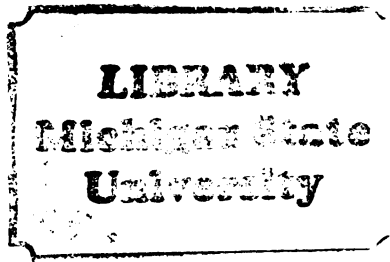




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**PRESCHOOL RESOURCE CENTERS:  
UTILIZATION IN RURAL COMMUNITY LIBRARIES**

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**Susan E. Reed**

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M.A. degree in Child Development

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**PRESCHOOL RESOURCE CENTERS: UTILIZATION IN  
RURAL COMMUNITY LIBRARIES**

**By**

**Susan E. Reed**

**A THESIS**

**Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of**

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**Department of Family and Child Ecology**

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## ABSTRACT

### PRESCHOOL RESOURCE CENTERS: UTILIZATION IN RURAL COMMUNITY LIBRARIES

By

Susan E. Reed

Because of the need to assist rural families in providing intellectual stimulation for their preschool children, Preschool Resource Centers (PRCs) were created in four rural, Michigan community libraries. Parents could obtain toys and games to strengthen their preschool child's skill development. The purpose of this study was to compare responses of small town and rural families using the PRCs by analyzing participant mothers' responses to an interview form. Answers to research questions concerning participation and utilization of PRCs were analyzed using Chi-square analysis and frequency distributions. Most families learned about the PRCs by visiting the libraries. Friends and parents played most often with the children with the PRC toys and problems with the toys included missing pieces and unsteady containers. Most all of the respondents felt that play was important for their child's development, although 42.7% of the families spent only \$26-50 per year on toys.

## ACKNOWLEDGEMENTS

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## CHAPTER I

The importance of the influence of the caregiver on a young child's cognitive development is becoming increasingly evident. This current general surge of interest in early childhood development began in the early 1960's and resulted in the creation of Project Head Start. This program of remedial education for disadvantaged children was initiated by the United States government and based on the premise that poor children lacked certain experiences that are required for successful academic work (Elkind and Weiner, 1978). Also in response to this growing concern for the preschool child's educational development Burton White (1973) of Harvard University began the Harvard Preschool Project which sought to study the attributes and development of the successful or competent child. Its primary purpose was to "search for environmental factors that play important causal roles in the early development of human competence" (White, 1973, p. 25). White concluded from his findings that only one child in ten has a good educational start in life and that while most parents are potentially capable of raising competent children, they lack adequate knowledge and assistance for parenthood (White, 1975).

Bradley and Caldwell (1976) also found that infants who came from homes rich in appropriate kinds of experiences had progressively increasing mental test scores during the first

three years of life. In contrast, infants who came from homes poor in certain kinds of experiences had progressively decreasing mental test scores. Utilization of resources available in the home and the community resulted in increased opportunities for appropriate experiences.

Rural families with young children often find that few community resources are available to them. Cowan (1975) has suggested that in some sparsely populated areas, families actually receive far fewer support services and resources than they would if they lived in more densely populated areas. Family incomes, though low, may exceed Head Start minimum guidelines, thus, preventing children from participating in programs stimulating to their intellectual and social growth and development. Support services such as child development centers, nursery schools, play groups and programs for handicapped children may also be limited or non-existent (Earhart, 1980).

Because of this need to assist rural families in providing intellectual stimulation for their preschool children, the Michigan State University Agricultural Experiment Station funded a project which began in January 1974, entitled "Development of Guidelines for Creating Preschool Resource Centers". The purpose was to create a preschool resource center (PRC) in selected rural libraries from which parents could obtain materials to strengthen their preschool child's skill development. A major objective was to promote parental involvement and

interaction with the preschool child.

Potential locations for preschool resource centers were surveyed by representatives of the Human Development Commission, an agency serving 14 counties in rural Michigan. Three counties--Huron, Sanilac, and Tuscola--in the Thumb Area were identified for this project. Elementary schools, libraries and community centers were canvassed to determine the availability of space and staff members' interest in the project. One community library in each county was selected. The Library Boards in each of the three locations--Millington, Marlette and Pigeon--were involved in the planning and decision-making process. The materials placed in these libraries included approximately 30 books and 150 games and toys selected for infants, toddlers and preschool children up to age five. Michigan State University specialists in child development, Jeanne Brown, Joan Hoffman Smith and Eileen Earhart, selected materials appropriate for this age level using the criteria of durability, suitability for home use, learning potential in all developmental areas, and probability of promoting parent-child interactions. Suggestion sheets were developed by project staff members for each item.

The preschool resource centers (PRCs) were publicized by a series of newspaper articles and pictures. Brochures were printed by the Human Development Commission and distributed by the libraries and community groups. PRCs were visited by Head Start children and their parents during field trips to

acquaint them with this new service. Later, three additional libraries in other rural communities (Benzonia, Mendon, and Vermontville) were chosen to house the preschool resource center materials.

This research study is concerned with data collected from four of the six preschool resource centers developed as a result of this project: Pigeon, Mendon, Vermontville and Benzonia. Toys and games were placed in the Pigeon, Michigan, library by project staff members in May, 1974. The Mendon library received materials in October, 1977, and the preschool resource center was started in Vermontville and Benzonia, Michigan in May, 1978. Data collection began in September, 1979. Librarians in each center provided names and addresses of all PRC participants. Interviewers contacted each parent participant by telephone and arranged an appointment with those mothers who were willing to be interviewed in their homes. The total number of respondents was 133: 32 from Benzonia, 49 from Pigeon, 21 from Mendon and 31 from Vermontville. During each home interview, information was recorded on the Interview Form For Users of Preschool Resource Centers (Appendix A) by the interviewers. Data were collected relative to the responses of parents to materials, guidelines, and associated procedures used. Information about their children's play was also recorded.

### Rationale for Study

Rural PRCs are effective in increasing parent/child interactions and in promoting educational experiences for rural preschool children only if utilized. Evaluation of data collected aids in determining the extent to which the project's purposes have been attained. The purpose of this study was to compare responses of small town and rural families using the preschool resource centers in Pigeon, Mendon, Vermontville, and Benzonia, Michigan to determine how frequently the PRCs were used, families' participation in the PRCs, how materials were used at home, and what toys and games were borrowed. Also, differences in utilization by rural and small town respondents were examined as well differences in use based on library locations. Participant mothers' responses to the Interview Form For Users of Preschool Resource Centers were analyzed.

### Objectives

1. To answer research questions about participation in and utilization of preschool resource centers.
2. To compare rural mothers' responses to small town mothers' responses to the Interview Form For Users of Preschool Resource Centers.
3. To compare responses to the interview form based on the library locations of Benzonia, Vermontville, Pigeon and Mendon.

### Research Questions

Answers to the following research questions concerning the families' participation were sought:

1. How often have families borrowed toys and games from the PRC?
2. How did families learn about toys and games in the library?
3. How frequently did families visit the library?
4. What PRC toys and games were favorites with the children?
5. Who plays with the child with the PRC toys?
6. What problems did they experience with any of the toys?
7. How much time did the children spend playing each day?
8. How important do families feel play is for their child's development?
9. How much money is spent on toys for each child during a year?

Comparisons of responses by mothers living in rural communities and in small towns were examined concerning the following questions:

1. Do families in small towns visit the PRC more frequently than rural families?
2. Do families in small towns borrow toys and games from the PRC more often than rural families?

3. Do parents in small towns play more frequently with their children with the PRC toys than rural parents?

4. Do small town children spend more time playing in general each day than rural children?

5. Do small town families spend more money on toys for each child during a year than rural families?

Comparisons of responses based on the library locations of Benzonia, Pigeon, Mendon and Vermontville were examined concerning the following questions:

1. What is the frequency of families borrowing toys and games in each of the PRC library locations?

2. How much time do the children in each of the PRC library locations spend playing in general each day?

3. How much money is spent by families on toys for each child during a year in each of the PRC library locations?

### Assumptions

The following assumptions underlie this study:

1. Mothers are aware of their children's play activities.

2. Mothers' responses will reflect their perceptions of their children's play.

3. Mothers are knowledgeable about their children's daily activities.



### Operational Definitions

The following terms have been used throughout the thesis:

Rural parents include parents that live on farms and parents that live in the country but not on farms.

Small town parents are parents living in towns with populations under 10,000 people.

### Conceptual Framework

The ecological model is the basis for the original study. Rural family environments have been altered as a result of the development of preschool resource centers. The human ecological model suggests that organisms, or living things, interact with their environment. This sensitive balance which exists between the organism and its environment is called an ecosystem (Bubolz, Eicher, and Sontag, 1979). The family ecosystem considers the interactions and transformations occurring between the family unit and its near environment (i.e. the home, the local community). Thus, a change in the family's near environment often results in a change in the family system. Since all living beings are dependent for survival on nurturing and sustaining environments, the family system must be at least partially open to inputs.

This study will use information collected from the original study to compare the responses of small town and rural families who chose to participate in the preschool

resource centers in Pigeon, Mendon, Vermontville, and Benzonia, Michigan by analyzing mothers' responses to the Interview Form For Users of Preschool Resource Centers.

### Conceptual Definitions

The following are conceptual definitions of terms used in this thesis.

An ecosystem includes the living organisms and the environment in which they live (Bubolz, et al., 1979).

An open system is one in which boundaries are penetrable thus permitting information flow (Melson, 1980).

A family ecosystem includes the functioning group living in one household and the environment in which it lives, including the educational, social and physical environment (Whiren, 1976).

### Overview

Relevant literature on parent-child interaction, toy-lending libraries, and rural educational resources is reviewed in the second chapter. In Chapter Three the methodology of the study is described, and the analysis of the results are discussed in Chapter Four. A summary and discussion of the findings is presented in the fifth chapter along with implication for further research.

## CHAPTER II

### REVIEW OF LITERATURE

Literature will be reviewed in three general areas: parent-child interaction, toy-lending libraries, and rural educational resources. The importance of parent-child interaction on a child's intellectual development will be discussed. The function and development of previously and currently operating toy-lending libraries will be reported and the state of rural educational resources will be discussed.

#### Parent-child Interaction

The influence of home environment variables on a child's intellectual development and academic achievement has been the focus of extensive study in child development research (Hess & Shipman, 1965; Jones, 1972; Marjoribanks, 1979; Stevenson, 1976; Yarrow, 1963). Educators believe that parents can make an influential contribution to their children's educational experiences by working with them on the development of certain skills in the years before the commencement of formal schooling (Ahr & Simons, 1968).

Americans renewed their concern about early education during the Sputnik era of the 1950's and 1960's. It was found that large numbers of preschool children from disadvantaged homes were gravely lacking in the fundamental

experiences needed for cognitive growth and a successful educational experience (Horodezky, 1978). Hunt (1961), Bruner (1961) and Bloom (1964) noted the importance of the child's early environment and addressed attention to the "crucial" first five years of intellectual development. At no other time does a child accomplish such dramatic growth in language development as during these preschool years (Dallman, Rouch, Char & DeBoer, 1978).

In their review of research concerning mother-child interactions and their impact on the child's developing intelligence, Streissguth and Bee (1972) concluded that differences in the learning environments of preschool children "have been shown to be related to cognitive functioning and motivational characteristics of children" (p. 171). Deliberate and playful maternal stimulation has also been shown to be a potent dimension of maternal influence (Clarke-Stewart, 1973).

The combination of verbal and visual stimulation, when frequently given, appears to accelerate development and is particularly beneficial to the child if it occurs during play rather than caretaking (Chodorkoff, 1960; Lewis & Wilson, 1971; Rheingold, 1956; Rubenstein, 1967; Stern, Caldwell, Hersher, Lipton & Richmond, 1969; Walters & Parke, 1965; Yarrow, 1963; Yarrow & Goodwin, 1965). Distinctive and frequent verbal stimulation from the mother, by reading or talking to the infant, has also been related to children's cognitive development evidenced by more frequent

vocalization and increased language ability (Bing, 1963; Goldberg & Lewis, 1969; Gordon, 1969; Irwin, 1960; Kagan, 1971; Milner, 1951; Schaefer, Furfey & Harte, 1968).

Clarke-Stewart (1973) undertook a longitudinal observation of mother-child interactions. Her study examined relations between behaviors of mothers and their first-born children (9-18 months old). After home observations in structured situations over a 9-month period, Clark-Stewart found a highly significant linear relation between factors of children's competence and mothers' care. Specific relations were found between children's language development and mothers' verbal stimulation. Analysis of relations over time suggested that stimulating, responsive maternal behavior influenced the child's intellectual development. Her findings also suggested that the time spent playing with a child may be more important for cognitive development than the richness or amount of stimulating materials available to him or her.

Bradley and Caldwell (1976) found that:

Infants who come from homes rich in appropriate kinds of experiences have mental test scores that show a progressive increase during the first three years of life; By comparison, infants who come from homes poor in certain kinds of experiences have mental scores that progressively decrease. (p. 96)

Carew (1976) observed 23 children from age one to three in order to assess day-to-day learning environments and their effect on intellectual development. For children aged 30-33 months, results indicated a strong relationship

between competence and intellectual experiences (teaching, helping, entertaining, conversing, and sharing in intellectual activities) provided by other people.

Goldberg (1977) based a study on psychological research suggesting that the amount of time children spend in activities with parents contributes importantly to the quality of young children's lives in general, and to children's cognitive development and academic achievement in particular. He investigated the amount of time mothers spend with preschoolers in specific activities related to cognitive development and sociodemographic variables which influence mothers' time spent with children. Goldberg found that more educated mothers spent time with their children that was more stimulating and of a higher quality intellectually than less educated mothers.

After reviewing 20 years of research on the origins of human competence, White, Kaban, and Attanucci (1979) stated that "much that shapes the final human product takes place during the first years of life" (p. 183). White undertook a longitudinal study entitled The Harvard Preschool Project in 1965. Its purpose was to determine how to structure experiences during the first 6 years of life so as to "assist each child to maximize the potential he is born with" (p. 4). From data collected on everyday experiences of children, White concluded that a close social relationship, particularly during the first few months following a child's first birthday, was a conspicuous

feature in the lives of children who developed best. The amount of live language directed to a child was perhaps the strongest single indicator of later intellectual, linguistic and social achievement.

Iitaka (1980) observed monthly, 10 normal, first-born Japanese infants from middle class families when the infants were 6 to 24 months of age. He found significantly positive correlations between cognitive variables and maternal verbal responses and negative correlations between cognitive variables and maternal attitudes disregarding the child.

Porter (1982) examined the effects of preschool experience and family environment on children's cognitive and social development in the first years of school. Family environment variables including demographic characteristics, literacy of the home, parents' interest in education and parents' aspirations for their children's education seemed to account for a greater proportion of the variance than did preschool experience at the three data points of: school entry, end of kindergarten, and end of first grade. Porter suggested the need to develop more "home-based" rather than "center-based" programs for children and parents.

Poresky (1982) studied 27 two-year-old infants and mothers in their homes to analyze the relationship between infants' development and their home environment, mothers' attitude as parents, mothers' marital adjustment and families socioeconomic status. Using the HOME Inventory (Bradley et al. 1976), his findings concurred with

Bradley's. The two subscales most strongly related to the infant's mental and motor development were "Provision of Appropriate Play Materials" and "Maternal Involvement with the Child." "They reflect opportunities to learn through experiences with the environment and affective support" (p. 700).

In the Bristol Longitudinal Study, "Language at Home and at School," Wells (1980) concluded that the amount of speech that adults address to their children is significantly associated with the child's rate of progress. Rutter (1979) distinguished between sheer noise stimulation and quality verbal interaction by noting that the sheer amount of stimulation is irrelevant to cognitive development in children. However, the quality and meaningfulness of active experiences, especially conversational interchange, seem crucial.

Thus, the richness of a child's language and intellectual facility may be determined by the interest, attention and communicative adult interaction received from home. In the early years, the essential element in stimulating the intellectual and conceptual development of children is parent involvement.

Play objects are also important in the young child's development. Bradley and Caldwell (1976) found that "mothers whose infants improve in mental test performance not only encourage and challenge the child to develop new skills but also provide the child with the kinds of play



materials needed for development" (p. 96). Huntinger (1978) and the staff of the Macomb 0-3 Project believe that manipulation and direct experiences are essential processes and conditions for encouraging the young child's learning. Yarrow, Rubenstein, Pedersen, and Jankowski (1972) studied effects of the inanimate environment and social environment on the development of infants five to six-months-old. The characteristic of the inanimate environment that related most consistently to infant development was the variety of objects available to the child. Children with more variety in inanimate objects scored higher on Bayley Mental and Motor Scales. Bradley et al. (1976) administered the Bayley Scales of Infant Development to 93 predominately lower-class or lower middle-class children at 6, 12, and 24 months of age. Using the HOME Inventory (Bradley et al., 1976), he found that during the second year, parental behaviors such as providing appropriate play materials, appeared to exert a significant impact on competence.

The relationship between the informal, instructional role of parents and children's cognitive and academic achievements has been suggested by many studies (Baumrind, 1967; Brophy, 1970; Hess & Shipman, 1967; White and Watts, 1973). Programs designed to train parents to foster the intellectual development of their children, essentially by promoting verbal interaction, must be noted.

Phyllis Levenstein (1970) directed a study entitled Verbal Interaction Project, Mother-Child Home Program

(MCHP). The MCHP is basically "an incentives program that builds on the emotional bond between mother and child to encourage their verbal interaction long after direct assistance has been withdrawn" (Carnegie Quarterly, 1979, p. 1). Levenstein believed that small children best learn through their mothers, and thus trained "Toy-Demonstrators" to visit low-income mothers and their two to three-year-old children in their homes. By playing with the child using specially chosen toys, the demonstrator showed each mother how to verbally interact with her child. Toys and books used by the demonstrator were left as gifts for the family. The study indicated that highly significant cognitive gains were made in the experimental group and were retained two years later.

Hess, Block, Costello, Knowles and Largay (1971) suggested in their review that:

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)

Karnes, Teska, Hodgins, and Badger (1970) designed a program which involved group meetings with mothers and their children. The meetings were divided between group discussions with the mothers and activities directed toward the children, usually centered on the use of toys. Mothers were encouraged to repeat these play activities with their children at home. At the end of the two-year program,

children in the experimental group scored significantly higher on the Binet IQ test than did children in a control group. Greater involvement of mothers with their children also resulted.

In an effort to accelerate the development of children, 12-52 months of age, Dusewicz (1973) developed a program that would provide developmentally enriching experiences in a controlled environment, enhancing the growth of sensory, conceptual, and language abilities in young children from backgrounds of both urban and rural poverty. The principal approach of this project was to attempt to accelerate the cognitive development of the participating children through initial reinforcement of perceptual skills and later emphasis upon conceptual and language abilities. One phase of this project, the "Parent Involvement Program", was based on the premise that parents, given the proper knowledge and motivation to undertake activities helpful to their children's development, can contribute substantially to preparing their children for formal learning experiences. The Parent Involvement Program gave low-income, disadvantaged mothers instruction and encouragement to teach their infants and toddlers many things at home which would help them later in school environments. Results indicated that interaction increased between mothers and their children and that mothers were usually able to observe considerable progress in their children's physical, mental, emotional and social skills.

In reviewing evaluations of parent education programs, Bronfenbrenner (1974) and Goodson and Hess (1976) concluded that findings in the literature to date suggested that homebased, moderately structured parent programs produced striking short and long term gains for children, using intelligence and achievement test performance as criteria of effectiveness. Goodson and Hess (1976) suggested that such programs may positively impact parental attitudes and parent-child interaction.

Fowler (1976) used a longitudinal study to explore the effects of early language stimulation upon norms of the language development of three infants four to five-months-old. A 17-month program of intensified early language stimulation was implemented by weekly home tutoring sessions with the parents, including activities such as sociodramatic, motor, and manipulative play as well as other activities. Results indicated that the mean levels and rates of language development for the three infants greatly surpassed norms of development.

Slaughter (1980) undertook a longitudinal study of early intervention with 83 black mother-daughter dyads. When contrasting two social intervention programs, the Levenstein Toy Demonstration Program (TD) and the Auerback-Badger Discussion Group program, it was found that the TD program promotes children's cognitive development by encouraging verbal interaction between mothers and their children.

There is, then, research support for designing programs to encourage parents of preschool children to take an active role in the education and guidance of their children, particularly in the area of language and vocabulary development. An increase in verbal interaction at home between the parent and child through toys and play should aid in promoting the child's cognitive development.

### Toy Lending Libraries

Toy lending libraries can help parents provide intellectual stimulation for their young children during a critical period in their lives by providing a variety of toys that may not be affordable to parents and by offering guidelines in using these toys to stimulate infants and young children. Studies conducted with infants and young children have shown that "children from all socioeconomic backgrounds need attention and play" (McNelis, 1974, p. 1). Positive interaction and intellectual stimulation from adults is necessary if children are to develop to their fullest potential.

Results of early childhood intervention programs (Head Start, Experimental Day Care Centers) showed significant positive gains in mental skills, self-concept and self-image in the children involved. However, with time, the positive gains made by these children began to fade (McNelis, 1974). Programs which could continue to stimulate disadvantaged children were sought after, and the need to educate parents of all socio-economic groups on the importance of

intellectual stimulation and interaction during a child's early years became evident. One approach to increase parental involvement has been the institution of toy-lending libraries. The toy library makes available a wide range of colorful, attractive and educational toys for parents to use with their children. It can also provide both formal and informal guidance on techniques of adult/child interaction and intellectual stimulation (McNelis, 1974).

Although originally developed in England to provide a materials and information center for teachers and parents of young handicapped children, toy libraries have grown to serve all young children and to meet other community needs. Toy libraries are well established in other countries and are gaining popularity in the United States. Organizations such as the Canadian Association of Toy Libraries and The Toy Library Association of England have been established to promote toy libraries and to foster communication and support among themselves (Evans & Stewart, 1980).

In the United States, toy libraries differ widely.

A nun runs the library in St. Paul of the Apostle in New York City, a day-care worker runs one in Chicago. There are libraries in twenty-six native villages in Alaska, in the Bank of America Building in Berkley, and all over Utah where the toys are put together by senior citizens. (Toy Lending Library, 1973, p. 50)

Community support and volunteer efforts have enabled these facilities to open. They are designed "to meet local needs, while working within the given constraints of resources such as funding and space" (Evans & Stewart, 1980, p. 71).

On the assumption that parents are able to provide significant educational experiences for their preschool children, Glen Nimnicht (1972) from the Far West Laboratory for Educational Research and Development, created the Parent/Child Toy-Lending Library Program. Parents whose incomes were too high for their children to be eligible for Head Start programs but too low to provide tuition to private nursery schools enrolled, without charge, in an eight-week course. Trained staff members instructed parents in the educational use of the toys, basic educational concepts, and some facts of child development. A basic set of eight toys was designed by personnel of the Parent/Child Program to "teach specific fundamental concepts and skills, to promote verbal fluency, and to develop problem-solving techniques" (p. 110). After completion of the training, parents were permitted to borrow eight other toys to use with their children. The program has had a positive effect on both the participation parents and their children. One disadvantage in this approach is that many parents are either unable or unwilling to participate in the eight training sessions and, therefore, are ineligible to borrow toys for their children. Also, the participating children are limited to the use of only sixteen different toys (Earhart, 1980).

The 4-C (Community Coordinated Child Care) Toy Library in Orange County, Florida, lends learning materials such as table games, puzzles, floor toys, audiovisuals, musical

instruments, housekeeping toys, health toys, science toys, and tools to children from infancy through five years of age. Originally supported through a small grant from the Tri-State (Alabama, Florida, Georgia) Early Childhood Project, the library is now funded by a local volunteer service organization, the Junior League of Orlando. In addition to lending toys, the library offers seminars in selecting, evaluating and repairing toys. Volunteer teams have made weekly visits to day care centers carrying Caboodles of Toys (colorfully decorated boxes containing 20 assorted learning toys). After giving needed assistance, the volunteers leave the Caboodles with the center for two weeks allowing children and teachers additional time for playing with the toys. The Library Director and 4-C Educational Coordinator report an enthusiastic response to the project (Poe, 1975).

Existing local elementary school facilities can be used for lending books and toys to preschool children, suggests Bell (1975). These centers would benefit the community by increasing general concern for a higher quality living environment and would help prepare preschool children for formal schooling.

Toys'n Things, a toy-lending library and toy classification system, was developed with a Title IV-A grant from Ramsey County Welfare Board, St. Paul, Minnesota. The goal of the Toy Lending Library is "to provide appropriate toys, games, puzzles, equipment and regalia that are



classified according to the educational value of the toy which also takes into account the child development skill potential of the toy itself" (Kight, 1976, p. 15). Their wide array of resources is available for family day care providers, day care centers, nursery schools, parents and teachers who wish to learn more about the educational value of toys.

The Region IV Parent Education Demonstration Project (PEDP) was developed to help other school systems plan and conduct parent/child programs. Through parent workshops, home visitation and Toy and Material Libraries, the project's main objective was the enhancement of parents' influence of the cognitive, affective, social and motor development of their preschool children (Together is Best, 1976).

Hektoen and Rinehart (1976) provide a guide to the use of toys in public libraries. Play, they feel, is a child's work. It is the way in which children learn about themselves, their world, and their place in that world. Since the parent is the child's first and most important teacher, exposing parents to quality materials for their children is extremely important.

Parents and teachers desiring assistance in selecting appropriate educational toys are aided by the design of many toy libraries. The Toybrary (1978) project of the Nebraska Department of Education and the Nebraska Regional Library System has selected toys for the education of young

handicapped children. Pamphlets with ideas on how to work with the child are included with the toys. The toys focus on developing muscle control, exploring, challenging the mind, and appealing to the senses. Descriptions of information sources for parents of handicapped children, such as agencies, foundations, clinics, associations, and service oriented societies are also provided by the Toybrary.

The Washington, D.C. Toy Library was established as a research demonstration project by Dr. Dorothy Edwards (McNelis, 1974), a psychologist at the American Institute for Research. Its purpose was to improve early parent-child relationships, stimulate positive child development, and prevent later behavior difficulties (Rosenfeld, 1978). In addition to lending books and toys to low income families in Washington, D.C., the Toy Library offers child development services and activities such as afternoon workshops for parents and their children, first-aid courses, cooking demonstrations, and films and discussions on early childhood stimulation and family health. A study of the program's impact indicated that participating children made appreciable changes in their behavior, such as better speech, more interest in reading, and greater curiosity (Rosenfeld, 1978).

Duff, Heinz, and Husband (1978) recognized the importance of the parent's role with respect to the young child's learning by developing and implementing a toy

lending library in the Children's Center at the University of South Carolina. "The chief purpose of the lending library was to provide an additional mode for parent-child interaction in the home, as well as parent-teacher, teacher-child interaction in the school" (p. 16). The library was housed in a hallway near the classroom, and toys from the following categories were loaned over the weekend: puzzles, building manipulatives, language materials, music, creative play, and outdoor equipment. Objectives for the Toy Lending Library included providing opportunities for the children to:

1. Explore materials and activities of their own interest alone and/or with other family members.
2. Increase instances of meaningful and purposeful interaction between parents and themselves.
3. Further develop language, inquiry, and problem-solving skills through interaction with parents and other family members.
4. Feel success in the home setting for accomplishments derived from activities of their own choice shared with parents or other family members. (Duff et al., 1978, p. 17)

The Toy Lending Library would provide opportunities for parents to:

1. Involve themselves with their children through the home use of learning materials and activities of their children's own selection.
2. Gain greater understanding of the developmental needs of children and greater insight into how children learn.
3. Learn how to reinforce and expand the child's learning at home. (p. 17)

Heavily used materials included puzzles, blocks, Tinker

Toys, Lincoln Logs, lacing beads, peg boards, Tupperware balls, Viewmaster, "Reading Lotto" game, "School Day Desk", magnetic alphabet boards, records, rhythm instruments, puppets, balls, jump ropes, and carpentry tools.

Because of the growing awareness of educators and librarians regarding the impact of the environment during the early years upon later development and learning, Smardo (1978) undertook a study which investigated the role of the public library in serving children from infancy to age six. Through questionnaires and interviews, he obtained recommendations from early childhood education authorities pertaining to five areas of public library work with young children. The five areas included services, programs, materials, physical facilities, and personnel. Data were used to develop guidelines for public libraries. The following were recommendations for including toys in the public library. A majority of the participants recommended "provision of materials such as cloth, cardboard, and sensory books; educational toys, musical instruments, costumes, audiovisual equipment, and realia for use at home and/or at the library by young children" (p. 6). Educational toys should include "games, dolls, puzzles, blocks, and stuffed storybook characters" (p. 9). Thus, the importance of toy lending libraries was supported by the research.

The purpose of toy lending libraries has been to provide toys for loan and to instruct parents and daycare

providers on the use or construction of toys. The toy lending library's value as a promoter of parent-child interactions has also been established. Toy libraries also have the potential for providing valuable data on use of toys at home and parental involvement with children through toys and can become a vehicle for conducting research in these areas.

### Rural Educational Resources

Current research on learning theory and child development emphasizes the importance of the years of childhood before age six. However, programs for young children are generally not available in rural areas (Ford, 1978, Haller, 1971; Isenberg, 1971). Although good data on rural areas are hard to come by, there is considerable evidence that many rural communities "rank high in terms of both socioeconomic and educational disadvantage, even when compared to inner cities" (Bass, 1979, p. 1).

A condition typical to poor rural people is lack of access to good educational, recreational, and social services (Bubolz, 1974). Children from these rural homes, especially those in low income and isolated or semi-isolated areas, are at an extreme disadvantage when compared with children from urban or urbanized rural homes (Fratoe, 1978; The Quality of Rural Living, 1971). At the preschool age level, these children tend to have far fewer sources of intellectual stimulation and social interaction than urban children (The Quality of Rural Living, 1971; Sher, 1981).

Also, support of quality education programs becomes difficult in declining rural communities when the resource base is decreasing (Bubolz, 1974).

Few programs exist for many rural families who, though essentially self-reliant, have very limited access to intellectual and physical resources necessary for promoting optimal intellectual development in their children.

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. (Whiren, 1976, p. 2)

In a Council of Europe report, it was argued that the rural disadvantage in terms of preschool education was the result of three interlocking deficits:

1. Educational and social services [at the preschool level] are either missing, inadequate or poorly linked to the overall education network;
2. the differences between urban and rural socialization processes and motivational structures have rarely been investigated and taken into consideration; and
3. alternative [preschool] educational programmes for rural districts have not been developed and tested sufficiently. (Schleicher, 1977, p. 36)

The need to enhance the intellectual development of rural preschool age children is critical. "Investment in family development as well as in economic development must be a part of rural development" (Bubolz, 1974, p. 63).

### Summary

A review of research literature has shown that an increase in verbal interaction at home between the parent and child through toys and play will aid in promoting the child's cognitive development. The toy-lending library's value as a promoter of parent-child interactions has been established. Although little research exists on rural educational resources, there is considerable evidence that many rural communities are educationally disadvantaged and would benefit from programs aimed at increasing the intellectual stimulation and social interaction of rural preschool children.

## CHAPTER III

### METHODOLOGY

In this study data which were collected from an earlier study will be utilized. The Michigan State University Agricultural Experiment Station funded a project which began in January, 1974, entitled "Development of Guidelines for Creating Preschool Resource Centers." The purpose was to create a preschool resource center (PRC) in selected rural community libraries from which parents could obtain materials to strengthen their preschool child's skill development. Data were collected from four preschool resource centers developed as a result of this project: Pigeon, Mendon, Vermontville and Benzonia. Data collection began in September, 1979. Librarians in each center provided names and addresses of all PRC participants. Interviewers contacted each parent participant by telephone and arranged an appointment with those mothers that were willing to be interviewed in their homes. During each home interview, information was recorded on the Interview Form For Users of Preschool Resource Centers (Appendix A) by the interviewers. Data were collected relative to the responses of parents to materials, guidelines, and associated procedures used.



Sample Description

The subjects of the study were mothers of children who were associated with the PRC in their respective communities. The total number of respondents was 133; 32 from Benzonia, 49 from Pigeon, 21 from Mendon and 31 from Vermontville as shown in Table 1.

Table 1. Number of Preschool Resource Center Respondents By Location.

Centers	N	%
Benzonia	32	24.1
Pigeon	49	36.8
Mendon	21	15.8
Vermontville	31	23.3
Total	133	100.0

Community size of respondents consisted of 63 rural parents and 70 small town parents as shown in Table 2.

Table 2. Community Size of Respondents.

Community Size	N	%
Rural	63	47.4
Small Town (pop. under 10,000)	70	52.6
Total	133	100.0

The classification of occupations of the mother participants was determined by using the occupation portion of the Hollingshead (1957) two factor index of social position. As shown in Table 3, the majority of mothers were unemployed (57.1%), while 17.3% were employed in a lesser profession, 11.3% were semi-skilled laborers and 8.2% were employed in clerical-sales-technical positions.

Table 3. Occupations of Participating Mothers.

Occupation of Mother	N	%
Major Profession	1	.8
Lesser Profession	23	17.3
Minor Profession	6	4.5
Clerical-Sales-Technical	11	8.2
Skilled Laborer	1	.8
Semi-Skilled Laborer	15	11.3
Unemployed	76	57.1
Total	133	100.0

### Design and Procedure

Using data collected previously from the "Interview Form For Users of Preschool Resource Centers," this researcher analyzed mothers' responses to the interview questions. Answers to research questions concerning the families participation were sought. Comparisons of responses by mothers living in rural communities and in

small towns were examined and comparisons of responses based on the library locations of Pigeon, Mendon, Benzonia, and Vermontville were examined.

### The Instrument

The "Interview Form For Users of Preschool Resource Centers (PRC)" (Appendix A) was the questionnaire used by interviewers to record mothers' responses to materials, guidelines, and procedures used in conjunction with the PRCs. Information about their childrens' play was also recorded. The interview form was used to collect demographic data, occupational data, as well as data relevant to utilization of the preschool resource centers.

### Analysis

The data were analyzed using the Michigan State University computer facilities. The descriptive and statistical analyses were carried out primarily by utilizing the SPSS: Statistical Package for the Social Sciences (Nie, Hill, Jenkins, Steinbrenner, & Bent, 1975) programs and were run on a Control Data Corporation (CDC) 7500 Computer in 1980 and 1983.

In this study, frequency distributions are reported from these data. Chi-square analysis was used to compare demographic and descriptive data from the sample. Cross-tabulations were used to compare library locations with frequency of library visits, childrens' time spent playing each day, and amount of money spent by families each year on

toys for each child. Cross-tabulations were also used to compare responses from rural and small town users to frequency of times toys and games were borrowed from the PRC, frequency of library visits made by participating families, frequency of time children spent playing each day, value parents placed on play, and the amount of money parents spend on toys for each child during a year.

## CHAPTER IV

### THE RESULTS

Research questions were designed to determine participation in and utilization of preschool resource centers by rural and small town families by examining data collected previously from the "Interview Form For Users of Preschool Resource Centers". The total number of respondents was 133. However, not all families responded to all questions. Therefore, total responses may vary on some questions.

1. How often have families borrowed toys and games from the PRC?

Over half (53.4%) of the participating families (N=133) borrowed toys from the preschool resource centers eight or more times. Thirty-five families (26.3%) visited two to four times, while an equal number of respondents (9%) borrowed toys and games one time or five to seven times (Table 4).

2. How did families learn about toys and games in the library?

Families learned about toys and games in the libraries in various ways. As shown in Table 5, the majority of

Table 4. Frequency of Times Families Borrowed Toys and Games From the PRC.

Times Borrowed	N	%
No response	3	2.3
One time	12	9.0
2-4 times	35	26.3
5-7 times	12	9.0
8 or more times	71	53.4
<b>Total</b>	<b>133</b>	<b>100.0</b>

Table 5. How Families Learned About Toys and Games in the Library.

Learn About Toys	N	%
By visiting the library	83	62.4
Friend	19	14.3
Nursery school	10	7.5
Newspaper	10	7.5
Family member	6	4.5
Neighbor	3	2.2
Other children	1	.8
MSU	1	.8
<b>Total</b>	<b>133</b>	<b>100.0</b>

families discovered the toys and games by actually visiting the library itself. Word of mouth by friends was the second largest factor in introducing families to the toys and games. Other sources of information concerning the toys and games in the library included nursery schools (7.5%), newspaper ads (7.5%), family members (4.5%), neighbors (2.2%), other children (.8%) and advertisement through Michigan State University (.8%).

### 3. How frequently did families visit the library?

As shown in Table 6, most PRC participants (88%) visited the library at least once a month with 36% visiting the library at least once a week. Only 11.3% of the families visited the library less than once a month. Thus, the majority of the families made frequent visits to the preschool resource centers.

Table 6. Frequency of Library Visits By Families.

Visit Library	N	%
No Response	1	.8
Once a week	48	36.1
Every two weeks	34	25.6
Once a month	35	26.3
Other	15	11.3
Total	133	100.0

4. What PRC toys and games were favorites with the children?

Parents were asked to list the toys and games that were favorites with their children. Various types of blocks, including building blocks, Bristle Blocks, and puzzle blocks, were mentioned most frequently as favorites with the children (see Table 7). Puzzles were the second most frequently mentioned favorite toys, while animals, such as farm animals, zoo animals, and prehistoric animals were the third most frequently mentioned toys. Games, trucks, puppets, and cars were listed frequently, while peg and lace boards, stringing beads, and pots and pans were moderately popular.

Table 7. Ten Most Frequently Mentioned Toys.

Toy	Times Mentioned
Blocks	46
Puzzles	33
Animals	31
Games	28
Trucks	27
Puppets	22
Cars	19
Peg and Lace Board	9
Stringing Beads	8
Pots and Pans	8



5. Who plays with the child with the PRC toys?

Analysis of mothers' responses (N=133) to this question showed that 75.2% of the children did not play with the toys alone while 23.3% did play alone with the toys. As indicated in Table 8, a variety of other persons played with the children with the PRC toys. Friends, parents, and siblings played most often with the children with the PRC toys. Since some mothers mentioned more than one play companion for their children, the total number of responses is greater than 133.

Table 8. Persons Who Played With the Child With the PRC Toys.

Who Plays With Child	Times Mentioned
Friends	41
Parents	38
Siblings	35
Relative	17
Child-care aid	1
Teachers	1
Head Start children	1
Babysitter	1

6. What problems did families experience with any of toys?

Most of the respondents (77.4%) experienced no problems with the PRC toys. However, some families (21.1%) did indicate having some problems with some of the toys. The most frequently mentioned problems included borrowing toys that had missing pieces, losing pieces of toys, and finding that boxes containing some toys and games would fall apart. Some mothers indicated that many toys had too many pieces to keep track of and four mothers did not like bringing home breakable toys. Two mothers were concerned with having their infants put borrowed toys in their mouths because of the possibility of spreading germs. One mother had difficulty keeping the PRC toys apart from her own child's toys. Another mother had difficulty restricting her child to borrowing only one toy from the PRC at a time.

7. How much time did the children spend playing in general each day?

As shown in Table 9, 94.7% of the mother respondents (N=133) felt that their children spent at least two hours a day playing. Forty-seven respondents estimated that their children spent at least eight hours a day playing while only three reported that their children spent less than two hours a day playing in general.

8. How important do families feel play is for their child's development?

Most of the respondents (96.3%) indicated that play was very important or important for their child's development.

Only one respondent (N=133) felt that play was not important for the child's development (Table 10).

Table 9. Frequency of Time Children Spent Playing Each Day.

Playtime	N	%
No response	4	3.0
Less than 2 hours	3	2.3
2-4 hours	42	31.6
5-7 hours	37	27.8
More than 8 hours	47	35.3
Total	133	100.0

Table 10. How Families Value Their Children's Play.

Value Play	N	%
No response	3	2.3
Very important	111	83.5
Important	17	12.8
Somewhat important	1	.8
Not important	1	.8
Total	133	100.0

9. How much money is spent on toys for each child during a year?

As shown in Table 11, 42.7% (N=124) of the respondents spent \$26-50 on toys for each of their children a year. Only 18.5% spent \$101-200 per year on each child and 16.1% spent \$11-25 per year on each child. Three respondents spent less than \$10 and three respondents spent over \$200 per year on each child.

Table 11. Amount of Money Spent on Toys For Each Child During a Year.

Amount of Money	N	%
No response	2	1.6
Less than \$10	3	2.4
\$11-25	20	16.1
\$26-50	53	42.7
\$51-75	15	12.1
\$76-100	5	4.0
\$101-200	23	18.5
Over \$200	3	2.4
<b>Total</b>	<b>124</b>	<b>100.0</b>

Research questions concerning the comparison of responses by mothers living in rural communities and in small towns were also investigated.

1. Do families in small towns visit the PRC more frequently than rural families?

A comparison of PRC visits by rural and small town families is shown in Table 12. Chi-square analysis was used to indicate whether or not a relationship existed between the two groups. From these data, there is no statistical evidence that small town families visit the PRC more frequently than rural families.

Table 12. PRC Visits By Rural and Small Town Families.

Visit Library	Rural	%	Small Town	%
No response	0	0.0	1	1.5
Once a week	24	38.1	23	34.9
Every two weeks	14	22.2	19	28.8
Once a month	19	30.2	15	22.7
Other	6	9.5	8	12.1
Total	63	100.0	66	100.0

Chi square = 2.46672      df = 4       $p \leq .6506$       N = 129

2. Do families in small towns borrow toys and games from the PRC more often than rural families?

This question concerns the number of times toys and games were borrowed from the PRCs by rural and small town families. As indicated in Table 13, there is no relationship between these two groups. The data do not suggest that families in small towns borrow toys and games from the PRCs more often than rural families ( $p \leq .9036$ ). More than half of both the rural and small town families

visited the PRCs eight or more times.

Table 13. Number of Times Toys Are Borrowed By Rural and Small Town Families.

Times Borrowed	Rural	%	Small Town	%
No response	1	1.6	2	3.0
One time	4	6.3	6	9.1
2-4 times	17	27.0	18	27.3
5-7 times	7	11.1	5	7.6
8 or more times	34	54.0	35	53.0
Total	63	100.0	66	100.0

Chi square = 1.04053      df = 4       $p \leq .9036$       N = 129

3. Do parents in small towns play more frequently with their children with the PRC toys than rural parents?

Chi-square analysis was used to determine the relationship between rural and small town parents in regard to playing with their children with the PRC toys. A high percentage of rural (85.7%) and small town (87.9%) parents played with their children with the PRC toys. Thus, there is no evidence from these data that parents in small towns play more frequently with their children with the PRC toys than rural parents (Table 14).

4. Do small town children spend more time playing in general each day than rural children?

As shown in Table 15, no relationship exists between rural and small town children in regard to amount of time

Table 14. Rural and Small Town Parents Who Play With Their Children With The PRC Toys.

Parents Play	Rural	%	Small Town	%
No response	1	1.6	1	1.5
Yes	54	85.7	58	87.9
No	8	12.7	7	10.6
Total	63	100.0	66	100.0

Chi square = .13983      df = 2       $p \leq .9325$       N = 129

Table 15. Playtime Spent Each Day By Rural and Small Town Children.

Playtime	Rural	%	Small Town	%
No response	2	3.2	1	1.5
Less than 2 hours	3	4.8	0	0.0
2-4 hours	16	25.4	25	37.9
5-7 hours	18	28.5	18	27.3
More than 8 hours	24	38.1	22	33.3
Total	63	100.0	66	100.0

Chi square = 5.32901      df = 4       $p \leq .2552$       N = 129

spent playing in general each day. Analysis of this data indicates that there is no difference in the amount of time rural and small town children spend playing each day.

5. Do small town families spend more money on toys for each child during a year than rural families?

Rural and small town responses (N=120) to this question were also similar. Almost half of the rural respondents (45.8%) and small town respondents (41%) spent \$26-50 on toys for each child during a year. Based on the results of Chi-square analysis, no relationship is shown to exist between the two groups in regard to the amount of money spent on toys per year (Table 16).

Comparisons of responses based on the library locations of Benzonia, Pigeon, Mendon and Vermontville were examined concerning these research questions.

1. What is the frequency of families borrowing toys and games in each of the PRC library locations?

A relationship does exist between the two variables indicated in Table 17 at the .0003 level. The majority of family respondents (61.2%) visiting the PRC in Pigeon did so at least once a week. Families visiting the PRCs located in Benzonia, Mendon and Vermontville showed a more evenly distributed frequency of library visits from once a week to once a month or less.

2. How much time do the children spend playing in general each day in each of the PRC library locations?



Table 16. Amount of Money Spent Per Child On Toys By Rural and Small Town Families.

Amount of Money	Rural	%	Small Town	%
No response	0	0.0	1	1.6
Less than \$10	3	5.1	0	0.0
\$11-25	9	15.3	11	18.0
\$26-50	27	45.8	25	41.0
\$51-75	8	13.6	6	9.8
\$76-100	2	3.4	3	4.9
\$101-200	9	15.3	13	21.3
Over \$200	1	1.7	2	3.3
<b>Total</b>	<b>59</b>	<b>100.0</b>	<b>61</b>	<b>100.0</b>

Chi square = 5.79152    df = 7     $p \leq .5643$     N = 120

Table 17. Frequency of Families Borrowing Toys and Games in Each of the PRC Library Locations.

Library Visits	Benzonia %	Pigeon %	Mendon %	Vermontville %
Once a week	5 16.1	30 61.2	4 19.0	9 29.0
Every two weeks	10 32.3	9 18.4	9 42.9	6 19.4
Once a month	9 29.0	7 14.3	8 38.1	11 35.5
Other	7 26.6	3 6.1	0 0.0	5 16.1
Total	31 100.0	49 100.0	21 100.0	31 100.0

Chi square = 30.90 df = 9 p < .001 N = 132

A relationship also exists between the variables of playtime and library locations at the .065 level. As shown in Table 18, the majority of participating PRC children in Benzonia (65.4%) spent more than 8 hours a day playing in general each day. Children visiting the PRCs in Pigeon, Mendon and Vermontville tended to vary the amount of time spent playing in general each day from two hours to more than eight hours.

3. How much money is spent by families on toys for each child during a year in each of the PRC library locations?

No relationship exists between PRC library locations and the amount of money spent by families on toys for each child during a year. In each of the four locations, the highest percentage of respondents in each group spent between \$26 and \$50 per year for each child. The lowest percentage of respondents from each library location spent between \$75 and \$100 per year on toys for each child (Table 19).

Table 18. Amount of Time Children Spend Playing in General Each Day in Each of the PRC Library Locations.

Playtime	Benzonia %	Pigeon %	Mendon %	Vermontville %
2-4 hours	6	17	8	11
5-7 hours	3	16	7	11
More than 8 hours	17	16	6	8
Total	26	49	21	30
	100.0	100.0	100.0	100.0

Chi-square = 11.86 df = 6  $p \leq .065$  N = 126

Table 19. Amount of Money Spent by Families on Toys for Each Child During a Year in Each of the PRC Library Locations.

Amount of Money	Benzonia %	Pigeon %	Mendon %	Vermontville %
\$11-25	4 17.4	8 17.0	4 21.0	4 14.8
\$26-50	14 60.9	15 31.9	10 52.6	14 51.9
\$51-75	2 8.7	9 19.2	1 5.3	3 11.1
\$76-100	1 4.3	3 6.4	0 0.0	1 3.7
\$101-200	2 8.7	12 25.5	4 21.1	5 18.5
Total	23 100.0	47 100.0	19 100.0	27 100.0

Chi-square = 10.00 df = 12 p < .616 N = 116

## CHAPTER V

### SUMMARY, DISCUSSION AND IMPLICATIONS

#### Summary

The role of the caregiver as an influence on a young child's cognitive development has been widely researched since the early 1960's. In the early years, the essential element in stimulating the intellectual and conceptual development of children is parent involvement. Play objects have also been found to play an important part in the young child's development as well as programs designed to train parents to foster the intellectual development of their children, essentially by promoting verbal interaction.

Toy lending libraries have helped parents provide intellectual stimulation for their young children during a critical period in their lives by providing a variety of toys that may not be affordable to parents. They can also offer guidelines in using these toys to stimulate infants and young children, thus promoting parent-child interactions.

Rural areas have been found to be generally lacking in providing programs for young children. A need for programs aimed at increasing the intellectual stimulation and social interaction of rural preschool children has been established. Because of this need to assist rural families

in providing intellectual stimulation for their preschool children, the Michigan State University Agricultural Experiment Station funded a project which began in January 1974, entitled, "Development of Guidelines for Creating Preschool Resource Centers", the purpose of which was to create a preschool resource center (PRC) in selected libraries from which parents could obtain materials to strengthen their preschool child's skill development.

Data were collected from four of the six preschool resource centers developed as a result of this project: Pigeon, Mendon, Vermontville and Benzonia, Michigan. One-hundred thirty-three (133) PRC participants were interviewed concerning their use of materials, guidelines and their knowledge about their children's play. This study used this previously collected data to compare responses of small town and rural families using the preschool resource centers in Pigeon, Mendon, Vermontville and Benzonia, Michigan, by analyzing participant mothers' responses to the Interview Form For Users of Preschool Resource Centers. Research questions about participation and utilization of PRCs were asked. Rural and small town mothers' responses were compared as well as responses based on library locations. Comparative responses were analyzed using Chi-square analysis and cross-tabulations.

#### Discussion of Findings

Participation in and utilization of preschool resource centers by rural and small town families was determined by

tallying responses to the "Interview Form For Users of Preschool Resource Centers". More than half of the family participants (53.4%) borrowed toys and games eight or more times which indicates that families felt the experience worth continuing. Since 62.4% of the participants learned about the PRCs through their regular library visits, more than half of the participants were already concerned about utilizing out-of-home resources for their children. Further interest in visiting PRCs would need to be generated in families who may not already visit libraries regularly.

Traditional toys seemed to be the most popular among children participants. Blocks, puzzles, animals, games, trucks, puppets and cars were mentioned most frequently as favorites. Dolls were mentioned only twice as a favorite toy. The Interview Form did not distinguish sexes of participant children. However, a rough tally of names indicated that approximately 55% of the participating children were boys and approximately 45% were girls. Further investigation is needed to draw inferences about favorite toys for each sex.

Since the purpose of the PRCs was to promote parent-child interactions through the use of borrowed toys, it was important to determine who played with the participating children with the PRC toys. Most frequently mentioned were friends, parents and siblings. Additional incentive for parents may be needed in order to increase their involvement with their children with the PRC toys. Most frequently



mentioned play partners were friends, which supports Hess et al., (1971) notion that positive effects of parenting programs tend to spread to children in the neighborhood who are not involved in the program.

Most participating families (96.3%) felt that play was important for their child's development. The high regard for play on the part of these parents may have been their motivation for visiting a PRC. In other words, parents who value their children's play would perhaps be more likely to visit a PRC than parents who do not value their children's play. Although most participating parents valued their children's play, over half (63%) spent less than \$50 per year on toys for each child during a year.

Chi-square analysis was used to compare rural and small town participant responses to selected research questions. No significant differences were found between rural and small town responses to these research questions. Families in small towns did not seem to visit the PRCs more frequently than rural families. The lack of significant differences may be explained by the mobility that exists in society today. Families in small towns did not borrow toys and games from the PRC more often than rural families. The majority of families from both rural areas (54%) and small towns (53%) borrowed toys eight or more times. Parents from small towns (N=58) also did not seem to play more with their child with the PRC toys than did rural parents (N=54). A high majority of parents from both groups (rural=85.7%,

small town=87.9%) played with their children with the PRC toys. Though the extent of interaction is unknown, this finding does indicate that most participating parents were involved in their children's play through the use of PRC toys. There was no significant difference in the amount of time spent in play by participating rural and small town children. Also, small town families did not spend more money on toys for each child during a year than rural families. Thus, no significant differences were found between rural and small town responses to the research questions posed.

Chi-square analysis was also used to compare responses of participants from the four library locations to three research questions. Families visiting the PRC in Pigeon, Michigan, borrowed toys and games more frequently than families from Benzonia, Mendon and Vermontville, Michigan. Part of this difference may be explained by the length of time this PRC was in existence. The Pigeon library received toys and games in 1974, whereas the other locations were provided with materials in 1977-1979. Greater familiarity with the program may explain why Pigeon participants visited their PRC more frequently. Children attending the Benzonia PRC tended to spend more time playing in general each day than children visiting the other three preschool resource centers. No explanation is available for this trend. No difference was found in the amount of money spent by families on toys for each child during a year in each of the

library locations.

The findings of this study may not be generalized to other geographical areas. This is, therefore, a limitation of this study. Generalizations about the data are applicable to families borrowing toys from the Benzonia, Mendon, Pigeon and Vermontville PRCs only. Responses to the questionnaire may or may not be the same in other areas.

#### Implications for Further Research

Continued research is needed to determine the extent of the influence of preschool resource centers on parent-child interaction. Amount of interaction should be measured before and after use of the PRC. Amount of time parents spend playing with their children should also be measured before and after participation in a program such as this.

Research studies should also be designed to test the preschool child's cognitive skills before and after participation in a preschool resource center. A change in the child's environment (i.e., addition of a PRC to the local environment) should result in a change in a child's intellectual development, if the goals of the PRC are being met.

Support for the hypothesis that use of the PRC would result in an increase in the time a child spends playing each day, is also needed. Research is needed to determine whether or not an increase in a child's playtime improves the child's cognitive skills.

To help promote parent-child interactions, parents should be encouraged to use suggestion sheets which are available for each toy. Effectiveness of suggestion sheets could be determined by comparing parents who use them with parents who do not use them in terms of time spent playing with their child.

Differences in utilization of preschool resource centers by urban and rural children and their families should also be determined. Would the same patterns of borrowing toys, spending money on toys, and time spent playing in general by children occur with rural and urban children as it did with small town and rural children?

Finally, use of preschool resource centers should be expanded to school age children. School age children could benefit from toys and games which reinforce cognitive skills and promote social interaction with their parents and peers. Research studies could be designed to determine benefits acquired by these children, after use of a preschool resource center.

## **APPENDIX**

**APPENDIX A**

**INTERVIEW FORM FOR USERS OF PRESCHOOL RESOURCE CENTERS**

ID# \_\_\_\_\_

INTERVIEW FORM  
FOR  
USERS OF PRESCHOOL RESOURCE CENTERS (PRC)

To be completed by Interviewer before or after interview:

Name \_\_\_\_\_

Address \_\_\_\_\_

Lives: \_\_\_\_\_ farm  
\_\_\_\_\_ in country, not on farm  
\_\_\_\_\_ in town (small - under 2500)  
\_\_\_\_\_ in town (between 2500 and 5000)  
\_\_\_\_\_ in town (between 5,000 and 10,000)

Occupation of Father \_\_\_\_\_

Occupation of Mother \_\_\_\_\_

\_\_\_\_\_ To be obtained in the interview:  
\_\_\_\_\_

Name(s) of child(ren) using PRC:

1. \_\_\_\_\_ age \_\_\_\_\_
2. \_\_\_\_\_ age \_\_\_\_\_
3. \_\_\_\_\_ age \_\_\_\_\_
4. \_\_\_\_\_ age \_\_\_\_\_

How often have you borrowed toys and games from the PRC?

\_\_\_\_\_ only one time \_\_\_\_\_ five to seven times  
\_\_\_\_\_ two-four times \_\_\_\_\_ eight or more times

How did you learn about the toys and games in the library? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

How often do you visit the library?

\_\_\_\_\_ once a week

\_\_\_\_\_ every two weeks

\_\_\_\_\_ once a month

\_\_\_\_\_ other (specify)

When you first visited the library, what was your reason for going?

---

What toys and games have been favorites with your child(ren)? (If possible, determine which child liked which toys when more than one child is involved.)

<u>Toys and Games</u>	<u>Name of Child who liked the toy</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Does anyone play with your child with the toys you have borrowed?

Yes \_\_\_ No \_\_\_. If yes, who? \_\_\_\_\_

Have you played with your child with any of the toys? Yes \_\_\_ No \_\_\_  
If yes, in what way and how often?

---

Suggestion sheets for ways to use the toys and games have been developed for some of the toys. Have you seen or used any of these sheets? Yes \_\_\_ No \_\_\_

If not, would you be interested in having a page of ideas for ways to use each toy or game? Yes \_\_\_ No \_\_\_

Comments

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Many children have enjoyed the puppets. Did your child(ren) borrow the puppets? \_\_\_\_\_ If yes, how did they play with them? \_\_\_\_\_

Have you had any problems with any of the toys? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, what kinds of problems have you had? \_\_\_\_\_

Do you have some suggestions for additional toys or books which you would like to have available for your preschool child?

Toys & Games

Books

- |    |       |       |
|----|-------|-------|
| 1. | _____ | _____ |
| 2. | _____ | _____ |
| 3. | _____ | _____ |

How much time do(es) your child(ren) spend playing each day?

\_\_\_\_\_ less than 2 hrs.

\_\_\_\_\_ 2 to 4 hrs.

\_\_\_\_\_ 5 to 7 hrs.

\_\_\_\_\_ more than 8 hrs.

How important do you feel play is for the child's development?

\_\_\_\_\_ very important

\_\_\_\_\_ somewhat important

\_\_\_\_\_ important

\_\_\_\_\_ not important

Would you be interested in learning more about play and toys through workshops or meetings? Yes \_\_\_\_\_ No \_\_\_\_\_

Comments: \_\_\_\_\_

When do you buy toys for your children? \_\_\_\_\_

How much money do you spend on toys for each child during a year? \_\_\_\_\_

Some people have suggested adding toys and games for school-age children and adults to borrow from the library. What do you think of that suggestion? \_\_\_\_\_

Do you have any additional comments about the Preschool Resource Centers? \_\_\_\_\_

The original set of toys and games for the PRC was donated by a project at Michigan State University. The community is responsible for maintaining and adding to the original set. Do you have ideas of ways which additional funds could be obtained for this project?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## **BIBLIOGRAPHY**

## BIBLIOGRAPHY

- Ahr, A.E., & Simons, B. Parent handbook: Developing your child's skills and abilities at home. Skokie, IL: Priority Innovations, Inc. 1968. (ERIC Document Reproduction Service No. ED 036 327).
- ARK, The Journal of the Toy Libraries Association. Seabrook House, Wyllyotts Manor, Darkes Lane, Potters Bar, Herts England. Autumn 1977 and Summer 1977. In Evans, J., & Stewart, P. Toys: More than trifles for play. Austin, Texas: Southwest Educational Development Laboratory, 1980. (ERIC Document Reproduction Service No. ED 192 884).
- Bass, G., & Berman, P. Federal aid to rural schools: Current patterns and unmet needs. Santa Monica, CA: The Rand Corporation, 1979.
- Baumrind, D. Child care patterns anteceding three patterns of preschool behavior. Genetic Psychology Monographs, 1967, 75, 43-88.
- Bell, T.H. School leadership and the community. Paper presented at the annual meeting of the National Association of Elementary School Principles, Minneapolis, April 1975. (ERIC Document Reproduction Service No. ED 111 525).
- Bing, E. Effect of childrearing practices on development of differential cognitive abilities. Child Development, 1963, 34, 631-648.
- Bloom, B.S. Stability and change in human characteristics. New York: Wiley, 1964.
- Bradley, R.H. & Caldwell, B.M. Early home environment and changes in mental test performance in children from 6 to 36 months. Developmental Psychology, 1976, 12, 93-97.
- Bradley, R.H., Caldwell, B.M., & Elardo, R. Home environment and cognitive development in the first 2 years: A cross-lagged panel analysis. Developmental Psychology, 1979, 15(3), 246-250.
- Bronfenbrenner, U. Is early intervention effective? Vo. II, DHEW Publication No. (OHD) 74-25, 1974.

- Brophy, J. Mothers as teachers of their own preschool children: The influence of socioeconomic status and task structure on teaching specificity. Child Development, 1970, 41, 79-94.
- Bruner, J. The process of education. Cambridge, Mass: Harvard University Press, 1961.
- Bubolz, M. Family adjustment under community decline. In Whiting, L.R. (Ed.) Communities left behind: Alternatives for development. The Iowa State University Press; Ames, Iowa, 1974.
- Bubolz, M., Eicher, J., & Sontag, M. The human ecosystem: A model. Journal of Home Economics, Spring 1979, 28-31.
- Building concepts through verbal interaction: The key to future success in school? Carnegie Quarterly, Winter 1979, 27,(1), 1-4.
- Canadian Association of Toy Libraries Newsletter. Toronto, Ontario, Canada, Winter, 1978. In Evans, J., & Stewart, P. Toys: More than trifles for play. Austin, Texas: Southwest Educational Development Laboratory, 1980. (ERIC Document Reproduction Service No. ED 192 884).
- Carew, J.V. Effective home learning environments in the preschool years. New York, N.Y.: Carnegie Corp., 1976. (ERIC Document Reproduction Service No. ED 125 759).
- Chodorkoff, J.R. Infant development as a function of mother-child interaction. Unpublished doctoral dissertation, Wayne State University, 1960.
- Clarke-Stewart, K.A. Interactions between mothers and their young children: Characteristics and consequences. Monographs of the Society for Research in Child Development, 1973, 38, (6-7, Serial No. 153).
- Cowan, E.L. Personal communication, 1973. In Newman, B. and Neuman, P., Infancy and childhood. New York, New York: John Wiley and Sons, 1978.
- Dallman, M., Rouch, R.L. Char, L.Y., & DeBoer, J.J. The teaching of reading. New York: Holt, Rinehart and Winston, 1978.
- Deverell, A.E. Teaching children to read and write. Toronto: Holt, Rinehart and Winston of Canada, 1973.

- Duff, R.E., Heinz, M.C. & Husband, C.L. Toy lending library: Linking home and school. Young Children, May 1978, 33(4), 16-22.
- DuPan, R.M. & Roth, S. The psychologic development of a group of children brought up in a hospital-type residential nursery. Journal of Pediatrics, 1955, 47, 124-129.
- Dusewicz, R.A., & O'Connell, M. The Pennsylvania Research in Infant Development and Education Project. Washington, D.C.: Office of Education (DHEW), 1973. (ERIC Document Reproduction Service No. ED 103 094).
- Earhart, E. Creating preschool resource centers. Children Today, 1980, 9, 16-18.
- Elardo, R., Bradley, R.H., & Caldwell, B.M. The relation of infants' home environment to mental test performance from six to thirty-six months: A longitudinal analysis. Child Development, 1975, 46, 71-76.
- Elkind, D. & Weiner, I.B., Development of the Child, New York: New York, John Wiley & Sons, Inc., 1978.
- Evans, J., & Stewart, P. Toys: More than trifles for play. Austin, Texas: Southwest Educational Development Laboratory, 1980. (ERIC Document Reproduction Service No. ED 192 884).
- Flavell, J.H. Cognitive development, Englewood Cliffs: Prentice-Hall, Inc., 1977.
- Ford, T.R. (Ed.). Rural U.S.A.: Persistence and change. Ames, Iowa: The Iowa State University Press, 1978.
- Fowler, W., & Swenson, A. The influence of early stimulation on language development. Paper presented at the Biennial Meeting of the Society for Research in Child Development: Denver, 1976. (ERIC Document Reproduction Service No. ED 115 363).
- Fratoe, F.A. Rural education and rural labor force in the seventies. Rural Development Research Report No. 5. Economics, Statistics, and Cooperative Service. Washington, D.C.: U.S. Department of Agriculture, 1978.
- Gilford, D.M., Nelson, G.L., & Ingram, L. Rural America in passage: Statistics for policy. Washington, D.C.: National Academy Press, 1981.

- Goldberg, R.J. Maternal time use and preschool performance. Paper presented at the biennial meeting of the Society for Research in Child Development: New Orleans, 1977. (ERIC Document Reproduction Service No. ED 154 909).
- Goldberg, S., & Lewis, M. Play behavior in the year-old infant: Early sex differences. Child Development, 1969, 40, 21-31.
- Goldfarb, W. Effects of psychological deprivation in infancy and subsequent stimulation. American Journal of Psychology, 1945, 102, 18-33.
- Goodson, B., & Hess, R.D. The effects of parent training programs on child performance and parent behavior. Unpublished manuscript, Stanford University, 1976.
- Gordon, I.J. Early child stimulation through parent education. A final report to the Children's Bureau, U.S. Department of Health, Education, and Welfare, June 1969.
- Haller, A.D. What constitutes quality of living? In The quality of rural living; Proceedings of a workshop. Washington, D.C.: National Academy of Sciences, 1971.
- Hektoen, F. & Rinehart, J. Toys to go. Chicago: Ill., American Library Association, 1976.
- Hess, R., Block, M., Costello, J., Knowles, R. & Larguy, D. Parent involvement in early education. In E. Grotberg (Ed.) Day care: Resources for decisions. Washington, D.C.: Day Care Council of America, 1972.
- Hess, R., & Shipman, V. Cognitive elements in maternal behavior. In J. Hill (Ed.) Minnesota symposia on child psychology (Vol. 1). Minneapolis: University of Minnesota Press, 1967, 57-82.
- Hess, R., & Shipman, V. Early experiences and the socialization of cognitive modes in children. Child Development, 1965, 36, 869-886.
- Hollingshead, A.B. The two factor index of social position. New Haven, Conn.: Yale University Press, 1957.
- Hordezky, B. Family forces for preschool development of health, vocabulary and perceptual skills. Paper presented at the annual meeting of the International Reading Association World Congress on Reading: Hamburg, West Germany, 1978. (ERIC Document Reproduction Service No. ED 166 664).

- Hunt, J. Intelligence and experience. New York: Ronald Press, 1961.
- Huntinger, P.L. You can make it: You can do it (A group of toys and games to make). Washington, D.C.: Bureau of Education for the Handicapped (DHEW/OE), 1978. (ERIC Document Reproduction Service No. ED 180 162).
- Iitaka, K., & Sano, R. Early language development in the first two years: A longitudinal study of 10 children. Tokyo, Japan: The Research Institute for the Education of Exceptional Children, 1980. (ERIC Document Reproduction Service No. ED 215 757).
- Irwin, O.C. Infant speech: Effect of systematic reading of stories. Journal of Speech and Hearing Research, 1960, 3, 187-190.
- Isenberg, R.M. Quality of rural education in the United States. In The quality of rural living: Proceedings of a workshop. Washington, D.C.: National Academy of Sciences, 1971.
- Jones, P. Home environment and the development of verbal ability. Child Development, 1972, 43, 1081-1086.
- Kagan, J. Change and continuity in infancy. New York: Wiley, 1971.
- Karnes, M.B., Teska, J.A., Hodgins, A.S. & Badger, E.D. Educational intervention at home by mothers of disadvantaged infants. Child Development, 1970, 41, 925-935.
- Kerlinger, F. Foundations of behavioral research. New York: Holt, Rinehart & Winston, 1964.
- Right, J. The story behind toys 'n things. Day Care and Early Education, 1976, 3(5), 15-17.
- Levenstein, P. Cognitive growth in preschoolers through verbal interaction with mothers. American Journal of Orthopsychiatry, 1970, 40, 426-432.
- Levenstein, P. Learning through (and from) mothers. Childhood Education, December 1971, 46, 130-134.
- Levenstein, P., & Sunley, R.M. Aiding cognitive growth in disadvantaged preschoolers. Washington, D.C.: Children's Bureau (DHEW), 1968. (ERIC Document Reproduction Service No. ED 059 792).



- Lewis, M., & Wilson, C.D. Infant development in lower class American families. Paper presented at the biennial meeting of the Society for Research in Child Development, Minneapolis, April 1971.
- Marjoribanks, K. Families and their learning environment. London: Routledge & Kegan, Paul, 1979.
- Melson, G. Family and environment: An ecosystem perspective. Minneapolis: Burgess Publishing, 1980.
- Milner, E. A study of the relationship between reading readiness in grade one school children and patterns of parent-child interaction. Child Development, 1951, 22, 95-112.
- Moore, S. Mother-child interactions and competence in infants and toddlers. Young Children, March 1977, 64-69.
- McNelis, J.R. A practical guide for planning and operating a toy lending library. Rockville, MD: National Institute of Mental Health (DHEW), 1974. (ERIC Document Reproduction Service No. ED 145 962).
- Nagel, C. Parent involvement in preschool education: Project I.D.E.A. at home. Project No. 0478, Santa Barbara County Schools, 1972.
- Nie, N.H., Hill, C.H., Jenkins, J.G. Steinbrenner, K. & Bent, D.H. SPSS: Statistical package for the social sciences. New York: McGraw Hill, Inc., 1975.
- Nimnicht, G.P., & Brown, E. The toy library: Parents and children learning with toys. Young Children, 1972, 28(2), 110-116.
- Poe, L.F., Caboodles of toys. Day Care and Early Education, 1975, 3(1), 26-27.
- Poe, L.F., & Taglauer, A. Toy-lending library training model. 1975. (ERIC Document Reproduction Service No. ED 013 371).
- Poresky, R.H., & Henderson, M.L. Infants' mental and motor development: Effects of home environment, maternal attitudes, marital adjustment, and socioeconomic status. Perceptual and Motor Skills, 1982, 54, 695-702.

- Porter, R. The effect of preschool experience and family environment on children's cognitive and social development. Early Child Development and Care, 9, 155-174.
- Pringle, M.L.K. & Tanner, M. The effects of early deprivation on speech development: A comparative study of 4-year-olds in a nursery school and in residential nurseries. Language and Speech, 1958, 1, 269-287.
- Provence, S., & Lipton, R.C. Infants in institutions. New York: International Universities Press, 1962.
- Rheingold, H.L. The modification of social responsiveness in institutional babies. Monographs of the Society for Research in Child Development, 1956, 21, (2, Serial No. 63.).
- Rosenfeld, A.H. Cultural enrichment by means of a toy library. Parent-child Program Series, Report No. 2. Rockville, MD: Center for Studies of Child and Family Mental Health, 1978. (ERIC Document Reproduction Service No. ED 013 371).
- Rubenstein, J. Maternal attentiveness and subsequent exploratory behavior in the infant. Child Development, 1967, 38, 1089-1100.
- Rutter, M. Maternal deprivations, 1972-1978: New findings, new concepts, new approaches. Child Development, 1979, 50, 283-305.
- Schaefer, E.S., Furfey, P.H., & Harte, T.J. Infant education research projects, Washington, D.C. In Preschool program in compensatory education. No. 1. Washington, D.C.: Government Printing Office, 1968.
- Schenk-Danzinger, C. Social difficulties of children who were deprived of maternal care in early childhood. Vita humana, 1961, 4, 229-241.
- Schleicher, K. The use of television in pre-school education in sparsely-populated areas. Strasbourg: Council of Europe, 1977.
- Sher, J.P. (Ed.) Rural education in urbanized nations: Issues and innovations. Boulder, Colorado: Westview Press, 1981.
- Slaughter, D. Early intervention, maternal development and children's play. 1980. (ERIC Document Reproduction Service No. ED 198 917).

- Smardo, F.A. An analytical study of the recommendations of early childhood education authorities with regard to the role of the public library in serving children from infancy to six years of age. 1978. (ERIC Document Reproduction Service No. ED 160 222).
- Stern, G.G., Caldwell, B.M., Hersher, L., Lipton, E.L., & Richmond, J.B. A factor analytic study of the mother-infant dyad. Child Development, 1969, 40, 163-181.
- Stevenson, H.W. Longitudinal study of individual differences in cognitive development. Journal of Educational Psychology, 1976(b), 68, 377-400.
- Streissguth, A.P., & Bee, H.L. Mother-child interactions and cognitive development in children. Young Children, 1972, 154-172.
- The quality of rural living: Proceedings of a workshop. Washington, D.C.: National Academy of Sciences, 1971.
- Together is best: Families and schools. Washington, D.C.: Office of Education (DHEW), 1976. (ERIC Document Reproduction Service No. ED 178 159).
- Toy lending library. Saturday Review of Education. February, 1973, 1(1), 50.
- Toybrary-A toy lending library for parents and children. Washington, D.C.: Bureau of Education for the Handicapped, 1978. (ERIC Document Reproduction Service No. ED 161 228).
- Walters, R.H., & Parke, R.D. The role of the distance receptors in the development of social responsiveness. Advances in Child Development, 1965, 2, 59-96.
- Wells, G. Language and learning: Talk between adults and children at home and at school. Paper presented at the annual meeting of the International Congress of Psychology: Leipzig, 1980. (ERIC Document Reproduction Service No. ED 207 105).
- Whiren, A. The effects of parent education on parental knowledge about and attitudes towards children's play. Unpublished Ph.D. dissertation, Michigan State University, 1976.
- White, B. The first three years of life. Englewood Cliffs: Prentice-Hall, 1975.

- White, B, Kaban, B., & Attanucci, J. The origins of human competence. Lexington: Massachutts, D.C. Heath and Company, 1979.
- White, B. & Watts, J. Experience and environment: Major influences on the development of the young child (Vol. I). Englewood Cliffs: Prentice-Hall, 1973.
- Whiting, L.R. (Ed.) Communities left behind: Alternatives for Development. The Iowa State University Press; Ames, Iowa, 1974.
- Yarrow, L.J., & Goodwin, M.S. Some conceptual issues in the study of mother-infant interaction. American Journal of Orthopsychiatry, 1965, 35, 473-481.
- Yarrow, L.J. Research in dimensions of early maternal care. Merril-Palmer Quarterly, 1963, 9, 101-114.
- Yarrow, L.J., Rubenstein, J.L., Pedersen, F.A., & Jankowski, J.J. Dimensions of early stimulation: Differential effects on infant development. Merrill-Palmer Quarterly, 1972, 18, 205-218.

