent education on play were found.

Summary

An accumulation of evidence indicated that mothers influence the intellectual development and general competence of their children. Studies by White and Watts (1973), Watts (1973), Franklin (1973), and Bing (1973) indicated that the source of variation was in the quality of interaction between the parent and child. The development of readiness for academic success begins in the parent-child relationship as does the maintenance of achievement.

In reviewing the literature on the evaluation of parent group education, several issues remained unresolved. Programs led by professionals (Lang, 1975; Peine, 1971; Karnes et al., 1970; Radin, 1972; Perez, 1972; Nimnicht & Brown, 1972) and by volunteers (Hereford, 1963; Levenstein, 1971) both showed success on variables measured. There were fewer studies reported on the self-examination approach to parent group education (Brim, 1959; Auerbach, 1968; Hereford, 1963; Chilman, 1973) than the learning-focused approach (Nimnicht & Brown, 1972;

Levenstein, 1971; Karnes et al., 1970; Radin, 1972; Perez, 1972; Boger et al., 1969).

Although the evidence is inconclusive, the learning-focused approach appeared to be more successful in modifying the behaviors measured. The predominance of the research was with low-income urban families with little evidence on the rural population (Boger, Kuipers, & Berry, 1969) of any social class.

Play as content for a parent education program was used only by Strom and Greathouse (1974) though other researchers used toys to stimulate cognitive development (Nimnicht & Brown, 1972; Levenstein, 1971; Karnes et al., 1970).

The literature on play within American cultural context was reviewed. The presentation of Ellis' (1973) integration of Berlyne's (1960) theory with relevant learning theories was developed to give a theoretical basis for the content of the intervention. Resources to help parents understand play behavior were limited (Sutton-Smith & Sutton-Smith, 1974; Arnold, 1968; Marzallo & Lloyd, 1972; Leyden, 1971; Strom & Greathouse, 1974).

CHAPTER III

THE RESEARCH PLAN

The sample used for this study is described, followed by a discussion of the instrumentation and design. The method of analysis is presented after a statement of hypotheses to be tested.

Sample Description

The subjects for both experimental and control groups were mothers of children under five years who were associated with the library programs of their respective communities.

The members of the control group were mothers whose preschool children had library cards in the files of the Pigeon, Michigan, library. The members of the experimental group were mothers who had enrolled their preschool children in the spring story hour of the Millington, Michigan, library.

The experimental group members (n = 23) lived in or near Millington, Michigan (population: 1,099), and the control group members (n = 21) resided 60 miles northeast in or near Pigeon, Michigan (population: 921). Both rural villages are within 55 miles of an urban center.

The subjects in the two groups were compared on several attributes and were generally similar. The only differences were in the age of the two groups and the length of time the mothers were married.

The composite mean age of the mothers was 28.119, σ 3.255 with 42 of 44 subjects responding. The mean age for the experimental group was 29.435, σ 2.967 as compared to the mean age control group 26.526, σ 2.856. The range of ages was 22-36 years. The experimental group is older than the control group ($p \leq .0025$).

The experimental group has also been married longer ($\overline{X}$ = 9.696 σ 2.599) than the control group ($\overline{X}$ = 6.571 σ 3.096), $p \leq .0008$.

The socioeconomic status of the families as calculated using Hollingshead's two-factor index of social position is distributed across the categories as illustrated in Table 3-1. When cells were collapsed, there was no difference between groups.

Table 3-1

Frequency Distribution of SES Values

SES Score	Control	Experimental	Total
11-14	1	0	1
15-27	1	1	2
28-43	17	4	21
44-60	2	16	18
61-70	0	2	2
Total	21	23	44

Using χ^2, the null hypotheses that there were no differences between the experimental group and the control group in education attained by the mother, the type of family residence, and whether

preschool children attended organized programs outside the home could not be rejected.

The location of the family residence of the group is described by Table 3-2. One subject from each group did not respond.

Table 3-2

Location of Family Residence

Location	Control	Experimental	Total
Working farm	10	1	11
Rural, nonfarm	4	15	19
Village or town	6	6	12
Total	20	22	42

It can be seen from Table 3-2 that the control group is composed of more families on working farms and the experimental group has more families living in rural areas but not farming.

There was no difference between the experimental group ($\overline{X}$ = \$314.52) and the control group ($\overline{X}$ = \$315.30) in the money spent on toys in one year.

Instruments to Measure Variables

General information on demographic variables, housing, family size and composition was collected to describe the sample.

Socioeconomic status of the family was determined by a modified version of Hollingshead's two-factor index of social position (1957, Note 3).

The instrument was modified by the investigator to include information about the wife's education and occupational role as well as the husband's. This was considered a more accurate description of the family's economic and social status in the communities studied, especially since the mother-child relationship was the object of intervention. The weighted education and occupation of both husband and wife were combined and averaged for the family's social position. If the wife was not currently employed, her prior occupation was used in computing social position.

An instrument designed by Bishop and Chace (1971) to measure parental attitude toward child play was extended and modified slightly in cooperation with Smith (1975). Bishop and Chace (1971) designed the items to reveal some aspects of inhibition or enhancement of playfulness by the parents. The original instrument developed by Bishop and Chace had a theoretical basis which provided face validity. The 21 items were scored on a 1-4 scale for appropriateness and enhancement of playfulness, with a score of 1 indicating the least appropriate and 4 the most appropriate. No reliability data were available. The Bishop and Chace instrument was the only one located in the literature that focused on parental attitudes and play.

Examples from the instrument measuring parental attitude toward child's play are as follows:

Score	Item
	Given a situation in which a child receives a new toy which he does not know how to use but seems to gain enjoyment by using in the wrong way, how should parents react to this?
4	a. Show the child the correct way to use the toy
3	b. Let the child play with the new toy any way he wants as long as he is having fun
2	c. Put the toy away and bring it out at another time
1	d. Make the child stop playing with it
	Children should be allowed to play anywhere they want in or around the house, as long as it does not endanger their safety or health.
3	a. Completely agree
4	b. Agree, but with some exceptions or reservations
2	c. Disagree, but with some exceptions or reservations
1	d. Completely disagree

The toy and equipment inventory developed originally by Watts (1973) is composed of 56 possible types of toys in nine categories: manipulative toys (n = 10), board games (n = 3), toys with movable parts (n = 8), dramatic play props (n = 8), art materials (n = 10), outdoor wheel toys (n = 5), furnishings and large equipment (n = 7), science tools (n = 3), and books and records (n = 2). Mothers inventoried toys owned in their own home between the first and second parent group meeting, in the experimental group, and the control mothers inventoried them at home before the first interview.

The scale measuring beliefs about childhood and parenthhood was originally developed by Blood (1953) and has since appeared in other studies. It is composed of three sets of 10 statements each. The

respondents circle the five characteristics which they think are most desirable for a father, a mother, and a child. Each characteristic listed is considered an attribute of a traditional belief or a developmental belief. Persons having a developmental family belief may vary in score from 7-15; those having a traditional family belief score may vary in score from 0-6.

The beliefs about childhood and parenthood scale was selected because the general beliefs of the adults may influence the degree of openness to learning developmental information that is part of the intervention. The 15-item scale was short, easily administered, and within the reading ability of the mothers. Samples of these instruments are in Appendix B.

An instrument to measure the parent's knowledge about preschool children's play was developed by the investigator for the purpose of this study. The instrument was developed because of a need to measure the information parents had about play. No similar instrument was located after an extensive search.

The items were derived from concepts found in the literature and transformed into simple declarative statements at or below the ninth grade reading ability range. The investigator made an initial selection of approximately 200 ideas and made initial transformations. Two professionals in human development suggested revisions. Two total revisions with numerous omissions were made before the set was presented to the extension specialist in child development for her recommendations. A third complete revision and editing followed. The instrument was finally read by three homemakers for clarity prior to use.

The 83 items are divided into 16 multiple choice items in Part 1 and 67 true-false items in Part 2. An example of an item from Part 1 follows:

Concept: "Three- to four-year-old children engage in verbal exploration [ask why]" (Sutton-Smith & Sutton-Smith, 1974, p. 260).

Directions: Please mark (X) at the age at which you think children begin to do these activities.

Transformed: Item 8--Asking many "why" questions.

Age in Mos.:	12-24	25-36	37-48	49-60	61-84
Age in Yrs.:	1-2	2-3	3-4	4-5	5-7
			X		

An example of an item in Part 2 follows:

Concept: "It is very clear that aggression and hostility toward children are very wide spread and that many people disguise this from themselves by saying that they are having fun" (Sutton-Smith & Sutton-Smith, 1974, p. 32).

Directions: Please mark (X) those statements about families and children ages 2-5 with which you agree or disagree.

Transformed: Item 50--Teasing is the same as play:

Agree	Disagree
	X

Face validity for the instrument was established by this method. The source of each item can be found in Appendix C.

The number of concepts available far exceeded the number that were used in the instrument. The first selection was made for age range of play behaviors with a few below 36 months, and most for children between 37 and 72 months of age. A second factor influencing selection of items was difficulty in wording transformed statements so that the item was both simple and consistent with the meaning of the source. When the simplification distorted the meaning, the item was dropped. A third criterion was that all of the common types of play be included, such as: manipulative toys, blocks and trucks, sociodramatic play, fine and large motor skill play, and creative expression through art or music.

Finally, the items were categorized into two types. One category described typical child behavior, use of toys, and child-to-child interaction. The category was essentially developmental and was aimed at testing parental expectations of child behavior. De Lissovoy (1973), in a study of young rural Pennsylvania families of normal IQ, concluded that these parents knew very little about child development and expected their infants to perform developmental tasks at unrealistically early ages. Though the parents and children in the De Lissovoy study were younger, the findings appeared pertinent to the construction of the instrument.

The second category of items was aimed at testing parental knowledge of the effects of adult-child interactions on child behavior and learning. The category focused on the role of the parent as a

teacher, consultant, or guide for the child's divergent and convergent thinking. Watts (1973), White (1973), and others reviewed by Schaeffer (1972) provide support for the view that the parent performs an essential role in the intellectual development of the child as well as his overall competence. Omitted from the instrument were items that were descriptive of states of being such as "accepting," "loving," "generous," and "respectful."

A test of internal consistency was attempted but the sample size was too small for the number of items on the instrument. A test-retest reliability was not possible with the sample selected because the interval between pretest and posttest was too long and any more frequent testing of the same mothers could interfere with the outcome. The instrument was not constructed to yield a split-half reliability score. Reliability on an independent sample was not considered practical for the scope of this study. Therefore, no estimate of reliability can be made on the knowledge about preschool children's play instrument.

Design

The primary design was a quasi-experimental two-group pretest and posttest model. Data on the dependent variables, knowledge about childplay and attitude toward childplay, were collected at six-week intervals for both groups. Data on the independent variables--beliefs about childhood and parenthood, age, sex, years married, toy inventory, family composition, and SES--were collected during the pretest session.

	Pretest	Posttest
Experimental group (Millington)	n = 23	n = 23
Control group (Pigeon)	n = 21	n = 21

An important limitation of design (Kerlinger, 1964) of the study is that subjects were not randomly assigned to the two groups. The study was done within the context of ongoing community programs associated with the Tricounty Human Development Commission, the local libraries, and the Michigan Agricultural Experiment Station. Neither participating village had a large enough sample of mothers associated with its library program to allow for both control and experimental groups to originate in the same locality.

The assignment of groups to conditions was based upon the feasibility of carrying out the experimental program rather than random assignment which limits the generalization of the results of the study to similar rural populations.

Both groups of mothers had preschool children who participated in the community library story hour. Each library had the same set of toys available for loan to children from 0-6 years of age. The experimental group of mothers remained in the library for a group session; the control group did not. This was typical of the program in each library.

The control group of mothers was given toy direction sheets for each toy available to toy library patrons in a separate file. A sample can be found in Appendix D. Parents could take one and keep it when they checked out toys. The toy direction sheets provided parents with several ideas for ways to use the toys and to enhance the child's

play. The interaction between parent and child was emphasized. Since the direction sheets were not attached to the toy container, the parent had to get the sheet independently of the child's toy selection. The toy direction sheets were available to the community in October 1974 and the parents were pretested in February 1975. No parent education meetings were held in the library between the pretest and the posttest. Pretest data were collected by interview and posttest data by mail.

The experimental group of mothers did not have the toy direction sheets until after the collection of the posttest data. The experimental group of mothers participated one hour a week for six weeks in a parent program while the preschool children attended the library storyhour program. The investigator planned and executed each meeting of the parent education program.

The objectives of the experimental program were to help parents understand the purpose of play in the child's development, the role of the parent in enhancing play, and the optimal use of toys and play materials. The specific objectives for each session are detailed in Appendix A. Data were collected during the first and last parent meetings.

Hypotheses

The hypotheses to be tested in this study follow:

H1: Mothers participating in a series of parent workshops on play will show a greater change in their knowledge about play than mothers not attending the workshops.

H2: Mothers participating in a series of parent workshops on play will show a greater change in their attitudes toward play than mothers not attending the workshops.

H3: Values of the developmental conception of the family scores will predict gains in knowledge about play.

H4: Values of the developmental conception of the family scores will predict gains in attitudes toward child play.

H5: The number of toys owned will not predict the change of parental knowledge about play or the change of parental attitudes toward play.

H6: The relative SES values and number of children in the family do not predict change in parental knowledge about play and parental attitude toward play.

H7: The mothers who have had access to the toy direction sheets (control-pretest) will have the same knowledge about play as mothers who have not had access to them (experimental group at pretest).

H8: The mothers who have had access to the toy direction sheets (control-pretest) will not differ in their attitudes toward play from mothers who have not had access to them (experimental group at pretest).

Analysis

Three techniques were used for analyzing the data: analysis of variance (ANOVA), multivariate analysis of covariance (MANCOVA) fixed effects model, and multiple regression analysis, stepwise procedure.

The ANOVA is used to test the significance of differences between the means of a number of different samples. Basically, if the variance observed in the samples cannot be attributed to chance, the null hypotheses that the samples were drawn from populations that have the same mean can be rejected. This method allows for dividing the variation observed into different parts, each part assignable to a known factor.

The analysis of covariance is a modification of the basic ANOVA that allows for the statistical control of a variable usually called the covariate or concomitant variable. The covariates in this

study are the pretest scores on knowledge about play and attitudes toward play. The dependent variables are the posttest scores of the same tests. The independent variable is the classification as experimental or control. Any ceiling effect of the instruments and any systematic variation between experimental and control groups resulting from sample selection are statistically adjusted for by using the ANCOVA, analysis of covariance. The multivariate form used in this study allows for the examination of both dependent variables at the same time.

The multiple regression analysis, stepwise procedure (Nie, 1970) was used to examine secondary hypotheses. It is an extension of the use of the bivariate correlation coefficient to multivariate analysis. The bivariate allows the researcher to measure the linear relationship between one independent variable and one dependent variable. The multivariate regression allows the researcher to examine the relationship between a set of independent variables and several dependent variables while taking into account the relationships among the independent variables. The basic idea is to produce a linear combination of independent variables that correlate as highly as possible with the dependent variable so that the values of the independent variables can then be used to predict the dependent variable. The stepwise procedure is a variation in multiple regression analysis that allows for the ordering of independent variables with the best predictor first and the least useful predictor last. Independent variables which do not contribute to the equation are eliminated. This contributes to the computational accuracy of the program.

In this study, the independent variables of pretest knowledge about play, developmental conception of the family, pretest attitude toward play, SES, number of children in the family, and number of toys owned were used to predict the gain scores in knowledge about play and attitudes toward play. All independent variables remained in the equation.

The assumptions of independence, normality, and equality of variance were necessary for the statistical test. The Kolmogoror-Smironor goodness of fit test was used to determine normalcy.

Table 3-3

Kolmogoror-Smironor Goodness of Fit

	K-S Z	2-Tailed p
Pretest knowledge	.7201	.6776
Posttest knowledge	.7299	.6611
Pretest attitude	.6655	.7676
Posttest attitude	.7563	.6166

The null hypothesis could not be rejected; therefore the distribution is assumed to be normal.

Table 3-4

Results on Levene's Equality of Dispersion Tests

	F Statistics	Decision Rule
Pretest knowledge	F = 57977,9732	Reject null
Posttest knowledge	F = 79674,4523	Reject null
Pretest attitude	F = 33,8568	Reject null
Posttest attitude	F = 7514,8459	Reject null

The assumption of equality of variance was tested by Levene's Equality of Dispersion Test and was not supported, as can be seen in Table 3-4. An F statistic over 14 is significant at .05 or below. The effect of violation of the assumption is to make the parametric test more conservative. The nonparametric analog is not a powerful test. The transposition into ranks is a less meaningful use of the data. Therefore the multivariate analysis of covariance was judged to be the better alternative even though the assumption of equality of variance was violated (Glass & Stanley, 1970).

The MSU computers were used to carry out the analysis using Finn's (1967, 1961) program as adapted by Schmidt and Scheifley (1972, Note 4) for the ANOVA and MANCOVA and the SPSS (Nie, 1970) for the multiple regression analysis. The SPSS programs were also used to compare the samples on demographic data and to test for the assumptions of normality and equality of variance for the MANCOVA.

The alpha level of .05 was established as the level at which the null hypotheses would be rejected for all hypotheses.

Summary

A quasi-experimental two-group pretest-posttest design was used to test the primary hypotheses of the study. Mothers of preschool children associated with the local libraries from Pigeon (n = 21) and Millington (n = 23) formed the control and experimental groups, respectively. Each subject completed five instruments at the pretest and two during the posttest. Differences between groups were tested by the MANCOVA for the primary hypotheses. Multiple regression analysis was used to predict change on dependent variables from several independent variables.

A summary of instruments used, method of data collection, and timing is presented in Figure 3-1 for the treatment and control groups.

Instruments	Group	Timing	Method of Collection
General information	Control	Pretest	Group interview
	Treatment	Pretest	Group interview
Attitude toward children's play	Control	Pretest	Group interview
		Posttest	Mailed response
	Treatment	Pretest	Group interview
		Posttest	Group interview
Toy interview	Control	Pretest	Mailed before group interview
	Treatment	Pretest	Brought to second session
Beliefs about childhood and parenthood	Control	Pretest	Group interview
	Treatment	Pretest	Group interview
Knowledge about children's play	Control	Pretest	Group interview
		Posttest	Mailed response
	Treatment	Pretest	Group interview
		Posttest	Group interview

Figure 3-1. Summary of instruments used, timing, and method of collection by group.

CHAPTER IV

THE RESULTS

The hypotheses tested are restated with the findings relevant to each hypothesis.

Hypotheses 1 and 2

The MANCOVA, the multivariate analysis of covariance, was used to test Hypotheses 1 and 2 together. The hypotheses are as follows:

H1: Null hypothesis. There are no differences in the posttest scores on knowledge about play between mothers attending the workshops and mothers not attending them.

Alternative hypothesis. Mothers participating in a series of parent workshops on play will show a greater change in their knowledge about play than mothers not attending the workshops.

H2: Null hypothesis. There are no differences in the posttest scores on attitude toward play between mothers attending the workshops and mothers not attending them.

Alternative hypothesis. Mothers participating in a series of parent workshops on play will show a greater change in their attitudes toward play than mothers not attending the workshops.

The 83-item instrument measuring parental knowledge about children's play and the 21-item instrument measuring the attitudes toward children's play were given before and after the intervention interval. The pretest scores of each instrument were used as covariates

in the MANCOVA model. A significant ($p \leq .003$) relationship between the covariates and the posttest scores was observed.

The independent variable was treatment with two groups, experimental and control. The dependent variables were the posttest scores adjusted to eliminate initial differences as revealed by pretest scores on the knowledge about children's play and attitude toward children's play.

Table 4-1

Results of the Multivariate Analysis of Covariance of Differences Between Treatment and Control on the Posttest Scores on Knowledge About and Attitude Toward Children's Play Using Pretest Scores as Covariates

N = 44

Multivariate F-Ratio	6.884	d/f 2 and 39	p ≤ .0028
Variable	MS	Univariate F	P
Posttest knowledge	236.995	13.45	.0008
Posttest attitude	5.389	.23	.6331

d/f hypothesis = 1 d/f error = 40

As can be seen from Table 4-1 the variable contributing most to the treatment effect was posttest knowledge about children's play ($p \leq .0008$). The null hypothesis was therefore rejected.

The change scores resulting from the measure of attitude toward children's play with $p \leq .6331$ did not show significant differences between the experimental and control groups. The null hypothesis was not rejected. Thus, the null form of H2 was not rejected.

The unadjusted group means of the two variables--knowledge about play and attitudes toward play--by treatment and control groups are shown in Table 4-2.

Table 4-2

Unadjusted Means of Scores on Knowledge About and Attitude Toward Play by Treatment

Variable	N	Group	Pretest	Posttest
Knowledge	23	Treatment	54.30	59.65
	21	Control	57.57	56.19
Attitude	23	Treatment	67.91	69.74
	21	Control	67.86	68.81

Even though the change was not significant, members of the treatment group moved in the desired direction on attitudes toward children's play. As illustrated in Table 4-2, the control group showed greater knowledge at the pretest than the treatment group. The treatment group surpassed the control group on the posttest analysis, showing a significant difference ($p \leq .008$) between treatment and control groups in favor of the treatment conditions.

Hypotheses 3, 5a, and 6a

The following hypotheses were simultaneously analyzed by multiple regression, stepwise procedure, in order to provide information illustrating the relative significance of each independent variable:

H3: Null hypothesis. Values of the developmental conception of the family scores will not predict gains in knowledge about play.

Alternative hypothesis. Values of the developmental conception of the family scores will predict gains in knowledge about play.

H5a: Null hypothesis. The number of toys owned will not predict the gain in parental knowledge about play.

H6a: Null hypothesis. The relative SES value and the number of children in the family do not predict gain in parental knowledge about play.

The independent variables are the pretest scores on the parental knowledge about play, pretest scores on attitudes toward play, the scores on the conception of the family, the family SES value, the number of children in the family, and the number of toys owned. The pretest scores of the knowledge about play and the attitudes toward play were included in the equation because of the conceptual relevance to the other independent variables being investigated.

The dependent variable in this regression analysis is a change score formed by subtracting the pretest score from the posttest score for each subject on the instruments measuring knowledge about child's play and attitude toward child's play.

Both the pretest for the knowledge instrument ($p \leq .001$) and the conception of the family scores ($p \leq .009$) predict gain in knowledge

as shown in Table 4-3. The Null Hypothesis 3 is rejected. Mothers who have a more developmental conception of the family show greater gains in knowledge about play.

As shown in Table 4-3, $\underline{R}^2$ Change column, 67% of the variance is accounted for by the set of variables listed with 58.7% of the variance accounted for by the pretest knowledge and the conception of the family combined.

The Null Hypotheses 5a and 6a were not rejected. The number of toys owned ($\underline{p} \leq .886$), the SES value ($\underline{p} \leq .350$) and the number of children in the family ($\underline{p} \leq .516$) were not found to be significant predictors of knowledge gain.

In a further analysis of the conception of the family, the conception of the child was analyzed separately from the total conception of the family, which includes conception of the child, the mother, and the father.

As can be seen from Table 4-4, the conception of the child ($\underline{p} \leq .007$) is a significant factor in predicting gain in knowledge. The conception of the child is the primary factor in the total conception of the family referred to in Hypothesis 3.

Hypotheses 4, 5b and 6b

The following hypotheses were simultaneously analyzed by a multiple regression, stepwise procedure, in order to provide information illustrating the relative significance of each independent variable.

Table 4-3

Results of the Multiple Regression Analysis

Stepwise Procedure of Variables Predicting

Gain in Knowledge About Child's Play

N = 23

Multiple R = .816		R^2 = .6656	F = 5.308		p ≤ .003
Variable	Beta	Std. Error Beta	F	p	R^2 Change
Pretest Knowledge	-.6382	.1508	15.0218	.001	.417
Family Conception	1.4510	.4961	8.2354	.009	.170
Pretest Attitude	.3080	.2280	2.7315	.115	.051
SES	-.1106	.1202	.9200	.350	.018
No. of Children	.41754	.6354	.4399	.516	.009
No. Toys Owned	-.0180	.1231	.0212	.886	.000
(Constant)	10.6146	19.4944	.2964	.594	

d/f = 6,16

Table 4-4

Results From the Multiple Regression Analysis

Stepwise Procedure of the Conception of the Family

and Conception of the Child on Knowledge Gain

N = 23

Multiple R = .5602	R^2 = .3139	F = 4.5744	p ≤ .023
Variables	Beta	Std. Error Beta	F	p
Child	2.8843	1.6673	8.9191	.007
Family	.5589	.8248	.4592	.506
(Constant)	-8.7000	5.9882	2.1107	.162

d/f = 2,20

H4: Null hypothesis. Values of the developmental conception of the family scores will not predict gains in attitudes toward play.

Alternative hypothesis. Values of the developmental conception of the family scores will predict gains in attitudes toward play.

H5b: The number of toys owned will not predict the gain in parental attitudes toward play.

H6b: The relative SES value and the number of children in the family do not predict the gain in parental attitudes toward play.

The independent variables are the pretest scores on the parental knowledge about play, the conception of the family, the family SES value, the number of children in the family and the number of toys owned. The pretest scores from the knowledge and attitude instruments were included because of their conceptual relevance to the other independent variables in the equation.

The dependent variable is the gain score that has been created by subtracting the pretest from posttest scores for each subject on the attitude toward children's play instrument.

The pretest scores on the attitude toward children's play is the only variable tested that predicts gain on that dimension ($p \leq .022$).

The null form of Hypothesis 4 was not rejected. That hypothesis stated that having a developmental conception of the family will not predict gain in attitudes toward children's play.

The null forms of Hypotheses 5b and 6b were not rejected. The numbers of toys owned, the SES value, and the number of children in the family do not predict attitude change.

Only 38.93% of the variance was accounted for by the combined variables, as can be seen in Table 4-5.

Hypotheses 7 and 8

The ANOVA, analysis of variance, was used to test the differences between experimental and control groups at the pretest on knowledge about and attitude towards children's play. The following hypothesis may also measure the effects of toy direction sheets on the variables of interest since the toy direction sheets were available to the control group but not the treatment group at the time of pretesting.

Table 4-5

Results of the Multiple Regression Analysis,

Stepwise Procedure of Variables Predicting

Gain in Attitude Toward Children's Play

N = 23

Multiple R = .6290 R^2 = .3893 F = 1.700 $p \leq .185$

Variable	Beta	Std. Error Beta	F	p	R^2 Change
Pretest Attitude	-.4640	.1980	6.0944	.022	.2249
No. of Children	-.7370	.5518	2.3582	.140	.0818
Pretest Knowledge	-.1083	.1309	1.0249	.824	.0355
Family Conception	.4007	.4308	.7634	.394	.0268
SES	-.0744	.1044	.4541	.509	.0164
No. Toys Owned	-.3448	.1069	.0140	.751	.0038
(Constant)	42.5376	16.9280		.023	

d/f = 6,16

H7: Null hypothesis. The mothers who have had access to the toy direction sheets (control) will not differ from mothers who have not had access to them (experimental) on knowledge about children's play.

Alternative hypothesis. The mothers who have had access to toy direction sheets will show greater knowledge about children's play than those mothers who have not had access to them.

H8: Null hypothesis. The mothers who have had access to the direction sheets (control) will not differ on attitudes toward children's play from those mothers (experimental) who have not had access to them.

Alternative hypothesis. The mothers who have had access to the direction sheets will show higher scores on the attitudes towards children's play than mothers who have not had access to them.

The independent variable was treatment group, those having toy direction sheets and those not having them. The dependent variable was the pretest of the knowledge about children's play (H7) and attitudes toward play (H8).

Table 4-6

Results of One-Way Analysis of Variance on the Knowledge of Children's Play by Treatment at Pretest

	MS	d/f	F	p
Between	177.1694	1	4.6251	.0373
Within	25.3336	42		

The null form of Hypothesis 7 was rejected. Mothers who had access to the direction sheets and who were the control group for the primary hypothesis of this study did show greater ($p \leq .0373$) knowledge about children's play on the pretest.

The null form of hypothesis 8 was not rejected. Mothers who had access to the toy direction sheets did not differ in their attitudes toward play ($p \leq .9663$) from mothers who did not have access to them.

Table 4-7

Results of One-Way Analysis of Variance on the Attitude Toward Children's Play by Treatment

	MS	d/f	F	p
Between	.0343	1	.0018	.9663
Within	19.0095	42		

Table 4-8

Means by Treatment of Knowledge of Children's Play and Attitude Toward Children's Play

	Knowledge		Attitude	
	$\bar{X}$	σ	$\bar{X}$	σ
With (control)	57.5714	4.49	67.8571	5.11
Without (experimental)	54.3043	5.48	67.9130	3.54

As has been stated, the control group for the primary hypotheses of interest (H1 and H2) scored significantly higher on the pretest of knowledge about children's play than did the experimental group. There were no differences between the two groups on attitudes toward children's play on the pretest.

A summary of the null hypotheses tested and the decision rule are to be found in Figure 4-1.

Hypotheses		Decision Rule The null hypothesis was
H_1	There are no differences in the adjusted posttest scores on knowledge about play between mothers attending the workshops and mothers not attending them.	Rejected
H_2	There are no differences in the adjusted scores on attitudes toward play between mothers attending the workshops and mothers not attending them.	Not rejected
H_3	Values of the developmental conception of the family scores will not predict gains in knowledge about play.	Rejected
H_4	Values of the developmental conception of the family scores will not predict gains in attitudes toward play.	Not rejected
H_{5a}	The number of toys owned will not predict the gain in parental knowledge about play.	Not rejected
H_{5b}	or gain in attitudes toward play	Not rejected
H_{6a}	The relative SES value and the number of children in the family do not predict gain in parental knowledge about play.	Not rejected
H_{6b}	or attitudes toward play	Not rejected
H_7	The mothers who had access to the toy direction sheets (control) will not differ from mothers who have not had access to them (experimental) at pretest on knowledge about children's play.	Rejected
H_8	or attitudes toward play	Not rejected

Figure 4-1. Summary of hypotheses tested and the decision rule.

CHAPTER V

SUMMARY, DISCUSSION AND IMPLICATIONS

Summary

An accumulation of evidence indicated that mothers influence the intellectual development of their children. The source of variation in competence among children was found to be in the quality of interaction between the mother and child.

Mothers living in rural environments have limited access to resources for the improvement of their understanding of the parental role in the child's learning. Most of the research reported on effective parent education programs has been on the urban population.

Two groups of mothers with preschool children who were associated with local libraries were compared in this study. The control group (n = 21) from Pigeon, Michigan, was younger and had been married for a shorter time than the experimental group. The control group also was found to score significantly higher on the knowledge about children's play at the pretest than the experimental group.

The experimental group (n = 23) from Millington, Michigan, participated in a six-week workshop on play while their children attended a one-hour program in the library.

The primary design was a quasi-experimental two-group pretest-posttest model. The MANCOVA was used to test the effect of the parent education program on attitudes toward and knowledge about

play. The experimental group improved significantly over the control group on knowledge about play. No significant differences between the two groups on attitudes toward children's play were observed after treatment.

Multiple regression analysis, stepwise procedure, was used to determine the amount of variance in gain scores on the knowledge and attitude dimensions that could be attributed to known independent variables.

Sixty-seven percent of the variance for gain on the knowledge of children's play was accounted for by the combination of the following variables: pretest knowledge, developmental conception of the family, pretest attitude, SES, number of children in the family, and number of toys owned. Only the first two were significant, accounting for 59% of the variance. With further analysis, the subscale conception of the child was the primary contributor to the conception of the family.

In comparing treatment and control, the direction of change in attitude toward children's play was in the desired direction but was not significant. Using multiple regression analysis, only the pretest on the attitude variable was a significant predictor of attitude gain, with mothers who had the lowest scores on the pretest improving the most. The pretest on the attitude toward children's play accounted for 22.5% of the variance, with the remainder of 38.9% of the variance being accounted for by number of children in the family, pretest on the knowledge scale, developmental conception of the family, SES, and toys owned, in that order.

The direction and significance of predicting gain for knowledge about and attitude toward play are indicated in Tables 4-3 and 4-5. Lower pretest scores, SES values, and fewer toys at home predicted gain on posttest scores. Not all of these factors were significant, however, for the attitude and knowledge dimensions.

At pretest, the experimental and control groups were significantly ($p \leq .037$) different in their knowledge about children's play. The control group with a mean of 57.6 knew more about play than the experimental group with a mean of 54.3. The control group mothers were younger and tended to be families living on working farms.

The Hollingshead SES scales may have been inappropriate for describing accurately the position of these farm families as independent farm owners with small businesses and minor professionals. The scales indicated that the independent farmer with an earning capacity between $25,000 and $35,000 in 1957 would be grouped with beauty shop owners, insurance agents, and morticians. The alternative, farm manager, implies that the farmer employs other personnel. Other occupations associated with the farm manager are postmaster, medium-sized business owners, pharmacists, and teachers. Even though Otto (1975) reports that occupational status is a stable indicator over time, it may be that the position of independent farmer needs reevaluation. The farmers in the Pigeon area of Michigan generally make more money than is indicated on the scales, even if adjusted for inflation. The modification of the Hollingshead scale used by the investigator that averages the education and occupation of the mother with that of the father was intended to provide a more accurate descriptor of family

life style. However, if the status position of independent farmer were altered, the differences observed between the Pigeon and Millington subjects at the pretest on knowledge of children's play could be explained by differences in SES.

The control group also lived in an area that had considerable community spirit and many community activities were focused in the Pigeon library. They also had access to toy direction sheets for several months. The initial differences between the two groups on knowledge about children's play cannot be explained completely with present information.

Discussion: The Interface Between the Family System, the Parent Education System and the Library System

The family system. The mothers in the experimental group changed as a result of the intervention on the knowledge dimension. They were functioning as elements of an open system to the flow of information from the parent education system. From data collected in this study, the best indicators of openness to new information were the pretest knowledge scores and a developmental conception of the family. Both of these indicators could be described as readiness factors for the new concepts in the intervention. The content of the intervention was based upon a developmental perspective. Therefore, as has been shown in other settings, the learner who has some information and a conceptual framework supportive of the program learns more than learners who do not have similar conceptions.

The environmental variables measured, number of children in the family, SES value, and number of toys owned did not predict gain

in knowledge. There was no variability in perceived adequacy of play space and little variability in the other measures. The homogeneity of the population may have been a determining factor in the low predictability of these variables. However, none of the variables analyzed contributed so little to the total variability accounted for that it was dropped from the equation.

An assumption of this study is that change in one member of the family will result in changes in other members. No observations of parent/child behavior were made as a part of this study. However, the librarian informally reported a marked increase in the circulation of toys of the experimental group in comparison to other groups of families using the library. Though this was not formally documented, it is a preliminary indication of secondary changes of behavior in the experimental families.

No changes in attitude were made during the intervention period. This is not surprising. Attitudinal change is a slow process that requires more time in intervention and perhaps a different approach than the one used. As Emmerick (1969) states, "the parental role consists of a rich fabric of interrelated cognitive processes. . . ." These processes operate independently from one another to some extent and may govern different sets of parental behaviors as the role is enacted. Possibly attitudinal changes would be observed if the number of subjects were larger.

Though the family system is influenced by the parent education system and the library system, it is a dynamic structure that sends information as well as receives it. Questions raised by the

experimental group of mothers were incorporated into the program when possible. The final form of the materials used in the intervention and some of the procedures used by the library were influenced to some extent by the mothers participating in the parent education program.

The library system. The library program in Millington where the parent education program occurred was substantially altered by the project. The toys available for loan were substantially increased so as to duplicate the set available to the control group. Local library resources were used to shelve, store, display, and circulate these materials.

Though the focus of the research is on the family system and the parent educational system, there were several unintended outputs of the transformational processes in the parent education system. First, as has been reported, there appeared to be increased circulation of the toys. Secondly, the importance of the adult program was recognized when two mothers left sick children with a sitter in order to attend the parent program. Previously, the adult program had been designed to occupy the parents while the children were in storyhour. The third unintended output was in providing guidance to library staff on how to maximize child learning as they interact with a playing child in the library.

Though the data about the library system are primarily descriptive, some of the gains in knowledge of children's play may be attributed to the fact that the intervention occurred in a library

with a large selection of play materials for loan. All toys used in demonstration were available for immediate circulation. Occasional incidents occurred as parents and children were gathering for their respective programs that could profitably be used to illustrate concepts presented to the parent group.

The fact that the parent education program was occurring within an ongoing library structure may partially account for the lack of gains in attitude toward children's play. Each session had to be exactly 60 minutes so that both child and parent programs ended at the same time. Some productive discussion was generally terminated in this manner. The number of six sessions was also a standard sequence for the storyhour in Millington, though parent education programs generally run at least for eight weeks and often much longer.

The parent education system. The parent education system is composed of three parts: administrative, transformation process including method and content, and lastly the feedback components. Each component must function in order for the objectives to be met. The interaction between the administrative component and the library has been described in the preceding section.

The transformational processes of the program were varied. A learning-focused approach was used in the development of the lessons. Slide-tape presentations, demonstrations, and discussions were all used in conjunction with take-home materials and printed brochures. Questions by parents and suggestions from library staff were incorporated into the program when feasible. The complete set of materials is available in Appendix A.

Mothers in the experimental group learned more than those in the control group about play. The finding is strengthened by the fact that the violation of the assumption of equality of variance made the test more conservative.

Other feedback about the overall acceptability of the parent education program was in the attendance pattern. More than half of the mothers attended all sessions with the remainder attending at least four. Four subjects were lost for nonattendance. Four other subjects were lost because they missed the pretest session. An unusual pattern of attendance occurred in the morning section of the experimental group with people in attendance increasing weekly for the first three weeks. Mothers participating in the program had invited friends to join them. The extras came and participated in parts of the learning sequence but were not included in the analysis. The response of the librarian to the effectiveness of the program was also very positive.

Implications for Theory

A systems approach to parent education was developed by Buckland (1971) and is codified in her standards of excellence (pp. 292-320). The transformation processes that she delineates include some attention to the near environment of the parent education group. However, from her delineation of the components that contribute to an excellent program, the environment is viewed as a necessity, an empty enclosure. The parent educator prevents extraneous interference with the group from outside sources.

This study utilized the near environment in such a way as to maximize the information available from it. The library environment was deliberately altered by the inclusion of a large number of play materials. By controlling the input of artifacts into the environment the researcher also directed some of the information flow toward the target families. The information provided by the toys could continue after the end of the parent education program. The effect of the toy library on the parental acquisition of knowledge has not yet been tested independently of the effect of the program.

However, the general implication is that if the environment is viewed as an active, significant component of the learning process, change in behavior may be optimized and potentially continued after the end of the intervention.

The near environment of the family has a potential effect upon the acquisition of information. Though the number of toys in the household could not predict the acquisition of knowledge about play, this factor was not so negligible as to be dropped from the equation.

Factors in the behavioral environment of the family as altered by the parent education may be a predictor of toy purchase patterns. As a potential resource is recognized, parents' economic behaviors may alter to maximize potential effect. Parent educators have not tended to observe families long enough to evaluate changes in general behaviors.

Play as a Factor Influencing the Quality of Life

Play is part of human experience. It has been repressed since the Reformation in the industrialized cultures. Play encompasses a large range of behaviors that can be observed in all age groups.

The content of children's play as described in Appendix A represents only a limited range of possible alternatives to the preschool child. The program could be expanded to include activities that lead to increased perceptual motor skills, social games, the participation in music and literature to name a few. It is, however, in the process of playing that pleasure is experienced and shared. Satisfaction comes from the activity itself. Fortunately, many of the activities that are intrinsically satisfying to the young lead to the development and practice of socially essential skills.

Though the program focuses upon the very youngest members of the family, the theory explaining play can be applied to any age group. Games of school-aged children are related to the economic and other social patterns of their culture (Rarick, 1973). The elimination of physical education, art, and music programs in public schools in times of economic stress is a cultural habit of officially diminishing the importance of playfulness without understanding potential consequences. In analyzing futuristic literature relevant to parent education, Buckland (1971) found general agreement that creativity and playfulness would be essential characteristics in the population for the future of our society.

Recreational programs for adolescents and youth have recently been developed to direct the playfulness of this population into

socially accepted alternatives. Very little scientific attention has been focused on the beneficial effects of programs. Play in the dance hall or community center is accepted by the community as an alternative to other activities often considered to be illegal.

Activities of adults that are carried on for the pleasure of the process can make aesthetic or economic contributions to the family. Crafts carried on in the home may contribute to the immediate environment providing pleasurable experience to the whole family or may be sold to others.

Play as a Relevant Concept to Professionals

Humanistic psychology recognizes that the totality of significant behavior cannot be explained by conditioned responses. Play which may be a very complex behavior enables participants to experience pleasure in a myriad of ways, thus enhancing personal satisfaction. Play occurs when the basic needs are met and the person is seeking stimulation. The play choices that an individual makes may also reveal concerns, interests, and values of the player.

Play therapy for children has long been used to assist clients in coping with stress. The general therapeutic effect of play is recognized by industry by providing workers with paid vacations. Participation in crafts, hobbies, or games may also provide family members with acceptable mechanisms for coping with mild stress generated in the home.

Therefore, the content of play and recreational skills is appropriate material for educators at all levels. People in the

industrialized cultures have lost the cultural repertoire of playful activities that could potentially enhance their daily lives. Public educators, extension workers, social workers, and clinicians have a potential contribution in enhancing playfulness, pleasure, and the resulting satisfaction that leads to improvement of the quality of everyday life.

Implications for Future Research

If research on parental knowledge about play and attitude toward children's play is to continue, the instruments will need to be refined and reduced in length with data on predictive validity and reliability being derived from their use.

A controlled study on the impact of toy direction sheets would clarify somewhat one of the findings of this study. If the use of direction sheets were effective, it would reduce costs considerably from those incurred using human resources.

Using data collected in this and the Smith (1975) study, an item analysis of patterns of response to the knowledge scale, Part I, could be used to examine parental expectations of children's play. DeLissivoy (1973) used a similar technique in examining teen-age parents' expectations of infants.

The assumption that increased parental knowledge about play and its effects on child learning leads to changed parental behavior is a testable hypothesis. This should be carefully done, because as Radin (1972) pointed out, some parent education effects can only be observed after considerable time.

The impact of the leader also needs to be examined. Though the program has been written so that generalists could use it in the field, a comparison of the effects of a structured program between specialists, generalists, and volunteers would be a contribution to the parent education literature.

Because of the potential long-range societal effects, a comparison of knowledge about and attitudes toward children's play between populations where both parents are working and populations where one is at home with the child is needed. Possibly the child is teaching his parent about the importance of learning through play in daily interactions. With limited time such interactions would be substantially reduced.

Implications for Practice

The intervention program was written for use by educators for a general audience. Home economics teachers could use the intervention program with minimum alterations for high school students. Extension home economists, preschool teachers who do parent education, and adult educators might also find a tested program useful in meeting their objectives.

The program developed could also meet the needs of elementary school personnel who work with parents in preparing the five year old for school entry.

The program, if carefully adapted, could be used in other countries to promote school readiness and to preserve cultural play patterns. Eiferman's (1971) work clearly indicates that the timing of

developmental patterns in sociodramatic play is about three years later in north African children than north European children. Since the skills used in sociodramatic play are those necessary for participation in an industrialized culture and insignificant in a subsistence culture, families who are living in industrializing nations are not as likely to have the knowledge or skills necessary to support the development of sociodramatic play during the early years.

Though there is minimal research that examines preschool play behavior in detail in nonindustrialized nations, general play patterns appear in the anthropological literature. Any adaptations should be made carefully after observation of the target population. In general, American children appear to be accelerated in cognitive development, similar in social development, and somewhat behind European children in motor skill development between the ages of three and five. The sequence of development, however, appears to be stable with variations in rate attributed to cultural and genetic factors. Any adaptations for other cultures, therefore, must consider these variations.

APPENDICES

APPENDIX A

PLAY: THE HUMAN WAY, A SERIES OF PROGRAMS FOR PARENTS

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PLAY: THE HUMAN WAY, A SERIES OF PROGRAMS FOR PARENTS

Background for the Facilitator

Play: The Human Way

What is play? Play is the natural behavior of children as they grow in their abilities to interact with the environment. It is a behavior that results in pleasurable experience for the person as well as a way of thinking or an attitude. It may also be entirely imaginative, so that the playful thinking is not observable. Play is motivated--it occurs without rewards from outside sources. No fruitful definition that conceptually distinguishes play from work has been made. Pleasure is not the key. Pleasure is present in work experiences, just as some tedium and repetition can be observed in ordinary play experiences.

Why do people play? All mammals play. Primate play is the most complex, and, of all the primates, only humans play beyond the juvenile level of development. Humans play longer than any other species; their play is more varied and complex. It is one of the characteristics of the species.

The most compelling theory to explain play is the arousal-seeking model. Simply stated, any organism has an optimal level of stimulation that is satisfying. If the stimulation of the environment is too low, the organism will attempt to seek out a source of additional stimulation. As parents know, children who are bored with riding in the car will risk considerable punishment just to have something to do. Studies have been done (Zubeck, 1964) that indicate that the absence of stimulation to the senses causes subjects to behave in ways that would be called psychotic in other circumstances. On the other hand, if the level of stimulation is too high, the individual will limit the stimulation he pays attention to by ignoring, forgetting, or temporarily putting it aside for future reference (Miller, 1960).

The information gained by sensory exploring and investigating the environment is influenced by the mechanisms of learning. Therefore, though play occurs in all cultures, the actual games that children play will vary considerably. It would also hold that the individual differences seen among children could be accounted for through both variability in the optimum level of stimulation for each child and the quality of the environment, the available models and the recognition of the importance of child's play by his significant adults. Children imitate creative, exploratory and investigative behavior. As learning occurs, an upward spiral of increasingly complex interactions is developed. The more playful children become, the more they have the potential to become creative adults.

How does play contribute to the total development of the child? Theresa and Frank Caplan in their book The Power of Play (1973) have set forth some propositions about play and development:

> Playtime aids growth . . . . A child needs sufficient time to find his play in the culture. Through his play a child gains the time he needs to gratify his basic needs. . . . Play gives every child a chance to lay plans, to judge what is best in each play situation, and to create and control the sequence of events.
>
> Play offers a child freedom of action. . . . In his play world, the child can carry on trial-and-error activities without fear of ridicule or failure.
>
> Play provides an imaginary world a child can master. . . . In a well planned play world in which the real world has been brought down to manageable size, the child can manipulate and maneuver it to suit his own whims.
>
> Play has elements of adventure in it. . . . It has uncertainty and challenge which activate exploratory examination and a child's sense of wonder.
>
> Play provides a base for language building. . . . Words come only from a foundation of play experiences, from encounters with people, objects and events which make up our world.
>
> Play has unique power for building interpersonal relations. . . . Play is the most pliant medium for feeling one's way, for understanding one's environment. Much of it (play) is social in direction and permits the child to fit himself into his social world.
>
> Play offers opportunities for mastery of the physical self. . . . There is physical play activity for its own sake, as well as opportunity for self-validation of one's skills.
>
> Play furthers interest and concentration. . . . [The child's] power of concentration and his sharp interest in the here-and-now world give evidence that play builds and expands will power and attention span.
>
> Play is the way children investigate the material world. . . . Their interest in the material elements may not always be scientific, but the desire to understand and control leads them to much investigation, invention and creation.
>
> Play is a way of learning adult roles. . . . Play may be considered a rehearsal for adult roles and anticipatory to adult life.
>
> Play is always a dynamic way of learning. . . . Facts are best maintained when they are understood and used. . . . Academics can be structured into play. . . . [They] can be integrated into play so that a child can grasp and use concepts.

Play contributes to the total development of the child, integrating within his natural tendencies to explore the people and artifacts of his culture, his abilities to observe, do, learn and feel. Most play activities use all aspects of development. The children do not recognize the potentials for motor coordinations, for concept development, for practicing the social skills so necessary for a full and wholesome life. They are "just playing." However, the adults responsible for the socialization of the children need to understand

the special dimensions of play so that they can take advantage of the opportunities for optimal development.

What do parents need to know about children's play? Primarily parents and other socializing adults must understand that the reason children play is to enjoy living. It is fun. The greatest benefits of play come when the child is in control of the situation, when he is the decision-maker and the doer. The activity should be child-directed, though parents may be participators.

There are several varieties of play that require different kinds of physical environments to be promoted. Imitative play occurs when a child performs a sequence of behaviors out of context. For example, the child may get out a pillow and blanket, make a bed and pretend to sleep outside under a tree in the summer. This is in contrast to simple imitation of adult behavior, such as attempting to make his own bed in the morning. Parents encourage imitative play by imitating the simple behaviors of young children in a playful way. As children grow older, they need to observe a variety of adult behaviors that are interesting to them and that they might profitably incorporate into play.

Exploratory play is set off by novel stimuli in the environment. The stimulus may be a new toy, a new tool or a new word or song. The child approaches the object or situation, investigates the characteristics of the novelty, manipulates it either physically or with language (questions are a form of manipulation), and eventually incorporates it into some ongoing play which may or may not be obvious to adults. (Many children need "permission" to explore.) Toddlers are such natural and unrestrained explorers that parents must set up restrictions for safety. (For some children, these restrictions become unrealistic as the maturity and judgment of the child develops.)

Providing a safe environment and materials appropriate to the age of the child, and accepting the unique ways in which the child investigates materials promotes exploratory play. Curiosity is imitated. Adults who explore a variety of experiences and materials with the children or are observed doing so by their children are promoting exploratory play.

During much of the early vigorous play the child tests his skills. His accomplishments are at first in new feats, such as the first somersault, rolling, climbing and successful rough and tumble play. As his prowess develops, the testing may become comparative: "I can climb higher than you." The child also tests social skills in a playful format as he interacts with parents and peers. Children frequently try to come to terms with adults about their increasing independence. Often this takes the form of "kidding" that, if it were serious, the parent would label as sassy or imprudent behavior. Testing play develops in later childhood through a series of increasingly complex levels of group games. Through these games the child develops the ability to handle the appropriate developmental tasks.

Parents of preschool children can encourage testing play by providing adequate space inside and outside for vigorous activity. Climbing apparatus, tricycles and other wheeled toys also encourage the early testing play. As the child matures, his need for playmates

increases as he begins to compare his abilities to other children's. Parents and other adults should not compare children, thus establishing adult standards for the play. The child's criteria change from minute to minute and are not likely to resemble adult notions of performance. Instead, the adult can be the observer, safety supervisor, appreciative spectator or, if invited, participator.

All types of play overlap somewhat, but mastery play frequently can be seen as an aspect of exploratory, imitative and testing play. Mastery play is occurring when the child repeats a task over and over with intense concentration and he appears to be working very hard at accomplishing the task that he has set for himself. Frequently the adults observing this play are perplexed as to the purpose of the repetitious, even tedious, behavior. Parents need to respect the child's involvement even though they don't understand it. The activity is satisfying for the child; he is learning from it. Careful observation will reveal that the play is variations on a theme rather than exact repetition. Through his manipulations, the child learns the properties of materials, develops his fine and gross motor skills and practices the skills of concentration and observation.

The last type of play that will be discussed here is called socio-dramatic play by Smilansky (1960) and model building by Sutton-Smith (1971). Imaginative play is important in the development of abstract logical thinking. Essential to this play is the ability to use information, to transform it by pretending, and then to carry out the action. The child during this process must construct representations of the physical and social environments to which he is exposed. He is also called upon to do creative thinking as he participates in make-believe. Children playing out self-assigned roles with other players also develop social skills. Social problem solving is one of the many benefits of dramatic play.

Parents can promote socio-dramatic play by providing opportunities for children to play with other children, by providing appropriate toys and props and by allowing the child uninterrupted time to play freely. Sometimes more direct involvement of adults is necessary to help children develop play skills.

The role of the parent in promoting child play at home is to provide a safe physical environment indoors and outdoors with appropriate play materials. The parent also provides an accepting climate so the child feels comfortable and free to play. Fatigue, hunger and nervous tension inhibit play. These basic needs of the child must be attended to before creative and productive play can emerge.

The parent also serves as a model for play behavior. Parents are the first to play with the child and continue to be the child's favorite playmate for about the first seven years. Parents contribute to the child's play through casual suggestions, demonstration of a skill and appreciative observation. Parents provide the necessary language of play as they talk to the child about his activities and materials and toys. Parents also help the children play by establishing rules and procedures for the use and storage of toys. The ability to predict acceptable behavior is essential for the playing child.

The parent mediates between the environment and the child, helping the child to use time, space, materials and all resources effectively. Occasionally, the parent utilizes resources outside the immediate family, such as library story hours, nursery schools and neighborhood play groups. Grandparents, extended family members and other people also may contribute to the child's play skills and potentials.

Why should parents learn about the play of children? Play is a naturally occurring behavior that is very complex. It is necessary for the normal development of the child in all aspects--intellectually, physically, emotionally, and socially. With some understanding of the dynamics of play, many parents may utilize the skills they already possess to enhance the developmental potential of the child.

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Smilansky, Sara, The Effects of Socio-dramatic Play in Disadvantaged Children, New York: Wiley, 1968.

Sutton-Smith, Brian, "Child at Play," Natural History Supplement, Dec. 1971, pp. 54-59.

Zubeck, J. P., "Effects of Prolonged Sensory and Perceptual Deprivation," British Medical Bulletin, 1964, 20, 38-42.

Suggested Readings

Frymier, Jack, ed., Theory Into Practice, Volume XIII, Number 4, October 1974.

Sutton-Smith, Brian, "Children at Play," Natural History Supplement, December 1971, pp. 54-59.

Sutton-Smith, B. and Sutton-Smith, N., How to Play With Your Child and When Not to Play: The Child Strives for Self-Realization, Washington, D.C.: National Association for the Education of Young Children, 1971.

General Instructions for the Facilitator

The following series is based upon slide-script presentations, discussion, demonstration and participation by the parents. You may adapt the contents of this series to meet the specific needs of your audience. The contents are especially appropriate to parents of children under six years of age.

Objectives

1. To help parents recognize how play benefits a child.
2. To show parents how to arrange a child's indoor play space so that the child has easy access to toys and the parent can rotate toys in and out of use.
3. To acquaint parents with manipulative toys and how they contribute to a child's development.
4. To familiarize parents with the way sociodramatic play develops and with the way parents can make the most of sociodramatic play as an opportunity for learning.
5. To give parents a chance to play with materials that children use in creative play.
6. To show parents some behavioral alternatives in guiding their children toward greater self-control. (To meet this objective, include the lesson on discipline.)

Limitations of Series

This series of lessons is designed primarily for families who already have a base of parenting skills and positive attitudes toward childrearing but who lack information about the importance of play and its contribution to child development. It is not designed for parents who lack a background in parenting or for parents with a negative attitude toward childrearing. Changing such an attitude usually takes much longer than this series of lessons will run. And building basic parenting skills requires the facilitator to spend a lot of time demonstrating them and guiding the parent in their practice.

Procedures for the Leader

1. Read through the entire series. If you are not a child development graduate, read the suggested reading at the end of the introductory material.

2. Evaluate the needs of the audience. If the audience is a group of parents who need a great deal of information about childrearing, begin with a series on basic development first.

3. The series on discipline may precede this series on play or may be presented after the lesson on the play environment. THIS

SERIES WILL NOT BE VERY EFFECTIVE UNLESS QUESTIONS ABOUT DISCIPLINE HAVE BEEN DISCUSSED!

4. Plan the programs. I suggest that you use a series of one to one-and-a-half hour sessions, planning some time for discussion among the parents. Note: Presenting the material on sociodramatic play will take longer.

5. When you arrange a room for the series, please note that you will need flexibility in space. For the creative materials session you will need a water source. Electrical outlets are necessary for all sessions.

The World of Play

Young children have much to learn. They must learn how to live with other people at home and in the community. They must learn about the natural world around them: That rain comes from clouds; that some bugs only walk while others may also fly; that plants need air, earth, sunshine and water to grow. Young children must learn about the things people have made and how these things are properly used. Vacuum cleaners, ovens, mother's new sofa . . . tractors, rakes and automobiles; all are objects for potential exploration.

The environment which surrounds the child is large, complex and perhaps a little frightening. How then does he cope? By reducing the large, complicated real world to a smaller world that he can control: The World of Play. Through play, the child can explore relationships between people, between people and nature, and between people and the things they have made.

The presentation(s) to follow will describe how the child learns through play and how mothers, fathers and even grandparents and older siblings can promote learning through play.

First to be examined is the place where the young child plays most frequently. Playroom, family room, bedroom or garage can be planned to enhance the child's potential for learning.

Preparing the Indoor Environment for Play

Concepts

1. The surfaces of walls and floors, in a child's play area, may determine the amount of freedom or restraint the child has in his play.
2. Safety, order and cleanliness are possible in child play spaces.
3. Toyboxes have limited usefulness for children because: Choosing a toy is difficult with so many jumbled together; many toys must be removed before the child obtains the one he's seeking; and games and toys with many parts become easily separated or broken.
4. Introducing new toys periodically enables the child to focus his interest and play more successfully than presenting many toys all at once or just at Christmas and birthdays.
5. Toy rotation is a system of parents putting away some toys and then bringing them out again later while returning other toys to the storage area.

Materials Needed

1. Slide projector and screen
2. Slide set
3. Script

Script

Part I--Walls, floors

Young children need open space to play in. The floor should be of a hard surface like linoleum, tile or hardwood that is smooth textured. Shag carpeting clogs the wheels of trucks or pull toys and becomes the hiding place of many small stones and parts of toys.

Throw rugs on one part of the floor provide a warm and more comfortable place to sit and play. Rugs should be rubber-backed to prevent slipping.

Walls painted with a low gloss enamel are easier to wash than either flat paints or wallpaper. If a room needs wallpaper, a durable vinyl with a subdued pattern is effective.

Walls can be used to increase play space for the child.

Long mirrors can be hung close to the floor to give the young child a full view of himself and his surroundings.

A bulletin board or cloth-covered composition board placed at child level permits the child to hang pictures he has drawn or cut from magazines. Parents can encourage the child to be selective in those he hangs. Extras might be stored in a clothing box under his bed.

A wall easel or a chalkboard placed where the child can reach it can provide an acceptable surface for writing on the wall. If it is mounted on metal shelf adjuster strips, the chalkboard or easel may be moved up as the child grows.

Furnishings which encourage independent play are child-sized table and chairs and perhaps a comfortable chair for looking at story books.

Many children enjoy playing quietly on a bed. Bedspreads that are easily washed and a pillow to lean against help keep sheets and blankets clean.

A safe play space has smooth surfaces with few protrusions. Softwood floors, nails partially pounded into walls, windows that are not firmly set and furnishings that are too large for the child may be hazardous to an enterprising preschooler. Stairs are dangerous, too. Parents need to plan ahead for the toddler to protect him from falling downstairs.

To keep curious explorers safe against accidental poisoning, cleaning supplies, bathroom supplies, paint and turpentine and other potentially dangerous substances should be stored on high shelves. Always assume that, if a child can get into a poisonous container, he probably will.

Part II--Toy storage and play

If parents want to encourage independent learning through play and maximize the child's creative abilities, they need to plan carefully the storage of play materials. The child should be able to select a toy, play with it, and return it to its place easily. Broken toys and toys with lost parts only frustrate the child.

Parents, grandparents and friends usually give toys to children on Christmas, birthdays or special occasions. The child may receive so many that he cannot focus on any one game or activity. Frequently the younger child simply plays with the boxes and wrappings of his gifts.

An alternative is to present toys to the child throughout the year. If the child receives a large number of toys on a special occasion, the parents may simply put some of them away and bring them out gradually throughout the year.

Mother can stimulate a child's lagging interest by presenting a new toy to him from time to time and by playing with him briefly.

Toyboxes have been used to store toys for a long time. They were more suitable when all the children in the family had fewer than six or seven toys.

Today, however, children have many toys so that there is usually a problem of fitting them all into a small toy box. (Picture showing a child attempting to fit new toy into overstuffed box.) Finding a particular toy requires removing all the other things the child comes to until he finds the toy he is seeking. This, of course, leads to disorder in the play area. Mother repeatedly tells the child to put away his toys. Both mother and child end up feeling harrassed and fatigued.

Another drawback of toyboxes is that it is difficult to find pieces of games and toys that have become separated in the box. (Children trying to play game and can't find a piece.) Cooperative and creative play occurs only when children have access to materials, but preschool children usually do not have the patience to search diligently for missing parts. Play is then very frustrating.

Crowding toys in a toybox also makes them less visible to the child. He has great difficulty in seeing (perceiving) what his alternatives are. If toys are arranged so that there is space around each item, he can see, select and play with a toy more successfully. Jumbled toys in toyboxes or crowded shelves may lead to "I don't have anything to play with," whereas the <u>same</u> toys arranged differently produce different results.

If toys are stored on shallow shelves, children can easily see the toys that they have to use. They can select one toy at a time, avoiding the searching method of the toybox. The child can easily replace the toy on the shelf independently and take another. Games and toys with many parts (like beads) can be stored in shoeboxes, tins or plastic containers so that all of the pieces remain together.

A <u>general</u> box can be placed on the shelf to hold odds and ends, balls and small cars. A dishpan is a sturdy container suitable for this.

Clean Up

Even with improved toy storage, cleaning the play area may still be a problem. The 2-year-old may need mother's help to return each toy to the shelf as he finishes with it.

By 3, the child is likely to have many of his things out at the same time. Trucks, blocks and animals used together can provide hours of fun. When it's time to clean up the area, mother and child, working together as a team, can get the work done quickly.

Children under 5 or 6 usually have difficulty doing the clean up alone. They put away one thing and take out two. They are easily distracted. Parents can help them learn to maintain an orderly environment by working beside the child, calling his attention to the task at hand and encouraging him to put his toys on the shelf in an orderly way.

Neither parent nor child needs to become overly tired working together. Parents can help the child by clearly stating what is expected of him--"it's time to put away the toys"--by helping him to carry out the task and by praising him when he has finished. "You have worked hard. The room looks very nice." Between 2-1/2 and 5 years of age, children can learn to keep their play spaces pleasant and orderly.

Toy Rotation

Parents may promote the use of toys by rotating those on the shelves with those in storage.

Children may have more toys than can fit on the shelves. Often they have too many new ones at Christmas and birthdays. One of the most successful ways of planning for toy use is to place some of the toys into storage to which the child does not have access.

Parents may occasionally sort the toys. Discard broken toys. Those that the child is clearly too old for should be given away, sold or put away for younger children. If the child receives more than two new toys, or if he has more toys than can fit easily on storage available, put some of them away for awhile.

A month or so later, some of the toys that were put away can be returned to the shelf and others put into storage.

Why should parents shuffle the toys in this way? Well, first of all, it can save money. If an "old" toy is not seen for several weeks and then is brought out again, the preschooler responds as though it were a new one. Secondly, when the child is getting tired of a toy, removing it and then bringing it back revives his interest in it. Third, rotating toys helps to keep a limited, stimulating selection of toys available for choice, but avoids over-crowding of shelves.

In Summary

Children need a safe indoor space to play that is planned to meet their special needs. With guidance, children can learn to keep play space orderly.

Children play longer with toys presented at intervals than with the same toys presented all at once. The use and care of toys can be improved by toy rotation.

What Is Play?--Handout for Parents

Play is a natural and important part of a child's development. Through play a child explores his environment and finds his place in it. As he explores, he develops and improves skills he needs to cope with an ever-expanding world. Children play because they enjoy it. Play is its own reward. It gives him a chance to plan, to make his own decisions and to control the sequence of events.

Play offers a child freedom of action. In his play world, the child can try and make mistakes without fear he will be ridiculed.

Play offers an imaginary world a child can master. A well-designed play world brings the real world down to manageable size. The child can then manipulate and maneuver it, improving his skill in dealing with it and trying out roles.

Play is adventure. It has uncertainty and challenge in it, and it offers the child a chance to satisfy his sense of wonder about the world by exploring and investigating it.

Play is learning. Through play a child builds language skills, learns how to get along with others, develops control over his large and small muscles, expands his powers of concentration, broadens his interests, and widens his understanding of the world and the way it works.

Play contributes to the total development of the child. Parents and other adults responsible for rearing children need to recognize the importance of play so they can help the children develop to the full extent of their learning potential.

How can parents help? First of all, they can provide a safe environment in which to play, with clearly spelled out rules and boundaries. They can also provide materials that are appropriate for the child's level of development: Challenging but not so far advanced that the child becomes frustrated by them. They can encourage the child to make his own decisions about play and play with the child under his/her direction. They can praise him/her for his/her efforts in mastering new skills so that he/she will want to keep trying to improve and keep trying new things. They can accept and respect the child's right to do things his/her own way, to learn by trial and error and to make his/her own mistakes. They can see that he/she has playmates for social play. Parents can serve as models for play, demonstrating activities and skills, as well as making direct suggestions. By talking with the child about his/her activities, parents help him/her learn the language of play. Lastly, parents can make an effort to learn more about play and how it contributes to their child's development. With this understanding, parents can help their child develop to his/her full potential.

Principles of Interaction to Develop Self-Control

Purpose

One overall objective of childrearing is to guide the young so that they can grow up to be fully functioning adults in the society. In addition, parents would like their children to have full lives that enable them to experience the joys of living. One of the characteristics of healthy adulthood is self-discipline and self-control. How does the parent guide the unrestrained, uncontrolled behavior of the infant towards this goal?

Self-control is gradually attained through the interaction of the parent and the child on daily tasks. It is the accumulation of these experiences that makes a long-term difference in the behavior of the child. The content of these interactions is important if parents are to guide children toward increased self-discipline rather than control from external sources.

Many parents do not realize that there are several useful techniques for guiding children. Some of these work for some families better than others. It takes time and practice to incorporate any new behavior into your fund of alternatives so if you try any of these techniques out with your family, give the trial at least two or three weeks. The usefulness depends upon the age and development of the child as well as the individual personalities of parent and child. The following techniques are described for toddlers and preschool children though many of the ideas may work equally well for older children.

General Principles for All Techniques

1. Tell the child what to do rather than what not to do.
2. Speak to the child at his eye level. Squat, kneel, talk directly to the child's face.
3. Get the child's attention by calling him by name. Avoid yelling across the room.
4. Be specific and speak slowly. Use a simple vocabulary geared to the child's age.
5. Deal with a child as you would like to be dealt with as a fellow human being.

I. Giving Directions, Suggestions, Instructions, Etc.

A. Give a choice only when the child has a choice.

Example--When it is time for lunch and the child is expected to go, say: "It is time to wash your hands and go to lunch." Do not say, "Do you want to go to lunch?"

B. Redirect unacceptable activity in line with what a child is seeking.

Example--A child is throwing sand. Does he need another activity? Say: "Tom, you may dig in the sand. You might ask Jim to dig with you. Tell him he can help. Sand is for digging, not throwing." Or, "Here is a ball. Ask Tim to catch it when you throw it."

C. Reinforce suggestions or directions, if necessary, with assistance.

Example--"It's time to go to bed now." Take the child by the hand and lead him to the bedroom.

D. Establish routines.

Example--Children behave more appropriately when they can predict what will happen next. "Go to the toilet, and then wash your hands and face," as a regular nightly direction helps to avoid misunderstandings as does the clearly stated expectation of washing hands before and after meals. Prepare children in advance for unexpected changes in routine.

E. Give directions in simple declarative sentences (avoid commands).

Say, "Tom may come with me to the kitchen."

F. Delay giving help until a child seems ready for it.

Example--Say "Do you want some help?" or "Have you tried. . .?"

G. Restructure the situation.

Example--You had planned to do your shopping in the morning. A neighbor's grandchildren have come to visit who are the same age as your children. You decide to postpone shopping until later in the day.

II. Giving Encouragement

A. Give praise or reward for appropriate behavior (approve the deed, as well as or rather than the doer).

Example--Say with a smile, "John, I like the way you picked up the blocks." Or, "Your toys are all put away!"

B. Avoid individual comparisons between children.

Example--Do not say, "Why can't you sit still like Chris?" Say, "Try to sit as quietly as you can."

C. Let a child do all that he/she is able.

Example--Young child practicing and perfecting new skills. Give him time and opportunities to practice old and new skills, i.e., wiping the table, tying shoes, interacting with children and adults. Don't do things for the child that he is able to do for himself. Instead praise his accomplishments and encourage independence.

D. Let child experience success (help over hurdles).

Example--Help a child complete a task. Let her button the last button, or zip part of the zipper or finish a puzzle by placing the last few pieces of a puzzle.

E. Motivate (help) interest in an activity.

Example--A child is wandering around the house and can't seem to settle down to an activity. Parents help him to get started by inviting him to do something specific and by watching that he does for a while. "Here's a puzzle you can do."

III. Changing Behavior From Non-Acceptable to Acceptable

A. Avoid shaming and labeling behavior.

Example--Do not say, "You are a bad boy or girl," or "Don't cry; only babies cry." "You are a stupid child!"

B. Establish limits and maintain them.

Example--Say, "You may play in the yard. You are not allowed outside the yard by yourself."

C. Be fast, firm, but fair (sympathetic).

Example--Stop forbidden behavior, but acknowledge the child's real feelings; i.e., Richard hits Don over a toy car they both want. Say, "Richard, I know how you feel, but I can't let you hit Don like that. You can tell Don that you want the car and he can't have it. Don, listen; Richard needs to tell you what's the matter."

D. Be consistent.

Example--Children feel more secure when they can predict what you will do. If you expect the child to dress himself on Monday and then don't allow it on Tuesday, the child may become confused.

E. Painless removal from a situation.

Example--Carrying a child bodily from the scene of a fight and/or to redirect his attention to some other purpose.

F. Remove objects misused (or that distract).

Example--Sally has been "sweeping" with a small broom and begins very vigorously increasing her sweep each time until the broom is endangering furnishings and people alike. Take away the broom.

G. Use of restraint.

Example--Jonathon, aged 5, is chasing Carolyn, aged 3, through the kitchen while you are fixing dinner. Put a hand on the galloping Jonathon to stop him and say "No more running for now; I think you can look at a book for awhile until dinner is ready."

H. Planful ignoring.

Example--Just before dinner Bryce was playing with his trucks. His voice got louder and louder as he moved the trucks closer to his mother trying to get her attention. (Don't yell at him; just ignore it.) A little later when he had moved further from her work area, she knelt down to ask if the people in the truck were hungry.

I. Nearness of adult control.

Example--Mother noticed that several children had congregated in the yard. They looked angry and were using loud voices. She went outside to weed the flower beds instead of putting away the laundry.

J. Redirect behavior.

Example--Stop forbidden behavior. Then involve the child in something else and stay with the child until he is calm and engaged in the activity.

IV. Intervention

A. Try to foresee and forestall trouble.

Example--Elizabeth, aged 8, had made a large, complicated structure of blocks and was playing contentedly with it. Billy, who just got up from his nap, came into the family room, moved toward the building. Their mother said, "Elizabeth, Billy might want to play. Can he drive some of your people in his bus?"

B. Enter child's play.

Example--Children are playing house. They refuse to let a third child enter the 'house.' You might pretend with the children that the third child is a lady bringing cakes for tea (to encourage the children to include the third child).

C. Use of signals or cues.

Example--Put your finger to your lips to remind a child to quiet down. Shake your head from side to side to indicate behavior is not acceptable. Wink to show approval. Smile to show you're happy with them.

Development of Dramatic Play

Assumptions

1. Parents are generally unaware that dramatic play is learned.
2. Parents probably do not fully understand their role in stimulating dramatic play skills.

Materials Needed

1. 35 mm. projector
2. Slide set
3. Script
4. Summary sheets for parents

Generalizations

1. Children learn dramatic play skills from parents, older children and other adults.
2. The essential elements of imitative role play, make-believe in regard to objects, make-believe in regard to actions and situations, persistence, interaction with another player and verbal communication are necessary for the development of sociodramatic play.
3. Once children learn the elements of dramatic play, practice in various contexts helps them develop skill in abstract thinking.
4. Children's ability to pretend changes as they mature. Their play becomes more complex, has more of the elements of imitative role play and is more varied. They need more props and more realistic props when they are younger.

Dramatic Play: Slide-Script

Introduction--The Importance of Dramatic Play

When parents talk about play, they are frequently thinking of dramatic play. Dramatic play is pretending. Children learn to pretend from parents and older children. It doesn't just come naturally. Children from modern, industrialized countries learn to play through pretending. As they play, they develop ways to think about their world that they will need as they mature. For example, visualizing how people live in other lands, reading dramatic stories, imagining a story to write, and studying geography, literature and history all require make-believe because the child has not had real experiences with them.

Slide 1--Dramatic play is basically imitative in nature. The child must bring together his understandings of an adult role so that he can imitate the essential characteristics of that role. In order to do this he needs information about the role--(What do mothers do?)--and the ability to use his imagination to overcome the difficulties of accurate imitation: size, time intervals, equipment, etc. The imaginative part of dramatic play enables the child to broaden the limits of his world and generally makes the play seem more realistic.

2--When the play includes more than one player, it is called sociodramatic play. Talking is necessary to imitate the adults, describe the situation--"You are the mommy and I'm the baby"--and to coordinate the actions of all the players so that the play can be continued. The imaginative part is therefore highly dependent upon speech.

The Development of Dramatic Play Skills from Age 1 to Age 5--Between 1 and 2

3--Between 1 and 2, the busy toddler is exploring his environment with enthusiasm. He touches, tastes, smells and watches all the people and objects he can. Watching the activities of his mother and father takes up a large portion of his time.

4--First, he begins to imitate ordinary daily activities in which he participates. It is important to realize that the child pretends to be himself doing a routine activity such as sleeping, washing and eating. He imitates his own or another's actions. To do this he needs a real pillow and blanket for sleeping, real dishes for eating. He enjoys pretending to wash with water but may do it if only a towel and wash cloth are available.

This play is generally done alone or in the presence of his mother. Children of this age cannot "play" on command or in front of strangers.

5--Secondly, the toddler transforms ordinary objects into toy subjects. A leaf becomes a boat, a pillow is grandmother, a doll is the baby. Parents learn about their child when they watch what the child does and listen carefully to what he says. The play episodes may be very short. For example, he may pick up a teddy bear, cuddle it, pat it, say "daddy" and then put it down and go on to something else.

6--The third skill to develop as he approaches two is making toys carry out actions. The doll drinks from the cup, sleeps, cries and washes. As he grows he stays a little longer in dramatic play but this is usually still only 3 to 5 minutes. He is not yet ready to play with other children. If several children are present, each child plays as though he were alone.

Slide 7--The child always spends more time in play when the parent is playing directly with him. Also, a play pattern occurs when the child plays with his mother before it occurs when he is alone.

Between 2 and 3

8--Though the child between 2 and 3 still plays mostly by himself, he is adding new skills. He carries out actions on the toys such as putting the doll to bed or feeding it with a spoon.

9--He makes toys carry out action on toys such as the teddy bear feeding the doll. Now, however, he is more likely to have the complete sequence of events: Calling to dinner, washing hands, eating and clearing the table. He even represents the sequence of events in a time framework.

With his increased vocabulary and fluency he is able to give a running commentary on the action taking place and is fully aware that he is just pretending.

10--For the first time the young child becomes an actor himself. Previously he was either himself carrying out a pretended activity or a manipulator behind the scenes who made the doll carry out an action. This is an important step for the young child to take: For the first time he is assuming a role. It is most likely that the child will pretend to be the parent, having dolls or animals be babies or children.

11--Near 3, he might engage in a game-like pretense that he, as the parent, has to spank the naughty child (doll).

12--Dramatic play develops rapidly between 2 and 3. The parent can encourage the child's use of play be pretending along with the child. One of children's favorite things to play is pretending that mother is the child and that the child is the mother. A parent can gain insight into what the child thinks is important for parents to do. And the child gets practice in solving some of the problems parents face.

13--At this age, the child still plays mostly alone or with a parent. Occasionally the child will participate in a very simple role with older siblings; for example, that of baby or little sister.

When more players are added, the child generally performs at a simpler level than he would alone. Parents accustomed to observe a more mature level of play when the child is at home alone are frequently surprised when the child is expected to play with an age mate. Either they ignore each other or play along beside each other, saying little.

Between 3 and 4 years

The child between 3 and 4 develops new skills to use when he plays alone or with a parent while continuing to use those he developed earlier with siblings and other children.

Slide 14--For the first time the child is able to personify characters with feeling and represent emotions such as anger, crying or laughter. This is an especially important development. The child takes on the behavior of the role and the feelings of the person in that role. He gains greater insight into the behavior of others as he plays as well as developing his own ways of expressing his feelings.

15--In addition, the child is able to portray more than one character interacting. He plays both the naughty child and the angry parent with appropriate verbalizations and feelings expressed. It is easier for a child to show what he thinks through play rather than explain it with words. Making special areas for a "kitchen," "bedroom," "garage," etc. is becoming increasingly important.

Between 4 and 5 years

17--The child has learned many of the elements of dramatic play which he can use now as he plays with other children. He needs continued opportunities to practice these skills with guidance from an adult. The play skills acquired earlier may show some regression as he is now coping with including other children in his play.

18--Deciding what to play and what each player will do takes as much time as the play itself.

19--Arguments about who uses what truck and disagreements over the roles themselves are to be expected. The child may continue in the play for 10-15 minutes or longer with another child. He must practice getting along with another person as well as using the information he possesses about the role.

20--In addition to practicing previously learned skills the child now develops three more skills:

1. He can use different voices for different characters. More skillful players may take on two or more roles when they play alone: Mother, brother, baby and "me." They verbalize appropriately for each using facial expressions and gestures to portray the action.
2. By remembering earlier experiences, the 4 year old knows what to expect of future events of special importance, such as birthdays and Christmas, and he may play them out well in advance of the occasion. Children may need

21-- special materials to play birthday. A great favorite is to use tissue paper and string to wrap and unwrap old toys which, to his active imagination, have become presents.

22--3. The child of 4 may become an imaginary character, a monster or clown. He assigns characteristics to the role which are not based on real life. The imaginary character is amazingly consistent in his performance.

It may become necessary for the parent to help the child understand that he is only pretending, because the imaginary character may become very real and frightening to the child.

Parent's Role in Helping the Child to Learn Dramatic Play Skills

How does the child learn the skills of dramatic play? The family usually provides a place to play, toys and other play materials. The mother generally provides instruction on their use, usually not deliberately. "You put diapers on your doll and I will change baby brother."

Slide 23-1. The mother teaches her child to play by demonstrating to the child. She pretends.

Cynthia, age 18 months, could not find anything to do. Her mother came into the room and said, "Let's pretend I'm Aunt Susan. Can you fix the coffee?" Cynthia smiled delightedly and put cups and saucers on the table. Mother sat down. Cynthia put the coffeepot on the table and said "hot." Mother asked, "Where's your little girl?" Cynthia fetched the doll and said "baby." The phone rang and mother went to answer it and Cynthia stayed to feed the baby.

24-2. The mother teaches the child to play by imitating everyday events.

In the living room one evening mother said to Samuel, who was 2-1/2 years old and unoccupied at the moment, "Gee I've got a dirty-faced boy!" smiling and laughing. "Let me wash you." Sam came over and mother took a pretend wash cloth, dipped it into a pretend sink, wrung it out and pretended to wash Sam's face. "I'm all clean now," exclaimed Sam. Muther hugged him and both of them went outside.

25-3. The mother teaches the child to play by making suggestions to the child so that he continues his play or expands on it.

For example, James was playing with blocks and a truck. Usually he does not stay very long in one spot so mother walked toward the area. "Zoom, zoom, zoom," James is saying. Then he is distracted by a noise outside. He appears ready to leave the room.

Mother: "You could fill your truck with blocks and drive them to Billy."

James does so. He plays for 6 minutes trucking blocks to Billy before he leaves the room. In this example the mother makes a suggestion to the child that leads him toward

developing the specific skill that has been absent in his play. The mother is not a player herself but can guide the child from outside the play situation.

Slide 26-4. The mother teaches the child to play by reversing roles with the child. The child becomes the parent and the parent, the child. The mother participates as a player in make-believe.

"Come play with me," called Sandy after dinner. Mother replied, "What do you want to play?" Sandy assuredly stated, "You're the baby and I'm the mother. It's time for you to go to bed." Mother walked to the bed and lay down on it. Sandy smiled. "Daddy and I are going to sleep right here. Now you stay in bed." Sandy picked up a teddy bear and lay on the rug.

Mother: "Wah, wah, I want some water."

Sandy got up and gave mother some water, saying, "Don't drink too much, you'll wet the bed."

The play continued for some time. Sandy learned a little about mother's feelings after goodnights had been said 3 or 4 times.

27--Parents help their children to play by providing them with enough space to play, with enough uninterrupted time to carry out the play and with suitable toys and props. Props are those materials that stimulate imaginative play. They might be ordinary discards around the home, real tools or toys. Here are a few examples.

Parents can provide as much stimulation for creative dramatic play with odds and ends around the house as with expensive toys. The materials need to be gathered together, perhaps some of them stored in a box.

28--Dramatic play can begin with the parent suggesting the idea to the child, showing him the prop and encouraging him to use it in his play. At first, the parent may need to play with him for a few minutes until the child has the idea. New props can be added to the play from time to time.

Children below 3 depend on the props. They seldom will elaborate their play without them. As children grow older and are more experienced players, the dependence upon props gradually decreases. Dolls, doll clothes and trucks are still used regularly by children 8 and older.

SUMMARY SHEET: DEVELOPMENT OF DRAMATIC PLAY (Sutton-Smith, 1974)
PLAYING AT HOME, ALONE OR WITH MOTHER

Between 1 and 2

Imitates own or other's actions:
- pretend to sleep
- pretend to eat
- pretend to wash

Transforms objects into toy subjects:
- stone becomes boat
- cookie becomes animal
- doll is baby

Makes toys carry out actions:
- dolls drink from cup
- teddy bear eats
- doll sleeps, cries

Between 2 and 3

Carries our action on toys:
- puts doll to bed
- feeds doll with spoon

Makes toys carry out action on toys:
- teddy bear feeds doll

Shows awareness of pretense:
- child explains why teddy bear feeds doll

Becomes play actor himself:
- child is parent and feeds babies (dolls)

Plays a sequence of events:
- feeds, undresses and puts baby to bed

Plays parent roles:
- parent (child) has to spank naughty child (doll)

Acts out routines of adult

Between 3 and 4

Acts out characters with feelings:
- represents emotions (anger, crying)

Makes separate place in playing area for kitchen, bedroom, gas station, fire station, etc.

Portrays multiple characters; interacting parent and child are typical, but brothers and sisters and others are added

Shows interest in different situations or settings:
- store, gas station, beauty shop, school

Engages in play conversations via the telephone

Between 4 and 5

Becomes imaginary character (monster, clown, etc.)

Anticipates future events:
- plans party, Christmas

Adopts different roles

Uses different voices with puppets for different characters

SUMMARY SHEET

What Parents Can Do To Help

Parents can help by:

1. Demonstrating to the child how to play: pretending
2. Imitating everyday events
3. Making suggestions for play themes and things to use
4. Reversing roles with the child, taking the part of the small, helpless or fearful child
5. Providing space, time and materials for play
6. Participating in play when other children are included until the play is going along
7. Praising the players and showing appreciation for what they do

Pretend that you are playing:	Stimulating Toys	Household Discards	Furnishings or Tools
Store	Cash register (could substitute a shoe box)	Paper money (made by the children) Grocery bags; empty food cartons Signs: sale or food or cake mix 75¢	Counter (board across two chairs)
Post Office or Office	Telephone Cash register	Old envelopes; cards of all kinds; "junk mail" Letter drop box (made by child) from milk carton Play money	Stamp pads & rubber stamps Paper punch Pencils Paper for wrapping packages Small boxes Stamps (old trading stamps from magazine offers
Doctor or Nurse	Doctor's bag (old lunch box or purse) Play or inexpensive real stethoscope	Bandages (torn sheeting) Nurse hat folded from paper and stapled together	Bed or doll bed Bandaid or tape Flashlight
Restaurant	Cash register or box	Old menus (from real restaurants) or pictures of food mounted on paper Placemats can be made by child	Pad for waitress Pencil Table & chairs Apron
Camping	Dishes, pans, spoons	Blanket or sleeping bag; tent (blanket over table)	Flashlight; wood for pretend fire; compass; canteen
Mechanic shop; gas station Good for outside play	Trucks or tricycles	Keys; clean oil cans; gas pumps (a piece of hose)	Tire pump; pliers; wrench; sponges & bucket; road maps

Learning to Learn Through Manipulative Toys

(2 sessions)

Assumptions on which this session is based:

1. Parents do not recognize the relationship between the use of manipulative toys and preacademic skills.
2. Parents will be more motivated to learn how to interact with their children with manipulative toys if they do recognize the relationship between the play and academic skills.
3. Parents probably have purchased numerous toys of this type and have them available at home.

Toys

Coordination activities	Construction activities
Pounding Bench M220	Lego
Etch-A-Sketch	Colored blocks
Reconstruction activities	**Classification activities**
Nuts and Bolts--Playschool	Candy Land
Learning Tower M202	Match-Ups People & Their Jobs
Form Puzzle M318	
Stacking toy	
Puzzle	

Materials

1. Slides
2. Script
3. Slide projector

Generalizations

1. The basic learning skills are developed during the preschool years through the interaction of parent and child using objects (toys) in the environment.
2. Some of the basic learning skills are: visual perception, auditory perception, fine-muscle coordination and tactile discrimination, memory training, listening and following directions, classification, and problem solving.
3. Manipulative toys can be classified into four groups: coordination activities, construction activities, reconstruction activities and classification activities. Each category of manipulative toys focuses upon different learning skills.

Procedure

I. Activity Directions

Break total group into smaller groups of four or five members.

1. Toys that require fingers, thumbs and, at times, the sense of touch in order to be played with.
2. Those skills which should be learned by a child before he attempts reading, writing and arithmetic.

Each small group should have one toy from each of the four categories.

Directions: Play with the manipulative toys (toys that require fingers, thumbs and, at times, the sense of touch in order to be played with) you have. When you have played for awhile list the things you as a group think that the child might learn from the toy on the paper provided. You will have 20 minutes to do this. After the group has finished, ask a person from each group to share one toy with the total group.

II. Now that you know what manipulative toys are, we can begin to talk about the potential for learning that is present when the child shares play experience with a parent.

First of all, there are some skills that the child needs to develop if he is going to be a successful learner.

Slide 1-I. Preschool children must develop the ability to tell the difference between various shapes and forms; that is, one must be able to see likenesses and differences. Placing a round puzzle piece into the appropriate hole requires

Slide 2-- this skill. So does distinguishing between these shapes: 5 and S or d and b.

II. Preschool children must learn to distinguish sounds such as the beginning sounds in pat and bat. Usually children develop listening skills as they listen to speech of parents and brothers and sisters. Family members can encourage this learning by pronouncing words clearly and accurately and by encouraging more mature patterns of speech as the child grows. When parents really listen and call the child's attention to the sounds around them--the fan running, a car passing outdoors, or rain on the roof--the child will listen too.

Slide 3-- (absent) reading a story

4-- Some toys, like the xylophone, can help build listening skills. Ask the child to listen while he plays.

5-- Fine muscle coordination is the ability to make the fingers move the way the child intends to move them. All muscle control begins at the top and moves downward. Babies develop the ability to hold their heads up first, then sit and later walk. Muscle development also moves from the middle out. The preschool child is able to move his shoulders and arms before he can control his fingers.

Throwing a ball is much easier for him than writing a name.

Slide 6-- It takes a long time and much practice to control the finger muscles well enough to write. The preschool child must develop these muscles well before he enters kindergarten. He practices by stringing beads, grasping blocks, marking with chalk. Through continued effort, his first awkward attempts gradually become successful skills.

7, 8, 9-- After a child masters a skill, such as grasping, he combines it with other skills, such as poking, to make a new skill: threading a bead.

10-- As he uses toys and materials, the child becomes aware of texture: smooth or rough, bumpy or slippery surfaces are explored avidly by little fingers. If mother uses words to describe the surface the child is touching, the child learns those, too.

Slide 11-- (absent) Child asks mother for something

As he plays with simple toys, the child builds his ability to remember. A day or so after the mother has presented a peg board and pegs to him, the child may ask for "that thing" again. Parents encourage the child to learn and remember by saying, "It is called a peg board; now you say it." After the child repeats the word, he gets the peg board.

Sometimes parents help children remember where things go by taping a picture of an object on the shelf or drawer where it is stored. Games might also call for remembering.

Slide 12-- What's missing? (absent)

To play "What's missing," place several familiar things on a tray: a cup, a fork, a doll. Then ask the child to name all of the things. The child covers his eyes and the parent removes one item. The child is then asked to name what was removed.

Hint--If the child handles the materials and plays with them, he remembers more than if he just watches.

13-- Listening and following directions is an essential skill that is gradually developed during the preschool years. Parents help their child to develop this by:

1. Kneeling down to the child's eye level while speaking to him.

14-- 2. Making sure that the child is paying attention before giving directions. Saying "Look at me" or speaking the child's name is a common way of attracting the child's attention.

15-- 3. Telling the child what he is to do rather than what he is not to do.

4. Using only a few words to give directions.

Slide 16-- 5. Giving one direction at a time to children under 3 and no more than three at a time for children who are 5 and older.

6. Praising children for listening and following directions.

Learning to put things together in a group is a difficult task for the young child. He first learns to distinguish "mine" from "not mine" when he is about 2, although many children continue to work at this until they are much older (my clothes, mother's clothes).

Slide 17-- (absent) child groups familiar objects Next he learns by watching his parents and listening to them that household things are grouped together. Knives, forks, and spoons are called silverware and go in a drawer. Dirty clothes all go together in the hamper, basket or laundry chute, but clean clothes are all separated for different family members.

18-- By the time he is 4, he can separate familiar objects into groups of some sort. He usually is not consistent in doing this until he is 6 or 7.

There are numerous games and toys which help children develop the ability to group things together. Matching two things together is required for putting a chip in a chip box.

19-- Matching is also needed to play the balloon game or dominoes.

20-- An advanced form of matching is following a pattern (beads) . There

21-- are simple or difficult patterns (blocks) .

22, 23-- Following a pattern of beads is much the same as following a pattern of letters.

24-- Children can also learn problem solving through play. The child finds the correct shape by moving her finger along a curved edge while the parent describes the shape. Another way to solve the puzzle problem is to ask questions such as "What goes on top?" or "Where does the tail go?"

25-- Children learn much on their own. The puzzle piece won't stay where it belongs with the board held upright. The girl is removing the pieces one at a time from the puzzle. She must look at each piece as she picks it up. This may help her remember where it goes.

26-- Children change the way in which they use the toys. At first they focus on the task of placing the peg in the hole.

27-- Then the child plays as if the toy were a "birthday cake" with candles.

28, 29, 30-- A more advanced task is copying a design and then taking it all apart. Frequently the children are joyous as they demolish what they've accomplished.

Slide 31-- Children learn skills by doing a task over and over again until they master it. Parents can help by stimulating the child's interest in a toy and by praising his accomplishments.

32-- Common COORDINATION ACTIVITIES are the sewing cards, busy box, lacing shoe, button frame, and latch and catch box. The outstanding characteristic of this group of materials is that each is designed to provide practice at doing a motor task that may be difficult for the child. All of the coordination activities are designed to enable the child to become self-sufficient in his day-to-day environment.

33-- CONSTRUCTION materials are designed so that the end product or result is deliberately left undetermined by the material itself. Children explore two and three dimensions of space, combine shapes to create new forms, use imagination to enhance their structures with special meanings relevant to themselves. But, perhaps most important, the child learns that he can control the material and that his behavior determines the process and the product.

34-- RECONSTRUCTION ACTIVITIES are self-correcting materials that can be taken apart and put back together. The degree of difficulty of these materials varies.

The task for the child is to observe the assembled toy; to manipulate the pieces to take it apart; then to reassemble them in the appropriate sequence or position so that the toy is in its original condition. Even the simplest toy in this category requires visual memory, assessment of size, shape, color and function, persistence and motor coordination to complete the entire task. A child shows pleasure in his accomplishments, as he exclaims, "Look, see what I did! I did it myself!"

35-- The last category of table toys includes those that are or can be CLASSIFICATION ACTIVITIES. These would include all of the materials that require matching, patterning and grouping, and most games. Beads are frequently used as a coordination activity, but the child may also sort beads by color and form and string them in simple or complex patterns. The most economical use of resources is to use old toys in new ways and save limited funds for the truly new and different materials. Many of the newly produced "educational" toys are variations of the basic activities inherent in all classification materials.

Activity

Groups of 4. Green sheets.
Re-examine and play with the toys. Do you see any learning opportunity you didn't see before?
What does the child need to do to play?
What does the parent need to do to help him learn?

Creative Activities and Development

Assumptions

1. Parents have not recently participated in creative activities that children might engage in.

2. The only commonly occurring materials for art are coloring books and crayons. Some may have scissors.

3. Creativity is fostered in children by encouraging appropriate use of materials with the process and product determined by the child.

Generalizations

1. Children imitate the creative process they observe in their parents.

2. Creativity is the process of doing something for the first time or in a different way.

Objectives

1. Parents will participate in sensory experiences with art materials which are enjoyed by children.

2. Parents will learn how to use the materials.

Materials

1. Film: Early Expressionists (available from the MSU film library)
   Film projector
   Screen

2. Chalk on paper
   colored chalk
   manila paper
   hair spray
   pan for water
   water in pan, sponges

3. Crayon on paper

manila paper	(rubbings)	(wash or resist)
crayons	grater	dilute water color
newspaper	screen	paint brush
	fabric	

4. Paint on paper
   - 3 colors liquid tempera
   - 6 brushes
   - 6 orange juice cans or jars
   - computer printout paper
   - manila paper

5. Collage
   - 5 pairs scissors
   - colored construction paper
   - various fabrics
   - cellophane
   - colored sacks
   - tissue paper

6. Playdough
   - 1 batch of each kind (recipes follow)
   - 4 cookie sheets or trays to work on
   - 2 plastic knives

Recipes

Uncooked dough

2 c. flour
1 c. salt — Combine

Add--enough water to make it form into a ball; food coloring
Storage--air-tight container

Cooked dough

1/3 c. cornstarch
1 c. salt
2 c. cold water
food coloring — Mix and bring to a boil

Mixture should be smooth and glossy and clear. It should not hold own shape. Cool. Add flour (about 2 cups) and knead. It should be similar to bread dough.

Procedure

1. Set up--each activity should be set up on trays in advance.

2. Introduce film by asking parents to note how the children use their bodies in carrying out the activities.

3. Show film.

4. Discussion questions:
   a. How did the children involve their bodies in the activity?
   b. Which seemed most important to the children, the activity of doing the art or what it looked like when finished?
   c. Did staying within lines and drawing "real" objects seem characteristic of preschool children? What did their pictures look like?

5. Place trays on the table(s).

Art activities--general directions

1. There are materials on each tray. If 2 or 3 people try an activity then move onto another, you will be able to try several activities. There are sponges here so if you spill, please clean up your own mess.

2. Specific activity suggestions (the leader should comment, encourage and demonstrate as she moves through the group):

   Paint--Please put newspaper under the paints and the paper you are painting on.

   --How can you create with drips?

   --Use large motions

   --Don't try to paint a picture; just find out how painting feels

   Chalk--The color sticks better if you dip the chalk in water first. Spray your picture with hairspray so the chalk won't come off on your clothes.

   Crayons--There are lots of ways to use crayons. Try to do a rubbing by placing something under the paper and rubbing a peeled crayon over the surface.

   --Crayon resist is nice if you paint a dilute water color over the crayon drawing.

   Collage--Lots of things can be combined to make patterns and designs. Children enjoy cutting and pasting on old boxes, too. The paste should be smoothed out evenly over the material and placed on the background.

   Playdough--Each color of playdough is a different recipe. Push, squeeze and pound it. You can manipulate it in lots of ways. If stored in the refrigerator in an airtight container, it will last for several weeks. The dough will need a warm-up period before use.

List of Pamphlets and Materials Given to Experimental Mothers

Arnold, A. Your Child's Play. New York: Essandess, 1968.

Fun With Circles. USAA. # 0-492-465. Washington, D.C.: Government Printing Office, 1973.

Learning Through Play. USDA. #0-472-282. Washington, D.C.: Government Printing Office, 1972.

APPENDIX B

THE INSTRUMENTS

Code: _____

GENERAL INFORMATION

1. Name:_____ 2. Sex: M___ F___ 3. Age:_____

4. Address:_____

5. Telephone number:_____ 6. Years married:_____

7. Draw a circle around the highest year of schooling completed:

1 2 3 4 5 6 7 8	1 2 3 4	1 2 3 4	1 2 3 4
Grade School	High School	College	Post Graduate

8. Number of children:_____

   a. Ages of boys:_____;_____;_____;_____

   b. Ages of girls:_____;_____;_____;_____

9. Husband's occupation_____

10. Wife's occupation_____

11. Wife's occupation before marriage_____

12. Do you live in an apartment_____, a house_____, other (specify)_____

13. Do you live on a working farm____
    in a rural area, nonfarm____
    in a village under 1,000____
    in a town of 1,000 to 5,000____

14. Does your child go to any organized programs outside of the home? yes_____ no_____

15. Approximately how much money do you spend on toys a month?_____ a year?_____

16. When do you purchase toys for your child?_____

_____

17. Do you feel you have enough room in your home for your family's everyday activities?

    yes_____ no_____

18. Do you feel your child has enough room to play inside your home?

    yes_____ no_____

19. Do you feel your child has enough room to play safely outside your home?

    yes_____ no_____

20. What do you think the purpose of a child's play is?

_____

_____

21. **How many times has your child borrowed toys from the Library?**_____

22. **Do you and your child play together with the borrowed toys?** yes_____ no_____

23. **How do you feel about having toys for your child to borrow from the Library?**

_____

_____

_____

Prepared by Whiren for this study and (Smith, 1975).

Code:_____

BELIEFS ABOUT CHILDHOOD AND PARENTHOOD

A number of statements are listed below about what fathers, mothers, and children ought to be today. Choose in each set the five you most agree with.

A. Choose and circle the appropriate numbers for the five most desirable characteristics of a father:

1. Seeks to understand his children.
2. Works hard to support his family.
3. Answers his children's questions frankly.
4. Joins his children in their play.
5. Develops habits of obedience in his children.
6. Encourages his children to grow up in their own ways.
7. Decides what is best for his children.
8. Disciplines his children.
9. Works with his family on household tasks.
10. Buys nice things for his children.

B. Choose and circle the appropriate numbers for the five most desirable characteristics of a mother:

1. Helps her children learn how to get along with others.
2. Has her children engage in character-building activities.
3. Keeps her children clean and well-dressed.
4. Stimulates her children's mental growth.
5. Understands her children's feelings.
6. Makes her children mind.
7. Is affectionate toward her children.
8. Trains her children to regular habits (eating, sleeping, etc.)
9. Promotes her children's emotional well being.
10. Is a good housekeeper.

C. Choose and circle the appropriate numbers for the five most desirable characteristics of a child:

1. Is courteous and respectful to adults.
2. Confides in his parents.
3. Likes to play with other children.
4. Respects property, takes care of his things.
5. Is curious, eager to learn.
6. Keeps clean and neat.
7. Enjoys growing up.
8. Does his chores and assignments thoroughly.
9. Is honest and truthful.
10. Is happy and contented.

(Blood, 1957)

PRESCHOOL CHILDRENS' PLAY

by Alice Whiren

PART I - Please mark (x) the age at which you think children begin to do these activities.

The child begins:	Age in Mo. / Age in Yrs.	12-24 / 1-2	25-36 / 2-3	37-48 / 3-4	49-60 / 4-5	61-84 / 5-7
1. Pretending to eat or sleep while playing alone						
2. Building a house with blocks						
3. Hopping on one foot						
4. To be able to keep play going with another child the same age						
5. Including or excluding others from his play						
6. Carrying out a whole series of pretend events such as feeding baby, bathing baby and putting baby to bed						
7. Matching and sorting toys						
8. Asking many "why" questions						
9. Catching a large ball with arms outstretched						
10. Taking turns						
11. Playing house or store with another child the same age						
12. Acting out more than one part while playing alone						
13. Playing hide and seek						
14. Becoming an imaginary character						
15. Skipping						
16. Running smoothly & well						

PART II - Directions: Please mark (x) those statements about families and children ages 2-5 with which you agree or disagree.

	Agree	Disagree
17. Blocks and puppets are intended for play at specific age levels.		
18. Children often try to complete puzzles or build buildings which are too difficult for them.		
19. The use of the body is essential to children's learning and memory.		
20. If a toy is labeled educational, children who have it will learn the educational goals that are stated on the box.		
21. Playful people are more versatile and creative.		
22. The child learns to play just as he learns to dress himself.		
23. New toys should be played with by a parent to stimulate child interest.		
24. Children tend to copy their parents' imaginative behavior.		
25. Babies under a year old do not need a variety of toys.		
26. The child learns to give and take in playing games with his parents at about the same time give and take occurs in play with other children.		
27. Repeating new skills such as jumping is fun for the child.		
28. Children learn order and rules by playing games.		
29. Children usually react to danger sometime later by revising the situation and becoming the thing that frightens them.		
30. Adults encourage play with toys such as stoves and trucks because the adult world is too dangerous and too complex for the child.		
31. Children show what they think and feel about their family when they play house.		
32. Little children should throw small balls and catch big ones to develop skill.		
33. Stringing beads and reading have nothing in common.		
34. Many children spend most of their free time watching others.		
35. When 2 or more children play together, deciding what to play and how to play takes longer than the actual play time.		
36. Boys tend to be more agressive than girls in play.		

Directions: Please mark (x) those statements about families and children ages 2-5 with which you agree or disagree.

	Agree	Disagree
37. Imaginative play is a waste of time.		
38. Basic ideas of measurement are developed by playing with sand & water.		
39. Watching television helps children develop play skills.		
40. "I am a house cleaner" works better than "can I play?" when a child wants to join another child playing house.		
41. Children learn to do things well by doing them over and over again.		
42. Children try out play ideas by themselves before trying it out with other children.		
43. After the child masters a skill he combines it with other skills.		
44. Make-believe play does not help the child to solve ordinary family problems such as spilling food or milk at dinner.		
45. It's not too much to ask that children take care of their toys and play with them appropriately.		
46. Busy parents cannot teach the child a large number of ideas because they have other things to do like cleaning or cooking.		
47. Children who are truly creative will act just like other children the same age in similar situations.		
48. Children under 5 are too immature to help make cookies.		
49. The parent who organizes and uses as play materials whatever is on hand is teaching his child as much as the parent who buys many toys.		
50. Teasing is the same as play.		
51. Parents can help children overcome fears by pretending to be afraid in a safe and playful situation.		
52. Parents can help their children learn how to play with others by joining in the play.		
53. Parents should kneel or sit at the child's level while talking and playing with the child.		
54. Children learn to play house or store by themselves.		

Directions: Please mark (x) those statements about families and children ages 2-5 with which you agree or disagree.

	Agree	Disagree
55. One way to teach make believe is to act out playing with the doll.		
56. Children cannot learn to control themselves by playing together freely in a group.		
57. The number of toys available to the child does not affect his play behavior.		
58. New toys should be given to the child on Christmas and birthdays rather than throughout the year.		
59. Most children learn to play by watching others.		
60. Parents play with their children differently at different ages.		
61. The parent directs the play when playing blocks with the child.		
62. Children should be allowed to make mistakes in play.		
63. Children may resent continuous guidance beyond the initial steps.		
64. American children are as physically fit as European children.		
65. Comparing preschool children's drawings to older children's work will increase their effort.		
66. Children play more creatively when their efforts are appreciated.		
67. Once the child learns that he can depend on a regular playtime with a parent, he will make fewer demands for attention at other times.		
68. Parents should leave the decision of what to play up to the child.		
69. If parents do quiet relaxing activities, children will learn to enjoy quiet times too.		
70. In imitating his mother's work, a child feels himself included in her life.		
71. If a child becomes restless, a parent should simply tell him to "go play."		
72. Preschool children should be encouraged to draw pictures of real things, like houses or animals.		

Directions: Please mark (x) those statements about families and children ages 2-5 with which you agree or disagree.

	Agree	Disagree
73. Planning is not a part of children's play.		
74. Putting some toys away for awhile and bringing them out again later only confuses the child.		
75. It is easier for a child to show what he thinks through play than to explain it with words.		
76. Children should play only after their chores are finished.		
77. Children develop the necessary skills of using their hands for writing in kindergarten.		
78. Skill in striking with a bat and throwing a ball occur at about the same time.		
79. Children to whom parents read can tell stories by themselves.		
80. Lotto games are inappropriate for young children.		
81. Puzzles provide practice in problem solving.		
82. The needs for props in dramatic play increases with the child's age.		
83. Toy chests used for storage encourage the best use of toys.		
84. Preschool children are too young to use hammers, nails or saws.		

Code: _____

Opinion Survey on Children's Play

Please give your opinion, as a parent, about each of the following statements about families with preschool children. Do this by circling the letter of the answer that comes closest to your own feeling. Please choose only the one opinion that best describes how you feel in each case about families with preschool children.

Remember, what is wanted is your opinion about each statement. Whether or not these statements are actually true of your household is not important here. As with other information you give us, your opinions will be held in the strictest confidence and will be used only for statistical summaries about all the parents that we interview. You as an individual parent will not be identified. Therefore, we hope that you will give your opinions as honestly as you can, without worrying about whether someone would think they are good or bad. None of the possible opinions in this questionnaire are necessarily "good" or "bad" nor "right" or "wrong". It is only how you feel that is important. Thank you for your cooperation.

Person answering questionnaire

a. Father
b. Mother

1. When should children be allowed to take their toys apart?

a. Only when the toy is inexpensive
b. Never
c. Only when the toy is meant to be taken apart
d. Whenever the child wants to

2. When should a child watch television?

a. When he needs something to keep him occupied
b. Whenever he wants to
c. When the parent approves of the program
d. Never

3. Children should obey the old rule, "to be seen and not heard."

a. Never
b. Always (Children should speak only when spoken to)
c. Whenever what is said by the child could be embarrasing or disrespectful to the parents
d. When adults are visiting together in the home and wish not to be interrupted.

4. Boys should be discouraged from playing with girls' toys and games.

a. Only when the child is playing with other boys
b. Only when the child seems to play with girls' toys to excess or more than he plays with boys' toys
c. Always
d. Never

5. Girls should be discouraged from playing with boys' toys and games.

   a. Only when the child is playing with other girls
   b. Only when the child seems to play with boys' toys and games to an excess or more than she plays with girls' toys and games
   c. Never
   d. Always

6. A child should share his or her toys with other children.

   a. When parents can supervise the sharing
   b. When the child's friends also share their toys
   c. Always, whether he wants to or not
   d. Whenever he wants to inside or outside of the home

7. Adults should play with their children.

   a. Whenever the parent has time to play with the child or just feels like it
   b. Except for some obvious exceptions, such as interfering with work, the parent should play whenever asked by the child
   c. Whenever the conditions of play and the time are equally convenient and agreeable to both the parent and the child
   d. Whenever the parent and child set aside a time to play when they can be assured of not being interrupted.

8. Parents should buy their child a new toy.

   a. Whenever the child has earned a toy through good deeds or behavior
   b. Mainly on special occasions such as Christmas or birthdays
   c. Whenever the parent feels in a mood to buy one
   d. Whenever the child expresses a sincere desire for a specific toy

9. Wrestling or "rough housing" should be done:

   a. Only outdoors
   b. Anywhere in the house or outside under parental supervision
   c. Only in designated areas in the house
   d. Whenever and wherever the child wants as long as it is done in moderation

10. Given a situation in which a child receives a new toy which he does not know how to use but seems to gain enjoyment by using in the wrong way, how should parents react to this?

    a. Show the child the correct way to use the toy
    b. Let the child play with the new toy any way he wants as long as he is having fun
    c. Put the toy away and bring it out at another time
    d. Make the child stop playing with it

11. Children should check with their parents before trading or giving away any of their play things.

    a. Completely agree
    b. Agree but with some exceptions or reservations
    c. Disagree, but with some exceptions or reservations
    d. Completely disagree

12. Children should be allowed to play anywhere they want in or around the house, as long as it does not endanger their safety or health.

    a. Completely agree
    b. Agree, but with some exceptions or reservations
    c. Disagree, but with some exceptions or reservations
    d. Completely disagree

13. Parents should welcome their children's chosen friends, whoever they are, in their home.

    a. Completely agree
    b. Agree, but with some exceptions or reservations
    c. Disagree, but with some exceptions or reservations
    d. Completely disagree

14. The things that children do in their play should mainly be things that teach them useful skills

    a. Completely agree
    b. Agree, but with some exceptions or reservations
    c. Disagree, but with some exceptions or reservations
    d. Completely disagree

15. The main purpose of a child's play should be to have fun.

    a. Completely agree
    b. Agree, but with some exceptions or reservations
    c. Disagree, but with some exceptions or reservations
    d. Completely disagree

16. Boys should be discouraged from playing with dolls or other female toys.

    a. Completely agree
    b. Agree, but with some exceptions or reservations
    c. Disagree, but with some exceptions or reservations
    d. Completely disagree

17. Given a situation in which a preschool child has toys all over his or her room but does not seem interested in putting them away, how should parents react?

    a. Tell the child to put the toys away before he or she will be able to do something enjoyable (example: having a snack, watching television, reading a book before bedtime, etc.)
    b. Parents should pick up the toys and put them away.
    c. Parents should begin to pick up the toys and encourage the child to join in.
    d. Leave the toys where they are.

18. When should a child be allowed to play in water?

    a. Outside when he is dressed properly.
    b. Whenever he wants to.
    c. Only in the bathtub.
    d. When the child wants to, and you are able to be nearby.

19. When should a child be allowed to play with his or her brother's or sister's toys?

    a. Whenever the child wants to.
    b. Whenever the brother or sister lets him.
    c. Never
    d. Whenever the parents say it is alright.

20. How should parents react when they see their preschool child tearing a book?

    a. Spank the child
    b. Say nothing to the child and either repair or throw away the book
    c. Repair the book with the child's help and explain that books are for reading not tearing
    d. Scold the child and take the book away.

21. Where should children be allowed to play alone outside?

    a. only in the yard
    b. within certain areas in the neighborhood
    c. anyplace he wants to as long as he is home on time
    d. they should not play outside alone

Adapted from Bishop & Chase (1971)

Code_____

TOY & EQUIPMENT INVENTORY

The categories below list most of the types of toys which are produced for young children. Please check the appropriate blanks for the toys which your children now have in your home. This information will help us select toys for lending which your children do not already have.

TOYS	OWNED	REGULARLY USED	A FAVORITE TOY?
Category I			
1. Puzzles			
2. Tinker toys			
3. Blocks			
4. Lego, Lincoln Logs, other construction toys			
5. Beads for stringing			
6. Peg board			
7. Snapping, zipping, buttoning toys			
8. Nesting, stacking toys			
9. Pounding bench			
10. Flashlight			
11. Others:			
Category II			
1. Lotto			
2. Number games			
3. Alphabet, letter and word games			
4. Other games:			
Category III			
1. Cars, trucks			
2. Stuffed animals & toys			
3. Dolls			
4. Pull toy			
5. Music box			
6. Record player			
7. Toy musical instruments			
8. Toy clock, watch			
9. Other toys with moving parts:			
Category IV			
1. Telephone			
2. Dress-up clothes, hats			
3. Puppets			
4. Doctor/nurse kit			
5. Filling station, barn toys with small figures			
6. Tea set			
7. Guns or shooting toys			
8. Other toys used as imaginative props: doll house, miniature people			

TOYS	OWNED	REGULARLY USED	A FAVORITE TOY?
Category V			
1. Crayons			
2. Paints & brushes			
3. Clay, play dough			
4. Colored paper			
5. Coloring books			
6. Children's scissors			
7. Chalk			
8. Blackboard			
9. Easel			
10. Flannel board & felt cutouts			
11. Others:			
Category VI			
1. Pedal or push cart			
2. Wagon			
3. Skates			
4. Bicyle			
5. Balls			
6. Others:			
Category VII			
1. Play house			
2. Slide			
3. Sand box			
4. Rocking horse			
5. Child-size table			
6. Child-size chairs			
7. Swing or swing set			
Category VIII			
1. Magnifying glass			
2. Magnet			
3. Scales or balance			

Books, approximate number_____
titles of a few favorites_____
_____
_____

Records, approximate number_____
titles of a few favorites_____
_____
_____

Adapted from Watts (1973)

APPENDIX C

SOURCES OF ITEMS FOR THE KNOWLEDGE OF PRESCHOOL CHILDREN'S PLAY

APPENDIX C

SOURCES OF ITEMS FOR THE KNOWLEDGE OF PRESCHOOL CHILDREN'S PLAY

The child begins:

1. Pretending to eat or sleep while playing alone (Sutton-Smith & Sutton-Smith, 1974, p. 258)

2. Building a house with blocks (Sutton-Smith & Sutton-Smith, 1974, p. 261)

3. Hopping on one foot (Sutton-Smith & Sutton-Smith, 1974, p. 259)

4. To be able to keep play going with another child the same age (Sutton-Smith & Sutton-Smith, 1974, pp. 113-124)

5. Including or excluding others from his play (Sutton-Smith & Sutton-Smith, 1974, p. 260)

6. Carrying out a whole series of pretend events such as feeding baby, bathing baby and putting baby to bed (Sutton-Smith & Sutton-Smith, 1974, p. 260)

7. Matching and sorting toys (Sutton-Smith & Sutton-Smith, 1974, p. 260)

8. Asking many "why" questions (Sutton-Smith & Sutton-Smith, 1974, p. 260)

9. Catching a large ball with arms outstretched (Sutton-Smith & Sutton-Smith, 1974, p. 261)

10. Taking turns (Sutton-Smith & Sutton-Smith, 1974, p. 261)

11. Playing house or store with another child the same age (Sutton-Smith & Sutton-Smith, 1974, p. 261)

12. Acting out more than one part while playing alone (Sutton-Smith & Sutton-Smith, 1974, p. 261)

13. Playing hide and seek (Sutton-Smith & Sutton-Smith, 1974, p. 262)

14. Becoming an imaginary character (Sutton-Smith & Sutton-Smith, 1974, p. 262)

15. Skipping (Sutton-Smith & Sutton-Smith, 1974, p. 263)

16. Running smoothly and well (Seefeldt, note 5)

Statements about families and children ages 2-5:

17. Blocks and puppets are intended for play at specific age levels (Arnold, 1968, p. 39)

18. Children often try to complete puzzles or build buildings which are too difficult for them (Implementation of the Toy Lending Library, 1972, pp. 2-9)

19. The use of the body is essential to children's learning and memory (Wolff, Leven & Longbardi, 1974, p. 221)

20. If a toy is labeled educational, children who have it will learn the educational goals that are stated on the box (Arnold, 1968, p. 34; Quilitch, 1975, p. 1)

21. Playful people are more versatile and creative (Sutton-Smith & Sutton-Smith, 1974, pp. 4-6)

22. The child learns to play just as he learns to dress himself (Sutton-Smith & Sutton-Smith, 1974, p. 6)

23. New toys should be played with by a parent to stimulate child interest (Sutton-Smith & Sutton-Smith, 1975, pp. 55-57, 157)

24. Children tend to copy their parents' imaginative behavior (Sutton-Smith & Sutton-Smith, 1974, pp. 96, 112-13)

25. Babies under a year old do not need a variety of toys (Sutton-Smith & Sutton-Smith, 1974, p. 76)

26. The child learns to give and take in playing games with his parents at about the same time give and take occurs in play with other children (Sutton-Smith & Sutton-Smith, 1974, p. 73)

27. Repeating new skills such as jumping is fun for the child (Sutton-Smith & Sutton-Smith, 1974, p. 54)

28. Children learn order and rules by playing games (Sutton-Smith & Sutton-Smith, 1974, p. 126; Arnold, 1968, p. 1)

29. Children usually react to danger sometime later by revising the situation and becoming the thing that frightens them (Sutton-Smith & Sutton-Smith, 1974, p. 86)

30. Adults encourage play with toys such as stoves and trucks because the adult world is too dangerous and too complex for the child (Sutton-Smith & Sutton-Smith, 1974, p. 97)

31. Children show what they think and feel about their family when they play house (Sutton-Smith & Sutton-Smith, 1974, p. 98)

32. Little children should throw small balls and catch big ones to develop skill (Seefeldt, note 5)

33. Stringing beads and reading have nothing in common (Spodeck, note 6)

34. Many children spend most of their free time watching others (Sutton-Smith & Sutton-Smith, 1973, p. 113)

35. When two or more children play together, deciding what to play and how to play takes longer than the actual play time (Sutton-Smith & Sutton-Smith, 1974, p. 118)

36. Boys tend to be more aggressive than girls in play (Sutton-Smith & Sutton-Smith, 1974, p. 119)

37. Imaginative play is a waste of time (Sutton-Smith & Sutton-Smith, 1974, pp. 78, 83)

38. Basic ideas of measurement are developed by playing with sand and water (Anker, Foster, McLane, Sobel, & Weissbourd, 1974, p. 209)

39. Watching television helps children develop play skills (Sutton-Smith & Sutton-Smith, 1974, p. 140; Arnold, 1968, pp. 27-29)

40. "I am a house cleaner" works better than "can I play?" when a child wants to join another child playing house (Sutton-Smith & Sutton-Smith, 1974, pp. 141-42)

41. Children learn to do things well by doing them over and over again (Sutton-Smith & Sutton-Smith, 1974, pp. 71, 157)

42. Children try out play ideas by themselves before trying it out with other children (Sutton-Smith & Sutton-Smith, 1974, p. 143)

43. After the child masters a skill he combines it with other skills (Sutton-Smith & Sutton-Smith, 1974, pp. 78-80)

44. Make-believe play does not help the child to solve ordinary family problems such as spilling food or milk at dinner (Anker, Foster, McLane, Sobel, & Weissbourd, 1974, p. 203)

45. It's not too much to ask that children take care of their toys and play with them appropriately (Anker, Foster, McLane, Sobel, & Weissbourd, 1974, p. 206)

46. Busy parents cannot teach the child a large number of ideas because they have other things to do like cleaning or cooking (Arnold, 1968, pp. 6-7)

47. Children who are truly creative will act just like other children the same age in similar situations (Sutton-Smith & Sutton-Smith, 1974, pp. 221-22)

48. Children under five are too immature to help make cookies (Hildebrand, 1971, pp. 276-92)

49. The parent who organizes and uses as play materials whatever is on hand is teaching his child as much as the parent who buys many toys (Sutton-Smith & Sutton-Smith, 1974, p. 23)

50. Teasing is the same as play (Sutton-Smith & Sutton-Smith, 1974, p. 32)

51. Parents can help children overcome fears by pretending to be afraid in a safe and playful situation (Sutton-Smith & Sutton-Smith, 1974, p. 86)

52. Parents can help their children learn how to play with others by joining in the play (Arnold, 1968, p. 19)

53. Parents should kneel or sit at the child's level while talking and playing with the child (Arnold, 1968, p. 8)

54. Children learn to play house or store by themselves (Sutton-Smith & Sutton-Smith, 1974, pp. 6-7)

55. One way to teach make believe is to act out playing with the doll (Sutton-Smith & Sutton-Smith, 1974, p. 112)

56. Children cannot learn to control themselves by playing together freely in a group (Sutton-Smith & Sutton-Smith, 1974, p. 118)

57. The number of toys available to the child does not affect his play behavior (Sutton-Smith & Sutton-Smith, 1974, p. 124)

58. New toys should be given to the child on Christmas and birthdays rather than throughout the year (Sutton-Smith & Sutton-Smith, 1974, p. 157)

59. Most children learn to play by watching others (Sutton-Smith & Sutton-Smith, 1974, p. 8)

60. Parents play with their children differently at different ages (Arnold, 1968, p. 22)

61. The parent directs the play when playing blocks with the child (Sutton-Smith & Sutton-Smith, 1974, p. 71)

62. Children should be allowed to make mistakes in play (Sutton-Smith & Sutton-Smith, 1974, pp. 72-74)

63. Children may resent continuous guidance beyond the initial steps (Arnold, 1968, p. 9)

64. American children are as physically fit as European children (Corbin, 1973, p. 79)

65. Comparing preschool children's drawings to older children's work will increase their effort (Arnold, 1968, pp. 65-67)

66. Children play more creatively when their efforts are appreciated (Sutton-Smith & Sutton-Smith, 1974, pp. 221-22)

67. Once the child learns that he can depend on a regular playtime with a parent, he will make fewer demands for attention at other times (Arnold, 1968, p. 11)

68. Parents should leave the decision of what to play up to the child (Arnold, 1968, p. 11)

69. If parents do quiet relaxing activities, children will learn to enjoy quiet times too (Arnold, 1968, p. 12)

70. In imitating his mother's work, a child feels himself included in her life (Arnold, 1968, p. 16)

71. If a child becomes restless, a parent should simply tell him to "go play" (Arnold, 1968, p. 18)

72. Preschool children should be encouraged to draw pictures of real things, like houses or animals (Arnold, 1968, p. 66)

73. Planning is not a part of children's play (Sutton-Smith & Sutton-Smith, 1974, p. 141)

74. Putting some toys away for awhile and bringing them out again later only confuses the child (Arnold, 1968, p. 39)

75. It is easier for a child to show what he thinks through play than to explain it with words (Sutton-Smith & Sutton-Smith, 1974, p. 131.

76. Children should play only after their chores are finished (omitted)

77. Children develop all the necessary skills of using their hands for writing in kindergarten

78. Skill in striking with a bat and throwing a ball occur at about the same time (Sutton-Smith & Sutton-Smith, 1974, pp. 218-21, 259)

79. Children to whom parents read can tell stories by themselves (Arnold, 1968, p. 88; Sutton-Smith & Sutton-Smith, 1974, p. 88)

80. Lotto games are inappropriate for young children (Arnold, 1968, p. 37)

81. Puzzles provide practice in problem solving (Vance, 1973, pp. 136-42)

82. The needs for props in dramatic play increase with the child's age (Sutton-Smith & Sutton-Smith, 1974, p. 111)

83. Toy chests used for storage encourage the best use of toys (Arnold, 1968, p. 56)

84. Preschool children are too young to use hammers, nails or saws (Arnold, 1968, p. 61)

APPENDIX D

SAMPLES OF TOY DIRECTION SHEETS

By

Joan Hoffman Smith and
Dr. Eileen M. Earhart

APPENDIX D

SAMPLES OF TOY DIRECTION SHEETS

The toy direction sheets were available to the control group before the pretest and to the experimental group after treatment. The sample represents approximately 10% of the total number available. The sets of toys for the two libraries were similar.

AMBULANCE 2-5 years

Most children like to play with transportation toys such as cars, trucks, buses and airplanes since they see the real things so often in their everyday lives. Since most children think of speed, sirens and accidents when they see ambulances, this toy provides a chance for a lot of imaginary play.

SUGGESTED ACTIVITIES:

1. Get on the floor with your child and push the ambulance around making a siren-type sound. Use toy cars and pretend there has been an accident. As you're driving to the accident, talk about how other drivers pull to the side of the road so the ambulance can get there quickly. Talk about the equipment there is in an ambulance to help the hurt people on the way to the hospital (oxygen, first aid, etc.).

2. Your child will probably enjoy the excitement of pretending to be an ambulance driver and will be able to learn from this kind of play how important such a person is to all of us.

3. Point out the headlights, bumpers and red cross signs. Talk about what each of these is for and help your child begin to understand why each is important.

BABY SHAPES — 6 months-1 year

These three soft toys are a perfect size for the six month old who will use them for grasping, sucking and squeezing. They are made of plastic and are completely safe and washable. The young child will be delighted by the sound each makes when squeezed. They are good crib toys also because there are no hard parts to hurt the baby if he or she rolls over on them.

BALLOON GAME — 3-5 years

Play with the Balloon Game will help your child learn how to match colored discs to colored balloons on the game boards. As you play this game, talk about the color names.

SUGGESTED ACTIVITIES:

1. Two, three or four players follow the directions included in the box lid. Each player takes a board. The youngest player starts the game by rolling the dice. If the dice lands green side up, the player picks up a green balloon and places it on his or her board; if it lands yellow side up, a yellow balloon is put on the board, and so on. The winner is the player to put all his balloons on the board first.

2. Play the game a different way to starting the game with the balloons on the boards and letting them "fly away" as the dice is thrown. The winner is the one whose balloons all fly away first.

BLOCKS — 2-5 years

Blocks are favorite toys of children of all ages because there are so many things they can do with them. These blocks are small enough that they can be used on a table as well as on the floor. There are 58 pieces in 14 different shapes.

SUGGESTED ACTIVITIES:

1. Younger children can stack a few blocks, and older children can build larger buildings of just about anything they can imagine. Besides building things, use the blocks for hauling; line them up and make a train; match them by shape.

2. Borrow the Peg Bus from the library. Build a school with the blocks and pretend to pick the children up in the bus and drive them to school.

BLOCKS (cont'd)

3. Build a barn for some animals. (You can borrow some farm animals from the library.)

4. Build a garage for a car, bus, truck. (You can borrow these from the library.)

5. Build a chair, a little desk, bed, table and other doll-size pieces of furniture.

CAR (small wooden car) 2-5 years

Most children like to play with transportation toys such as cars, trucks, buses and airplanes since they see the real things so often in their everyday lives.

SUGGESTED ACTIVITIES:

1. Get on the floor with your child and push the car around making "brmm, brmm, beep, beep" sounds. Use your imagination--pretend you're driving to the store, work, and post office, the bank, grandmother's. Along the way, stop at stop signs and red lights. Be careful and watch for children and animals running out into the street.

2. Talk about what you're doing and where you're pretending to go since this is how your child will learn new words and what they mean.

COLOR BLOCK DESIGNS 4-5 years

These color block designs are to be used with the set of 27 colored cubes. Playing with these designs will help your child learn to use his fingers more skillfully, learn to recognize different colors and designs and match the color blocks to the card designs.

SUGGESTED ACTIVITIES:

1. Give your child the first card and the blocks to match. Tell the child to place the matching block on top of the design. Encourage your child and only go on to the next card when he or she is ready. Later give your child a card and let him or her choose the blocks needed from the whole set of blocks rather than you picking out the blocks yourself.

COLOR BLOCK DESIGNS (cont'd)

2. Show your child a card and ask him or her to arrange the blocks in the same design on a desk or table instead of on top of the cards as before.

3. Have your child build designs vertically.

4. Use the stencil and draw your own designs on a blank piece of paper.

DOG HAND PUPPET 3-5 years

Children love to play with puppets. Playing with puppets helps children use their imaginations and encourages them to talk.

SUGGESTED ACTIVITIES:

1. Show your child this dog puppet and let him or her examine and explore it. Say to the child, "What animal do you think this looks like?" Talk about how you can tell it's a dog--the shape of its head, the nose, the teeth. Make a barking sound and ask your child to try it with you.

2. Put the puppet on your hand and while making its mouth open and close, say to the child, "Hi! I'm a dog. What's your name? Do you live here? May I see your room?" Your child will probably want to put the dog on his or her hand so help get it on the right way. It's not easy for children to use puppets skillfully so be encouraging if it's hard to get the dog's moth open and shut.

3. Help your child put his or her ideas and feelings into words through the puppet. Show your child how to use the puppet to act out games and tell stories. Encourage your child to give the puppet a name. Once your child has learned how to make the puppet talk, he or she will spend time talking to it and playing alone with it. By playing and pretending with puppets, your child will talk and develop his or her imagination. Both of these skills are important for all children.

DOLL HOUSE KITCHEN 2½-5 years

This doll house kitchen set has a refrigerator, a sink and a stove.

Imitating adults is an important part of every child's life, and these pieces of toy furniture help set the stage for your child to use his or her imagination. Playing with the toy furniture will give your child a chance to learn through play what mothers and fathers do as well as help him or her learn the names of things found in the house.

SUGGESTED ACTIVITIES:

1. Make a doll house from a cardboard box, a shoebox or just put some tape on the floor to mark off the different rooms. Make people figures from pipe cleaners or popsicle sticks.

2. Ask your child where he or she would like the kitchen to be. Set up the kitchen pieces and talk to your child about each piece. Your child may want to stock the refrigerator with grapes, raisins, and so on. A thimble could be used on the stove as a pan. Use your imagination! Talk about what you're doing since this is how your child will learn new words and what they mean. Soon your child will be talking to himself, or herself, the toys or other children about what goes on in the kitchen. Encourage the child to use the names of the toys and talk about what he or she is doing.

3. Encourage play with this toy furniture for boys as well as girls, since all children need to learn what adults do.

DUMP TRUCK 2-5 years

The bin on this dump truck tilts back, and the tailboard opens so that the child can empty out whatever he puts in it.

SUGGESTED ACTIVITIES:

1. Put little blocks in the bin and carry them to the shopping center where they're building a store.

2. Put sand in it (for outside play) and pretend to lay a road with the help of the steam roller (the steam roller toy is in your library too).

3. Carry raisins in the truck and deliver them to the stores.

DUMP TRUCK (cont'd)

4. Put just about anything in it that you can imagine. Children love to pretend, and this can be a fun toy. Use new words and ideas to help your child learn about the world through games and play with you.

FIRE ENGINE — 2-5 years

This fire engine has a removable trailer and two places for the ladder to fit into. Fire engines are usually fun toys for children since they think of speed and ringing bells when they see them.

SUGGESTED ACTIVITIES:

1. Get on the floor with your child and push the fire engine around making ringing sounds. Talk about the fire alarm being sounded, and the firemen jumping on the truck and driving to the fire. Talk about how other drivers pull to the side of the road so the fire engine can get quickly to the fire. Talk about what equipment firemen use: hose, heavy waterproof suits, oxygen masks, ladders, and first aid kits.

2. Pretend someone phones the fire station and reports a fire. Don't forget how important it is to get the correct address! Your child will probably enjoy the excitement of pretending to be a fireman and will be able to learn from this play how important firemen are to all of us.

3. All firestations welcome visitors to the fire house, and your child would probably be very excited to see and touch a real fire truck and talk to a real fireman!

FISH PUZZLE — 2½-5 years

This colorful wooden puzzle has five pieces. Each piece is the same object, but the size is different so that each cutout fits into only one space on the board. When all five pieces are in their proper places, they are in descending order or from largest to smallest. Playing with these puzzle pieces will help your child develop an understanding of differences in sizes.

SUGGESTED ACTIVITIES:

1. Show your child the puzzle and ask him or her what it is. Talk about the differences in sizes. Point out the largest and the smallest. Playing with you and this puzzle will help your child learn the meaning of words like "first," "next," "last," before," and "after."

FISH PUZZLE (cont'd)

2. Let your child take time with the puzzle, doing it in his or her own way. If your child has trouble with any pieces, ask questions that may help him or her do it alone. It's important to help your child when he or she needs it, but don't help so much that you rather than your child ends up putting it together. If your child tries to put a piece in the wrong place, encourage him or her to try another place rather than throwing that piece down and getting another one.

Once the children learn how to put puzzles together, they will do them over and over again because they enjoy doing things that they can do well.

FOUR-WAY BLOCKS 3-5 years

The six wooden blocks can be turned and arranged to make pictures of four different wild animals. Each animal is a different color.

SUGGESTED ACTIVITIES:

1. Show the child a block. Turn the block and point out that each side has part of a picture on it and that each side is a different color. Ask the child to turn all of the pieces to find a color such as black. When all of the black pieces are turned up, he can then arrange them so that the zebra picture is made. Pictures of the giraffe, leopard and antelope can be made in the same way.

2. The blocks can be turned to the blue side or the black side and then stacked to make the picture. The block with the feet is placed on the bottom with the colored side facing the child. The other blocks are placed on top of this bottom one to make the completed picture.

3. The blocks can be placed on end and arranged in order to make the leopard (red) and the antelope (green).

4. After the child has formed a picture of an animal, talk about that animal. "What is different about the animal?" (horns, stripes, spots, long neck, etc.) "What is the same about all of the animals?" (four feet, tail, head, eyes, ears, etc.)

HELICOPTER 2-5 years

Most children like to play with transportation toys such as cars, trucks, buses and airplanes, since they see the real things so often in their everyday lives.

SUGGESTED ACTIVITIES:

1. Put the helicopter on the floor and spin the rotor. As the rotor turns, make "brmm, brmm" sounds and lift the helicopter off the floor as if it's flying.

2. Pretend you are the emergency rescue helicopter pilot who flies people to hospitals.

3. Be the helicopter pilot that reports about traffic conditions on the radio to people going to work.

4. Be a sight-seeing helicopter pilot who takes people on rides and points out scenery from the air.

5. Be a police helicopter and chase robbers from the air.

6. In all of these games, talk about what's going on, since this is how your child will learn new words and what they mean. Once the child sees how you can pretend with these toys, he or she will soon pick up the idea and enjoy playing and pretending his or her own way.

JINGLE-RATTLE-CLUNK BLOCKS 6 months-1 year

Each of these three blocks is a different color and makes a different sound. The young child can easily grasp these blocks because they are made with finger holes.

SUGGESTED ACTIVITIES:

1. Put one of the blocks on the floor where your child can see it and roll it. The bright color and the sound will get the baby's attention. Once your child starts to play with it, let him or her explore it alone for awhile -- rolling, shaking it, or just trying to hold it and poke the holes.

2. Take one of the other blocks and roll it on the floor. Say, "Look at the block roll. I'm going to get it." Then crawl across the floor yourself toward the toy. When you get the block say, "I got it. Now I'll roll it to you." Children really enjoy it when you get on the floor and play with them. It's also easier for them to see your face this way without having to look up all the time!

JINGLE-RATTLE-CLUNK BLOCKS (cont'd)

3. Since each of these blocks makes a different sound you can use them to help your child learn to hear differences in sound. Shake one of them and say, "Listen to the sound it makes when I shake it." Then shake another one and say "This one makes a different sound," and so on.

LEARNING TOWER 1-3½ years

The "Learning Tower" works in two ways: (1) the cups stack on top of each other to make a tower, and (2) the cups fit one inside the other until they are all in the largest cup.

SUGGESTED ACTIVITIES:

1. Toddlers love to stack the cups. If you begin stacking the cups, your child will try to help you. Don't be concerned if the stacks aren't straight and fall down. Your child will enjoy the falling as much as the building!

2. Turn the cups over and put the largest cup over the smallest one. Say, "Oh, where'd the little cup go? Did you see it?" Encourage the child to find the little cup. Then say, "There it is under the big cup!"

Your child will then enjoy making the little cup disappear as you just did. Children are delighted by your surprise.

3. Use the largest and smallest cups to teach your child what "large" and "small" mean.

4. Show your child the animal pictures engraved on the bottom of each cup. Talk about each animal--the sounds they make, where they're found.

5. For the older preschool child, match the cups by color. "What color is this cup? Can you find another pink (or yellow, blue) one?" "We now have two pink cups!"

6. For the older preschool child, arrange the cups in a row from smallest to largest to teach your child how to arrange things by size.

MATCH-UPS: ANIMAL HOMES 3½-5 years

There are 24 puzzles in this set of "Animal Homes," and each puzzle has two pieces. One half of the puzzle shows a picture of the animal, and the other half is a picture of the animal's home. Playing with these puzzles gives your child a chance to learn how different animals live and the words used for their homes.

SUGGESTED ACTIVITIES:

1. Choose two puzzles that your child might know such as the cow and the bird. Lay the four pieces out on a table and point to the cow. Say, "What is this a picture of? Yes, a cow! Can you find the rest of the puzzle that shows where the cow lives?" When your child chooses the picture of the barn, say, "What is that? That is a barn. The cow lives in the barn. That was fun, let's do another one! Here is a bird. Where is the puzzle piece that shows where the bird lives? Yes, there's the bird's nest. Can you put it together?"

2. Add a new puzzle as you feel your child is ready for another one. Talk about each animal and his home. Perhaps on a walk around your neighborhood or on a trip to the zoo or park, you and your child might see some of these animals in real life. Try to find their homes (for example, look for the bird's nest).

3. There will be many new words for your child to learn playing with these puzzles so take it slowly and always talk about each picture. It won't be long until your child will be putting them together and talking about them by himself or herself.

MOON CAR 1-3 years

This small moon car has two removable peg people and is perfect for toddlers who enjoy wheel toys as well as putting things into holes and taking them out again. Playing with the moon car will help your child's fingers become more skillful as he learns to put the people into the holes.

SUGGESTED ACTIVITIES:

1. Get on the floor with your child and push the car around making "brmm, brmm" sounds. Use your imagination--pretend you're driving around on the moon exploring its surface. Be sure to drive slowly and be careful not to drive into any craters or holes! Talk about what you're doing and where you are so your child will learn new words and what they mean. You might use words like astronaut, outer space, moon, earth, stars. Make pretend calls back to the

MOON CAR (cont'd)

control mission on earth to report what you see on the moon and any problems you are having.

The two and three year olds will enjoy playing these imaginary games with you as well as by themselves, but the one year old is too small for this and will spend his or her time taking the men out, putting them back in and rolling the car.

APPENDIX E

CODEBOOK AND DATA FROM SUMMARY CARD #6

AND SELECTED DESCRIPTIVE STATISTICS

APPENDIX E

CODEBOOK AND DATA FROM SUMMARY CARD #6

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031122446 55526569111111130112644 3
041122444 62606870101011131512434 3
051122457 50496165060111132612932 1
071142562 49535768060101122413523 1
081122458 58547269091011130503834 2
091121451 58546768091011135613643 2
111122562 59607071131011131213354 4
131111457 58497174111111132013744 3
151131446 61645671101011623614044 2
161131449 53527271101111113  13632 5
181111453 66617171111111113191263 5 3
191111451 58626565111000110313334 4
201132449 57536969050011130004013 1
211151447 59607372070111132513724 1
221111217 59556269111111131812044 3
241111455 57647266101 111300  3043 3
261121451 53547276081011130004233 2
281121340 66586967111011130211934 4
301111447 58496946101000000111625 3
311121455 52557071100111113021323 4
321121449 61627477111011131503235 3
401232  58 48526568091010120000302 4
411252  58 50616464111011130028344
431221  58 56576667070000110000333 2 2
441221  49 47596975111011130036353
451222  53 53607176101011130004134 3
461262  49 58666370081011130004232 3
471221  58 50637072091011130004432 4
481231  58 52566870101011131004334 3
491211  56 57566471070011130212523 2
501241  53 49537271081011130003232 3
521221  30 57606770091000110003733 3
531221  56 46606771131011130003045 4
541222  45 56657473101011130035433
611221  51 65617064101011130005034 3
651221  58 66636672121011130038444
661222  58 59557066081011130613443 1
671221  51 59657473091011130038333
681211  56 60686774121011131013735 4
691232  48 51616667101001120004734 3
731222  62 54646766111011130002644 3
751221  62 50576871111011130038353
761252  56 57597170091011130037342
771231  56 49515863081011130045422
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CODEBOOK - PARENTAL ATTITUDES TOWARD PLAY
Demographic Information

Blanks = no information

Column Number	Number of Columns	Range of Valid Codes	Item Description
1-2	2	01-99	Family I.D.
3	1	0-2	Sex of respondent 0 = male 1 = female 2 = female without spouse
4	1	1-2	Treatment Condition 1 = Library with cards 2 = Library without cards
5	1	1-9	Total number children in family
6	1	1-6	Total # of preschoolers
7	1	1-5	SES Value 1 = Scores 11-14 2 = Scores 15-27 3 = Scores 28-43 4 = Scores 44-60 5 = Scores 61-77
8	Blank		
9-10	2	18-55	Age in years
11-12	2	00-25	Years married
13	1	1-4	Education 1 = 1-8 years 2 = 9-12 years 3 = 13-16 years 4 = 17-20 years
14-15	2	01-25	Age of oldest child
16	1	1-6	Age of youngest child
17	1	0-6	Number of girls 5 yrs. & younger
18	1	0-6	Number of boys 5 yrs. & younger

Column Number	Number of Columns	Range of Valid Codes	Item Description
19	1	0-7	Husband's occupation 0 = Unemployed 1 = Higher executives, major professionals 2 = Business managers, lesser professions, proprietors of medium sized businesses 3 = Administrative personnel, small independent businesses, minor professions 4 = Clerical & sales workers, technicians, owners of little businesses 5 = Skilled manual employees 6 = Machine operators & semi-skilled employees 7 = Unskilled employees
20	1	0-7	Wife's occupation 0 = Unemployed 1 = Higher executives, major professionals 2 = Business managers, lesser professions, proprietors of medium sized businesses 3 = Administrative personnel, small independent businesses, minor professions 4 = Clerical & sales workers, technicians, owners of little businesses 5 = Skilled manual employees 6 = Machine operators & semi-skilled employees 7 = Unskilled employees
21	1	0-7	Wife's occupation before marriage 0 = Unemployed 1 = Higher executives, major professionals 2 = Business managers, lesser professions, proprietors of medium sized businesses 3 = Administrative personnel, small independent businesses, minor professions 4 = Clerical & sales workers, technicians, owners of little businesses 5 = Skilled manual employees 6 = Machine operators & semi-skilled employees 7 = Unskilled employees

Column Number	Number of Columns	Range of Valid Codes	Item Description
22	1	0-2	Live in house or apartment? 0 = house 1 = apartment 2 = other, trailer
23	1	1-4	Live on: 1 = working farm 2 = rural area, nonfarm 3 = village under 1,000 4 = town of 1000-5000
24	1	0-1	Child attend organized programs outside home? 0 = no 1 = yes
25-27	3	01-200	Money spent per year on toys
28	1	0-1	Time of toys purchase 0 = holidays, birthdays 1 = other
29	1	0-1	Enough room for everyday activities? 0 = no 1 = yes
30	1	0-1	Does child have enough room to play inside? 0 = no 1 = yes
31	1	0-1	Does child have enough room to play safely outside? 0 = no 1 = yes
32-33	2	00-35	Number times borrowed toys
34	1	0-1	Play together with borrowed toys? blank = no info 0 = no 1 = yes
35	1	0-1	Use direction sheets? 0 = no 1 = yes
36	Blank		Frequency of use
37	Blank		
38	Blank		

BELIEFS ABOUT CHILDHOOD & PARENTHOOD

Column Number	Number of Columns	Range of Valid Codes	Item Description
39	1	0-5	Characteristics of a father. If the following items are circled, give 1 point per item: 1. Seeks to understand his children. 3. Answers his children's questions frankly. 4. Joins his children in their play. 6. Encourages his children to grow up in their own ways. 9. Works with his family on household tasks.
40	1	0-5	Characteristics of a Mother. If the following items are circled, give 1 point per item: 1. Helps her children learn how to get along with others. 4. Stimulates her children's mental growth. 5. Understands her children's feelings. 7. Is affectionate toward her children. 9. Promotes her children's emotional well-being.
41	1	0-5	Characteristics of a Child. If the following items are circled, give 1 point per item: 2. Confides in his parents. 3. Likes to play with other children. 5. Is curious, eager to learn 7. Enjoys growing up 10. Is happy & contented
42-43	2	00-15	Total Developmental Score
44	Blank		
			Actual Beliefs Characteristics of a father
45	1	0-1	(1) Seeks to understand his children 0 = not circled 1 = circled
46	1	0-1	(2) Works hard to support his family 0 = not circled 1 = circled

Column Number	Number of Columns	Range of Valid Codes	Item Description
47	1	0-1	(3) Answers his children's questions frankly. 0 = not circled 1 = circled
48	1	0-1	(4) Joins his children in their play 0 = not circled 1 = circled
49	1	0-1	(5) Develops habits of obedience in his children 0 = not circled 1 = circled
50	1	0-1	(6) Encourages his children to grow up in their own ways. 0 = not circled 1 = circled
51	1	0-1	(7) Decides what is best for his children 0 = not circled 1 = circled
52	1	0-1	(8) Disciplines his children 0 = not circled 1 = circled
53	1	0-1	(9) Works with his family on household tasks 0 = not circled 1 = circled
54	1	0-1	(10) Buys nice things for his children 0 = not circled 1 = circled
55	Blank		
			Characteristics of a Mother
56	1	0-1	(1) Helps her children learn how to get along with others 0 = not circled 1 = circled
57	1	0-1	(2) Has her children engage in character-building activities 0 = not circled 1 = circled

Column Number	Number of Columns	Range of Valid Codes	Item Description
58	1	0-1	(3) Keeps her children clean & well-dressed. 0 = not circled 1 = circled
59	1	0-1	(4) Stimulates her children's mental growth 0 = not circled 1 = circled
60	1	0-1	(5) Understands her children's feelings. 0 = not circled 1 = circled
61	1	0-1	(6) Makes her children mind. 0 = not circled 1 = circled
62	1	0-1	(7) Is affectionate toward her children. 0 = not circled 1 = circled
63	1	0-1	(8) Trains her children to regular habits. 0 = not circled 1 = circled
64	1	0-1	(9) Promotes her children's emotional well-being. 0 = not circled 1 = circled
65	1	0-1	(10) Is a good housekeeper. 0 = not circled 1 = circled
66	Blank		
			Characteristics of a child.
67	1	0-1	(1) Is courteous & respectful to adults. 0 = not circled 1 = circled
68	1	0-1	(2) Confides in his parents. 0 = not circled 1 = circled

Column Number	Number of Columns	Range of Valid Codes	Item Description
69	1	0-1	(3) Likes to play with other children. 0 = not circled 1 = circled
70	1	0-1	(4) Respects property, takes care of his things. 0 = not circled 1 = circled
71	1	0-1	(5) Is curious, eager to learn. 0 = not circled 1 = circled
72	1	0-1	(6) Keeps clean & neat 0 = not circled 1 = circled
73	1	0-1	(7) Enjoys growing up 0 = not circled 1 = circled
74	1	0-1	(8) Does his chores & assignments thoroughly. 0 = not circled 1 = circled
75	1	0-1	(9) Is honest & truthful. 0 = not circled 1 = circled
76	1	0-1	(10) Is happy & contented 0 = not circled 1 = circled
77	2	0-99	SES Value
78			
79-80	2	01-10	Card number 01 = demographic data, columns 1 - 35 Conceptions of Parenthood, columns 39 - 76

TOY & EQUIPMENT INVENTORY

Column Number	Number of Columns	Range of Valid Codes	Item Description
1-8			Family Data
9	1	0-1	(1) Puzzles 0 = not owned 1 = owned
10	1	0-1	(2) Tinker toys 0 = not owned 1 = owned
11	1	0-1	(3) Blocks 0 = not owned 1 = owned
12	1	0-1	(4) Lego, construction toys, Lincoln Logs 0 = not owned 1 = owned
13	1	0-1	(5) Beads for stringing 0 = not owned 1 = owned
14	1	0-1	(6) Peg board 0 = not owned 1 = owned
15	1	0-1	(7) Snapping, zipping, buttoning toys 0 = not owned 1 = owned
16	1	0-1	(8) Nesting, stacking toys 0 = not owned 1 = owned
17	1	0-1	(9) Pounding bench 0 = not owned 1 = owned
18	1	0-1	(10) Flashlight 0 = not owned 1 = owned
19	Blank		
20	1	0-1	(11) Lotto 0 = not owned 1 = owned

Column Number	Number of Columns	Range of Valid Codes	Item Description
21	1	0-1	(12) Number games 0 = not owned 1 = owned
22	1	0-1	(13) Alphabet, letter, word games 0 = not owned 1 = owned
23	Blank		
24	1	0-1	(14) Cars, trucks 0 = not owned 1 = owned
25	1	0-1	(15) Stuffed animals & toys 0 = not owned 1 = owned
26	1	0-1	(16) Dolls 0 = not owned 1 = owned
27	1	0-1	(17) Pull toy 0 = not owned 1 = owned
28	1	0-3	(18) Music Box 0 = not owned 1 = owned
29	1	0-3	(19) Record Player 0 = not owned 1 = owned
30	1	0-3	(20) Toy musical instruments 0 = not owned 1 = owned
31	1	0-3	(21) Toy clock, watch 0 = not owned 1 = owned
32	Blank		
33	1	0-3	(22) Telephone 0 = not owned 1 = owned
34	1	0-3	(23) Dress-up clothes, hats 0 = not owned 1 = owned

Column Number	Number of Columns	Range of Valid Codes	Item Description
35	1	0-3	(24) Puppets 0 = not owned 1 = owned
36	1	0-3	(25) Doctor/nurse kit 0 = not owned 1 = owned
37	1	0-3	(26) Filling station, barn; toys with small figures 0 = not owned 1 = owned
38	1	0-3	(27) Tea set 0 = not owned 1 = owned
39	1	0-1	(28) Guns or shooting toys 0 = not owned 1 = owned
40	1	0-1	(29) Doll house, miniature people 0 = not owned 1 = owned
41	Blank		
42	1	0-1	(30) Crayons 0 = not owned 1 = owned
43	1	0-1	(31) Paints & brushes 0 = not owned 1 = owned
44	1	0-1	(32) Clay, play dough 0 = not owned 1 = owned
45	1	0-1	(33) Colored paper 0 = not owned 1 = owned
46	1	0-1	(34) Coloring books 0 = not owned 1 = owned
47	1	0-1	(35) Children's scissors 0 = not owned 1 = owned

Column Number	Number of Columns	Range of Valid Codes	Item Description
48	1	0-1	(36) Chalk 0 = not owned 1 = owned
49	1	0-1	(37) Blackboard 0 = not owned 1 = owned
50	1	0-1	(38) Easel 0 = not owned 1 = owned
51	1	0-1	(39) Flannel board & felt cutouts 0 = not owned 1 = owned
52	Blank		
53	1	0-1	(40) Pedal or push cart 0 = not owned 1 = owned
54	1	0-1	(41) Wagon 0 = not owned 1 = owned
55	1	0-1	(42) Skates 0 = not owned 1 = owned
56	1	0-1	(43) Bicycle 0 = not owned 1 = owned
57	1	0-1	(44) Balls 0 = not owned 1 = owned
58	Blank		
59	1	0-1	(45) Play house 0 = not owned 1 = owned
60	1	0-1	(46) Slide 0 = not owned 1 = owned
61	1	0-1	(47) Sand Box 0 = not owned 1 = owned

Column Number	Number of Columns	Range of Valid Codes	Item Description
62	1	0-1	(48) Rocking horse 0 = not owned 1 = owned
63	1	0-1	(49) Child-size table 0 = not owned 1 = owned
64	1	0-1	(50) Child-size chairs 0 = not owned 1 = owned
65	1	0-1	(51) Swing or swing set 0 = not owned 1 = owned
66	Blank		
67	1	0-1	(52) Magnifying glass 0 = not owned 1 = owned
68	1	0-1	(53) Magnet 0 = not owned 1 = owned
69	1	0-1	(54) Scales or balance 0 = not owned 1 = owned
70	Blank		
71	1	0-1	(55) Books 0 = not owned 1 = owned
72	Blank		
73	1	0-1	(56) Records 0 = not owned 1 = owned
74-75	2	00-56	Total number of toys owned (total # 1's)
76	Blank		
77	Blank		
78	Blank		
79-80	2	01-10	Card Number 01 = demographic data, conceptions of parenthood 02 = toy & equipment inventory

TOY & EQUIPMENT CATEGORIES

Column Number	Number of Columns	Range of Valid Codes	Item Description
1-8			Family Data
			Category 1: Fine Motor
9-10	2	00-10	Total number owned
11-12	2	00-10	Total number used regularly
13-14	2	00-10	Total number of favorite toys
15	Blank		
			Category 2: preacademic games
16	1	0-3	Total number owned
17	1	0-3	Total number used regularly
18	1	0-3	Total number of favorite toys
19	Blank		
			Category 3: Early dramatic play
20	1	0-8	Total number owned
21	1	0-8	Total number used regularly
22	1	0-8	Total number of favorite toys
23	Blank		
			Category 4: Later dramatic play
24	1	0-8	Total number owned
25	1	0-8	Total number used regularly
26	1	0-8	Total number of favorite toys
27	Blank		
			Category 5: Art
28-29	2	0-10	Total number owned
30-31	2	0-10	Total number used regularly
32-33	2	0-10	Total number of favorite toys
34	Blank		

Column Number	Number of Columns	Range of Valid Codes	Item Description
			Category 6: Gross motor
35	1	0-5	Total number owned
36	1	0-5	Total number used regularly
37	1	0-5	Total number of favorite toys
38	Blank		
			Category 7: Equipment
39	1	0-5	Total number owned
40	1	0-5	Total number used regularly
41	1	0-5	Total number of favorite toys
42	Blank		
			Category 8: Scientific
43	1	0-3	Total number owned
44	1	0-3	Total number used regularly
45	1	0-3	Total number of favorite toys
46	Blank		
			Category 9: Books
47-48	2	00-99	Total number owned
49	Blank		
			Category 10: Records
50-51	2	00-99	Total number owned
52	Blank		
53-54	2	00-56	Total number owned in Categories 1-8
55-56	2	00-56	Total number used in Categories 1-8
57-58	2	00-56	Total number of favorite toys in Categories 1-8
59-78	Blank		
79-80	2	01-10	Card number 01 = demographic data, conceptions of parenthood 02 = toy & equipment inventory

PRESCHOOL CHILDREN'S PLAY-KNOWLEDGE

Column Number	Number of Columns	Range of Valid Codes	Item Description
1-8			Family Data
9	1	0-1	0 = Pretest 1 = Postest
			Mark the age at which children begin to:
10	1	1-5	(1) Pretend to eat or sleep while playing alone. *1 = 1-2 years 2 = 2-3 years 3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
11	1	1-5	(2) Building a house with blocks 1 = 1-2 years *2 = 2-3 years 3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
12	1	1-5	(3) Hopping on one foot 1 = 1-2 years *2 = 2-3 years 3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
13	1	1-5	(4) To be able to keep play going with another child the same age 1 = 1-2 years *2 = 2-3 years 3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
14	1	1-5	(5) Including or excluding others from his play 1 = 1-2 years 2 = 2-3 years *3 = 3-4 years 4 = 4-5 years 5 = 5-7 years

Column Number	Number of Columns	Range of Valid Codes	Item Description
15	1	1-5	(6) Carrying out a series of pretend events (feeding, bathing, putting baby to bed) 1 = 1-2 years *2 = 2-3 years 3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
16	1	1-5	(7) Matching and sorting toys 1 = 1-2 years *2 = 2-3 years 3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
17	1	1-5	(8) Asking many "why" questions 1 = 1-2 years 2 = 2-3 years *3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
18	1	1-5	(9) Catching a large ball with arms outstretched 1 = 1-2 years 2 = 2-3 years *3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
19	1	1-5	(10) Taking turns 1 = 1-2 years 2 = 2-3 years *3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
20	1	1-5	(11) Playing house or store with another child the same age 1 = 1-2 years 2 = 2-3 years *3 = 3-4 years 4 = 4-5 years 5 = 5-7 years
21	1	1-5	(12) Acting out more than one part while playing alone 1 = 1-2 years 2 = 2-3 years 3 = 3-4 years *4 = 4-5 years 5 = 5-7 years

Column Number	Number of Columns	Range of Valid Codes	Item Description
22	1	1-5	(13) Playing hide & seek 1 = 1-2 years 2 = 2-3 years 3 = 3-4 years *4 = 4-5 years 5 = 5-7 years
23	1	1-5	(14) Becoming an imaginary character 1 = 1-2 years 2 = 2-3 years 3 = 3-4 years *4 = 4-5 years 5 = 5-7 years
24	1	1-5	(15) Skipping 1 = 1-2 years 2 = 2-3 years 3 = 3-4 years 4 = 4-5 years *5 = 5-7 years
25	1	1-5	(16) Running smoothly & well 1 = 1-2 years 2 = 2-3 years 3 = 3-4 years *4 = 4-5 years 5 = 5-7 years
26	Blank		Mark age at which children begin to:
27	Blank		
28	1	0-1	(1) Pretending to eat or sleep while playing alone 0 = incorrect 1 = correct (1-2)
29	1	0-1	(2) Building a house with blocks 0 = incorrect 1 = correct (2-3)
30	1	0-1	(3) Hopping on one foot 0 = incorrect 1 = correct (2-3)
31	1	0-1	(4) Keep play going with another child the same age 0 = incorrect 1 = correct (2-3)

Column Number	Number of Columns	Range of Valid Codes	Item Description
32	1	0-1	(5) Including or excluding others from his play 0 = incorrect 1 = correct (3-4)
33	1	0-1	(6) Carrying out whole series of pretend events (feeding, bathing, putting baby to bed) 0 = incorrect 1 = correct (2-3)
34	1	0-1	(7) Matching & sorting toys 0 = incorrect 1 = correct (2-3)
35	1	0-1	(8) Asking many "why" questions 0 = incorrect 1 = correct (3-4)
36	1	0-1	(9) Catching a large ball with arms outstretched 0 = incorrect 1 = correct (3-4)
37	1	0-1	(10) Taking turns 0 = incorrect 1 = correct (3-4)
38	1	0-1	(11) Playing house or store with another child the same age 0 = incorrect 1 = correct (3-4)
39	1	0-1	(12) Acting out more than one part while playing alone 0 = incorrect 1 = correct (4-5)
40	1	0-1	(13) Playing hide & seek 0 = incorrect 1 = correct (4-5)
41	1	0-1	(14) Becoming an imaginary character 0 = incorrect 1 = correct (4-5)
42	1	0-1	(15) Skipping 0 = incorrect 1 = correct (5-7)

Column Number	Number of Columns	Range of Valid Codes	Item Description
43	1	0-1	(16) Running smoothly & well 0 = incorrect 1 = correct (4-5)
44	Blank		
45	1	0-1	(17) Blocks & puppets are intended for play at specific age levels 0 = incorrect 1 = correct D
46	1	0-1	(18) Children often try to complete puzzles or build buildings which are too difficult for them 0 = incorrect 1 = correct D
47	1	0-1	(19) The use of the body is essential to children's learning & memory 0 = incorrect 1 = correct A
48	1	0-1	(20) If a toy is labeled educational, children who have it will learn the educational goals that are stated on the box 0 = incorrect 1 = correct D
49	1	0-1	(21) Playful people are more versatile & creative 0 = incorrect 1 = correct A
50	1	0-1	(22) The child learns to play just as he learns to dress himself 0 = incorrect 1 = correct A
51	1	0-1	(23) New toys should be played with by a parent to stimulate child interest 0 = incorrect 1 = correct A
52	1	0-1	(24) Children tend to copy their parents' imaginative behavior 0 = incorrect 1 = correct A

Column Number	Number of Columns	Range of Valid Codes	Item Description
53	1	0-1	(25) Babies under a year old do not need a variety of toys 0 = incorrect 1 = correct D
54	1	0-1	(26) The child learns to give & take in playing games with his parents at about the same time give & take occurs in play with other children 0 = incorrect 1 = correct D
55	1	0-1	(27) Repeating new skills is fun for the child 0 = incorrect 1 = correct A
56	1	0-1	(28) Children learn order & rules by playing games 0 = incorrect 1 = correct A
57	1	0-1	(29) Children usually react to danger sometime later by revising the situation & becoming the thing that frightens them 0 = incorrect 1 = correct A
58	1	0-1	(30) Adults encourage play with toys such as stoves & trucks because the adult world is too dangerous & complex for the child 0 = incorrect 1 = correct A
59	1	0-1	(31) Children show what they think & feel about their family when they play house 0 = incorrect 1 = correct A
60	1	0-1	(32) Little children should throw small balls & catch big ones to develop skill 0 = incorrect 1 = correct A
61	1	0-1	(33) Stringing beads & reading have nothing in common 0 = incorrect 1 = correct D

Column Number	Number of Columns	Range of Valid Codes	Item Description
62	1	0-1	(34) Many children spend most of their free time watching others 0 = incorrect 1 = correct A
63	1	0-1	(35) When 2 or more children play together, deciding what to play & how to play takes longer than actual play time. 0 = incorrect 1 = correct D
64	1	0-1	(36) Boys tend to be more aggressive than girls in play 0 = incorrect 1 = correct A
65	Blank		
66	1	0-1	(37) Imaginative play is a waste of time 0 = incorrect 1 = correct D
67	1	0-1	(38) Basic ideas of measurement are developed by playing with sand & water 0 = incorrect 1 = correct A
68	1	0-1	(39) Watching television helps children develop play skills 0 = incorrect 1 = correct D
69	1	0-1	(40) "I am a house cleaner" works better than "can I play?" when a child wants to join another child playing house 0 = incorrect 1 = correct A
70	1	0-1	(41) Children learn to do things well by doing them over & over again. 0 = incorrect 1 = correct A
71	1	0-1	(42) Children try out play ideas by themselves before trying it out with other children 0 = incorrect 1 = correct A

Column Number	Number of Columns	Range of Valid Codes	Item Description
72	1	0-1	(43) After the child masters a skill he combines it with other skills 0 = incorrect 1 = correct A
73	1	0-1	(44) Make-believe play does not help the child to solve ordinary family problems such as spilling food or milk at dinner 0 = incorrect 1 = correct D
74	1	0-1	(45) It's not too much to ask that children take care of their toys & play with them appropriately 0 = incorrect 1 = correct A
75	1	0-1	(46) Busy parents cannot teach the child a large number of ideas because they have other things to do like cleaning or cooking 0 = incorrect 1 = correct D
76	Blank		
77	Blank		
78	Blank		
79-80	2	01-10	Card number 01 = demographic data, conceptions of parenthood 02 = toy & equipment inventory 03 = toy & equipment categories 04 = knowledge of children's play (items 1-46 of scale)

PRESCHOOL CHILDREN'S PLAY-KNOWLEDGE (continued)

Column Number	Number of Columns	Range of Valid Codes	Item Description
1-8			Family Data
9	1	0-1	(47) Children who are truly creative will act just like other children the same age in similar situations 0 = incorrect 1 = correct D
10	1	0-1	(48) Children under 5 are too immature to help make cookies 0 = incorrect 1 = correct D
11	1	0-1	(49) The parent who organizes & uses as play materials whatever is on hand is teaching his child as much as the parent who buys many toys 0 = incorrect 1 = correct A
12	1	0-1	(50) Teasing is the same as play 0 = incorrect 1 = correct D
13	1	0-1	(51) Parents can help children overcome fears by pretending to be afraid in a safe & playful situation 0 = incorrect 1 = correct A
14	1	0-1	(52) Parents can help their children learn how to play with others by joining in the play 0 = incorrect 1 = correct A
15	1	0-1	(53) Parents should kneel or sit at the child's level while talking & playing with the child 0 = incorrect 1 = correct A
16	1	0-1	(54) Children learn to play house or store by themselves 0 = incorrect 1 = correct D

Column Number	Number of Columns	Range of Valid Codes	Item Description
17	Blank		
18	1	0-1	(55) One way to teach make-believe is to act out playing with a doll 0 = incorrect 1 = correct A
19	1	0-1	(56) Children cannot learn to control themselves by playing together freely in a group 0 = incorrect 1 = correct (D)
20	1	0-1	(57) The number of toys available to the child does not affect his play behavior 0 = incorrect 1 = correct (D)
21	1	0-1	(58) New toys should be given to the child on Christmas & birthdays rather than throughout the year 0 = incorrect 1 = correct (D)
22	1	0-1	(59) Most children learn to play by watching others 0 = incorrect 1 = correct (A)
23	1	0-1	(60) Parents play with their children differently at different ages 0 = incorrect 1 = correct (A)
24	1	0-1	(61) The parent directs the play when playing blocks with the child 0 = incorrect 1 = correct (D)
25	1	0-1	(62) Children should be allowed to make mistakes in play 0 = incorrect 1 = correct (A)
26	1	0-1	(63) Children may resent continuous guidance beyond the initial steps 0 = incorrect 1 = correct (A)

Column Number	Number of Columns	Range of Valid Codes	Item Description
27	1	0-1	(64) American children are as physically fit as European children 0 = incorrect 1 = correct (D)
28	1	0-1	(65) Comparing preschool children's drawings to older children's work will increase their effort 0 = incorrect 1 = correct (D)
29	1	0-1	(66) Children play more creatively when their efforts are appreciated 0 = incorrect 1 = correct (A)
30	1	0-1	(67) Once the child learns that he can depend on a regular playtime with a parent, he will make fewer demands for attention at other times 0 = incorrect 1 = correct (A)
31	1	0-1	(68) Parents should leave the decision of what to play up to the child 0 = incorrect 1 = correct (A)
32	1	0-1	(69) If parents do quiet, relaxing activities, children will learn to enjoy quiet times too 0 = incorrect 1 = correct (A)
33	1	0-1	(70) In imitating his mother's work, a child feels himself included in her life 0 = incorrect 1 = correct (A)
34	1	0-1	(71) If a child becomes restless, a parent should simply tell him to "go play" 0 = incorrect 1 = correct (D)
35	1	0-1	(72) Preschool children should be encouraged to draw pictures of real things, like houses or animals 0 = incorrect 1 = correct (D)

Column Number	Number of Columns	Range of Valid Codes	Item Description
36	Blank		
37	1	0-1	(73) Planning is not a part of children's play 0 = incorrect 1 = correct (D)
38	1	0-1	(74) Putting some toys away for awhile & bringing them out again later only confuses the child 0 = incorrect 1 = correct (D)
39	1	0-1	(75) It is easier for a child to show what he thinks through play than to explain it with words 0 = incorrect 1 = correct (A)
40	Blank		Item 76 not counted
41	1	0-1	(77) Children develop the necessary skills of using their hands for writing in kindergarten 0 = incorrect 1 = correct (D)
42	1	0-1	(78) Skill in striking with a bat & throwing a ball occurs at about the same time 0 = incorrect 1 = correct (D)
43	1	0-1	(79) Children to whom parents read can tell stories by themselves 0 = incorrect 1 = correct (A)
44	1	0-1	(80) Lotto games are inappropriate for young children 0 = incorrect 1 = correct (D)
45	1	0-1	(81) Puzzles provide practice in problem solving 0 = incorrect 1 = correct (A)
46	1	0-1	(82) The needs for props in dramatic play increase with the child's age 0 = incorrect 1 = correct (D)

Column Number	Number of Columns	Range of Valid Codes	Item Description
47	1	0-1	(83) Toy chests used for storage encourage the best use of toys 0 = incorrect 1 = correct (D)
48	1	0-1	(84) Preschool children are too young to use hammers, nails, or saws 0 = incorrect 1 = correct (D)
49-50	2	00-83	Total correct responses
51-53	Blank		

ATTITUDES TOWARD PLAY (score is recorded)

54	1	0-1	0 = Pretest 1 = Postest
55	1	1-4	(1) When should children be allowed to take their toys apart? a = 3 only when toy is inexpensive b = 1 never c = 4 only when toy is meant to be d = 2 whenever child wants to
56	1	1-4	(2) When should a child watch TV? a = 3 when he needs something to keep him occupied b = 2 whenever he wants to c = 4 when the parent approves of the program d = 1 never
57	1	1-4	(3) Children should obey the old rule, "to be seen & not heard." a = 1 never b = 2 always (children should speak only when spoken to) c = 3 whenever what is said by the child could be embarrasing or disrespectful to the parents d = 4 when adults are visiting together in the home and wish not to be interrupted

Column Number	Number of Columns	Range of Valid Codes	Item Description
58	1	1-4	(4) Boys should be discouraged from playing with girls' toys & games. a = 2 only when the child is playing with other boys b = 3 only when the child seems to play with girls' toys to excess or more than he plays with boys' toys c = 1 always d = 4 never
59	1	1-4	(5) Girls should be discouraged from playing with boys' toys & games. a = 2 only when the child is playing with other girls b = 3 only when the child seems to play with boys' toys and games to an excess or more than she plays with girls' toys and games c = 4 never d = 1 always
60	1	1-4	(6) A child should share his or her toys with other children. a = 4 when parents can supervise the sharing b = 2 when the child's friends also share their toys c = 1 always, whether he wants to or not d = 3 whenever he wants to inside or outside of the home
61	1	1-4	(7) Adults should play with their children. a = 1 whenever the parent has time to play with the child or just feels like it b = 2 except for some obvious exceptions, such as interfering with work, the parent should play whenever asked by the child c = 3 whenever the conditions of play and the time are equally convenient and agreeable to both the parent and the child d = 4 whenever the parent and child set aside a time to play when they can be assured of not being inter-

Column Number	Number of Columns	Range of Valid Codes	Item Description
62	1	1-4	(8) Parents should buy their child a new toy. a = 2 whenever the child has earned a toy through good deeds or behavior b = 3 mainly on special occasions such as Christmas or birthdays c = 1 whenever the parent feels in a mood to buy one d = 4 whenever the child expresses a sincere desire for a specific toy
63	1	1-4	(9) Wrestling or "rough housing" should be done: a = 1 only outdoors b = 4 anywhere in the house or outside under parental supervision c = 2 only in designated areas in the house d = 3 whenever and wherever the child wants as long as it is done in moderation
64	1	1-4	(10) When child receives new toy which he doesn't know how to use but gains enjoyment by using it in the wrong way, a parent should: a = 4 show the child the correct way to use the toy b = 3 let the child play with the new toy any way he wants as long as he is having fun c = 2 put the toy away and bring it out at another time d = 1 make the child stop playing with it
65	1	1-4	(11) Children should check with their parents before giving away their play things. a = 3 completely agree b = 4 agree but with some exceptions or reservations c = 2 disagree, but with some exceptions or reservations d = 1 completely disagree

Column Number	Number of Columns	Range of Valid Codes	Item Description
66	1	1-4	(12) Children should play anywhere they want in or around the house as long as it doesn't endanger their safety or health. a = 3 completely agree b = 4 agree, but with some exceptions or reservations c = 2 disagree, but with some exceptions or reservations d = 1 completely disagree
67	1	1-4	(13) Parents should welcome their children's chosen friends whoever they are in their home. a = 3 completely agree b = 4 agree, but with some exceptions or reservations c = 2 disagree, but with some exceptions or reservations d = 1 completely disagree
68	1	1-4	(14) The things that children do in their play should mainly be things that teach them useful skills. a = 2 completely agree b = 3 agree, but with some exceptions or reservations c = 4 disagree, but with some exceptions or reservations d = 1 completely disagree
69	1	1-4	(15) The main purpose of a child's play should be to have fun. a = 4 completely agree b = 3 agree, but with some exceptions or reservations c = 2 disagree, but with some exceptions or reservations d = 1 completely disagree
70	1	1-4	(16) Boys should be discouraged from playing with dolls or other female toys. a = 1 completely agree b = 2 agree, but with some exceptions or reservations c = 3 disagree, but with some exceptions or reservations d = 4 completely disagree

Column Number	Number of Columns	Range of Valid Codes	Item Description
71	1	1-4	(17) When a preschool child does not put his toys away, how should a parent react? a = 3 tell the child to put the toys away before he or she will be able to do something enjoyable (example: having a snack, watching television, reading a book before bedtime, etc.) b = 2 parents should pick up the toys and put them away c = 4 parents should begin to pick up the toys and encourage the child to join in d = 1 leave the toys where they are
72	1	1-4	(18) When should a child be allowed to play in water? a = 3 outside when he is dressed properly b = 1 whenever he wants to c = 2 only in the bathtub d = 4 when the child wants to, and you are able to be nearby
73	1	1-4	(19) When should child be allowed to play with brother's/sister's toys? a = 1 whenever the child wants to b = 4 whenever the brother or sister lets him c = 2 never d = 3 whenever the parents say it is alright

Column Number	Number of Columns	Range of Valid Codes	Item Description
74	1	1-4	(20) How should parents react when they see their preschool child tearing a book? a = 1 spank the child b = 2 say nothing to the child and either repair or throw away the book c = 4 repair the book with the child's help and explain that books are for reading d = 3 scold the child and take the book away
75	1	1-4	(21) Where should children be allowed to play alone outside? a = 3 only in the yard b = 4 within certain areas in the neighborhood c = 2 anyplace he wants to as long as he is home on time d = 1 they should not play outside alone
76-77	2	00-84	Total Score
78	Blank		
79-80	2	01-10	Card number 01 = demographic data conceptions of parenthood 02 = toy & equipment inventory 03 = toy & equipment categories 04 = knowledge of children's play (items 1-46 of scale) 05 = knowledge of children's play cont. (items 47-84 of scale) and attitudes toward play (col. 54-77)

Codebook - Summary Sheet

Column Number	Number of Columns	Range of Valid Codes	Item Description
1-2	2	01-99	Family ID
3	1	0-2	Sex of Respondent 0 = male 1 = female 2 = female without spouse
4	1	1-2	Treatment Condition 1 = Library with cards 2 = Library without cards
5	1	1-9	Total number children in family
6	1	1-6	Total # of preschoolers
7	1	1-5	SES Value 1 = Scores 11-14 2 = Scores 15-27 3 = Scores 28-43 4 = Scores 44-60 5 = Scores 61-77
8-9	2	11-77	SES Value
10	Blank		
11-12	2	0-83	Total knowledge score-pretest
13-14	2	0-83	Total knowledge score-post test
15-16	2	0-84	Total Attitude score-pretest
17-18	2	0-84	Total Attitude score-post test
19-20	2	0-15	Developmental score
21	1	0-1	Developmental category 0 = Traditional 0 - 7½ 1 = Developmental 7½ - 15
22	1	0-1	Use of toy sheets 0 = no 1 = yes
23	1	0-1	Enough room for every day activities? 0 = no 1 = yes

Column Number	Number of Columns	Range of Valid Codes		Item Description
24	1	0-1		Does child have enough room to play inside? 0 = no 1 = yes
25	1	0-1		Does child have enough room to play outside?
26	1	0-3		Adequacy of play space 0 = Score = 0 1 = Score = 1 2 = Score = 2 3 = Score = 3 Score is sum of columns 23,24,25
27-28	2	00-50		Number of times borrowed toys
29	1	0-1		Play together with borrowed toys blank = no info. 0 = no 1 = yes
30-31	2	0-56		Total number of toys owned
32	1	1-5	Father role	Card number 01 = demographic data conceptions of parenthood 02 = toy & equipment inventory 03 = toy & equipment categories 04 = knowledge of childrens play (1-46 of scale) 05 = knowledge of childrens play (47-84 of scale) & attitudes toward play 06 = summary card
33	1	1-5	Mother role	
34	1	1-5	Child role	
79-80	2	01-10		

SELECTED DESCRIPTIVE STATISTICS

Table E-1. Mean Number of Children and Mean Number of Preschoolers by Treatment

	$\bar{X}$ All Children	Range	$\bar{X}$ Preschool Children	Range
Experimental	2.957	1-6	1.391	1-2
Control	2.095	1-5	1.333	1-2

Table E-2. Mean and Range of SES Values by Treatment

	$\bar{X}$ SES Value	Range	Possible Range
Experimental	53.870	30-62	11-77
Control	49.810	17-62	

Table E-3. Mean Pre- and Posttest Knowledge Scores by Treatment (Possible Score 83)

	$\bar{X}$ Knowledge Pretest	Range	$\bar{X}$ Knowledge Posttest	Range
Experimental	54.30	46-66	59.65	51-66
Control	57.57	48-64	56.19	49-64

Table E-4. Mean Pre- and Posttest Attitude Scores by Treatment (Possible Score 84)

	$\bar{X}$ Attitude Pretest	Range	$\bar{X}$ Attitude Posttest	Range
Experimental	67.91	58-74	69.74	63-76
Control	67.86	61-74	68.81	46-74

Table E-5. Mean Scores of Conception of the Family by Treatment (Total Possible Score 0-15)

	$\bar{X}$ Devel. Score	Range	$\bar{X}$ Father 0-5	Range	$\bar{X}$ Mother 0-5	Range	$\bar{X}$ Child 0-5	Range
Experimental	9.652	7-13	3.17	2-4	3.482	2-5	3.0	1-4
Control	9.524	6-13	3.143	1-5	3.670	2-5	2.71	1-5

Table E-6. Mean Toys Owned by Treatment

	$\bar{X}$ Total of Toys Owned	Range	Possible Range
Experimental	36.18	25-47	0-56
Control	31.19	19-42	

REFERENCES AND NOTES

REFERENCES

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