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HOME PROVISIONS AND PRACTICES ENCOURAGING INDEPENDENCE IN
THREE-YEAR OLD CHILDREN: A Comparison between Twenty
Nursery School and Twenty Non-Nursery
School Families

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HOME PROVISIONS AND PRACTICES ENCOURAGING INDEPENDENCE IN
THREE-YEAR OLD CHILDREN: A Comparison Between Twenty
Nursery School And Twenty Non-Nursery
School Families

by

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CHAPTER I

INTRODUCTION

The ultimate aim of nursery education is to help each child gain the understandings and techniques he may need to aid him in his acceptance of himself and in his adjustment to his environment. Over the years, the conscientious nursery school teacher has developed a philosophy of education as well as particular techniques to use in striving toward these goals. However, it is believed that the home has more influence upon the development of children's personalities than does any place for temporary care of the young. It is at home where strong affectional bonds exist between parents and child and it is usually there that the child spends most of his waking day.

Since the nursery school is a group situation, attention to the needs of the individual child must often be considered in terms of the effect of his guidance upon the other children. In the home, the child's needs may be attended to more readily and without the consideration of a number of other children at his same level of maturation. However, many of the techniques of guidance used by the nursery school teacher could be adapted easily to the home environment to make it a more pleasurable place for the development of children. Teachers in nursery schools may often wonder if these techniques used so effectively by the school staff are observed by the parents and modified for use in the home.

Several ways present themselves to aid parents in adapting these successful nursery school methods for use in home situations. Some nursery schools caring for two to five year olds have initiated parent education programs including discussion groups, lectures, and parent-

teacher conferences concerning individual children. Other schools, which have become increasingly common the past few years are the co-operative nursery schools. These schools are often organized for the purpose of bringing the benefits of preschool education within the means of parents having limited incomes. Consequently the trained staff must be relatively small. Perhaps only one nursery school teacher guides the group of cooperating families who usually share the other teaching responsibilities as well as contribute to the additional conduct of the school. It is in these nursery schools with such an educational program that parents are most apt to have the greatest opportunity to see accepted nursery school techniques in practice. However, the effect of parent education programs upon parental practices has not as yet been conclusively established by research in the field. This information would undoubtedly be of value in organizing such a program or in revising one already in use.

In early research, studies of preschool children were usually made in nursery schools or in similar institutions having a comparatively controlled environment. Few investigators went directly into the home for observations of parents or children. The emphasis of research at that time was not on family interrelationships but upon physical and motor development of children. Studies of this type were easily adapted to the group situation. With psychological and social development gaining more prominence in the field of research, interest has grown as to how a child might react in the environment in which he is most familiar -- the home. The use of the home as a laboratory for

study has innumerable possibilities as well as many pitfalls. Lafore considers the home visit a successful method for collecting data regarding parent-child relationships:

"The variations in parent behavior caused by the presence of a stranger in the home are less than those which would occur outside the home, and despite the drawbacks, observance in the home gives a truer picture of parent behavior than does observance anywhere else."¹

In the study reported in this paper, although the home was the environment used for the collection of data, actual parent-child interaction was not under consideration. Rather, the purpose of the study was to determine if contacts of families with a cooperative nursery school were related to provisions and practices in the home stimulating independence of children in specific areas. The supposition was made that nursery schools might give parents an opportunity to learn child guidance techniques in two main ways. The first more obvious way was through observation by the parents in the school environment. Without expending a great deal of time, parents could see the quality of toys, the arrangements made for eating, toileting and playing as well as facilities for the storage of children's toys, books and clothing. The second factor, less tangible, was the gaining of an appreciation of the philosophy and practices of the nursery school education, including techniques used by the teaching staff to guide the child in his growth toward independence.

The encouragement of independent action in routines also seems to be related to parent-child relationships. Lafore, in her ob-

¹Gertrude Lafore, Practices of Parents in Dealing with Pre-School Children (New York: Teachers College, Columbia University), p. 4.

servation of parents and children in their respective homes implied that:

"It seems where time and effort were spent in encouraging motor skill, particularly if the motor skills were related to routine activity, less time and effort were needed for routine contacts. If this is generally true, parents, by encouraging motor skill, can relieve themselves of daily tasks and increase the independence of their children as well as relieve the tension and resistance usually found in routine situations".²

In limiting the field in the investigation reported in this paper, it was believed desirous to consider situations which were daily routines or materials which might be used daily by the children. Those areas considered were play materials and books; clothing; eating facilities; and toileting facilities, approached from their relation to the independence exhibited by the child in making use of them.

At Michigan State College, where this research was conducted, some unique housing accommodations exist. A great proportion of married student veterans living on the campus are housed in barracks apartments. Although the number of bedrooms may vary from none to two, the apartments when grouped according to this classification have uniform size and arrangement of rooms. Thus the interior furnishings making the homes more livable for family members depend upon the parents' ingenuity.

Families with children have the responsibility of adapting these relatively stereotyped housing arrangements to the needs of their youngsters. Tessie Agan in her book concerning housing aptly states

²Ibid., p. 87.

the provisions the home should make:

"The home should provide for the whole of the child's life: sleep, privacy, formation of habits, play, work, and their pleasures and satisfactions. Parents should find in it facilities that make easy routine activities, provisions for developing desirable habits within the child, and ample and adequate means for safeguarding the child".³

Student parents who considered their apartments similarly attempted to make these temporary homes convenient and pleasant for all living there.

In addition to the housing provisions, a cooperative nursery school known as the Spartan Nursery School has been made available for interested students with preschool children. Besides paying a small quarterly fee, the parents of children attending the school are required to devote a certain number of hours per school quarter in work for the school. Mothers and fathers may help the regular staff during school sessions, or may contribute time in some of the necessary management and account-keeping. In addition to the requested participation time, the parents may attend various discussion groups, lectures and teacher-parent conferences sponsored by the nursery school staff. An excellent collection of books on Child Development and Family Life has been placed in the school library for use by mothers and fathers. Thus there appears to be ample opportunity for parent education in the Spartan Nursery School. The extent to which the nursery school parents avail themselves of these advantages naturally varies with each family.

Interest in investigating home provisions and practices made to encourage independence in children was stimulated by a number of

³Tessie Axen, The House (New York: J.P. Lippencott Company, 1939), p. 52.

factors discussed previously. To summarize them, the basic reasons held for conducting the study are:

1. The effect of nursery school education on parental practices has not been satisfactorily established by research studies.

2. The unique arrangement of the housing project at Michigan State College provides a relatively uniform house shell, giving each family a similar type of unit to make livable.

3. The availability of the Spartan Nursery School and its widespread guidance program gives ample and desirable parent education facilities.

The purpose of this study is therefore to determine whether contacts of families with a cooperative nursery school were related to practices and provisions made in certain areas in the home.

CHAPTER II

REVIEW OF LITERATURE

An exploration was made of the literature in the areas of Child Development and Nursery Education which might be applicable to the problem under consideration. Unfortunately for this study a great proportion of the material found was written to appeal to the layman. Although having educational value, for the purpose of this thesis such articles were not reviewed.

Studies eventually selected tended to fall into three main classifications. The first was consideration of provisions made in the home to accommodate the activities and the belongings of preschool children. The second was an attempt to determine the effect of parent education upon the practices of fathers and mothers of nursery school children. The third was concerned with the effect of the home environment, including parental practices, upon the preschool child's behavior. As might be expected a few of the studies could be placed in more than one classification since several had multiple objectives under consideration.

The following studies were most nearly related to the first classification, that of provisions made by parents in homes with preschool children. One such study was done by Trotter at the University of Tennessee.⁴ The purpose of Trotter's study was to make recommendations and to develop adequate plans for a room accommodating play and bedroom

⁴V.Y. Trotter, Space and Equipment Requirements for the Preschool Child's Room in a Professional Family Home (Unpublished Master's Thesis University of Tennessee, Knoxville, Tennessee, 1948), 139 pp.

activities of a preschool child of professional families. Storage requirements were determined with respect to the amount and kind of space needed for articles used by the child. According to Trotter, preschool children can be educated to be orderly and to put away their own clothing and toys, provided storage for these items is adequately planned. Recommendations were made for storage facilities and actual measurements of storage areas for the child's belongings were cited. A general plan of a room readily adaptable to the needs of a preschool child of professional families was included in the paper.

A second study related to the problem under consideration in this thesis is one reported by Rogers.⁵ Its purpose was to determine whether the principles of child guidance taught had carried over into the homes of parents whose children had been in nursery school. These same parents had an opportunity both for observation in the nursery school and for membership in child study groups associated with the school. The research in the homes of 51 preschool children included investigation of the space and equipment provided for play, sleep, eating, bathing, dressing and elimination. The provisions in each of these homes were compared with subjective standards set up by the writer. Rogers concluded that although families provided some excellent material for their youngsters, mere contact with the nursery school program was not sufficient to insure understanding of major child guidance principles. Some of the parents provided storage facilities for

⁵ Lorena Rogers, A Study of Housing and Equipment Provided for Young Children in the Homes of Members of Parent Education Study Groups (Unpublished Master's Thesis. Woman's College of the University of North Carolina, Greensboro, North Carolina, 1939), 111 pp.

materials suited to the child's developmental age, and encouraged the child to take responsibility for use of these materials. Thus according to Rogers, these children were given an opportunity to develop independence. However, the storage space provided was often inadequate in size, inaccessible, or so unorganized that the child could not be expected to show independence in selecting, getting out, or putting away equipment. In respect to play and toys, the findings indicated that the parents lacked understanding of the importance of play and of the need for permanent outdoor equipment. There appeared to be insufficient understanding of the ways through which more adequate materials might be provided at little cost. Rogers recommended a skillfully planned parent education program to develop understanding of space and equipment facilities needed by young children in the home.

The next group of reported studies tends to belong in the second classification dealing with the effect of parent education programs upon parental practices. Two studies were done by Rhinehart with reference to the influence of nursery school - parent education programs upon children attending a preschool. The first study was an evaluation of the parent education program of a neighborhood center nursery school.⁶ Two groups were used, each containing 21 three-year-olds who attended half-day sessions in the school. The parent education program for the experimental group included lectures, conferences, and informal dis-

⁶Jesse Rhinehart, "Some Effects of a Nursery School-Parent Education Program on a Group of Three-Year Olds", Journal of Genetic Psychology, 61: 153-161, September, 1942.

cussions on child care and training. The control group did not participate in these parent-education experiences. All the mothers were interviewed on several items involving emotional adjustment and self help on the part of the child, and parental cooperation. When a comparison was made between the children of the two groups of parents, significant differences in favor of the experimental group were found in most instances. Items where no significant differences appeared were considered to be those based on the emotional maturity of the child.

In a later study, Rhinehart ⁷ compared two nursery school-parent education programs, comprising 42 children divided into three groups. Group A included a half-day nursery school, supplemented by a parent education program of lectures, conferences, and informal discussion groups. Group B mothers received a four-week training program and then participated semi-weekly in the half-day nursery school session. Group C, the control group, consisted of mothers and children who received no aid beyond that necessary for obtaining data. Questionnaire items involving self-help, emotional adjustment, and parental cooperation were also included in this study. The findings indicated that the mother-participation plans under staff supervision favorably affected the children on the tested items. However, results from the questionnaire regarding the performance of the child on the same items as were included in Rhinehart's previous study suggested that mother-supervised groups needed greater emphasis placed on encouraging their children in self-help, particularly washing and dressing routines.

⁷Jesse Rhinehart, "Comparative Evaluation of Two Nursery School-Parent Education Programs," Journal of Educational Psychology, 36: 309-17, May, 1945.

A study made by Tucker⁸ attempted to probe the practices used by mothers in situations which arose in a cooperative nursery school. Activities of the children attending the preschool were those similar in many respects to ones in the home. Further observations were made of the children's activities where mothers participated, the behavior of the children in contacts with others, and the language used by mothers in guiding children in situations under observation. The study was particularly detailed in respect to actual comments, actions and words as noted by the investigator. Due to the small sample of 11 mothers and 14 children conclusions were limited.

The following investigations approach the study of the preschool child from knowledge of parental practices in the home. Although several of the studies are not entirely applicable to the research reported in this thesis, they are related to the child's behavior in the home situation. Coast⁹ was interested in determining to what extent parents of preschool children have put generalizations involved in child guidance into practice. The attitudes of the parents on knowledge tests were compared to the responses of eight judges. A significant number of parents did not recognize implications of generalizations as they were applied in the test.

Hattwick's study¹⁰ was an attempt to discover some of the most frequent relationships between preschool behavior and certain factors

⁸Clara M. Tucker, A Study of Mothers' Practices and Children's Activities in a Cooperative Nursery School, (Teachers College Contributions to Education, No. 810. New York: Teachers College, Columbia University, 1940), 165 pp.

⁹L.C. Coast, "A Study of the Knowledge and Attitudes of Parents of Preschool Children", Iowa University Studies in Child Welfare, 17: 157-181, 1938.

¹⁰Bertha Hattwick, "Interrelations Between the Preschool Child's Behavior and Certain Factors in the Home", Child Development, 7: 200-226, September, 1936.

in the home. The relatively large sample consisted of 335 preschool children from a number of different nursery schools in a public school nursery system. Specially devised rating sheets were used to determine behavior in the nursery school as well as to determine home factors. In homes rated as reflecting over-attentiveness, the children displayed poor adjustment emotionally while in homes reflecting inadequate attentiveness, the children appeared to be aggressive and to show lack of security and attention in the nursery school. Thus the study gave consistent evidence of the value of a calm, happy home in securing cooperative behavior and good emotional adjustment on the part of the child.

An attempt was made in Grant's study ¹¹ to relate certain internal factors in the home environment to specific behavior patterns in children of preschool age. The 33 children observed were enrolled in a recognized preschool. Both parental and child behavior were defined and classified according to a certain few characteristics. In general, a calm, happy home life appeared to be related positively with the child's security, cooperativeness and ability to play with a group; it tended to be negatively related with nervous habits and sadistic behavior.

Lafore ¹² used the homes of 21 nursery school children for the collection of data in regard to the practices of parents in dealing with these children. The supposition was made that preschool children are likely to cling to their usual behavior patterns regardless of the

¹¹Eva Grant, "Effect of Certain Factors in the Home Environment Upon Child Behavior" Iowa University Studies in Child Welfare, 17: 61-94, 1939.

¹²Lafore, op. cit., 150 pp.

presence of visitors in the home. Consequently the parent too, probably follows habitual practices in his treatment of the child. In home visits, Lafore timed each contact between parent and child, concluding a visit when 30 minutes of child-parent interaction occurred. Two such visits were made to each home at different times of the day to diminish bias. There was an indication that the parents who placed more emphasis upon motor learning had the fewest instances devoted to routine care. Also, it appeared that parents who waited for their children to perform a motor skill had the smallest number of instances of hurrying their children in these routine activities. Cleavage between demands of the home and demands of the child appeared to be the cause of parental tension, frustration, and harrassment. This resulted in antagonistic behavior on the part of the parent toward the child, regardless of an underlying affection.

Radke¹³ was interested in one major variable of the child's home environment -- the area of parental authority and discipline. Correlates of this variable with the preschool child's attitudes and social behavior were investigated. The demands and satisfactions of the home situation were also studied in relation to the preschool child's behavior and personality characteristics. For her sample Radke selected 43 nursery school and kindergarten children from urban homes, representing a select social, economic and educational sample. The procedures used for the study were exhaustive. Data were obtained in private interviews with the preschool children in which the experimenter asked oral questions

¹³Marian Radke, *Relation of Parental Authority to Children's Behavior and Attitudes* (University of Minnesota Child Welfare Monograph, No. 22. Minneapolis: University of Minnesota Press, 1946), 123 pp.

pertaining mainly to the child's relations with his family. Also used were projective techniques to obtain further information concerning the child-family relationships. The questionnaire-interview technique was used with the parents for information concerning discipline and authority relations of their own childhood. Findings in general confirmed previously reported investigations on the positive influences of the home on child behavior. Radke implied that the home has tremendous responsibilities for effecting changes in social and cultural relations, since it is a powerful agent in the behavior development of young children.

In their study of the effect of home environment upon nursery school children, Slater and others ¹⁴ were interested primarily in the responses the children made to a nursery school situation. Children were entered for short periods of attendance and at a later time were reentered in the school. Their reactions and adjustments were noted. It was found that in homes where mothers were considered to be over-solicitous, children more often fluctuated between accelerated and inhibited behavior.

In summarizing the studies briefly reviewed in this chapter, several factors can be suggested that are related to the objective of the research reported in this paper: to determine whether contacts of mothers with a cooperative nursery school are related to provisions made in the homes to stimulate independence of children.

¹⁴Eleanor Slater, et al. "Types, Levels, Irregularities of Response to a Nursery School Situation of 40 Children Observed With Special Reference to the Home Environment", Monographs of the Society for Research in Child Development, IV (1939), 146 pp.

The first two studies specified that there was a definite need for planned storage of children's belongings in the home. It appeared that preschool children can be taught to be orderly if facilities for storage are suitable to the amount and kind of articles used by the child. With adequate provisions made, more independence in use can be expected from the preschooler. Consequently parent education groups would be helpful by encouraging parents to recognize this need and make the necessary adjustments in their homes.

Planned parent education programs seemed to be of some benefit in certain areas related to child guidance. Of the two types of programs cited -- the lecture-discussion and mother-participation -- the latter probably was more beneficial in its influence upon parental practices favorably affecting the children in the home. However, there is evidence that parent education programs might emphasize the desirability for mothers and fathers to encourage self-help or independence in children.

Several studies conclude that the calm, happy home is best in securing cooperative behavior in children as well as good emotional adjustment. One study found that when direction toward motor learning, actually a guiding toward independence was given, the ultimate result seemed to be smoother routine situations, with more satisfactory interaction between parents and children.

CHAPTER III

METHODS AND MATERIALS

In devising a schedule suitable for measuring the relative amount of independence permitted young children in the home, certain topics were selected as being more pertinent than others. Those topics were Play Materials and Books, Clothing, Eating, and Toileting (See Appendix). Emphasis was placed upon these four points because of their frequency in the preschool child's life. Play materials and books probably are used daily by young children. Dressing and undressing, eating and toileting are regular routines. Questions asked in these areas in the schedule pertained to the independence exhibited by the child and to the consideration of facilities in the home aiding or hindering him in self-care. Sometimes, when parents are asked questions regarding what their child can do, they may tend to give the "correct" answer rather than describe what actually exists. By careful wording of the questions and by not emphasizing the purpose of the study, the researcher tried to keep this factor at a minimum. Schedule questions which might be based upon the maturation of the child rather than freedom permitted him were established as nearly as possible by recognized research studies.

The limitations of time necessitated that a small sample be selected for this particular study. Therefore, to make the study more meaningful, only those children 36 months to 47 months inclusive were considered. This particular age group was decided upon since it appears that three year olds are on the average more capable of demonstrating independence in daily routines than is generally understood by parents. Then, too,

children between three and four years of age are usually eager to learn new skills particularly in self-care, whereas older children tend to be less interested in this type of achievement. The personality of the average three-year old is such that he tries to please and to conform to his environment, and is usually sensitive to praise and approval.¹⁵

Since facilities and materials in the home were to be observed by one worker only, a score card or a rating sheet to aid in judging them was devised. By using this guide as a basis, it was hoped that the ratings of the families could be made objectively. The score card was itemized for judging the selection and storage of play materials, the selection and storage of books; freedom of play space; the selection of clothing with closet and drawer storage facilities for it; arrangements made to aid the child in getting to and in reaching the table; and facilities made in the bathroom to help the child care for himself (See Appendix). These bases for judgment were approved by four faculty members at Michigan State College -- three Nursery School teachers and one Home Management expert.

Items which were considered obtained a rating of 1, 2, or 3 according to the score card specifications, with 3 as the best rating, 2 as the intermediate, and 1 the poorest. It was believed that in one observation per family no finer than three distinctions of quality could be made. The score card was devised to be used to aid in rating certain items after the home visits rather than at the homes where parents might observe this portion of the procedure. Whenever possible, ratings were

¹⁵Arnold Gesell and Frances Ilg, Infant and Child in the Culture of Today (New York: Harper and Brothers Publishers, 1943), p. 202.

based upon findings of recognized authorities who have been interested in Child Development and who have done some research in this field. On the schedule, Play Materials were divided into three main classifications, those for active play, for manipulative play, and for dramatic play. This division was influenced by Kavin's more elaborate classification.¹⁶ Fundamentally, toys and books placed under "a" on the schedule were a wiser choice for three year olds than the "b" group. In rating each group, however, the same general considerations were used that were given on the score card. Guides for these specifications came from Kavin and from Alschuler.¹⁷

In general, open shelves were considered most desirable for storing small toys. Agan¹⁸ states that the toy box, the most common storage unit for generations, limits the lifetime of many toys and substitutes clearing up for order. Open shelves give the child good training in caring for his possessions.

Criteria for the selection of books were found in Arbuthnot's text. According to this writer children of two to seven need stories that are factual and personal.¹⁹ A standard might be:

"Substantial themes, plots with action, unity, logical development, economy of incident, truth to human nature; a style that absorbs and interests young readers."²⁰

¹⁶Ethel Kavin, Wise Choice of Toys (Chicago: University of Chicago Press, 1938), p. 28-32.

¹⁷Rose Alschuler, Children's Centers (New York: Wm. Morrow and Company, 1942), p. 34-45.

¹⁸Agan, op. cit., p. 53-55.

¹⁹May Hill Arbuthnot, Children and Books (Chicago: Scott, Foresman and Company, 1947), p. 360.

²⁰Ibid., p. 394.

The score card for selection of clothing was based on guides suggested by Thompson and Rea ²¹ and Foster and Mattson ²². Usually, clothing that permitted freedom and independence in routines and play was most desirable.

Criteria for rating the storage space of both indoor and outdoor clothing were developed from requirements proposed by Thompson and Rea ²³.

Suggestions for toileting and eating facilities were made by Ojemann in a discussion of the home and its furnishings. Score card items were based upon the standards given in his pamphlet ²⁴.

Before the score card was actually used in the study, it was tested and corrected. Michigan State College has a teacher-training nursery school, the Michigan State College Nursery School. Five mothers having three-year-old children enrolled in the school cooperated in the study and permitted the researcher to test the score card with them. The writer and one Michigan State College Nursery School teacher visited each home at the same time observing the items considered on the score card. Later each worker, using the card as the basis for judging, individually rated the homes. When the ratings were compared statistically, a correlation coefficient of .73 was found. This was considered a close

²¹Henrietta Thompson and Lucille Rea, Clothing for Children (New York: John Wiley and Sons, Incorporated, 1949), p. 18-19.

²²Josephine Foster and Marian Mattson, Nursery School Education (New York: D. Appleton-Century Company, Incorporated 1939), p. 53-57.

²³Thompson and Rea, op. cit., p. 398-399.

²⁴Ralph Ojemann and Lula E. Smith, The House and Its Furnishings in Relation to Child Development (Iowa University Child Welfare Pamphlet, 13. Iowa City: University of Iowa, 1932), 14 pp.

enough relationship to justify the use of the score card in actual research.

Of the 40 families interviewed in the study, 20 had or did have children in the Spartan Nursery School for a period of at least one school quarter. The other group of 20 had no contact with the Nursery School at any time. Since the sample was relatively small, a number of controls had been established before actually drawing it to eliminate some factors thought to cause bias. Thus, all the families eventually selected were housed in the Michigan State College barracks apartments. These units, described previously, have several arrangements. There are one, two, or no bedroom plans. Families living in the two bedroom apartments only were considered because these living quarters best conformed to the standards set up by the Committee on Housing of the White House Conference on Child Health and Protection. Of the recommendations made by this group, those applicable to this study are as follows:

For the interior of the house--

1. Each bedroom should be accessible without passing through another.
2. The nursery, if provided, should be light and cheerful. Walls should be of a hard finish. Walls and floors should be easily cleaned. The nursery should be near a lavatory as well as near the mother's work center in order to save her time and steps.
3. Space should be provided as a playroom for children, be it a corner of the bedroom or perhaps a porch.
4. Each child should have a place where he could be quiet and undisturbed. ²⁵

Either bedroom in the barracks apartment selected as a room for the child would conform to these standards (See Appendix). Homes with only

²⁵Ibid. p. 4-5.

one child in the family are vastly different than those having several siblings. Therefore for this study, families with one child between 36 and 47 months inclusive were preferred. However, it was found impossible to keep to this standard since the Nursery School families available could not meet with that control. Therefore, it was decided that the three-year-old child must be the eldest in the families having two children, and the youngest child must be under a year old. Finally, no child from the Non-Nursery School group must have been enrolled for any period of time in any nursery school, including the Spartan Nursery.

When data were gathered for the study, the census of married students living in the barracks apartments was incomplete. The Housing Office in charge had the beginnings of a file with some information regarding the number of children per family, age of the children, and bedroom plan of the barracks apartment. According to these records, 63 families from the 1600* in campus housing appeared to fit the controls for the Non-Nursery School group. Random sampling of the Non-Nursery School families was done by arranging the 63 names alphabetically and selecting every third name for six times, then one fourth name, and repeating the procedure until the 20 cases were chosen. Additional samples were drawn as several of the original 20 were found to be ineligible after they were contacted.

The Nursery School sample was obtained from the files at the Spartan Nursery, with the help of the director who knew each family. Twenty-five families originally were selected as meeting the controls. In addition the three-year-olds in these families had attended the Spartan Nursery School at least one school term of 10 to 12 weeks.

*Exact number unavailable.

From these 25 families, 20 were chosen for study. To obtain a random sample, the names were arranged alphabetically and every fifth name was discarded.

As previously stated, the Spartan Nursery School has a wide-spread parent education program in addition to the regular pre-school groups. Since one purpose of the School is to bring Nursery Education within the means of student families, it is necessary for the parents to devote a minimum of six hours per term in work for the school. Time may be given, for example, in office work, repair work on toys and equipment, and in actual teaching. Mothers and fathers are all urged to participate in this program. Parents also are included in the organization and planning of the School through a Council whose members meet regularly with the staff. All parents sending children to the preschool are encouraged to attend various lectures, movies, and discussion groups pertaining to Child Development and Family Life some of which are sponsored by the teachers at the Nursery.

The School is built of two Quonset huts, housing two large separated playrooms as well as washrooms, offices, several storage areas, and activity rooms for adult use. Since there are two playrooms, the pre-school children are divided into age-groups during the time they spend in school. This division permits conducting a more educational program to benefit the children. The three regular Nursery School teachers are aided by the participating parents in guiding the children. In this co-operative nursery school parents are assigned certain hours to help in either of the playrooms or on the playground. Since the facilities are limited and the enrollment of children is relatively large, the School

has half-day morning and afternoon sessions. The children therefore attend the School certain half-days each week of the college quarter according to a schedule.

In respect to facilities encouraging independence in the children, the School is an excellent model. Toys small enough for storage are kept on low open shelves, convenient to reach. Books are displayed in a low, slanting rack, all readily available. The children hang their outdoor clothing on hooks in individual lockers, low enough so that they are within their reach. The lockers have shelves for additional clothing and for boots or rubbers.

The Nursery School does not prepare luncheons for the children, but morning and afternoon juice and crackers are given. The children are served these refreshments at low tables with suitable chairs. Parents thereby have an opportunity to see satisfactory eating facilities for pre-elementary school children.

The toilet is designed with stools and bowls at a practical height for the children. Other bathroom facilities such as towels, soap, and mirrors are conveniently low. In general, the school affords parents an excellent example of play materials, books, clothing storage, and toileting and eating arrangements which are conducive to encouraging self-help in preschool children. In addition, the staff promotes parent education by having books, pamphlets, magazines and mimeographed material available for those interested in Child Study. By teaching in the school, in private conferences with the teachers, through observation of facilities, and by taking advantage of written material, parents have many opportunities to obtain intelligent and scientific techniques

for guiding their children.

Before actually using the schedule to gather data, personal contact was made with each of the 40 families to determine if the family satisfied the controls. Also at this first contact an appointment was made for the home visit. It was believed undesirable to explain to parents that the objective of the study was to compare Nursery School and Non-Nursery School families regarding provisions and practices in the home to encourage independence in three year old children. Instead, the mothers were told that the researcher was interested in determining what children could do in the barracks apartments, and where they could keep their belongings. Of the families eventually found who met the controls, only two were unable to participate and alternates were randomly selected. All data were collected between January and March, 1950.

Since it was not feasible to give Intelligence Tests to the 40 children involved in the study, the interviewer managed to spend a little time in watching each preschool child in the home. The children were either observed during the initial contacts made with the families or during the home visits. By noting activities that the child did, reactions he made to his environment, and conversation to his mother or to the research worker, the interviewer concluded that the children considered in the study were of apparently normal intelligence and seemed physically sound. One child was found to be physically and mentally retarded as compared to the other three year olds, and an alternate was therefore selected to replace him.

During the home visits, only the interviewer handled the schedules. The schedule format was so arranged that the rating sections were not

obvious. The interview itself was conducted as casually as possible. The mothers showed the worker facilities for the children, their play-things, their clothing, and other accommodations. Usually the mothers were eager to talk about their youngsters and to answer questions concerning them. As soon as possible after each interview, the researcher used the score card as the basis for the 1, 2, or 3 ratings of provisions. No attempt was made to compare one family with another and the worker tried to be as objective as possible in making the judgments. In this three-point scale used to tabulate the results, the best possible score was considered to be 3, the intermediate was 2, and the poorest was 1. Answers to questions in the schedule regarding the child's activities were also interpreted similarly. In most instances "Usually" had a value of 3, "Rarely or Never" of 1. However, the reverse was true in some questions. "Occasionally" was the intermediate classification with a value of 2. When a question had four possible choices, "a" was equivalent to 3, "b" to 2, and "c" and "d" equalled 1. A number of questions were asked for clarification of how the child showed independence, but these sub-questions were not tabulated in the final score. Sometimes it may be difficult for an untrained person to make a differentiation between what a child actually does without help and where incidental aid is given. The researcher attempted to avoid this pitfall by asking sub-questions such as "What clothing does your child take off without help?" In this way a clearer picture developed as to what practices were actually being encouraged or discouraged in the home.

When the answers to all the main parts of the schedule had been interpreted and given numerical values, the results in each case were

totalled for a score. These scores were separated into Nursery School and Non-Nursery School groups, and results appearing to be different between the groups were tested for significance using the "t" test. The four sub-divisions of the schedule -- Play Materials and Books, Clothing, Eating, and Toileting -- were also treated in this way. Finally the total scores combining all four parts of the schedule and comparing the Nursery School and Non-Nursery School groups were given the "t" test. An attempt was made to see if other factors such as mothers' education or length of time in the Nursery School had an effect upon the scores. These relationships will be discussed in later chapters.

CHAPTER IV

FINDINGS

The 40 families selected for study comprised a relatively homogeneous group. All were living in Michigan State College two-bedroom barracks apartments. Most of the parents had had ample time to make their homes livable, since the average length of residence in the barracks was 24.6 months. Two families had been in their apartments approximately one month, and one family had been living in the same unit for 36 months. The fathers were veterans attending Michigan State College, 36 of whom were in their junior year or above. Only three of the men were majoring in subjects directly related to the study of children -- two psychologists and one speech correctionist. There was a liberal scattering of business administration majors and engineers among the remaining 37 fathers. Of the 16 mothers who had attended college or its equivalent, four were nurses and six had begun Home Economics training before ending their formal education. In addition there were two college graduates among the mothers, one who had specialized in Physical Education and the other in Retailing in Home Economics. Two women were studying as special students and electing any courses they desired.

Since the fathers had been in the Service during World War II, all the families obtained government subsistence. Some men supplemented this income by part-time work. Four mothers worked outside the home, two of them employed for a few hours each day. An additional three mothers occasionally cared for preschool children in their homes. However, 36 of the mothers did no work outside the home.

The three-year-old children in these 40 families ranged from 36 months to 47 months, with an average age of 40.9 months. The average for the Nursery School children was 41.7 months and for the Non-Nursery School sample it was 40.2 months. Girls surpassed boys in number, however, with a sample of 25 compared to 15 boys. This was due to the unrepresentative nature of the Nursery School group which was composed of 15 girls and 5 boys. Among the Non-Nursery School children, 10 were boys and 10 were girls. In general, boys and girls were about the same age, the mean for the former being 40.3 months and for the latter 41.3 months.

Most of the families that cooperated in the study consisted of father, mother and one child. However, six Nursery School and seven Non-Nursery School families had an infant in addition to the preschooler. The average age of these babies was 5.8 months and all these second siblings were too young to walk.

In the Nursery School group, the average length of time the children had attended the preschool was 3.7 terms, which gave the parents between 18 and 24 required hours of work at the Nursery School. The actual range of terms that the children had been enrolled in the school was from one to six. Each school term consisted of 10 to 12 weeks of Nursery School.

During the home visits the mothers were asked in what specific activities each parent had participated at the Spartan Nursery School. According to the director of the school, parents had opportunity for observation, individual meetings with their children's teachers, group meetings, work meetings usually for repair of equipment in the Nursery

School, and Child Development classes. As shown in Table 1, none of the mothers recognized "observation" as an activity. All mothers had aided the Nursery School staff in teaching, 19 had attended at least one meeting, either an individual conference or with a group. As would be expected, the fathers, in college classes much of the day, participated to a lesser extent than did their wives. Seven fathers did not participate in any Nursery School activities. Only one father helped in teaching at the School. Three-fourths of the mothers and none of the fathers had attended Child Development classes sponsored by the school staff. However, 13 fathers as compared to 8 mothers cooperated in the work meetings held in the evening at the Nursery School. Taken as a group, nevertheless, fathers and mothers together spent sufficient time in various activities at the Spartan Nursery School to gain some information concerning Child Development if they so desired.

In the schedule used for obtaining data there were 44 ratings and questions scored. Since a three-point scale was used, the highest possible score was 132 and the lowest was 44. The first area of the schedule, Play Materials and Books, contained 14 questions and ratings; the second area, Clothing, contained 15 questions and ratings; the third, Eating, contained 8; and the last, Toileting had 7. After separating the data into Nursery School and Non-Nursery School groups, the mean scores were computed for each question and rating. These mean scores will be found in Tables 2 through 5.

It was found that although the differences were slight in the main, the Nursery School group usually received a higher mean score than the Non-Nursery School in each of the four areas. There were four identical

TABLE 1

COMPARISON BETWEEN NUMBER OF MOTHERS AND FATHERS REPORTING
PARTICIPATION IN SPARTAN NURSERY SCHOOL ACTIVITIES

Specific Activity	Number of Mothers	Number of Fathers
Observation	---	---
Teaching	20	1
Individual and group meetings	19	---
Work meetings	8	13
Child Development classes	15	---
Office-holders	2	---
No participation	---	7

means in the two groups. They were in the child's freedom to use play materials (3.00), in the child's freedom to use books (3.00), in the child's self-help in using a bib or napkin at the table (1.60), and in no restrictions upon the child's using the bathroom without adult supervision (3.00).

The mean scores ranged from a Non-Nursery School superiority of 0.10 to a Nursery School superiority of 0.75. The difference of 0.75 was found in the selection of books, where the Nursery School group averaged 2.50 compared to the Non-Nursery School average of 1.75. There was a difference of 0.50 in the selections of materials for Manipulative Play. The Nursery School mean was 1.80 and the Non-Nursery School was 1.30. Although the Non-Nursery School children obtained higher mean scores than the Nursery School children in 7 questions and ratings, the differences ranged from 0.05 to 0.10, and consequently were not of significance.

In the first part of the schedule, Play Materials and Books, the Nursery School group surpassed the Non-Nursery School group in 11 items, whereas the Non-Nursery School group was superior in 1 item (Table 2). In the Clothing section, the Nursery School group received higher mean scores in 11 items, the Non-Nursery School group in 4 (Table 3). The Nursery School families made higher scores in 6 items under Eating Activities, compared to 1 item in the Non-Nursery School group (Table 4). In the last part of the schedule, Toileting, the Nursery School children were superior on 5 items and the Non-Nursery School children on 1 (Table 5). The Nursery School families thus excelled in 33 items, the Non-Nursery School in 7.

TABLE 2

MEAN SCORES FOR PROMOTING INDEPENDENCE THROUGH
PLAY MATERIALS AND BOOKS

Items	Nursery School	Non-Nursery School
A. Play Materials	17.30	15.55
I. Active		
a. Selection	2.05	1.75
b. Storage	2.00	1.90
II. Manipulative		
a. Selection	1.80	1.30
b. Storage	1.60	1.40
III. Dramatic		
a. Selection	2.30	1.90
b. Storage	1.80	1.50
IV. Freedom to use play materials	3.00	3.00
V. Freedom of place where play materials used	2.75	2.80
B. Books	10.85	10.00
I. Selection	2.50	1.75
II. Storage	2.35	2.30
III. Where books used	3.00	2.95
IV. Freedom to use books	3.00	3.00
C. Care of Play Materials and Books	4.00	3.60
I. Putting away toys	1.85	1.60
II. Putting away books	2.15	2.00
Total	32.15	29.15

TABLE 3

MEAN SCORES FOR PROMOTING INDEPENDENCE THROUGH CLOTHING

Items	Nursery School	Non-Nursery School
A. Storage	4.40	4.10
I. Closet for indoor clothing	1.00	1.10
II. Arrangements for outdoor clothing	1.40	1.25
III. Drawers	2.00	1.75
B. Dressing and Undressing		
I. Indoor clothing	11.65	10.45
a. Selection	1.65	1.75
b. Freedom of choice of garments	2.40	2.05
c. Getting clothing	2.50	2.45
d. Self-help in dressing	1.60	1.40
e. Self-help in undressing	1.95	1.50
f. Putting away clothing	1.55	1.30
II. Outdoor clothing	10.60	10.25
a. Selection	1.70	1.80
b. Freedom of choice of garments	1.65	1.60
c. Getting clothing	2.60	2.55
d. Self-help in dressing	1.00	1.10
e. Self-help in undressing	1.50	1.35
f. Putting away clothing	2.15	1.85
Total	26.65	24.80

TABLE 4

MEAN SCORES FOR PROMOTING INDEPENDENCE THROUGH EATING ACTIVITIES

Items	Nursery School	Non-Nursery School
A. Seating provisions at table	1.80	1.50
B. Helping set table	2.40	2.30
C. Self-help with chair	2.80	2.65
D. Self-help with bib or napkin	1.60	1.60
E. Self-help in feeding	2.95	2.90
F. Serving at table, snacks	2.10	2.25
G. Clearing table	1.65	1.50
H. Remaining at table until family finished	2.65	2.45
Total	17.95	17.15

TABLE 5

MEAN SCORES FOR PROMOTING INDEPENDENCE THROUGH TOILETING ACTIVITIES

	Nursery School	Non-Nursery School
A. Provisions in bathroom	1.50	1.30
B. Self care with clothing before toileting	2.85	2.75
C. Self care with clothing after toileting	2.50	2.10
D. Self care with getting on or off toilet	2.90	3.00
E. Self care with washing or drying	2.85	2.80
F. Freedom of access to room	3.00	3.00
G. Combing hair	1.90	1.75
Total	17.50	16.70

When the total averages for the four parts were compared, (Table 6) the greatest divergence existed in Play Materials and Books, where the Nursery School mean was 32.15 and Non-Nursery School mean was 29.15, a difference of 3.00. The smallest variation was found in the Eating section where the means were 17.95 for the Nursery School children and 17.15 for the Non-Nursery School. Toileting means were 17.50 and 16.70 for Nursery School and Non-Nursery groups, respectively. When the scores for the Clothing section were compared, the Nursery School group averaged 1.85 over the Non-Nursery School with a score of 26.65.

As a further consideration, the total scores obtained in the interviews with the mothers were separated into Nursery School and Non-Nursery School families.* These scores were then grouped in intervals of 10 points for comparison. By referring to (Table 7), it can be seen that the range was from over 110 to below 80. In the Nursery School sample the scores fluctuated from 70 to 114, in the Non-Nursery School sample from 73 to 107. The mean for the Nursery School group was 94.25 with S.D. of 8.96. In the Non-Nursery School sample the mean was 87.80, S.D. of 9.14 (Table 6). The scores obtained by the Nursery School and Non-Nursery groups were compared for significance using the "t" test. For this study, a "t" score of 2.00 to 2.59 was considered significant, whereas one 2.60 or over was thought to be highly significant. In comparing the mean scores of the two groups, the "t" score was found to be 2.26, which was significant. Interpretating further, it appears that in

*For scores of individual families see Appendix, Table of Scores for 20 Nursery School and 20 Non-Nursery School Families on the Schedule.

TABLE 6

MEAN SCORES FOR PROMOTING INDEPENDENCE ACCORDING
TO SECTIONS OF THE SCHEDULE

Sections	Nursery School	Non-Nursery School
Play Materials and Books	32.15	29.15
Clothing	26.65	24.80
Eating activities	17.95	17.15
Toileting	17.50	16.70
Total	94.25	87.80
S.D.	8.96	9.14

TABLE 7

RANGE OF NURSERY SCHOOL AND NON-NURSERY SCHOOL SCORES

Scores	Nursery School	Non-Nursery School
Below 80	1	2
80 - 89	4	10
90 - 99	10	5
100 - 109	4	3
110 and over	1	--
Total	20	20

the items tested, the Nursery School families encouraged independence in the children through practices and provisions in the home to a greater extent than did the Non-Nursery School families.

In addition, the mean scores for the four main topics of the schedule -- Play Materials and Books, Clothing, Eating, and Toileting -- were tested with the "t" test. No significant difference was found between Nursery and Non-Nursery School children in the Clothing, Eating and Toileting sections. However, a highly significant "t" score of 2.75 was found when the two groups were compared in Play Materials and Books. Therefore it appears that in this aspect, the Nursery School families surpassed the Non-Nursery School families in encouragement of independence in the children.

The individual 44 questions and ratings were examined to determine if a difference existed between the results obtained by the Nursery School and Non-Nursery School children. The ones appearing different were tested using the "t" test. Of all the questions, only two were found where a statistically significant difference appeared between Nursery School and Non-Nursery School scores. These were the ratings on the selection of Toys for Manipulative Play, having a "t" score of 2.89 and the ratings on the selection of Books, with a "t" score of 3.57. In both instances, the "t" scores were considered to be highly significant. It was found that the Nursery School sample had more desirable selections of manipulative toys and books than did the Non-Nursery School sample.

Provisions of storage for play materials were compared to what the mothers said that the children did with their playthings when they had

finished using them (Table 8). The writer was interested in determining whether any relationship existed between a good or poor storage provision for toys and a good or poor response shown by the child in using these storage units for clearing up. No trend appeared. In the Nursery School sample an insignificant difference was found between poor storage and average storage in regard to the child's score in putting his toys away. Among Non-Nursery School children, there seemed to be no relationship between storage provision and independence in clearing up. More Non-Nursery School children had poorer storage facilities than did Nursery School children, 11 compared to 8. Children in the former group seemed to take somewhat more responsibility for putting away toys than did those in the latter. In the Nursery School group the average score for putting away toys when storage facilities were poor was 1.63, in the Non-Nursery School group the average was 1.82. The four children in the Nursery School sample having good storage provisions for toys as judged by the researcher had the highest mean score of 2.50. For the combined Nursery School and Non-Nursery School groups, no relationship appeared to exist between the rating of storage for play materials and how the child made use of these facilities when he had finished playing.

Storage of books was compared to the responsibility taken by the child in putting his books away when he had finished using them (Table 9). A trend seemed to exist in the Nursery School group, where poor storage facilities were related to less responsibility in putting the books away, and good storage arrangements were related to more responsibility on the part of the child. However there is no relationship among the Non-Nursery School families between these same two factors.

TABLE 8

STORAGE OF PLAY MATERIALS COMPARED TO RESPONSIBILITY TAKEN
BY THE CHILD IN PUTTING TOYS AWAY

Average Rating of Storage for Play Materials	Nursery School		Non-Nursery School		Total	
	Number of cases	Average score in putting away	Number of cases	Average score in putting away	Number of cases	Average score in putting away
Poor (1,1,1 - 1,1,2)	8	1.63	11	1.82	19	1.74
Average (1,2,2, - 2,2,3)	8	1.75	8	1.25	16	1.50
Good (2,3,3- 3,3,3)	4	2.50	1	2.00	5	2.40

TABLE 9

STORAGE OF BOOKS COMPARED TO RESPONSIBILITY TAKEN BY CHILD
IN PUTTING BOOKS AWAY

Rating of storage for books	Nursery School		Non-Nursery School		Total	
	Number of cases	Average score in putting away	Number of cases	Average score in putting away	Number of cases	Average score in putting away
Poor (1)	5	1.40	3	2.00	8	1.70
Average (2)	3	2.00	4	1.75	7	1.86
Good (3)	12	2.50	11	2.09	23	2.30

Among the families in the study good storage for books was more prevalent than good storage for play materials.

The ratings for indoor clothing were compared to the independence shown by the child as determined by the mother in certain routines. These situations were dressing, undressing and during toileting (Table 10). There seemed to be no relationship between good clothing and a high score in self-care or poor clothing and a low self-care score. Only one child had clothing rated as good and this child also had a good score in managing his clothes. In general, there was little difference between the average scores in self-care and poor or average rating of indoor clothing. Nursery School children had slightly higher scores than did the Non-Nursery School children, but the difference was not significant. For poor clothing, the mean self-care score was 2.09 for the Nursery School children and 1.80 for the Non-Nursery School children. For average clothing, the means were 2.43 and 1.98 among the Nursery School and Non-Nursery School children respectively. The differences between the self-care scores for preschoolers having poor and average indoor clothing were too slight to suggest any trends.

Next the outdoor clothing was compared to the child's independence in dressing and undressing himself as determined by the mothers. No conclusions could be drawn since 38 of the 40 children needed a substantial amount of help in putting on their outdoor clothes. The two remaining, who were Non-Nursery School children, needed some assistance. Four Nursery School children and three Non-Nursery School children usually removed their own outdoor clothing without help. Two Nursery School children occasionally took off their outdoor clothing with no aid as

TABLE 10

RATING OF INDOOR CLOTHING COMPARED TO INDEPENDENCE SHOWN
BY CHILD IN DRESSING, UNDRESSING, AND TOILETING

Rating of Indoor Clothing	Nursery School		Non-Nursery School		Total	
	Number of cases	Average score in self-care	Number of cases	Average score in self-care	Number of cases	Average score in self-care
Poor (1)	8	2.09	5	1.80	13	1.98
Average (2)	11	2.43	15	1.98	26	2.09
Good (3)	1	3.00	---	---	1	3.00

compared to one Non-Nursery School child who did so. The majority of the children had outdoor clothing rated as average in permitting independence, with 15 in the Nursery School group and 14 in the Non-Nursery School group. Therefore any statistical attempt at comparing the rating of outdoor clothing to independence as shown in dressing or undressing by these children would be meaningless.

Provisions for the storage of indoor and outdoor clothing were examined in relation to the child's independence in getting his clothing. It was found that closet arrangements for indoor clothes were rated as being poor in 38 families. Twenty Nursery and Non-Nursery School families had provided fair to good drawer facilities for the children's use. Nine families had either good or fair storage for outdoor clothing, whereas 31 made poor arrangements. In the Nursery School group, 16 children usually or occasionally collected some of their indoor clothing when dressing in the morning as compared to 17 Non-Nursery School children. However, 17 Non-Nursery School children and 16 Nursery School children usually or occasionally got their winter play clothing to wear outdoors. Therefore, it appeared that although clothing storage was not adequate in encouraging independence, most of the children made an attempt at using the facilities found in their homes.

No statistical comparison was justified when considering the seating arrangements made at the table and the child's need for adult help in getting to or in leaving the table since 32 of the children usually needed no assistance. Among the Nursery School families, two had good provisions for seating the children at the tables, twelve had fair provisions, and six had poor ones. For Non-Nursery School families, none

had seating provisions which were rated as good. Ten ranked poor and ten were rated fair. It appears that most of the children managed to use whatever seating facilities were made for them without demanding adult help.

No relationship was found between toileting provisions and the child's ability to use the bathroom facilities independently. Regardless of whether or not a footstool was available to help the child reach the toilet, 39 children usually needed no assistance. Thirty-five children usually washed and dried their hands by themselves. The mean score for provisions made in bathroom was 1.50 for the Nursery School group and 1.30 for the Non-Nursery School children. Thus, few families made adequate provisions in the bathroom for their preschool children. Nevertheless, the children managed to wash their hands and to toilet without assistance.

Data had been gathered in the schedule regarding the number of classes pertaining to Child Development that had been taken by the fathers and mothers in both Nursery School and Non-Nursery School groups. A total of 30 fathers had studied the survey course in Effective Living, which is either a required or a suggested subject for Michigan State College under-graduates. Six fathers took child study, marriage classes or psychology courses. Ten mothers had taken some classes related to Child Development and Marriage and the Family. However, no relationship between classwork in Child Development including related subjects and high scores on the schedule was found to exist.

As a further measure, the scores obtained were compared to the age of the child. Arbitrarily, 42 months was established as a division

point since almost half the children were 42 to 47 months old. In the 36 to 41 months age group, the average score for the 10 Nursery School children was 91.80 and for 12 Non-Nursery School children it was 89.08. When combined, their mean was found to be 90.32. For the children 42 months and over, the Nursery School group averaged 96.70 and the Non-Nursery School group averaged 85.88. The mean score for these older children was 91.89. Obviously, no significant difference existed between the scores of children 42 to 47 months and the scores of those 36 to 41 months of age. The major difference appeared in the older group, where the Nursery School children had a somewhat higher average than the Non-Nursery School sample.

Since the Spartan Nursery School gives so many opportunities for parent education, the writer was interested to discover whether children whose parents had much participation in school activities averaged higher scores on the schedule than those children whose parents spent the minimum of time in cooperating. However, no relationship seemed to exist between great participation and high scores in the Nursery School group.

The Nursery School children had been in attendance at the school an average of 3.7 terms. When a comparison was made between the length of time the child had been enrolled and the score he had obtained on the schedule, there was no obvious trend. Children in attendance only one or two terms scored similarly to children enrolled in the school as long as five or six terms.

The education of the mothers was compared to the schedule scores made by the children (Table 11). Any study beyond high school was

TABLE 11

EDUCATION OF MOTHERS COMPARED TO SCORES

Education of Mothers in Years	Nursery School		Non-Nursery School	
	Number of cases	Score	Number of cases	Score
Under 12	---	---	3	90.00
12 to 13	14	91.57	9	86.56
Over 13	6	100.50	8	88.38

recognized, including business college, junior college, nurses training, and university classwork. However, no trend was apparent in the Non-Nursery School group. The few mothers in Nursery School families who had over 13 years of education seemed to stimulate independence to a greater extent than those with less education. Nevertheless, no conclusions can be drawn from this study to the effect that higher education is of benefit in affecting the practices and provisions in the home encouraging independence in these preschool children.

As stated previously, there were six Nursery School families and seven Non-Nursery School families each having two children. Although the sample was small, a comparison was made between the scores obtained by the Nursery School Children and the Non-Nursery School group, all of whom had younger siblings (Table 12). Ages of three-year-old children in both groups were relatively the same. In general, no difference was found between the two groups, since the mean for the Nursery School sample was 94.50 and for the Non-Nursery School sample was 95.14. However, when the mean of this selected sample was compared to that of the entire 20 Non-Nursery School children, a difference was found. The Non-Nursery School group had a mean score of 87.80, whereas this small sample taken from the same large group had a mean score of 95.14. When the average score for the 20 Nursery School children was compared to the mean for the small sample taken from the group, it was found to be almost identical. The mean for the larger group was 94.25 and for the smaller 94.50. If meaningful the only difference found was in the Non-Nursery School sample.

As a final point, the average score of girls was compared to that

TABLE 12

SCORES OF THREE-YEAR-OLDS IN FAMILIES WITH TWO SIBLINGS

Nursery School		Non-Nursery School	
Age in months	Score	Age in months	Score
44	104	44	107
42	99	38	105
40	95	38	102
47	93	37	92
44	88	42	91
38	88	45	88
		37	81
Arith. Mean	94.50	Arith. Mean	95.14

of boys. There was a total of 15 boys and 25 girls in the sample selected for study. Also, 15 of the girls were in the Nursery School group. Nevertheless, no significant difference was found between boys' and girls' scores. The mean for the Nursery School girls was 94.13. For Non-Nursery School girls the mean was 88.50. The five Nursery School boys had a mean of 94.60 and the Non-Nursery School boys averaged 87.10. The mean score for all girls was found to be 91.98 as compared to 89.60 for all boys. These mean scores were not significantly different from one another. Therefore, although the sample used for collecting data contained more girls, this unrepresentativeness did not appear to affect the results found in the previous tests for significance between Nursery School and Non-Nursery School children.

CHAPTER V

DISCUSSION AND CONCLUSIONS

In this chapter certain of the most important findings are emphasized. In addition, some generalizations and observations made by the researcher regarding various portions of the schedule not heretofore given will be included.

When data are collected in home visits and the researcher is unable to observe the child in the situations considered in the schedule, the validity of the study depends partly upon parental cooperation. Therefore the interviewer attempted to establish rapport with the interviewee to obtain as accurate data as possible. In this particular research study, the mothers interviewed were exceptionally helpful and friendly in cooperating with the worker. All the women visited were young. Their school experiences were recent. Also, they seemed to be interested in participating in a research study. Since they lived near many families facing similar problems in child rearing, the mothers were accustomed to discuss their children with others and to be somewhat more objective in understanding their own youngsters than might be expected of young women.

The Nursery School and Non-Nursery School families interviewed in the study were similar in so many respects that any differences found in the results obtained in the schedule probably could be attributed to the Nursery School association of the parents. However, as was presented in the Findings (Chapter IV), only two of the 44 ratings and questions differed significantly in favor of the Nursery School children when tested with the "t" test. Also, when the four topics of the

schedule were tested, only Play Materials and Books had a highly significant "t" score, (2.75). Nevertheless, when results of all the 44 questions were compared, a significant difference was found between these two groups. The Nursery School children had a higher mean score than the Non-Nursery School children and the difference was statistically significant with a "t" score of 2.26. It appears that although there was little difference statistically in respect to results obtained on individual questions or on the four topics, their small variations did have a definite effect on the final scores. Therefore, it seems that Nursery School families in contact with the Spartan Nursery School made more provisions and permitted more practices to encourage independence in three year old children than did the Non-Nursery School families, as judged by the schedule.

Some of the information observed concerning the various items in the schedule seemed to warrant discussion but no statistical procedures. The two significant differences found in individual ratings were under the first topic, Play Materials and Books. Many parents had provided some good toys for active play but the selections were limited in number. Under this toy classification, balls, tricycles, wagons, and outgrown push-pull toys were most prevalent. A very few men built out-door swings for their children. The father of one Nursery School girl had made simple playground equipment, consisting of a teeter and a slide in addition to a swing. In general, little planning was done to protect toys used out-of-doors. In some instances, they were left to the weather, but many parents brought the toys in the apartment to be kept temporarily in a corner or a closet.

A highly significant difference was found between the selection of Materials for Manipulative Play that were provided by Nursery School

and Non-Nursery School families ($t = 2.89$). Coloring books, sewing cards, and tiny bits of crayons were among the less desirable selections made by both groups. The Nursery School families had more satisfactory blocks, nested units, homemade clay, and puzzles than did the Non-Nursery School families. The selection of toys for manipulative play at the Nursery School may have influenced the group of participating parents. A few of these parents had constructed excellent wooden puzzles for their children in the workshop of the School. Quite a number of parents in both groups provided sandboxes in their yards during the summer months.

In Nursery School and Non-Nursery School families, the best toys provided were those for Dramatic Play. Several parents commented that they had learned by experience to avoid supplying windup toys because they broke too easily. The fathers and mothers had made a number of doll-corner toys, such as wooden chests, ironing boards, and doll clothing. Instead of providing adequate shelf storage for small toys, the parents generally gave the children cardboard or wooden boxes to use. Consequently, a number of excellent toys were badly damaged, and some were buried so far down in the receptacles that the children seldom used them.

All the children could play with most of their toys at any time. In a few Nursery School and Non-Nursery School families, the mothers commented that they had rainy-day toys put away for the children. Two mothers, one Nursery School and one Non-Nursery School, insisted that the children color under supervision since they had previously marred the walls of the barracks. A total of 39 families had arranged a definite place in the child's bedroom for play materials and a space

where the child could play. This was true even in families where a younger sibling shared the bedroom with the three-year-old.

In general, children had freedom to use their books or toys anywhere in the house. Some parents said they preferred that the children play in their own bedrooms. However, the children were not forbidden to play in other rooms of the house.

The highest statistical difference found between Nursery School and Non-Nursery School provisions and practices was that concerning the selection of children's books, ($t = 3.57$). Nursery School children seemed to have books that were in general well-cared for, unmarked and untorn. The Non-Nursery School children often scribbled or ripped pages from their books. Possibly the Spartan Nursery School staff had emphasized that care should be used in handling books and the children may have been encouraged by their parents to carry this habit into the home. Almost all the children's books owned by the families were the popular twenty-five cent Golden Books, which are colorful and usually suitable for preschoolers. When the children had more expensive books, these were often put away for use only under parental supervision.

Of the 40 children, 24 usually put away their toys with or without adult reminding; 32 usually did the same with their books. The difference may be explained by the fact that book storage was usually more satisfactory than that provided for toys. Although toys were generally stored in boxes, books were most often kept on low shelves or tables.

Although closet arrangements for the child's clothing were unsuitable for encouraging independence in 38 cases, a few of the children made an attempt to use them. Their mothers said that these preschoolers

would bring chairs to the closet, or would balance upon nearby trunks or boxes to reach the clothing. A total of 29 children chose the clothing they wanted to wear in the morning. Several mothers stated that they seldom let the children have their choice since "the colors weren't right" or the garments selected were for "best". Only eight children did not collect some of the clothing that they would be wearing, although in many cases shoes, socks or underwear were all that the children could get independently. The mothers reported that 14 children usually or occasionally dressed themselves in the morning without assistance. Tying of shoes was not considered, however, since children under six find this much too difficult. Also, 18 children usually or occasionally undressed themselves at night. However, almost all the mothers of these children commented that their youngsters could manage the clothing, but often added that "it's too much trouble so I usually dress him" or "he takes too long". Only one child usually needed help with clothing before toileting, whereas in nine cases, mothers helped adjust overalls or shirts after the child had toileted.

The outdoor clothing for children was usually kept on a high rod in a closet. Five mothers had provided hooks, stands, or a low rod for the child's use. About half of the children put away some of their outdoor wraps but these usually were boots or accessories. With outdoor clothing, 38 children were helped entirely in dressing and 30 were usually undressed. Gesell claims that children of this age can handle undressing almost with no help, but that some help is needed in dressing, mostly to start jackets and ski-pants ²⁶. Interestingly enough, children

²⁶Gesell and Ilg, op. cit., p. 219.

seem to require more help at home than at Nursery School ²⁷.

According to Key's study, children make the most pronounced gains in dressing ability between one and a half and three and a half years ²⁸.

Gesell has stated that children can do much of the dressing and undressing routine, and that girls, being more dexterous than boys, often are efficient in handling their clothing by the time they are three and a half years old ²⁹. Consequently it appears as though during this age range when children should be making the greatest gains toward independence in the dressing routine, mothers in this study were not giving them maximum opportunity for practice.

Gesell found that children of three and four are interested in setting the table for meals ³⁰. In the families visited, a total of 35 children usually or occasionally did. In addition 28 children helped serve food at the table. Arrangements for seating the child at the table were far from ideal, since the majority of parents provided only adult-sized chairs. However, most of the children used their chairs or high stools independently. Children of this age can be expected to manage their food with little assistance ³¹. In only three cases did the mothers report that they occasionally needed to help their children during mealtime with any foods. Less than half of the mothers en-

²⁷Ibid., p. 219.

²⁸Cora Key, et al., "The Process of Learning to Dress Among Nursery-School Children", Genetic Psychology Monographs, 18: 162, April, 1936.

²⁹Arnold Gesell, et al., First Five Years of Life (New York: Harper and Brothers Publishers, 1940), p. 248.

³⁰Ibid., p. 243.

³¹Ibid., p. 242.

couraged the children to clear the table. However, several of the parents, remarked that the children helped dry silverware or their own plastic dishes. The children using bibs needed adult help, those using napkins or aprons managed them independently. However, the same child might vary in what he used from day to day. Also two of the children used nothing to protect their clothing during meals.

Although the majority of the children were independent at toileting, provisions made were far from desirable. Few parents had arranged the child's towel, washcloth, or comb at a level he could reach. Eight Nursery School parents and six Non-Nursery School parents provided step-stools or low chairs in the bathroom to aid the child in reaching the wash-basin. However, 30 children had become adept at climbing on the adjacent toilet seat and reaching over to obtain supplies or to wash their hands. None of the families provided a comb in the bathroom with a mirror placed so that the child could see himself. One mother who had arranged a low mirror above the wash-basin volunteered that she "got the idea from Nursery School". However, she had neglected to place a comb nearby for her child to use.

For this particular study, the emphasis was not so much upon what the child was capable of doing for himself, but what skills he was permitted to do. From the findings, it appeared that Nursery School families encouraged their children toward independence to a significantly greater extent than Non-Nursery School families through practices and provisions made in the home. However, in some respects mothers seemed to hinder the child in his learning of independent practices when the process of gaining these skills would be long and tedious for the parents. For

example, it was apparently easier to dress the children in the morning than to answer the questions and to give the incidental help necessary if the children were to take the responsibility for the routine. Three-year-olds as a rule can be expected to remove most of their clothes independently. Nevertheless many of the children were being entirely undressed nightly by their mothers or fathers.

Perhaps the most outstanding impression gained from the study was that these children between three and four years of age actually strove against great obstacles to care for themselves. They were excellent at improvising means of getting at high drawers and closet rods, they leaned precariously from the toilet seat to reach the wash-basin, they awkwardly perched upon inadequate seating arrangements at the table and managed to eat their meals without help from adults. If these same children were encouraged to a greater extent in self-help with clothing and guided toward independence in other practices about the home, the results might prove to be highly satisfactory to the parents.

CHAPTER VI

SUMMARY

The purpose of this study was to determine whether contacts of families with a cooperative Nursery School were related to provisions and practices in the home stimulating independence of three-year-old children. Data were collected in one home visit per family by the writer during January - March, 1950. A sample of 40 families of Michigan State College veteran students living in barracks apartments was studied. Of these families, 20 had three-to-four year old children who were enrolled in the Spartan Nursery School for a minimum of one school quarter, and 20 had had no Nursery School contact. Parents whose children attended the Spartan Nursery School were expected to assist in certain of the School's activities. A thorough educational program for parents had been organized by the staff and all Nursery School mothers and fathers were encouraged to participate.

The schedule used in the study was divided into four parts, each developed to obtain data concerning the independence shown by the child in the home and the provisions made in the home which might help or hinder him in acquiring this trait. The four areas investigated were Play Materials and Books, Clothing, Eating, and Toileting. Questions about the child's activities were asked of the mothers and observations of provisions were made by the researcher. A score card was used as an objective measure to rate the facilities found in these homes.

Data obtained were tested for significance by using the "t" test. When the mean scores of the two groups were compared, a significant "t" score of 2.26 in favor of the Nursery School group was found. Also,

the Nursery School and Non-Nursery School samples differed significantly in respect to the first section of the schedule, Play Materials and Books, with a "t" Score of 2.75. Again, the Nursery School children excelled in this area. No significant "t" scores were found in the remaining three sections, although the Nursery School group made consistently higher scores than the Non-Nursery School group.

When individual questions and ratings were tested a statistically significant difference was found between Nursery School and Non-Nursery School scores on the selections of Toys for Manipulative Play ("t" = 2.89) and selections of Books ("t" = 3.57). Both of these "t" scores were highly significant, Nursery School families ranging higher than the Non-Nursery School. Although the Nursery School and Non-Nursery School groups did not differ significantly in the remaining 42 questions, a decided trend existed in favor of the Nursery School sample. The Nursery School group excelled in 33 items on the schedule, the Non-Nursery School in 7, and both groups obtained identical scores in 4.

Further comparisons were made to determine whether provisions arranged by these families in the barracks apartments had an effect upon what the child could do. No trend was discernible when provisions for storage of play materials were compared to what the child did with his playthings. When provisions for storage of books was compared to the responsibility taken by the child in putting his books away, the following trend seemed to exist among the Nursery School families -- where storage was good, the children seemed to use it to a greater extent than when storage was poor. This trend was not found among the Non-Nursery School sample.

No relationship was noticed between ratings of clothing and the independence shown by the child in dressing or undressing. Although facilities for storage of indoor and outdoor clothing were often poor, most of the children made an attempt to use them at least occasionally.

In most instances children managed independently to use the arrangements made for seating them at the table, although these provisions were only fair. Toileting facilities to aid the child in independence were relatively inadequate, but most of the children did toilet and wash their hands without adult assistance.

Although the sample used in the study had 25 girls compared to 15 boys, no significant difference was found in their scores. According to this research, the sex of the child did not seem to be an important factor in affecting the results obtained in the schedule.

From the data analyzed, it appears as though Nursery School contacts of families have some favorable effect upon the practices and provisions made in the home to encourage young children in independence. Although the Nursery School and Non-Nursery School families differed only slightly in most of the items in the schedule, a decided trend did exist in favor of the Nursery School sample when the schedule was considered in its entirety.

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A P P E N D I X

Date _____

Case number _____

Description of apartment:

no bedroom _____
 one bedroom _____
 two bedrooms _____

Number of children in the family:

sex age
 1. _____
 2. _____

Number of children who have attended any nursery school:

none _____
 sex age length of time attended
 1. _____
 2. _____

Number of children now attending the Spartan Nursery School:

sex age when enrolled
 1. _____
 2. _____

Participation in Nursery School activities by parents:

	<u>Mother</u>	<u>Father</u>
Observation	_____	_____
Teaching	_____	_____
Individual and general group meetings	_____	_____
Work meetings	_____	_____
Child development classes	_____	_____
Other	_____	_____
None	_____	_____

Father's occupation: Student _____, major _____, class _____.

Mother's occupation: Homemaker _____, other _____.

Highest year of school completed by mother _____. Major, if college trained

_____.

Number of classes taken by parents in the following: (estimated)

	<u>College</u>		<u>Other (specify)</u>	
	<u>Mother</u>	<u>Father</u>	<u>Mother</u>	<u>Father</u>
Child Study	_____	_____	_____	_____
Marriage and the Family	_____	_____	_____	_____
Other	_____	_____	_____	_____
None	_____	_____	_____	_____

(2-)

A. Play Materials and Books

I. Play materials for active play__

a	b	c
balance boards__	auto__	Storage__
balls__	bicycle__	shelf__
blocks, yard__	push-pull toys__	drawer__
boxes__	rolling games__	box__
climbing equipment__	skates__	around__
swing__	scooter__	other__
tricycle__		
wagon__		
wheelbarrow__		

II. Play materials for manipulative play__

a	b	c
beads__	coloring books__	Storage__
blocks__	elaborate construction	shelf__
clay__	sets__	drawer__
crayons__	pattern sets__	box__
dough__		around__
nested cones, blocks__		other__
paints: finger__, poster__,		
easel__, brush__		
puzzles__		
sandbox__, sand toys__		
scissors__		
woodworking equipment__		

III. Play materials for dramatic play__

a	b	c
dolls__, doll furniture__	electric toys__	Storage__
doll corner toys: house__,	windup toys__	shelf__
bed__, chairs__, table__,		drawer__
chest__, carriage__, dishes__,		box__
clothes__		around__
cars, trucks__		other__
dressup materials: clothing__,		
accessories__, fabric__		
toy animals__		

* IV. May your child use his playthings at any time?

Usually__

Occasionally__

Rarely or never__

Which ones may he play with only at certain times? Why?

V. Where does your child usually play with his toys? __

Which ones may he use only at a special place? Why?

[illegible]

(-3-)

VI. Books__

a collections of stories, poems__ picture books__ library books__	b elaborate educational series__	c Storage__ shelf__ box__ drawer__ around__ other__
---	--	--

d. Where does your child usually look at these books?__

e. May your child look at these books at any time?

Usually__ Occasionally__ Rarely or never__

Which ones can't he look at? Why?

VII. When your child has finished playing, what does he usually do with his toys?

- a. Puts them away without being reminded__
- b. Puts them away after being reminded__
- c. Puts them away with help__
- d. Leaves them__

VIII. What does your child usually do with his books when he has finished looking at them?

- a. Puts them away without being reminded__
- b. Puts them away after being reminded__
- c. Puts them away with help__
- d. Leaves them__

B. Clothing

I. Clothing storage

a. Closet: Own__, shared: sibling__, adult__

1. Arrangements__

		shoes,	shirts	dresses	coat, jac.		
L H		slippers	blouses	trousers	legg.	hat	other
-- rod	---	---	---	---	---	---	---
-- hooks	---	---	---	---	---	---	---
-- nails	---	---	---	---	---	---	---
-- shelf	---	---	---	---	---	---	---
-- around	---	---	---	---	---	---	---
-- other	---	---	---	---	---	---	---

2. Separate arrangements for outdoor clothing__

L H	coat, jac, legg.	hat	mittens	boots	sweater	other
-- rod	---	---	---	---	---	---
-- hooks	---	---	---	---	---	---
-- box	---	---	---	---	---	---
-- other	---	---	---	---	---	---

1. The first part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation. The names are listed in alphabetical order, and each name is followed by the position to which he has been appointed.

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- b. Drawers_____
1. Number: Low_____ High _____
2. Storage for:
- | | | |
|----------------|--------------|------------|
| underwear_____ | shirts_____ | scarf_____ |
| socks_____ | blouses_____ | |
| sweaters_____ | mittens_____ | |

II. Dressing and undressing

- a. Indoor clothing_____
1. Does your child tell you what he wants to wear when he is dressing in the morning?
- Usually_____ Occasionally_____ Rarely or never_____
2. Does your child get any of his clothing when he is dressing in the morning?
- Usually_____ Occasionally_____ Rarely or never_____
- What clothing does he get without help?
- | | | | |
|--------------|---------------|------------|----------------|
| blouses_____ | dresses_____ | socks_____ | underwear_____ |
| shirts_____ | trousers_____ | shoes_____ | |
3. Do you dress your child in the morning?
- Usually_____ Occasionally_____ Rarely or never_____
- What clothing does your child put on without help?
- | | | | |
|--------------|---------------|------------|----------------|
| blouses_____ | dresses_____ | socks_____ | underwear_____ |
| shirts_____ | trousers_____ | shoes_____ | |
4. Do you undress your child at night?
- Usually_____ Occasionally_____ Rarely or never_____
- What clothing does your child take off without help?
- | | | | |
|--------------|---------------|------------|----------------|
| blouses_____ | dresses_____ | socks_____ | underwear_____ |
| shirts_____ | trousers_____ | shoes_____ | |
5. What does your child usually do with his clothing at bedtime?
- a. Puts it away without being reminded_____
- b. Puts it away after being reminded_____
- c. Puts it away with help_____
- d. Leaves it_____
- b. Outdoor clothing_____
1. Does your child tell you what winter play clothes he wants to wear outdoors?
- Usually_____ Occasionally_____ Rarely or never_____
2. Does your child get the winter play clothes he will wear outdoors?
- Usually_____ Occasionally_____ Rarely or never_____
- What clothing does he get without help?
- | | | | |
|-------------------|--------------|------------|--------------|
| coat, jacket_____ | mittens_____ | scarf_____ | sweater_____ |
| leggings_____ | boots_____ | hat_____ | |

100

100

100

100

100

100

100

100

100

100

100

100

100

100

100

(-5-)

3. Do you dress your child for outdoor play?
Usually___ Occasionally___ Rarely or never___

What clothing does your child put on by himself?
coat, jacket_ mittens_ scarf_ sweater_
leggings_ boots_ hat_

4. Do you take off the winter play clothes your child wears outdoors?
Usually___ Occasionally___ Rarely or never___

What clothing does your child take off without help?
coat, jacket_ mittens_ scarf_ sweater_
leggings_ boots_ hat_

5. Does your child put away his winter play clothes after he is undressed?
Usually___ Occasionally___ Rarely or never___

What clothing does your child put away without help?
coat, jacket_ mittens_ scarf_ sweater_
leggings_ boots_ hat_

C. Eating

- I. Arrangements made at table for seating child___
child table and chair set_ stepstool_
elevated adult chair: books_, footrest_
pillows_, frame_
youth chair_ none_
stool_
highchair_

- II. Does your child help set the table for meals?
Usually___ Occasionally___ Rarely or never___

What does he place on the table?
dishes or glassware_ napkins_ mats_
silverware_ cloth_ food_

- III. Is your child helped on or off his chair for meals?
Usually___ Occasionally___ Rarely or never___

- IV. Do you help your child adjust his napkin or bib?
Usually___ Occasionally___ Rarely or never___

- V. Does your child feed himself?
Usually___ Occasionally___ Rarely or never___

- VI. Does your child help serve during meals or at snacks?
Usually___ Occasionally___ Rarely or never___

What does he serve?
food_ silverware_ napkins_

VII. Does your child help clear the table after meals?

Usually____ Occasionally____ Rarely or never____

What does he remove?

dishware or glassware_	napkins_	mats_
silverware_	cloth_	food_

VIII. Does your child wait until the family has finished eating before leaving the table to play?

Usually____ Occasionally____ Rarely or never____

D. Toileting

I. Available in the bathroom within the child's reach____

a		b
toilet paper_	towel_	toilet seat_
soap_	washcloth_	stepstool_
mirror_	light switch_	
comb_		none_

II. Does your child need help in unfastening his indoor clothing before he toilets?

Usually____ Occasionally____ Rarely or never____

with what clothing does he need help?

trousers_	overalls_
underwear_	suits_

III. Do you help your child with his indoor clothing after he has toileted?

Usually____ Occasionally____ Rarely or never____

With what clothing does he need help?

trousers_	overalls_
underwear_	suits_

IV. Do you give your child help in getting on or off the toilet?

Usually____ Occasionally____ Rarely or never____

V. Does your child wash and dry his hands by himself?

Usually____ Occasionally____ Rarely or never____

VI. Do you permit your child to go into the bathroom without an adult?

Usually____ Occasionally____ Rarely or never____

VII. Does your child comb his hair?

Usually____ Occasionally____ Rarely or never____

SCORING

(In all questions but the following, an answer of Usually = 3, Occasionally = 2, Rarely or never = 1.)

For these questions, Usually = 1, Occasionally = 2, rarely or never = 3:

Part B, II-a-3, II-a-4, II-b-3, II-b-4; Part C, III, IV;

Part D, II, III, IV.

For these questions, 'a' = 3, 'b' = 2, 'c' or 'd' = 1:

Part A, VII, VIII; Part B, II-a-5.

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SCORE CARD

A. Play Materials

I. Ratings on the selection of play materials.

a. To qualify for a "3" rating, all these considerations should be met:

1. Most play materials help promote independence by consisting of a selection suited to the relative age and ability of 3-year olds.
2. Most play materials selected help develop the child physically and/or mentally.
3. Most play materials are suggestive of several kinds of different play.
4. Most play materials are in usable condition or suitably repaired, safe for play.
5. The selection consists of a variety of different types of play materials without an emphasis upon one type. (Consider I, II, III in questionnaire before making a decision).

b. To qualify for a "2" rating, one or more of these considerations should be met:

1. Some play materials help promote independence by consisting of a selection which is suited to the relative age and ability of 3-year olds. Some materials are unchallenging or too advanced for this age group.
2. Some play materials selected help develop the child physically and/or mentally. Some have no educational advantage.
3. Some play materials can be used only for one kind of play, some are suggestive of several different kinds.
4. Most playthings are safe for play. Some are in need of suitable repairs for optimum use.
5. Some types of play materials are over-emphasized, others are over-looked in the selection.

- c. To qualify for a "1" rating, one or more of these considerations should be met:
 - 1. Most of the play materials are unsuitable for this age group, being too difficult or too unchallenging (i.e. 100-piece crossword puzzles, erector sets, electric trains, push-pull toys, rattles). Adult help seems necessary.
 - 2. Few play materials help develop the child physically or mentally.
 - 3. Few play materials can be adapted for several kinds of play.
 - 4. Some or few toys are in usable condition, or are suitably repaired. Some are not safe for play.
 - 5. A few different types of play materials are over-emphasized and the variety is unbalanced.

II. Ratings on the storage of play materials.

- a. To qualify for a "3" rating, all these considerations should be met:
 - 1. Storage places or areas are planned for the play materials stored. Toys stored out-of-doors are protected from the weather.
 - 2. The storage spaces are large enough to contain the number and kind of play materials stored. Shelves, boxes, and/or drawers used for storage are sufficiently narrow for easy selection.
 - 3. Most play materials are within reach and easily accessible to the child.
- b. To qualify for a "2" rating, one or more of these considerations should be met:
 - 1. Some storage areas are planned for the child's play materials. Toys kept out-of-doors are stored in a specific place, but are not suitably protected from the weather.
 - 2. Some storage areas are too small or confining for the number and kind of play materials stored there. In some cases the shelves, boxes, and/or drawers used are too wide or too narrow for convenience in storage or selection.
 - 3. Some play materials are within reach and accessible to the child, some are out of reach or difficult to obtain.

- c. To qualify for a "1" rating, one or more of these considerations should be met:
 - 1. Few storage areas are planned for play materials, most toys are "left around". Toys kept out-of-doors have no specific storage place and are unprotected.
 - 2. The storage spaces are too small or inconvenient for the number and kind of play materials stored there. Shelves, boxes, and/or drawers used are too narrow or too wide for easy selection.
 - 3. Few play materials are within reach and are easily accessible to the child.

B. Books

I. Ratings on the selection of books.

- a. To qualify for a "3" rating, all of these conditions should be met:
 - 1. Books are a convenient size (few tiny, odd-shaped, very large books) for children to handle.
 - 2. Books are attractive and have many illustrations.
 - 3. The subject matter of most of the books consists of simply told stories or poems, dealing with experiences related to the child's own life.
 - 4. Most books are sturdily bound to withstand wear.
 - 5. All books are in usable condition, suitably repaired, if necessary.
- b. To qualify for a "2" rating, one or more of these considerations should be met:
 - 1. Some books are a convenient size for preschool children to handle easily. Some are too small, some are odd-shaped, or very large.
 - 2. Some books are attractively illustrated, some have few illustrations and much print, or are unattractive in appearance.
 - 3. Some stories and poems are simple and deal with experiences related to the child's own life. Some are fanciful tales, some are entirely "picture" books.
 - 4. Some books are sturdily bound, others have flimsy covers, or bindings easily loosened.
 - 5. Most books are in usable condition, a few need repairs.

- c. To qualify for a "1" rating, one or more of these considerations should be met:
 - 1. Few books are of a size and shape convenient for children to handle.
 - 2. Most books have few pictures or attractive illustrations.
 - 3. The subject matter of most books consists of complicated or fanciful stories, unrelated to experiences within the child's own life; the subject matter in most instances is either beyond the comprehension of children in this age group, or too unchallenging, as in "picture" books.
 - 4. Most books are poorly bound for children.
 - 5. Most books are in need of suitable repairs, some are in usable condition.

II. Ratings on storage of books.

- a. To qualify for a "3" rating, all of these considerations should be met:
 - 1. Most of the books are stored in a planned space within the child's reach.
 - 2. Most of the books are stored in such a manner that a child could select any one easily without adult help. The storage area is of sufficient size to contain the number and size of books.
- b. To qualify for a "2" rating, one or more of these considerations should be met:
 - 1. Some books are stored in a planned area within the child's reach. Some are either out of reach or unstored and left haphazardly about.
 - 2. Some books are stored up closely that adult aid might be needed to help the child select a book.
- c. To qualify for a "1" rating, one or more of these considerations should be met:
 - 1. Some books are stored out of the child's reach. Some are haphazardly left about.
 - 2. Most books are so tightly shelved or stacked that adult help may be needed to obtain them.

C. Freedom of play space in the use of toys and books.

- I. To qualify for a "3" rating, all these considerations should be met:
 - a. The child has freedom to play in all rooms of the apartment where health and safety would not tend to be endangered (as near the stove, or in passageways). The child's own bedroom and the living room are accessible for most play, the kitchen and the parent's bedroom are not essential.
 - b. Large wheel-toys or "active play" toys, construction materials, and some books may be restricted to a specific area which should be of sufficient size to permit freedom of movement and expression.
- II. To qualify for a "2" rating, one or both of these considerations should be met:
 - a. The child has freedom to play in some rooms of the apartment. Some rooms which are safe for play may not be used by the child. The parent tries to limit the child to the use of his bedroom. This room has sufficient space for play.
 - b. Large wheel-toys and "active play" toys, construction materials, and some books may be restricted to a specific area which is relatively hampering in freedom of movement and/or expression in some instances.
- III. To qualify for a "1" rating, one or both of these considerations should be met:
 - a. The child is restricted to a few play areas within the apartment. Unsafe play areas may be among these. The child is usually restricted to his bedroom which is not suitable for most play.
 - b. Most play equipment is restricted to an area or areas which are too small to permit freedom of movement and expression.

D. Clothing

- I. Ratings on the selection of clothing.
 - a. To qualify for a "3" rating, all these considerations should be met:
 1. Fairly large buttons and zippers with large tabs are used on most garments. Fastenings are conveniently placed for ease in manipulation. Fastenings are few in number.
 2. There are few slip-on articles. The front and back are marked clearly on most of these garments. Most knit shirts have a front opening. There are no shoulder fastenings.

3. Elaborate trimmings, designs, bulkiness which tend to be hampering are absent in most clothing.
 4. Armholes, sleeves, and neck openings in most garments appear to be unconfining. Trouser legs appear loose.
 5. Garments are well-constructed to withstand activity.
- b. To qualify for a "2" rating, one or more of these considerations should be met:
1. Some garments have small buttons or very large ones, or zippers with small and hidden tabs. Some fastenings are conveniently placed for ease manipulation. There are no more than two different types of fastenings used on a given garment.
 2. There are some slip-on articles. In some garments the front and back are marked to aid in distinguishing. Some slip-on knit shirts have a front opening. There are no shoulder fastenings.
 3. Some of the clothes are elaborately designed, heavily trimmed, or bulky, tending to hamper the child somewhat in activities. Some clothes are well-designed.
 4. Some garments have armholes, sleeves, neck openings, appearing to be unbinding. Trouser legs in some garments appear loose. Some clothes appear to be unnecessarily confining.
 5. Most clothing is constructed to withstand activity.
- c. To qualify for a "1" rating, one or more of these considerations should be met:
1. Fastenings on most garments are inconveniently located for the child. Snaps, tiny button, hooks or elaborate fastenings predominate in most of the clothing. There are many hidden fastenings. Several different types of fastenings are on one garment.
 2. There are many slip-on articles with most garments having no markings differentiating front and back. There are many shoulder fastenings or back fastenings.
 3. Most of the clothes are elaborate in design, in trimmings, or are bulky, tending to be hampering in activities.
 4. Most garments have armholes, sleeves, or neck openings which appear to be confining or restricting. Trousers appear to be confining through the legs.
 5. Some or most garments are poorly or too delicately constructed to withstand active play.

II. Ratings on storage: closet.

- a. To qualify for a "3" rating, all these considerations should be met:
 1. The closet is planned for the child's clothing with low conveniences or a suitable substitute in most storage areas.
 2. Most storage areas are free from overcrowding.
 3. Most of the child's clothes are separated from that of others, when the closet space is shared.
- b. To qualify for a "2" rating, one or more of these considerations should be met:
 1. The closet is planned for the child's clothing with low conveniences or a suitable substitute in some areas. Some storage places are inaccessible to the child.
 2. Overcrowding in some areas of storage tends to make difficulty in removing or returning clothing.
 3. Some of the child's clothes are separated from that of others when the closet is shared.
- c. To qualify for a "1" rating, one or more of these considerations should be met:
 1. The closet is not specifically planned for the child's clothing. Storage areas are difficult to reach or to use in most instances.
 2. Most storage areas are overcrowded.
 3. Few of the child's clothes are separated from that of others in a shared closet.

III. Ratings on storage: drawers.

- a. To qualify for a "3" rating, all these considerations should be met:
 1. Most drawers are low, easily opened, and shallow.
 2. Most of the children's clothes are separated from that of others.
 3. Clothing is readily accessible, and drawers are not over-crowded.

- b. To qualify for a "2" rating, one or more of these considerations should be met:
 - 1. Some drawers are low, easily opened, and shallow. Some are high, difficult to open, or deep.
 - 2. Some of the child's clothes are separated from that of others. In some drawers the child's clothing is not so stored.
 - 3. Some clothes are readily accessible. Some drawers are overcrowded.
- c. To qualify for a "1" rating, one or more of these considerations should be met:
 - 1. Most drawers are high, difficult to open, or deep.
 - 2. Most of the child's clothes are not separated from that of others.
 - 3. Most clothes are difficult to obtain, and drawers are overcrowded.

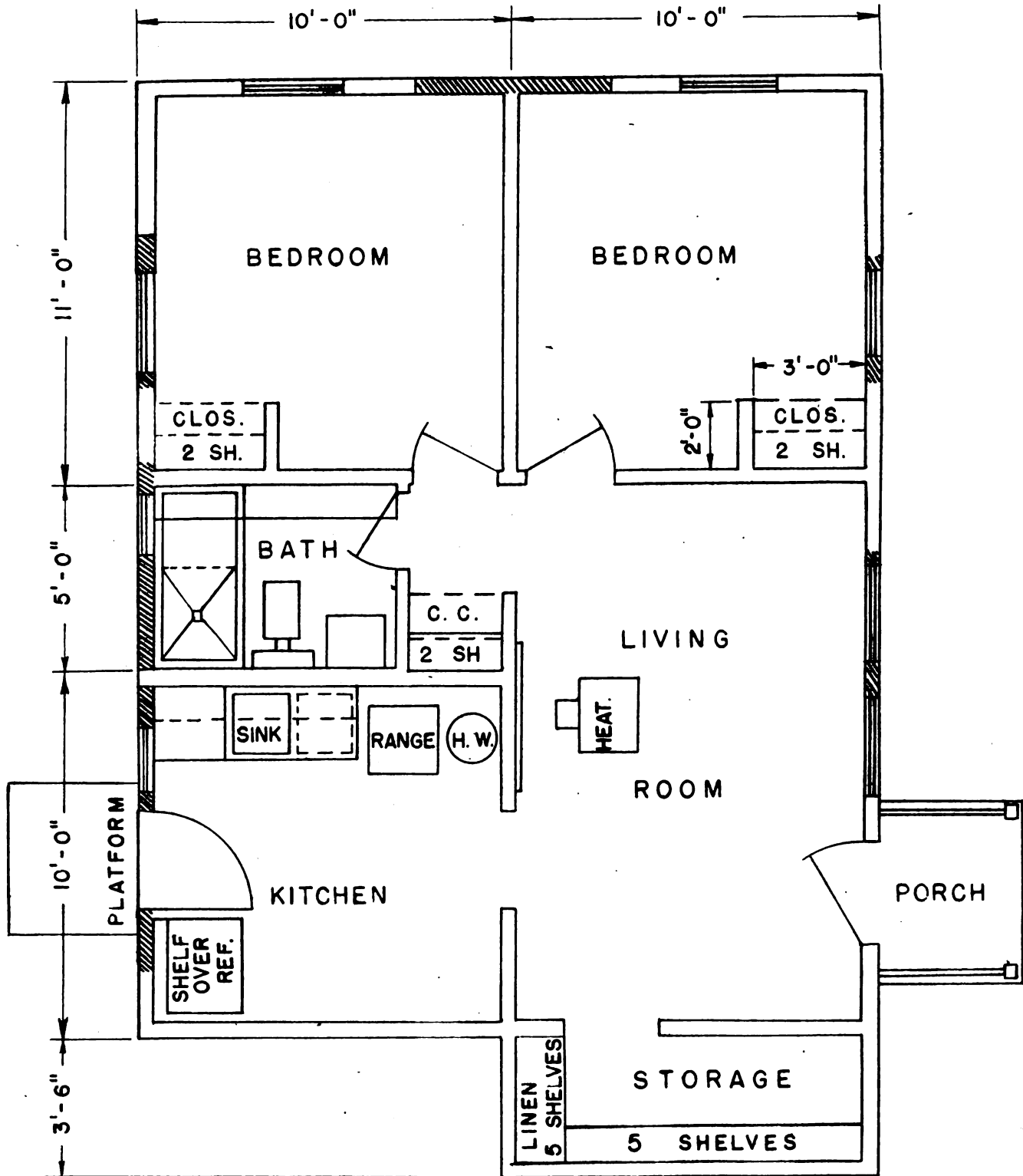
E. Eating Facilities

- I. To qualify for a "3" rating, suitable arrangements have been made to aid the child in getting to and in reaching the table by:
 - a. Sturdily-constructed table and chair set, well-designed, child-sized. Chair has no armrests.
 - b. Adult chair, elevated with comfortable frame having a back and footrest.
 - c. Sturdy high stool with back and footrest and no armrests.
 - d. Sturdy "youth" chair with footrest, no armrests.
 - e. Stepstool available if needed in the arrangements made.
 - f. All arrangements are in good repair, and are safe to use.
- II. To qualify for a "2" rating, arrangements have been attempted to aid the child in getting to and reaching the table. The adjustments have some undesirable feature and are represented by:
 - a. Usable table and chair set, child-sized, with some poor construction or design features.
 - b. Makeshift elevated chair, necessitating care by child in getting to and reaching the table.
 - c. Sturdy high-stool with no back or footrest, or one having armrests.

- d. Sturdy high-chair with tray removed, having footrest and with or without armrests.
 - e. Stepstool is available when needed.
 - f. Arrangements are safe to use, but need some repairing.
 - g. Chair rungs may be conveniently placed for a make-shift footrest.
- III. To qualify for a "1" rating, no adjustment has been made, or that made is unsuitable in aiding the child in getting to or in reaching the table:
- a. No adjustment has been made or that made is unsafe.
 - b. Furniture used is in poor condition, needing repairs.
 - c. Highchair, with tray, or lacking footrest. Armrests are present.
 - d. No stepstool available, one needed.

F. Toileting Facilities

- I. To qualify for a "3" rating, 6 to 7 of the items from List "a" of the schedule are within the child's reach in the bathroom, with or without the use of a stepstool. A stepstool is located in the bathroom if either sink or toilet are installed for adult convenience. (Lack of a washcloth is not to be considered).
- II. To qualify for a "2" rating, 3 to 5 of the items from List "a" of the schedule are within the child's reach in the bathroom, with or without the use of a stepstool. A stepstool is located in the bathroom if either sink or toilet are installed for adult convenience.
- III. To qualify for a "1" rating, 2 or less items from List "a" are within reach of the child in the bathroom. No stepstool is available, but one is needed. If a stepstool is available, 2 or less items from the list are within the child's reach when using the stepstool.



FLOOR PLAN OF TWO-BEDROOM
BARRACKS APARTMENT

SCORES FOR 20 NURSERY SCHOOL AND 20 NON-NURSERY
SCHOOL FAMILIES

Nursery School		Non-Nursery School	
	70		73
	85		74
	85		81
	88		81
	88		81
	91		82
	93		82
	93		82
	93		83
	94		85
	95		88
	95		88
	97		90
	97		91
	99		92
	100		94
	102		95
	104		102
	104		105
	<u>114</u>		<u>107</u>
Total	1885	Total	1756
$\bar{X}$	94.25	$\bar{X}$	87.80
S.D.	8.96	S.D.	9.14

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