AN ABSTRACT OF THE THESIS OF

Middleton, Margaret

for the M.S. in Household Administration

(Date Thesis presented- July 1942-

Title- The Effect of Nursery School Experience on College Students Attitudes and Practices with Reference to Children

Abstract Approved:

(Major Professor)

The purpose of this study was to determine probable values received from nursery school experiences by discovering the gains in selected attitudes and practices of twenty-four college students after having actual experience with children in a college nursery school. This experience was subsequent to a course in child development which included observations in a nursery school. The students' gains in attitudes were measured by a battery of attitude tests which included a scale on self-reliance constructed by Ojemann; a scale on the use of fear as a means of control constructed by Ackerley; and scales on self-expression, corporal punishment, praise, and adoption constructed by Brandon. The scales consisting of variables relating to each topic were arranged along a linear continuum. The method used in constructing these scales was a modification of the technique used by Thurston in the measurement of attitudes. The difference in the scores on the initial and final tests, which were given at the beginning and close of the nursery school course, was considered the student's gain or loss. The criteria used in evaluating the scales was the composite judgment of a group of highly qualified judges.

A written test on student-child situations constructed by Read was used to determine the students' judgment in dealing with different situations. The difference in scores on initial and final tests was considered as the gain or loss. The writer's observation of students' practices in the nursery school were checked on observation blanks which were constructed by Landreth and supplemented by Moore's scale for scoring verbal contacts and by the writer's five point scale for rating the type of physical contacts. Each student was observed in free play and routine situations in both initial and final observation periods and a sequential record was kept.

Personal data and a self-evaluation of the students was obtained from a personal questionnaire constructed by the writer and filled out by the students. Each student was rated by the instructor at the end of the course on the basis of a four point improvement scale and also by a term grade which was determined by the student's final ability in nursery school practices.
Individual gains or losses in the separate attitudes and situations were compared with judges' average and total attitude gains. The data as measured by attitude scales, situation test and observations show the following:

1. The relationship of total attitude gain with the individual attitudes seems to indicate that a gain in one attitude does not necessarily indicate a gain in another attitude.

2. High relationship was found between total attitude gain and students' improvement on written situation test.

3. Some gain in relaxedness by large per cent of the students was observed, which is probably due to the fact that the students knew more what was expected of them and felt more at ease at the close of the nursery school course.

4. A high relationship was found between the relaxed students and method goals such as physical care, motor, emotional, social, mental and aesthetic development of the child.

5. A marked relationship existed between relaxedness and the use of favorable physical methods.

6. Low relationship was found between the term grade and the total grade point average of the student, which tends to show that some students are better in subject matter courses than in laboratory courses requiring the application of many principles.

7. Insignificant relationships were observed between instructor's rating and gains in attitudes and gains in practice as measured by situation test. This tends to show that the student's greatest improvement was not in attitude or practice as measured by a situation test. There was apparently no transfer in the learning of attitudes and in the improvement of practices.

8. The writer feels that the results of the study show that the students tend to change in both attitudes and actual practices or contacts as a result of nursery school experience.

Although the number of subjects included in this study is too small to allow for the stating of definite conclusions, results do show interesting trends.
THE EFFECT OF NURSERY SCHOOL EXPERIENCE
ON COLLEGE STUDENTS ATTITUDES AND
PRACTICES WITH REFERENCE TO CHILDREN

by

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ACKNOWLEDGMENT

To Doctor Vera H. Brandon, who served as major adviser to the author in her graduate work, the writer wishes to express her sincere appreciation. Her guidance and suggestions in the preparation of this thesis and her understanding counsel have been exceedingly valuable.

The author wishes to thank Mrs. Katherine H. Read, Nursery School Instructor, who gave so willingly of her time in offering suggestions and constructive criticism of this thesis.

It has been only through the cooperation and helpful assistance of the above named that this study has been made possible. The author wishes to express her appreciation.
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CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

Introduction

It is the purpose of this study to determine at least in part the value received from nursery school experiences by discovering the gains in attitudes and practices of the students enrolled in the nursery school class. Several aspects of changes may occur in the student as a result of a series of learning experiences. The changes most frequently studied are those relative to knowledge, but there may also be changes in regard to what the student does and the attitudes she holds.

Review of Literature

According to Ojemann (7), a given behavior act may be considered as being the product of several inter-acting factors such as knowledge, skill, emotion, and attitude; and the possibilities and limitations of the environment in which the act occurs. Thurstone (12) has devised probably one of the best known methods for the measurement of attitude. It consists of expressing attitudes in steps that are approximately equal on a psycho-physical continuum with attitude variables that extend over the range from extreme favorability, through the mid-point, to extreme unfavorability.
The method has been supplemented by Ojemann, for he found two difficulties with this type of scale. He saw the need of defining the "key-concept" and stating the situation involving the attitude. A combination of the two methods was used in the construction of the six attitude scales in this study.

Several previous studies have been made on changes in attitudes. Sloan (11 p. 64) studied the attitudes of high school students and their parents on discipline and found a relationship between the attitudes of students and their parents. However, a higher relationship was determined between the parents' practices and the students' attitudes.

In a group of half Japanese Americans and half native Americans in a high school in California, Price (8 p. 74) found a high relationship between the attitude of children and the practices of their parents on discipline.

Brown's (4) study of parental attitudes and their effect upon child adjustment show no significant differences between the parental attitude scores of mothers of well-adjusted and poorly-adjusted children.

In Brandon's study (3) it was found that as a result of classroom discussions in child development and observations in a nursery school the students made significant gains in attitudes. However, no relationship was found between gains in knowledge and
gains in attitude. The attitudes scales for measuring the gain in the above study were also used in the present study.
CHAPTER II

THE PROBLEM, METHOD OF PROCEDURE AND DEFINITION OF TERMS

Part 1. Statement of the Problem

A review of literature shows a lack of definite data concerning the effect of nursery school experience on college students' attitudes and practices. With previous training in related courses and observations in a nursery school from which to build their attitudes, it is generally felt that in addition to these basic courses students need practical experience with children; and many colleges and universities are recognizing the importance of student-child contacts as a learning factor. As a result, the nursery school course is a part of many college courses.

This study deals with attitudes and practices of college students in a nursery school class and laboratory. Its purpose is to determine the changes in attitudes and practices of the students after having actual experience with the children in a nursery school when this experience is subsequent to a course in child development which included observations in a nursery school.

The problem undertaken by the writer may be specifically stated as follows:

1. To study the effect of nursery school experience on college students' attitudes and practices with reference to children.
2. To analyze the above results according to
(a) Changes in attitudes
(b) Changes in practices

**Part 2. Method of Procedure**

**Forms Used in Gathering Data**

**Attitude Scales:**

To determine the attitudes on self-reliance, self-expression, corporal punishment, praise, adoption, and fear possessed by the students in the nursery school class, a battery of attitude tests (p.58) were given each student. The scales used were taken from two previous studies and used as instruments for measurements. These scales had been scored by highly-trained people in the field of child development. The self-reliance scale was constructed by Ojemann (7); the scale on the use of fear as a means of control was constructed by Ackerley (1), and the scales on self-expression, corporal punishment, praise and adoption were constructed by Brandon (3).

**Situation Test:**

A test on student-child situations (p. 78) was used to determine the students' judgment in dealing with different situations. This test was constructed by Read (9) and scored by highly-trained people in child development.

**Observation Form:**

Since observation is the principal method used in the study
of practices, this method was selected for obtaining records of the students' practices in the nursery school. An accurate observation requires that the situation and the response be described specifically; therefore, the writer used an observation blank (p. 84) which included definite facts to be checked for each student-child situation observed. This form was constructed by Landreth (5) and supplemented by Moore's scale for scoring verbal contacts (6 p. 186). Also, the writer added a five point scale ranging from relax to tense to describe the type of physical contact made.

Personal Questionnaire:

A personal questionnaire (p. 86) was constructed by the writer in order to obtain personal data and a self-evaluation from the students, for there were several factors pertaining to each student that the writer needed in order to analyze the data obtained from the tests and observations.

Instructor's Rating:

Each student was rated by the instructor at the end of the course on the basis of her improvement. A four point scale was used which ranged from marked improvement to no improvement. Another rating given each student was the term grade which was determined by the students' final ability in nursery school practices.

Selection of Subjects

The students enrolled in the nursery school class during
the spring term at Oregon State College were selected as the subjects for the study. There were twenty-four college women enrolled in the class which included seventeen seniors, six graduate students, and one junior. Their ages ranged from twenty to thirty years.

Description of Nursery School Course

The nursery school course served as a learning experience for the students. Two, one-hour recitation periods were held each week for nine successive weeks. At this time nursery school methods were considered and group and individual problems of preschool children were discussed. In addition, the students spent two, three-hour laboratory periods each week at the nursery school in observation and practice with a group of normal preschool children. During the nine-weeks' period their hours were rotated so they would have an opportunity to assist with all phases of the nursery school program.

Gathering of Data

The attitude scales and situation test were mimeographed and given to the students to be checked during the second class hour of the term. The same scales and tests were given again during the last hour of the term. They were scored and evaluated according to the judges' average (3). The gain or loss between the initial and final tests were determined and the distance of the final score from the judges' average was recorded for each subject.
In addition to the data gathered by means of the attitude scales and situation tests, the writer observed the students practices at the nursery school and used the observation blank (p. 84) to record each student-child situation observed. The observation period began with the second week of the term after the students were acquainted with the equipment and routine; therefore, the initial observation periods included the second, third and fourth weeks of the term. The final observation periods included the seventh, eighth, and ninth weeks, which were the last three weeks of the college term. As a rule, the observation was recorded immediately; thus, a complete record was kept of each situation. The length of each observation varied with the situation. Two or more observations, including a free play situation and a routine situation, were made for each student during the initial observation and also during the final. Each situation was one in which an individual student was supervising a nursery school child. By keeping a sequential record it was possible to compare the results obtained from the initial observation with the final ones.

Part 3. Definition of Terms

In order to facilitate the reading of this thesis, the following terms are defined.

*Attitude* is used to denote the sum total of a man's inclination and feelings, prejudice or bias, pre-conceived notions,
ideas, fears, threats, and convictions about any specific topic (12 p. 6).

**Practice** refers to performing certain acts often or customarily in order to acquire proficiency or skills (13 p. 1937).

**Self-reliance** refers to confidence in the efficiency of oneself (12 p. 2271).

**Self-expression** refers to any activity, verbal expression, or pose, which the child engages in through his own initiative and which symbolizes a thought, feeling, character, or quality within the child (3).

**Corporal punishment** has reference to the infliction of punishment in the form of spanking, slapping, or hitting any part of the child's body. It is also assumed that the corporal punishment is used in moderation and not in extremes and that it is administered when the adult is not under the influence of emotion of anger (3).

**Praise** means a verbal expression of approval directed toward the child. Unless a special degree of praise is mentioned in the individual statement, the assumption is that the praise is not given in extremes, either in amount or emotional intensity (3).

**Adopting** refers to making a child one's own through legal procedure. It is assumed throughout the scale that the children offered for adoption test average or above both mentally and physically unless otherwise stated (3).
Fear refers to painful emotion marked by alarm, extreme awe, or anticipation of a danger (13 p. 925).

Physical contact refers to a situation in which a teacher speaks to a child (5).

Visual contact refers to a teacher attempting to affect a child's behavior by a purposeful expression or gesture (5).

Spatial contact refers to a teacher attempting to affect a child's behavior or development by changing her position relative to him (5).

Physical restraint is the act of using physical force to stop or restrain a child's activity (5).

Physical compulsion is the act of using physical force to ensure a child's carrying out a particular activity (5).

Physical guidance is the act of guiding the movement of a child's limbs or body in conformity with his own attempt (5).

Physical assistance is the act of giving a child physical assistance (5).

Physical caress or fondling is the act of caressing, fondling or laying a hand on a child (5).

Physical chastisement is the act of intentionally causing a child some physical discomfort (5).

Example, demonstration or illustration is the act of demonstrating an activity (5).
Suggestion (positive) is the teacher's verbal suggestion of an activity (5).

Suggestion (negative) is the proposal that a child consider ceasing a certain activity (5).

Command (positive) is the teacher's verbal order to perform a certain activity (5).

Command (negative) is the teacher's verbal order to stop an activity the child is engaged in (5).

Request (positive) is the teacher's verbal request to perform an activity (5).

Request (negative) is, like positive request, in a category between suggestion and command (5).

Disapproval is the teacher's verbal disapproval or criticism, which may be expressed directly or indirectly (5).

Question is the act of questioning a child to lead him to reflect on his activity or to examine his own thinking (5).

Information is the act of giving information in answer to a question, or simply stating a fact which is presumably of interest to the child (5).

Reassuring, encouraging or approving is the act of verbally reassuring, encouraging or approving a child (5).
CHAPTER III

RESULTS OF THE STUDY

The writer included the following summary sheet for the purpose of giving a complete picture of each subject studied and for use in further study of the problem. It includes the data obtained from the personal questionnaire, the attitude scales, the situation test, the instructor's rating, and the observation blanks.
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<td><strong>1. Students' Attitude Gains in Terms of Scale Value</strong></td>
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<tr>
<td><strong>Item No.</strong></td>
<td><strong>Experience with Pre-school Children</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Enjoy being with children before taking RS</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Feel at ease with children after taking RS</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Prolong</strong></td>
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<td></td>
<td><strong>1.22</strong></td>
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<td>21</td>
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</table>

*1 = no improvement, 2 = slight improvement, 3 = improvement, 4 = marked improvement
Part 1. Background of Subjects Included in the Study

Students' Training in Courses Related to Child Care

The twenty-four subjects included in this study were enrolled in the nursery school class at Oregon State College. Their classifications in college were as follows: one junior, seventeen seniors, and six graduate students. Although their undergraduate work was done at different high schools, colleges, and universities, their previous study of courses relating to child care, as summarized in the table below, shows similar training.

TABLE I

Number of Courses Relating to Child Care which Were Completed by Students at the Time They Were Enrolled in High School and College

<table>
<thead>
<tr>
<th>Courses Completed by Students</th>
<th>In High School</th>
<th>In College</th>
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<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Child development</td>
<td>24</td>
<td>100.</td>
</tr>
<tr>
<td>Parent education</td>
<td>6</td>
<td>25.</td>
</tr>
<tr>
<td>Family relations</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td>Psychology</td>
<td>24</td>
<td>100.</td>
</tr>
<tr>
<td>Students having had experience in play school</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Students having had experience in nursery school (not including this term)</td>
<td>3</td>
<td>12.5</td>
</tr>
</tbody>
</table>
It is interesting to note that only one of the twenty-four students had a related course in high school. In college all of the students had studied psychology and child development. The fact that psychology is a requirement and outlined as a sophomore course and child development is a prerequisite to nursery school accounts for the fact that one hundred per cent have completed these courses. Since this study was made during the spring term, most of the students, 91.6 per cent, had completed their senior requirement of family relations. Parent education, which is an elective course, had been studied by 25 per cent of the students. Only 3 per cent of the students had experience in a nursery school and none in a play school.

Students' Practical Experience with Preschool Children

Although the students had much the same training in courses relating to child care, their background of practical experience with preschool children was varied. The students having cared for preschool children since high school were classified as having had much experience. Those caring for them only during high school or college were classified as having had some experience. The ones classified as having had little experience had cared for preschool children less than ten times.
Table II

Extent to Which the Students' Had Had Practical Experience with Preschool Children

<table>
<thead>
<tr>
<th>The Extent of Student Experience</th>
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<tbody>
<tr>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Much</td>
<td>5</td>
</tr>
<tr>
<td>Some</td>
<td>9</td>
</tr>
<tr>
<td>Little</td>
<td>5</td>
</tr>
<tr>
<td>None</td>
<td>5</td>
</tr>
</tbody>
</table>

An analysis of the above table shows that only 20.8 per cent of the twenty-four students had much experience, and the same per cent had no experience; also, the same per cent had little experience. The mode for the group, which was 37.6 per cent, included those with some experience. Those having had much or some experience totaled 58.4 per cent, and those with little or no experience totaled 41.6 per cent.

According to data from the summary sheet (p.12a), all but 3 students, 12.5 per cent, had brothers or sisters or both. They ranged in age from 13 years to 34 years, with one exception, that of a sister who was 5 years of age. This summary indicates that the experience for all but one of the student cases was with preschool children outside the immediate family. However, this is true of
recent experience but not of experiences several years previous. Since the age of the students ranged from 20 to 30 years, it is probable that some of them had cared for their brother or sister in previous years at which time more of the siblings would have been of preschool age. It will be interesting to note the changes in attitudes and practices of the twenty-four students who have had similar training in related courses but have had such varied experiences with preschool children. One might conclude that the majority of these experiences were enjoyable ones, since all of the students answered in the affirmative to the question "Do you enjoy being with children?"

Part 2. Effect of Nursery School Experience on Students' Attitudes

Students' Gain in Attitudes Toward Self-reliance, Self-expression, Corporal Punishment, Praise, Adopting and Fear

From the battery of attitude tests, both initial and final responses were secured from the twenty-four students; and the gain or loss for each student on the individual tests was determined. The tests were scored according to the key established by the judges' ratings taken from Brandon's study (3). The difference between the final score and the judges' average was also determined. This difference indicated the distance the student was from the acceptable score. The data for the above are pictured in the following graphs.
Comparison of Students' Gain in Selected Attitudes and Distance of Final Score from Judges' Average as Measured by Attitude Scales

- Student's gain (+) or loss (-) in attitude as determined by the difference between initial and final measurements.

- Total distance of student's final measurement of attitude from the judges' average. In reading these distances in terms of scale values, disregard the (+) and (-).

Numbers on horizontal axis indicate the scale value. Zero indicates judges' average.

Numbers on vertical axis indicate the case number of students.

Fig. 1. Self-reliance Scale

Fig. 2. Corporal Punishment as a Means of Control
Self-reliance:

As a result of the nursery school experience the students enrolled in the course showed a gain or improvement in their attitudes (Fig. 1) toward self-reliance. Seventeen cases, or 71 per cent, made gains; and seven cases, or 29 per cent, showed losses. As a group, the ones showing the greatest gain were nearer to the judges' average than were those showing little or no gain, and in no case was the final score equal to the judges' score.

Corporal Punishment:

On the scale relating to attitude toward corporal punishment as a means of control (See Fig. 2), it will be observed that sixteen cases, or 66.7 per cent, gained in attitude while eight cases, or 33.3 per cent, lost in attitude. Only in one case did we find that the gain in attitude caused the final score to equal the judges' average.

Self-expression:

As a group the gain in attitude toward self-expression (Fig. 3) was small and also the distance of the final attitude from the judges' score was small. This low gain can be accounted for by the fact that the students were near the judges' average on the initial test.

Use of Praise as a Means of Control:

Little gain was found in the students attitude toward the
use of praise as a means of control (See Fig. 4). Some gain occurred in slightly over half of the cases, 58 per cent; and a loss occurred in 42 per cent of the cases. Although their distance from the judges' average on the final score was small, in a majority of cases the distances were greater than the amount students gained.

Adoption:

The results showed that students made a very small gain in attitude toward adopting children (See Fig. 5). Fifty per cent of the cases showed a loss in attitude, while 13 per cent of the cases showed a gain. In no case was the final score equal to the judges' average.

Use of Fear as a Means of Control:

Concerning attitudes toward the use of fear as a means of control rather wide difference in gains were made by less than half of the cases, 46 per cent (See Fig. 6). A loss appeared in 50 per cent of the cases and no gain or loss in 4 per cent of the cases. The average distance of the students from the judges' average was small.

Students' Total Gain in Attitudes

The student's total gain in attitudes was determined by taking the difference in the loss and gain on the six attitudes. The following graph shows the total gain of each student and the distance of their final score from the judges' average.
Comparison of Students' Total Gain on the Six Attitude Scales and the Total Distance of Final Gain from Judges' Average as Measured by Attitude Scales

- - - = Student's gain (+) or loss (-) in attitude as determined by the difference between initial and final measurements.

- - - - = Total distance of student's final measurement of attitude from the judges' average. In reading these distances in terms of scale value, disregard the (+) and (-).

Numbers on horizontal axis indicate the scale values. Zero indicates judges' average.

Numbers on vertical axis indicate the case number of students.
In the above graph it is interesting to note that the students making the greatest total gain in attitudes were less than their total gain from the judges' average. The student (case 18) nearest the judges' average made next to the lowest gain in attitudes. The student (case 19) second nearest to the judges' average made the fifth highest gain. The student (case 12) making the greatest total gain changed her position by 5.6 scale values.

The relationship between individual attitude gains with the total attitude gain can be expressed by correlation coefficients.

**TABLE III**

Correlation Between Students' Total Gain in Attitudes and Their Gains in the Separate Attitudes

<table>
<thead>
<tr>
<th>Attitude</th>
<th>r</th>
<th>P.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reliance</td>
<td>.62</td>
<td>±.09</td>
</tr>
<tr>
<td>Self-expression</td>
<td>.28</td>
<td>±.13</td>
</tr>
<tr>
<td>Corporal Punishment</td>
<td>.15</td>
<td>±.14</td>
</tr>
<tr>
<td>Praise</td>
<td>.23</td>
<td>±.13</td>
</tr>
<tr>
<td>Adoption</td>
<td>.32</td>
<td>±.12</td>
</tr>
<tr>
<td>Fear</td>
<td>.54</td>
<td>±.10</td>
</tr>
</tbody>
</table>

The results show correlations ranging from a negligible relationship of .15 ± .14 to a marked relationship of .62 ± .09. These results seem to indicate that a gain in one attitude does not
necessarily indicate a gain in another attitude.

Total Gain in Attitudes Compared with Brandon's Study

The complete battery of attitude scales used in this study were also used in Brandon's study (3). In the latter study the 90 subjects included in the experimental part of the investigation were students registered in elementary child development classes at Oregon State College. The attitude scales were administered at the first meeting of the class and again at the close of the term. The mean scores for the initial and final measurements of this study and the differences between the final score and the judges' mean were determined. Similar measurements for the writer's study were determined and the mean scores of the present study are compared in the following table:
TABLE IV

Comparison of the Mean Scores on the Initial and Final Measurements of the Six Attitudes with Brandon's Study (3) and with the Judges' Mean

<table>
<thead>
<tr>
<th>Attitudes</th>
<th>Mean Scores</th>
<th>Difference in M of Brandon's Study</th>
<th>Difference in M of This Study</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Brandon's Study</td>
<td>This Study</td>
<td>Judges Mean</td>
</tr>
<tr>
<td></td>
<td>Initial Final</td>
<td>Initial Final</td>
<td>Judges Mean</td>
</tr>
<tr>
<td>Self-reliance</td>
<td>7.08 4.84</td>
<td>5.98 5.28</td>
<td>2.88</td>
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<td>Self-expression</td>
<td>5.01 4.26</td>
<td>4.76 4.36</td>
<td>4.14</td>
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<tr>
<td>Corporal Punishment</td>
<td>5.52 7.32</td>
<td>6.09 6.63</td>
<td>7.48</td>
</tr>
<tr>
<td>Praise</td>
<td>4.09 4.82</td>
<td>4.23 4.07</td>
<td>4.32</td>
</tr>
<tr>
<td>Adoption</td>
<td>3.32 3.47</td>
<td>2.53 2.37</td>
<td>2.79</td>
</tr>
<tr>
<td>Fear</td>
<td>7.94 8.38</td>
<td>7.74 8.12</td>
<td>8.49</td>
</tr>
</tbody>
</table>

The author wishes to call attention to the fact that the subjects on completion of the Brandon study had similar training to the subjects beginning the present study; therefore, the final mean score of the Brandon's study and the initial score of the present study would tend to be closely related. Note, however, that the mean scores of the two vary from .59 step intervals in one attitude to 1.23 step intervals in another attitude. These differences may be
counted for at least in part by variations in the selection of samples studied.

The final means scores of Brandon's study were nearest the judges' mean in four of the attitudes, but in the attitudes on praise and adoption the initial mean scores of the present study were nearest. Also, in the comparison of the final mean scores of both studies with the judges' mean, the present study was again nearest the average in attitudes on adoption and praise.

In addition to the above the author wishes to call attention to the gains in attitudes in the two studies.

**TABLE V**

Comparison of the Mean Gain in Attitudes with the Mean Gain in Attitudes in Brandon's Study

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Mean Gains Brandon's Study</th>
<th>Mean Gains This Study</th>
<th>Difference in Gains* Brandon's Study</th>
<th>Difference in Gains* This Study</th>
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<tbody>
<tr>
<td>Self-reliance</td>
<td>2.24</td>
<td>0.70</td>
<td>1.54</td>
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<tr>
<td>Self-expression</td>
<td>0.75</td>
<td>0.40</td>
<td>0.35</td>
<td></td>
</tr>
<tr>
<td>Corporal Punishment</td>
<td>1.80</td>
<td>0.54</td>
<td>1.26</td>
<td></td>
</tr>
<tr>
<td>Praise</td>
<td>-0.73</td>
<td>-0.16</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>Adoption</td>
<td>-0.15</td>
<td>-0.16</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Fear</td>
<td>0.44</td>
<td>0.38</td>
<td>0.06</td>
<td></td>
</tr>
</tbody>
</table>

*Difference in gain is placed under the study in which the gain is greater.
From the above table it is apparent that in both studies there was a gain in attitude on self-reliance, self-expression, corporal punishment, and fear; in the attitudes on praise and adoption there was a loss in both studies. In comparing the amount of gain in the two studies, the Brandon study shows a greater gain in all but one attitude, praise. These data show that further gain in attitudes result from nursery school experiences, but the gain is not as great as for the course which came first in the sequence.

It would be interesting as an experiment to reverse the order in the sequence of courses and determine the effect of the nursery school course if it comes first in a sequence of courses.

Part 3. Effect of Nursery School Experiences on Students' Practices

Improvement of Practices in Student-Child Situations as Measured by a Written Test

The practices of the students were measured first by a written test composed of descriptions of actual student-child situations (p.78). The same test was given again at the close of the study. Twenty-one situations were included in the test which made the highest possible score 21. The gain or loss in terms of points is indicated by the following graph.
PLATE III

Improvement of Practices in Student-Child Situations as Measured by Points Gained in Giving Initial and Final Written Situation Test and in Determining the Distance of the Final Measurement from the Judges' Average

- = Student's improvement (+) or loss (-) on written situation test as determined by difference between initial and final measurements.

- - - = Total distance of student's final measurement from the judges' average. In reading this part, disregard the (+) and (-) on the scale values.

Numbers on horizontal axis represent the scale value. Zero represents judges' average.

Numbers on vertical axis represent the case number of students.
Although three cases, or 12.5 per cent, showed no improvement in their scores on the situation test; and five cases, or 20.8 per cent, showed a loss, the 66.7 per cent who showed a gain were, with one exception, still some distance from the judges' score. One student (case 23) showed a small gain, but her final score was the same as the judges' score. She was closer to the perfect score on the initial test than any other student; therefore, she had less gain to make.

Total Gain in Attitudes Compared with Actual Situation Test

To determine the relationship between students' improvement in practices and their gain in attitudes the following correlations were made:

TABLE VI

<table>
<thead>
<tr>
<th>Units Correlated with Scores on the Situation Test</th>
<th>r</th>
<th>P.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total attitude gain</td>
<td>.90</td>
<td>± .03</td>
</tr>
<tr>
<td>Distance of final attitude score from judges' average</td>
<td>.42</td>
<td>± .01</td>
</tr>
<tr>
<td>Total gain on self-reliance</td>
<td>.13</td>
<td>± .14</td>
</tr>
</tbody>
</table>
On the basis of the above correlations it is seen that a very high relationship of .90 ± .03 existed between the students' gain in attitude and the students' improvement on the written situation test. There is seen, also, a marked relationship of .42 ± .01 between the distance of the final attitude score from the judges' average and the improvement on the written situation test. A negligible relationship exists between total gains on self-reliance and gains on the situation test.

Controlled observation was the principal method used by the investigator in determining the gains in students' practices. By keeping a sequential record of the observations on each student, it was possible to compare initial observations with final observations. The summary sheet (p.12a) contains a summary of the data obtained from the four observations made on each student and a description of each situation is given in the appendix (p. 83). For case 16, no final observation was made due to the fact that the subject was ill during the final observation period. From these observations the writer studied the types of contacts the students made and factors accompanying and influencing their practices in the various types of contacts.

Physical contacts:

When there was any tactual contact between the teacher and child, his equipment, or clothing, the contact was rated by using a five point scale. The low end of the scale represented a relaxed
condition, and the high end represented a tense state.

**TABLE VII**

Comparison of the Types of Physical Contacts Made by Students in Initial and Final Observations

Five point scale used in rating the type of physical contact made by the student:

1. the student was relaxed
2. the student was tense

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Ratings Based on Observations</th>
<th>Case No.</th>
<th>Ratings Based on Observations</th>
<th>Case No.</th>
<th>Ratings Based on Observations</th>
</tr>
</thead>
<tbody>
<tr>
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<td>15</td>
<td>4</td>
<td>3</td>
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<tr>
<td>8</td>
<td>1.5</td>
<td>1</td>
<td>16</td>
<td>1</td>
<td>-</td>
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</tbody>
</table>

The above table shows that all but four students were more relaxed on the final observation than on the initial. One of the four was relaxed on both initial and final observations and another was above average in relaxedness on both observations. Therefore, there were but two cases above average in tenseness who did not improve. The fact that the students knew more what was expected of them and
felt more at ease in the nursery school situation during the last observation probably accounts for much of the gain in relaxedness.

In order to determine the type of method goals the tense and relaxed student had, the writer totaled the number of times a student used as her goal, adjustment to routine; also, the number of times a student used as her method goal, physical care, motor, emotional, social, mental, and aesthetic development. Correlations were then made between the students' average state of relaxedness and the total number of times adjustment to routine was used as the method goal. The student with the least routine contacts was ranked first, and the one with the greatest was ranked last. A low relationship of \( .29 \pm .13 \) was found in this correlation, which indicates that the relaxed students did not tend to use adjustment to routine as their method goal.

In comparing the relationship between relaxedness and method goals other than routine, the correlation was very high, \( .76 \pm .06 \), which indicates that the relaxed students were more interested in physical care, motor, emotional, social, mental, and aesthetic development of the child rather than routine affairs as her method goal.

Methods of Physical Contact used by Students in Initial and Final Observation:

The methods of physical contact used by the students were physical restraint, physical compulsion, physical guidance, physical assistance, physical caress, and example, demonstration or illustra-
Since the method used is determined by the child, the situation and other factors, the method used in one situation might be favorable, while in another situation it would be unfavorable. In the following table of methods of physical contacts used by students, the method was checked by the observer as being favorable or unfavorable.
TABLE VIII

Summary of Physical Methods Used by Students in Initial and Final Observations*

Key:
+ = favorable method for situation
- = unfavorable method for situation
I = initial observation
F = final observation

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Physical Restraint</th>
<th>Physical Compulsion</th>
<th>Physical Guidance</th>
<th>Physical Assistance</th>
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</tbody>
</table>

*Physical chastisement is omitted from table since this method was not observed as being used in any situation.
In the above table, it appears that there was practically no change in the physical methods used by the students in initial and final observations, and only a small number of unfavorable physical methods were used in comparison with the favorable ones. In comparing the relationship between relaxedness and physical methods used, a marked relationship of \( .65 \pm .06 \) was found which indicates that the relaxed students used the most favorable physical methods in their contacts with the children.

Verbal Contacts:

When a student spoke to a child, the specific manner in which her words were presented and the type of expression she used was recorded. The specific manner used was rated as follows: subdued voice, ordinary voice, stern or loud voice, and extraordinary voice.
Comparison of the Types of Verbal Contacts Made by Students in Initial and Final Observations

Four point scale used in rating the student's voice:

- 1 = subdued
- 2 = ordinary
- 3 = stern or loud
- 4 = extraordinary

### TABLE IX

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Ratings Based on Observations</th>
<th>Case No.</th>
<th>Ratings Based on Observations</th>
<th>Case No.</th>
<th>Ratings Based on Observations</th>
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<td>5</td>
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<td>1</td>
<td>1</td>
<td>16</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

From the above table we see some improvement in 50 per cent of the cases with reference to the manner of using their voice; there was no improvement in 37.5 per cent of the cases, and in 12.5 per cent of the cases there was no need for improvement.

Types of Verbal Statements:

The types of verbal statements used by the students were declarative, imperative, interrogative, exclamatory, and social.

The following table shows the number of each that were made:
TABLE X

Comparison of the Kinds of Verbal Statements Made by Students in Initial and Final Observations

Key: I = Initial Observation
F = Final Observation

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Declarative</th>
<th>Imperative</th>
<th>Interrogative</th>
<th>Exclamatory</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
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<td>I</td>
<td>F</td>
<td>I</td>
<td>F</td>
</tr>
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<tr>
<td>3</td>
<td>x</td>
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<td>x</td>
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<tr>
<td>4</td>
<td>xx</td>
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<td>5</td>
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<td>x</td>
<td>x</td>
<td></td>
<td>xx</td>
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</tr>
</tbody>
</table>

In the types of expressions used (See Table X), the declarative statements were most frequently used and next in rank were the social statements. Interrogative and imperative statements were used some, but the exclamatory statements were used only four times by two students.
Verbal Methods Used by Students in Initial and Final Observation:

The verbal methods used by the students were suggestion, command, disapproval, question, information, and reassuring, encouraging or approving. Since the situation determines whether the method is favorable or unfavorable, the observer checked each method as to its desirability for the situation. The following table shows the number of times each method was used:
### TABLE XI

Comparison of Verbal Methods Used by Students in Initial and Final Observations

**Key:**
- **I** = initial observation
- **F** = final observation
- **+** = positive or favorable statement
- **-** = negative or unfavorable statement
- **⊕** = positive reason given
- **⊖** = negative reason given

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Suggestion</th>
<th>Command</th>
<th>Disapproval</th>
<th>Question</th>
<th>Information</th>
<th>Reassuring, Encouraging, or Approving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I  F  I  F</td>
<td>I  F  I  F</td>
<td>I  F  I  F</td>
<td>I  F  I  F</td>
<td>I  F  I  F</td>
<td>I  F  I  F  I  F  I  F  I  F  I  F  I  F  I  F  I  F  I  F</td>
</tr>
<tr>
<td>1</td>
<td>+ + -⊕</td>
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<tr>
<td>2</td>
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<td>4</td>
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<td>12</td>
<td>⊕ + ⊕</td>
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<td>13</td>
<td>⊕ + ⊕</td>
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<td>15</td>
<td>⊕ ⊕</td>
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<tr>
<td>16</td>
<td>⊕ ⊕</td>
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<tr>
<td>18</td>
<td>+ + + ⊕</td>
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<tr>
<td>20</td>
<td>+ + + +</td>
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<tr>
<td>21</td>
<td>+ + + +</td>
<td></td>
<td></td>
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<tr>
<td>22</td>
<td>+ + + +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>⊕ ⊕</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>⊕ ⊕</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Request is omitted from table since this method was not observed in any situation.*
From the above table it is apparent that positive suggestions outnumber all other verbal methods used. Other favorable methods used frequently were information, question, and reassuring, encouraging or approving. A few commands were given, but no requests were given in any situation.

The results from this part of the study on verbal contacts and methods are related to the following statements taken from Read's study (10 p. 304, 307).

"When the remarks were classified, it was found that the positive statements outnumbered the negative ones. The overwhelming majority of positive statements recorded indicates the emphasis on the more constructive aspects of the teacher-pupil relationship in the nursery school."

If the teacher attempted to affect a child's behavior by a purposeful expression or gesture the observer checked this as a visual contact. It appears that fewer visual contacts (See Table XII) were made by students than any other type of contact used.
### TABLE XII
Comparison of the Types of Visual Contacts Made by Students in Initial and Final Observations*

**Key:**
- G = Gaze
- FE = Facial Expression
- + = Favorable contact
- - = Unfavorable contact

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Observations</th>
<th>Case No.</th>
<th>Observations</th>
<th>Case No.</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Initial Final</td>
</tr>
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<td>9</td>
<td>FE +</td>
<td>17</td>
<td>FE +</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>10</td>
<td>FE -</td>
<td>18</td>
<td>FE +</td>
</tr>
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<td>G -</td>
</tr>
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</tr>
<tr>
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<td>13</td>
<td></td>
<td>21</td>
<td>G -</td>
</tr>
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<td>FE -</td>
<td>14</td>
<td>2FE +</td>
<td>22</td>
<td>G -</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>15</td>
<td>G -</td>
<td>23</td>
<td>FE +</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>16</td>
<td></td>
<td>24</td>
<td>FE +</td>
</tr>
</tbody>
</table>

*No visual contact was made by bodily gesture.

The negative mark following some contacts as they appear in the above table means that in the particular situation the visual contact was unnecessary or of a poor type, and the positive sign means that the visual contact was good for the situation. The situation and child involved determined the basis for judging whether or not the visual contact was favorable or unfavorable. The writer found a marked relationship of \(0.43 \pm 0.12\) between favorable visual contacts made by students and the relaxedness of students. Also, a marked relationship of \(0.51 \pm 0.11\) was found between favorable visual contacts and favorable physical methods used. These cor-
relations again show that the most relaxed students made the most favorable contacts.

A contact was considered spatial when the student attempted to affect a child's behavior or development by changing her position relative to him. It included such movements as walking or running toward a child, and leading the way to routine or play equipment or materials, etc.

**TABLE XIII**

Comparison of the Number of Spatial Contacts Made by Students in Initial and Final Observations

**Key:**

- = favorable spatial contact
- = unfavorable spatial contact

\[ N = 24 \]

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Observations</th>
<th>Case No.</th>
<th>Observations</th>
<th>Case No.</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
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<td>Initial Final</td>
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</tr>
<tr>
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<td>+ +</td>
<td>9</td>
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</tr>
<tr>
<td>2</td>
<td>- -</td>
<td>10</td>
<td>-</td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td>+ +</td>
<td>11</td>
<td>+ +</td>
<td>19</td>
<td>- +</td>
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<td>+ +</td>
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</tr>
<tr>
<td>5</td>
<td>+</td>
<td>13</td>
<td>+ ++</td>
<td>21</td>
<td>+</td>
</tr>
<tr>
<td>6</td>
<td>+ +</td>
<td>14</td>
<td>+ +</td>
<td>22</td>
<td>-</td>
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<tr>
<td>8</td>
<td>- +</td>
<td>16</td>
<td>+</td>
<td>24</td>
<td>++</td>
</tr>
</tbody>
</table>
From the above table it appears that several spatial contacts were made by the students. A contact was considered favorable when the students change of position aided the child's development, and unfavorable when it interfered with his development. Correlations made by the writer reveal a negligible relationship of \( .09 \pm .4 \) between students' total spatial contacts and relaxedness.

**Part 4. Instructor's Rating of Students' Attitudes and Practices**

**Instructor's Rating by Grade:**

One rating of the student which was made by the instructor included the term grade. These were made on the basis of a possible range of A, B, C, D, or F, and were determined by an evaluation of the student's final ability in nursery school practices. For this group none of the grades fell below a C. The C grade is considered average for college work. The term grade received was converted into grade points as follows: an A equals four grade points, a B equals three, and a C equals two. Their grade point averages earned in the three-credit nursery school course was compared with their total grade point averages in college; and it was found that the relationship was low, \( .29 \pm .13 \). The fact that some students are better in subject matter courses than in laboratory courses, which require the application of many principles, probably accounts for the low relationship.
To determine the degree to which a relationship existed between the students' total all college grade point average and the total gain in attitudes, a correlation was made which showed negligible relationship of .11 ± .15.

It is interesting to note that in Brandon's study the results seemed to indicate that there was a tendency toward somewhat greater gains in attitude in the higher levels of intelligence than in the lower, but the differences were small. The above comparison was based upon the IQ levels; whereas, in the present study it was based upon the students' all college grade point average.

Instructor's Rating by Improvement Scale:

The nursery school instructor rated the students on the basis of their improvement in nursery school practice using the following four point scale: 1, marked improvement; 2, improvement; 3, slight improvement; and 4, no apparent improvement. The following correlations present interesting data:
TABLE XIV
Comparison of Correlations between Instructor's Rating on Students' Improvement with Attitudes, Practices and Term Grade

<table>
<thead>
<tr>
<th>Instructor's Rating on Improvement Correlated with</th>
<th>r</th>
<th>PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total gain in attitude</td>
<td>.03</td>
<td>± .14</td>
</tr>
<tr>
<td>Total gain on situation test</td>
<td>.21</td>
<td>± .08</td>
</tr>
<tr>
<td>Term grade</td>
<td>.58</td>
<td>± .09</td>
</tr>
</tbody>
</table>

There was apparently no transfer in the learning of attitudes and the improvement in practices for the results indicate negligible relationship between instructor's rating on students' improvement and the students' gain in attitude. This tends to show that the students' greatest improvement was not in attitude.

It would be interesting to study this further and determine the relationship which exists between the improvement of practices and the learning of attitudes. It is possible that improvement in attitude follows the perfection of practice. A slight relationship was found with the situation test and marked relationship with the term grade. Baxter's study (2 p. 11) on teacher-pupil relationships shows a high correlation between grades in practice teaching and teaching itself.
Part 5. Students' Evaluation of Their Changes in Attitudes Toward Preschool Children

The students' evaluation of the effect of the nursery school experience on their attitudes toward preschool children are given below in the students' own words. These comments are listed according to case number, thereby supplementing the data on the summary sheet (p. 12a).

TABLE XV

Comments Made by Students

"My attitude toward children hasn't changed as I love children just the same, if not more" (case 1).

"I now understand the actions of children much better than I did and so am not puzzled by them. I can interpret incidents now so that I realize that children aren't 'just bad' but that their outlooks are different" (case 2).

"I have begun to realize more that children cannot be perfect and that it requires patience to guide them correctly. I have learned much more about what and how much more they can do for themselves—what can be expected of them" (case 3).

"I had not had much experience before this term with preschool children and therefore knew very little actually about their capability. After being with them all term I feel I understand them much better and know about how to deal with them better" (case 4).
"I seem to enjoy this group of children, but I wonder if it is not just because I know them that I get along with them" (case 5).

"I was not aware of what a young child is able to do if given the opportunity or how well he would react to proper treatment" (case 6).

"I was completely ignorant as far as children's behavior was concerned and had previously been slightly irritated and disgusted because I did not realize there was something back of their actions" (case 7).

"I believe now that children go through periods of exploration, etc., and I won't be afraid when I have my own children, that they are so much different than other children" (case 8).

"I feel that I have gained a better understanding of the preschool child and know a little more about what to expect" (case 9).

"I have come to understand their actions better" (case 10).

"I understand children better than before" (case 11).

"I had much the same attitudes and ideas about child training that have been taught in this course. I have learned more about techniques than I have attitudes. I have always regarded children as people who were fun and in as much need of being understood as adults" (case 12).
"With nursery school experience, I have discovered that young children are always different individuals and a person working with them must always be open-minded, ready to vary the treatment to suit the action" (case 13).

"I seem to feel more at ease and more self-confident with the children than before" (case 14).

"I certainly learned to be more tolerant because I learned the reasons why the children acted as they did which made me more understanding and tolerant to their behavior problems" (case 15).

"Have learned to interpret behavior more from child's viewpoint" (case 16).

"I don't feel that my attitude toward them has changed, for I had already had enough small children around at various times to know that I like and enjoy children. However, I feel that I have a better understanding of children" (case 17).

"My previous courses had made me feel that the child should be left alone as much as possible. Now I think I can contribute to his development by encouraging contacts, by enriching his experience, by sharing my own concepts with him, and in other ways my guidance can help him" (case 18).

"I understand preschool children more and understand that to handle them it takes far more ingenuity than it does to handle adults. They definitely have minds of their own" (case 19).
"I always have been very fond of preschool children and still am. There have always been quite a number of them around my home, and even though they are very difficult at times, I still enjoy having them around" (case 20).

"My attitude has become more broadminded toward children. I realize that they are individuals within themselves and in most cases know what they are doing. I might say I enjoy nursery school very much and some day I'd like to see the results of these children" (case 21).

"My attitudes toward preschool children have changed because I feel better able to understand the reasons why they do the things they do, and have had some practical experiences in handling children with some expert advice around" (case 22).

"I have not been around many preschool children for a long time and I find very pleasant and educational to be with before I considered them rather a nuisance and hard to care for" (case 23).

"I try to see, now, behind the action instead of just seeing the action. I'm even a more strong environmentalist than before. I realize just how important it is to put the actions down on the child's level rather than on the adult level" (case 24).

Students' Opinion Concerning the Influence of the Nursery School Course:

One factor frequently mentioned in students' comments was that they understood children better. This probably accounts for the 100 per cent affirmative answer to the question, "Now that you have
completed this nursery school course do not feel at ease with children?" (p.86) Only 25 per cent of the students had felt at ease when they started the course.

Part 6. Relationship between Students' Vocational Plans of the Students and Selected Measurement

The students' plans after graduation are summarized in the table below and also their choice of work with children as a vocation.

**TABLE XVI**

Comparison of Students Plans after Graduation with Their Choice of Work with Children as a Vocation

<table>
<thead>
<tr>
<th>Students' Plans after Graduation</th>
<th>No.</th>
<th>%</th>
<th>Choice of Work with Children as a Vocation</th>
<th>%</th>
<th>%</th>
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<td>3</td>
<td>12</td>
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<td>8</td>
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<td>1</td>
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</table>

*Fourth choice of work with children as a vocation was not checked by any student.

The choice of work with children as a vocation (Table XVI) was checked by all but 21 per cent as their first or second choice.
The greatest per cent of students checked it as their second choice. Of the ones who plan to go into nursery school work, two checked work with children as their first choice and one checked it as her second choice of a vocation. A high relationship of .76 ± .05 was found between the term grade of the students and their choice of work with children as a vocation.

Relationship between Students' Vocational Plans and Their Ability:

In order to compare the ability of each student with her vocational plans the following table was constructed:
TABLE XVII  
Comparison of Students' Ability and Their Vocational Plans  

<table>
<thead>
<tr>
<th>Rank</th>
<th>Order of Attitude Gain</th>
<th>Rank</th>
<th>Order of Gain in Term of Practice</th>
<th>Instructor's Rating</th>
<th>Students' Attitudes Toward Children after N.S. as a Vocational Course**</th>
<th>Choice of Work with Children</th>
<th>Student Plans after Graduation</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
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<td>Teach</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>1</td>
<td>C</td>
<td>2</td>
<td>DC x</td>
<td>Teach</td>
<td>Teach</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
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<td>C</td>
<td>1</td>
<td>C x</td>
<td>Marry</td>
<td>Teach</td>
</tr>
<tr>
<td>7</td>
<td>24</td>
<td>17</td>
<td>C</td>
<td>2</td>
<td>C x</td>
<td>Teach</td>
<td>Teach</td>
</tr>
<tr>
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<td>12</td>
<td>6</td>
<td>A</td>
<td>3</td>
<td>C x</td>
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<td>Teach</td>
</tr>
<tr>
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<td>15</td>
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<td>2</td>
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<td>Teach</td>
<td>Teach</td>
</tr>
<tr>
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<td>3</td>
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<td>Teach</td>
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<td>Teach</td>
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<td>NC x</td>
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</tr>
<tr>
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<td>Teach</td>
</tr>
<tr>
<td>16</td>
<td>8</td>
<td>19</td>
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<td>2</td>
<td>C x</td>
<td>Marry</td>
<td>Teach</td>
</tr>
<tr>
<td>17</td>
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<td>B</td>
<td>3</td>
<td>DC x</td>
<td>Teach</td>
<td>Teach</td>
</tr>
<tr>
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<td>17</td>
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<td>Teach</td>
</tr>
<tr>
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<td>4</td>
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<td>Teach</td>
</tr>
<tr>
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<td>7</td>
<td>12</td>
<td>C</td>
<td>1</td>
<td>DC x</td>
<td>Teach</td>
<td>Teach</td>
</tr>
<tr>
<td>21</td>
<td>14</td>
<td>11</td>
<td>B</td>
<td>3</td>
<td>C x</td>
<td>Teach</td>
<td>Teach</td>
</tr>
<tr>
<td>22</td>
<td>4</td>
<td>2</td>
<td>A</td>
<td>4</td>
<td>C x</td>
<td>Teach</td>
<td>Teach</td>
</tr>
<tr>
<td>23</td>
<td>16</td>
<td>10</td>
<td>B</td>
<td>4</td>
<td>C x</td>
<td>Teach</td>
<td>Teach</td>
</tr>
<tr>
<td>24</td>
<td>22</td>
<td>9</td>
<td>B</td>
<td>3</td>
<td>C x</td>
<td>N.S.</td>
<td>Teach</td>
</tr>
</tbody>
</table>

*1 = marked improvement, 2 = improvement, 3 = slight improvement, 4 = no apparent improvement
** C = change of attitude, DC = doubtful of change, NC = no change of attitude
*** 1 = first choice, 2 = second choice, 3 = third choice
Summary of Correlations between Factors Studied:

In the table below is given a summary of the correlation made in the study in the rank order of their relationship.

**TABLE XVIII**

Summary of Correlation Made in the Study

<table>
<thead>
<tr>
<th>r</th>
<th>FE</th>
<th>Factors Correlated</th>
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<tr>
<td>.90 ± 0.03</td>
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<td>Total Gain in Attitude to Total Gain in Practice Test Situation</td>
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<td>.79 ± 0.05</td>
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<td>Term Grade and Students' Choice of Work with Children as a Vocation</td>
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<td>Relaxedness in Physical Contact and Use of Method Goals other than Routine</td>
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<td>.65 ± 0.08</td>
<td></td>
<td>Average Relaxedness and Total Physical Methods Used</td>
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<tr>
<td>.62 ± 0.09</td>
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<td>Gain in Self-reliance and Total Gain in Attitude</td>
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<td>.58 ± 0.09</td>
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<td>Term Grade and Instructor's Rating of Improvement</td>
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<td>.54 ± 0.10</td>
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<td>Use of Fear and Total Attitude Gain</td>
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<td>Total Visual Contact and Total Physical Method Used</td>
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<td>Total Visual Contact and Average Relaxedness</td>
</tr>
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<td>Total Distance from Judges' Average on Attitude Tests and Total Gain on Situation Test</td>
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<td>Adoption and Total Gain in Attitude</td>
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<td>Term Grade and Total Grade Point Average</td>
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<td>Relaxedness in Physical Contact and Use of Routine as a Method Goal</td>
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<td>.03 ± 0.14</td>
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<td>Total Attitude Gain and Instructor's Rating of Improvement</td>
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CHAPTER IV

SUMMARY AND CONCLUSIONS

The Problem:

The purpose of this study was to determine probable values received from nursery school experiences by discovering the gains in selected attitudes and practices of twenty-four college students after having actual experience with children in a college nursery school. This experience was subsequent to a course in child development which included observations in a nursery school.

Securing the Data:

The students' gains in attitudes were measured by a battery of attitude tests which included a scale on self-reliance constructed by Ojemann; a scale on the use of fear as a means of control constructed by Ackerley; and scales on self-expression, corporal punishment, praise, and adoption constructed by Brandon. The scales consisting of variables relating to each topic were arranged along a linear continuum. The method used in constructing these scales was a modification of the technique used by Thurston in the measurement of attitudes. The difference in the scores on the initial and final tests, which were given at the beginning and close of the nursery school course, was considered the student's gain or loss. The criteria used in evaluating the scales was the composite judgment of a group of highly-qualified judges.
A written test on student-child situations constructed by Read was used to determine the students' judgment in dealing with different situations. The difference in scores on initial and final tests was considered as the gain or loss. The writer's observation of students' practices in the nursery school were checked on observation blanks which were constructed by Landreth and supplemented by Moore's scale for scoring verbal contacts and by the writer's five point scale for rating the type of physical contacts. Each student was observed in free play and routine situations in both initial and final observation periods and a sequential record was kept.

Personal data and a self-evaluation of the students was obtained from a personal questionnaire constructed by the writer and filled out by the students. Each student was rated by the instructor at the end of the course on the basis of a four point improvement scale and also by a term grade which was determined by the student's final ability in nursery school practices.

Results:

Individual gains or losses in the separate attitudes and situations were compared with judges' average and total attitude gains. The data as measured by attitude scales, situation test and observations show the following:
1. Marked relationship was found between the total attitude gain and self-reliance and also between the total attitude gain and the use of fear as a means of control.

2. Insignificant relationship was found between the total attitude gains and each of the other attitudes, self-expression, adoption, corporal punishment, and praise.

3. The relationship of total attitude gain with the individual attitudes seems to indicate that a gain in one attitude does not necessarily indicate a gain in another attitude.

4. Further gain in attitudes was observed as a result of nursery school experience but there was a large gain by students in a child development class preceding nursery school experience. This indicates that greater change in attitudes occur in the first period of training.

5. High relationship was found between total attitude gain and students' improvement on written situation test.

6. Marked relationship was found between total attitude gain and distance of final attitude score from judges' average which indicates that those with the greatest gain were nearer the judges' average than those with little or no gain.

7. Some gain in relaxedness by a large per cent of the students was observed, which is probably due to the fact that the students knew more what was expected of them and felt more at ease at the close of the nursery school course.
8. An insignificant relationship was found between the relaxed students and total number of times adjustment to routine was used as the method goal, which indicates that the relaxed students did not tend to use adjustment to routine as their method goal.

9. A high relationship was found between the relaxed students and method goals such as physical care, motor, emotional, social, mental and aesthetic development of the child.

10. A marked relationship existed between relaxedness and the use of favorable physical methods.

11. Since positive suggestions were observed as outnumbering all other verbal methods used, this indicates the stressing of constructive verbal contacts in the nursery school.

12. A significant relationship existed between favorable visual contacts and favorable physical methods used.

13. A negligible relationship was found between total college grade point average and total gain in attitude.

14. Low relationship was found between the term grade and the total grade point average of the student, which tends to show that some students are better in subject matter courses than in laboratory courses requiring the application of many principles.

15. Insignificant relationships were observed between instructor's rating and gains in attitudes and gains in practice as measured by situation test. This tends to show that the student's greatest improvement was not in attitude or practice
as measured by a situation test. There was apparently no transfer in the learning of attitudes and in the improvement of practices.

16. A high relationship was found between the term grade and the choice of work with children as a vocation, which tends to show that the students doing good work are interested in work with children.

17. The writer feels that the results of the study show that the students tend to change in both attitudes and actual practices or contacts as a result of nursery school experience.

Although the number of subjects included in this study is too small to allow for the stating of definite conclusions, results do show interesting trends.

**Recommendations for Further Study**

The writer recommends that further study be made regarding the effect of nursery school experience on college students attitudes and practices with reference to children in order to more definitely determine what factors in their experiences have changed their attitudes and practices. The writer, after having worked with this study, feels that the following might yield interesting study:

1. A study of the relationship which exists between the improvement of practices and the learning of attitudes. It is possible that the improvement in attitude follows the perfection of
practice.

2. A study in which the nursery school course precedes the child development course in order to determine the effect of the nursery course if it comes first in a sequence of courses.

3. A more detailed study of parts of the present study using the same methods of procedure.
REFERENCE LIST


APPENDIX
APPENDIX A

ATTITUDE TESTS

Self-reliance Scale (7)

1. I feel that a child should carry food with a spoon from a dish to the mouth without spilling (does not imply never spilling) throughout an entire meal, by the age of

2. I think that a child should be able to use a fork to carry solid food from a dish to the mouth without spilling (does not imply never spilling) throughout an entire meal, by the age of

3. I think a child should be able to cut his own meat (if reasonably tender) with a knife by the age of

4. I believe that a child can be taught to make a good selection of his own meal when dining in a hotel or restaurant by the age of

5. I think a child is capable of answering the doorbell and calling the person desired by the age of

6. I think a child should be able to help make his own bed (e.g., the child on one side of the bed smoothing covers and an adult on the other) by the age of

7. I think a child should be able to help set the table for a family meal (e.g., place silverware and dishes on the table after an adult has given them to him and has shown him where to place them) by the age of

8. I believe that a child can run errands about the home (e.g., fetch a book for a parent) by the age of

9. I think a child has the ability to take a message over the telephone to relay correctly to another member of the family by the age of

10. I feel that a child should be able to help with daily cleaning about the home (e.g., pick up newspapers, straighten small rugs, empty ash trays) by the age of
11. I feel that a child should be taught to manage expenditure of an allowance which includes money for a few articles of clothing (e.g., hose, handkerchiefs) by the age of

12. I believe that a child should be put in his bed while awake and should go to sleep of his own accord by the age of

13. I feel that a child is capable of undressing and going to bed alone after being told it is time to go to bed by the age of

14. I think a child should be able to take turns with another child at using some toy or piece of play apparatus, without suggestion from an adult, by the age of

15. I feel that a child should be allowed to ride a kiddie kar or other mobile toy around the home block (assuming there are no hidden driveways and but two alleys, which are not often used) without being accompanied by an adult at the age of

16. I think that a child should be able to go to school alone, a distance of one mile or less, when it is not necessary to cross heavy traffic streets, by the age of

17. I think a child should be able to remove all his indoor clothing when it has been unfastened for him by the age of

18. I think a child should be able to dress himself entirely without help, by the age of

19. I think a child should be able to unbutton \( \frac{3}{8} \)-inch buttons when in front position by the age of

20. I think a child can unfasten snaps regardless of the position or size by the age of

21. I think a child should be able to fasten medium-size hooks and eyes when in front position by the age of
22. I feel that a child should be able to take responsibility for his bowel movements (e.g., indicate his need) by the age of

23. I feel that a child should be able to take responsibility for urination (e.g., indicate his need) by the age of

24. I believe that a child should be able to wash and dry his hands and face, insuring cleanliness, without adult supervision by the age of

25. I think a child should be able to hold and drink from a cup or glass (1/2 full of liquid) without spilling (does not imply never spilling) by the age of

26. I feel that a child should be able to choose his own play activities from material available about the home by the age of

27. I think that a child should be able to endure ordinary small hurts (e.g., falling from a kiddie kar) without crying, by the age of

28. I think a child should help put his toys away at the end of play period after suggestion from an adult by the age of

29. I believe a child should be permitted to play in his own unfenced yard without the immediate presence of an adult by the age of

30. I think a child should be able to settle minor difficulties (e.g., a struggle over a toy) with a child his own age by the age of

31. I think a child should be able to voluntarily share toys with any child with whom he is playing by the age of

32. I think a child is capable of answering the telephone and calling the person desired by the age of
33. I believe a child should be able to help with the weekly cleaning (e.g., run the vacuum cleaner, empty waste baskets) by the age of

34. I think a child should be able to set the table for a family meal with dishes and silverware without help from an adult by the age of

35. I think a child should be able to dry the dishes (not scald them) after a family meal by the age of

36. I feel that a child should be able to hang up his own wraps, providing hooks are in his reach and near at hand, without suggestion from an adult by the age of

37. I think a child should be permitted to run errands about the neighborhood (e.g., take a neighbor some flowers or borrow something for his mother) by the age of

38. I think that a child should be able to wash and dry his hands and face, reasonably clean, with adult suggestion and supervision, by the age of

39. I think a child should be able to bathe himself with adult supervision by the age of

40. I feel that a child should be able to brush his teeth without adult supervision by the age of

41. I think a child should be able to remove all his own indoor clothing, including unfastening, without help by the age of

42. I think a child should be able to put his own shoes on the correct foot, lace and tie them, without help by the age of

43. I think a child should be able to dress himself when his clothes are handed to him in the proper position and are fastened for him by the age of

44. I think a child should be able to button ¾-inch buttons when in front position by the age of
45. I think a child should be able to fasten medium-sized snaps when in front position by the age of

46. I feel that a child should be allowed to make a choice of clothing to be worn from a few selected by an adult by the age of

47. I feel that a child should be able to make his own bed daily (excepting when sheets are changed) without help by the age of

48. I believe that a child should be able to help set the table for a family meal (e.g., assist another person) by the age of

49. I feel that a child should be able to assist in preparing food for the family meal (e.g., wash vegetables) by the age of

50. I believe a child should be able to choose his own books to read from a library list of books suitable to his age by the age of

51. I think that a child should go to school alone a distance of two miles or less, when it is necessary to cross several heavy traffic streets by the age of

52. I believe that a child should be able to get to school on time without being reminded by the age of
Attitude Toward Self-expression (3)

Definition: Self-expression, as used in this scale, refers to any activity, verbal expression, or pose, which the child engages in through his own initiative, and which symbolizes a thought, feeling, character or quality within the child.

1. If a two-year-old attempts to scratch expensive furniture with a nail, he should be stopped.

2. If a child attempts to dress his dog in doll clothes, I see no reason for encouraging or discouraging him.

3. If a four-year-old child mixes dirt and water for make-believe paint, and paints a part of the garage with it, I think he should be permitted to continue painting as long as he likes.

4. If a child of five decides to make doll clothes out of his new pair of hose, he should be permitted to cut them in any way he sees fit.

5. When a child makes doll clothes, his parents should supervise and direct every detail carefully.

6. I think a three-year-old should be permitted to paint with water color paints, providing he is given paper and a suitable chair and table.

7. I think when a four-year-old child is dressed for play, he should be permitted to make mud pies.

8. If a nine-year-old child's room is to be painted, he should be permitted, under supervision, to select the colors.

9. I think the gift (within price limits) which a child selects, should be made according to his own judgment.

10. It is my opinion that no pre-school child is capable of using any toy, without the most careful supervision, suggestions, and directions.
11. I think if a pre-school child wants to turn pieces of living room furniture upside down and make them into caves, houses, etc., he should be given the freedom to do so.

12. I think children, as a rule, should not be permitted to read literature of a questionable character.

13. I think a ten-year-old school boy should be permitted to remodel his $5 toy wagon according to his own liking.

14. I think a sixteen-year-old child should be permitted to rearrange the furniture in the home to his liking, within the limits of good taste.

15. I think a four-year-old should be permitted to use hammer and nails providing he does it under supervision.

16. I think it is highly objectionable to permit a six-year-old child to help with a simple household task.

17. I see no reason for interfering with a three-year-old child when he examines the contents of dresser drawers and cupboards, which hold unbreakable family supplies.

18. I think when children quarrel within a family, parents should not interfere.

19. I think a pre-school child should be permitted to question a statement made by his parents at any time he likes.

20. A pre-school child should be permitted to express a dislike for adult help which is inflicted upon him as he carries out his routine activities.

21. I think a three-year-old should under no conditions be permitted to enter into the family mealtime conversation.
22. A child of ten years should not be permitted, in general, to brag about his accomplishments.

23. I think a child of four should not be permitted to express verbally his food dislikes.

24. A ten-year-old child should not, in general, be permitted to use slang.

25. I think an adolescent should be permitted to (voluntarily) keep her weight below average norms, if she prefers.

26. If a six-year-old child begins to sing at the table, I think he should be permitted to continue.

27. A four-year-old should not be permitted to use gestures when talking.

28. I think a seven-year-old should not be permitted to play in the street if the traffic is heavy.

29. I think the mother of a sixteen-year-old girl should discourage her daughter's interest in learning to smoke.

Situation (a)

James, aged twelve, has been asked by his teacher, as an assignment in English, to listen carefully for common errors in grammar and to prepare a list for class discussion. In searching for these errors, he discovered that his mother, who is a highly refined and fairly well-educated woman, had formed the habit of saying, "He don't." This error greatly annoyed James, and one day he said to his mother, "Do you know you constantly make a serious error in grammar? You say 'he don't,' and you should say 'he doesn't.'" The mother said, "Thank you, son, for calling my attention to this error. I shall make an effort to correct my mistake."

30. I think the mother should make an example of this situation and punish James severely.
31. In this situation I think James should not have expressed himself. He should have tolerated the error.

32. I think the mother should neither have encouraged nor discouraged James in expressing his annoyance.
Attitude Toward Corporal Punishment as a Means of Control (3)

Definition: Corporal punishment as used in this scale has reference to the infliction of punishment in the form of spanking, slapping or hitting any part of the child's body. It is also assumed that corporal punishment is used in moderation and not in extremes, and that it is administered when the adult is not under the influence of the strong emotion of anger.

1. I think young children should be spanked when they do not obey.

2. I think corporal punishment produces nervous disorders in children.

3. I think corporal punishment is brutal.

4. I think corporal punishment is good for some children, but it must be used with caution for others.

5. Corporal punishment has value in teaching the young child that he is not the "head of the household."

6. Corporal punishment is valuable if it is used sparingly and consistently.

7. I think corporal punishment has no place as a means of control.

8. I believe in the old saying, "spare the rod and spoil the child."

9. I think corporal punishment produces slightly unfavorable results.

10. I should seriously object if other persons spanked my children.

11. I think corporal punishment satisfied the parents' desire for revenge and gives the child no help.

12. I think corporal punishment makes a child timid and poorly qualified to assert himself at times when he should show initiative.
13. I think corporal punishment does a child an injustice because it is humiliating to him.

14. I think corporal punishment destroys free and natural relationships between child and parents.

15. I think corporal punishment is very effective as a means of conditioning the child against undesirable conduct.

16. I think corporal punishment is a failure because it does not remove the cause of the difficulty.

17. I think corporal punishment is a good means of control if it is used only for young children and discarded as soon as the child can understand and reason.

18. I think corporal punishment should be used only in meeting situations which involve physical danger to the child.

19. I think corporal punishment should be used on children who are bold and very aggressive, but less frequently on children who are shy.

20. I think corporal punishment is hampering to the shy child's personality growth.

21. Since corporal punishment has survived for many generations, it must have some value.

22. I think corporal punishment is desirable for boys but I question its use for girls.

23. Sometimes I think corporal punishment should be used, and at other times I feel very doubtful about the wisdom of its use.

24. Persons who use corporal punishment are not aware of the dangers involved in its use.

25. I think corporal punishment is sometimes justifiable and sometimes it is not.
26. I think corporal punishment makes the child feel insecure.

27. I think corporal punishment tends to make a child want to "get even" with the person who punishes.

28. I believe in very few punishments, but when they are given I think there is no good substitute for a sound spanking.

29. Corporal punishment, when rarely used and lightly administered, is a good thing.

30. I would not hesitate to use corporal punishment for any type of situation which calls for discipline.

31. It is my opinion that there is no reason why corporal punishment should not be used for children of all ages.

32. I like corporal punishment because it expresses to the child, in a definite way, the adult's disapproval of poor behavior.
Attitude Toward Praise as a Means of Control (3)

Definition: Praise as used in this scale means a verbal expression of approval directed toward the child. Unless a special degree of praise is mentioned in the individual statement, assume that the praise is not given in great extremes, either in amount or emotional intensity.

1. As a means of controlling future behavior, I think praise ranks low.

2. I think when praise is used as a method of control, the child is very liable to work definitely for praise rather than for the sake of good performance.

3. I think praise is an inefficient means of control.

4. I think a child who responds to praise is liable to be at the mercy of the opinions of others.

5. I think without some praise a child becomes discouraged.

6. I think praise stimulates control through building self-reliance.

7. I think any method of control which carries with it some praise is far better in every respect than methods of control which lack praise.

8. I think praise is the best way to get a child to do the things he should do.

9. I think praise has some value, but I am not over-enthusiastic about it.

10. I think praise has value if it is used only when the child feels sure he deserved praise.

11. I think praise as a means of control has value only when it is used sparingly.

12. Although praise is not the only desirable method of control, I think it is one of the best.
13. Since a young child cannot look far ahead, I think praise serves as a good stimulus until he is old enough to weigh values.

14. I think praise is a good means of control if it is not used exclusively.

15. If a child receives some praise for his success, I think he has a better basis for making future judgments.

16. I think praise should be used only when other types of control have failed.

17. I think in many children praise may lead to dishonesty.

18. I think praise of any kind causes a child to play up to outward appearances rather than real values in life.

19. Praise as a means of control gets desirable results.

20. I think a great drawback to the use of praise as a means of control is that it teaches the child to tolerate a condition in order that he may receive praise.

21. I think praise is the wrong type of motivation to use as a means of control.

22. It is my opinion that praise is valuable, but it cannot fill all needs as a means of control.

23. I think praise as a means of reward causes children to do their best work only when someone is near to give them praise.

24. I think praise as a means of control has value for some children, but for others it has no value.

25. I am uncertain about the use of praise as a means of control that I should hesitate to try it on a child.
26. I think praise as a means of control is doubtful in value, because less than half of the parents know how to use it wisely.

27. I think praise has value, but it will not solve all difficulties.

28. I think children may be confused as to what constitutes real values if they are praised when they think they do not deserve it.

29. I think praise as a means of control is a dangerous method to follow.

30. I think praise is the best means of control.

31. I think praise of any kind is absolutely detrimental to the child's development.

32. I think praise is the only means of control which produces a good psychological reaction on the part of the child.
Definition: The word "adopting" as used in this scale has reference to making a child one's own through legal procedure. It is assumed throughout the scale that the children offered for adoption test average or above both mentally and physically unless otherwise stated.

1. I think it extremely risky to adopt a child no matter how highly the child may be rated by experts.

2. I think it is fairly safe to take a chance in adopting a child if he has been examined by experts in all fields.

3. I do not consider it wise to adopt a child because of the uncertainty concerning characteristics which may be inherited.

4. I think it is a better policy to contribute money to orphan homes than to adopt children.

5. I think orphan children should be brought up in institutions.

6. I think good private homes into which children may be adopted should be found for all orphan children.

7. I believe, theoretically, that adopting children is a good thing, but from the practical standpoint it involves a great amount of uncertainty.

8. I think adopting children is all right for other persons, but I would not care to consider adopting a child.

9. I object to adopted children because of the possibility that their offspring may have undesirable inherited characteristics.

10. I think adopted children are parasites on society.

11. I think it is a poor policy to adopt children if one has children of his own.
12. I feel the need for children in my home, but I would not consider adopting a child.

13. I do not favor adopting a child since an adopted child is liable to be more severely criticized by the public in general than a child reared in a normal home by his own parents.

14. I think very few people gain anything in the way of satisfaction when they adopt children.

15. I can't see why any childless family who conveniently can, should object to adopting a normal child.

16. I think people who can should be forced to adopt children as a means of reducing crime.

17. I feel that since environment has a great influence it is safe to adopt a young child.

18. I think it is desirable for people in childless homes to adopt children.

19. I think adopted children have a poor chance in later life.

20. I should be willing to adopt a child belonging to a very close relative, but I would consider no other.

21. Providing a couple in a childless home is qualified to give children good care, I believe the couple should adopt more than one child.

22. I favor adopting children if it is done shortly after birth, but I should be less enthusiastic over adopting a child more than six months of age.

23. I prefer an adopted child to one of my own, because by adopting a child I can choose the sex and other characteristics.
24. I think the desirability of adopting children is an open question which can not be settled without more knowledge than we now have.

25. I should be willing to adopt a child if I could be sure it would be possible to keep him from knowing he is adopted.

26. I should like to adopt a child if I were not afraid of public opinion.

27. I should be quite willing to adopt a child if it were born under conditions which I should not hesitate to discuss with the child or my friends.

28. I do not like the idea of adopting children, but I should rather adopt a child of an unmarried mother than the child of a criminal.

29. I should never adopt a child, and I also hope none of my relatives ever adopt one.

30. Because of the strong influence of environment, I favor adopting any normal child.

31. As soon as better tests are constructed, I shall be willing to adopt a child, but I think too little is known now to make adopted children satisfactory.

32. I prefer to direct my affection toward a pet animal rather than an adopted child.
Attitude Toward the Use of Fear as a Means of Controlling Children (1)

1. I feel that scaring a child now and then by a promise of a whipping doesn't hurt the child in any way.

2. I believe that to tell a child the policeman or "boggy man" will get him if he doesn't mind is one of the best methods of controlling a child.

3. I feel that children should be frightened to prevent them from entering into situations which will bring bodily injury.

4. I believe that fear is the most desirable method to use in controlling the behavior of children.

5. I believe that parents should raise their children to be afraid of breaking the law.

6. I feel that children should be taught by parents to be afraid of overstepping social conventions.

7. I believe that fear as a means of controlling children has an equal chance for aiding and for harming the child's normal development.

8. Since fear is so powerful as a means of control, it is the best method to use with children.

9. I feel that scaring children to control their behavior always makes cowards of them.

10. I believe that fear is a desirable and easy method to use for controlling children.

11. I feel that the use of fear as a means of controlling children always inhibits their ability to think clearly.

12. I feel that the use of fear to control the child invariably has unlimited possibilities for injuring the normal development of the child.
13. I believe that fear is the only effective means that can be used to control children.

14. I believe that using fear to control children will prevent them from developing the ability to meet emergencies.

15. An excessive use of fear to control the behavior of a child might be damaging to the child's personality.

16. I feel that scaring children to control their behavior sometimes makes cowards of them.

17. I believe that fear should be used only in extreme cases to control the behavior of children.

18. I feel that an excessive use of fear to control a child often destroys potential possibilities which the child may have for leadership.

19. I feel that it is undesirable for parents to frighten children by telling them they won't be loved if they fail to comply with the parents' wishes.

20. I believe that the use of fear in any form is an objectionable method of controlling the behavior of children.

21. I believe that an occasional use of fear to control children is not objectionable.

22. I believe that fear as a means of controlling children is highly objectionable.
APPENDIX B

Situation Test (9)

Please put a check in front of the statement which, in your opinion, represents the most desirable procedure in each situation.

1. It is the first day at school. Mary's mother has just brought her to the nursery school. At the teacher's approach, Mary, who is 2½, clings to her mother crying. She is an only child and has not had much experience with children or been away from her mother. The teacher:

   — a. Suggests to Mary's mother that she may say goodbye and leave, assuring her that Mary will soon be all right.

   — b. Takes Mary's hand and invites her to join the children in their play.

   — c. Smiles at Mary and asks Mary's mother to sit in a chair near where the children are playing.

2. John is sitting with Mary and Jane having lunch. About half way through the meal he begins to shout nonsense words and starts the group imitating him. The teacher:

   — a. Reminds John that he is eating his dinner now.

   — b. Tells John that unless he is quiet he will have to eat by himself.

   — c. Asks John what he made with the blocks outside earlier in the morning.

3. John has a dinner plate with good-sized servings of potatoes, meat, broccoli. He eats the meat and potato, but spits out the broccoli at his first taste, saying, "I don't like it." The teacher:

   — a. Lets him get some more meat and potatoes.

   — b. Removes all but a little of the broccoli, saying, "You can eat a little. You'll learn to like it."

   — c. Says, "You must eat it even if you don't like it."
4. John is whispering to himself at the rest period. The teacher:

_____ a. Does nothing.

_____ b. Reminds him to rest quietly.

_____ c. Sits near him, indicating he must be quiet.

5. John and Bill have had a good time building a house with many blocks. It is time to put equipment away in preparation for lunch. They have declared that they aren't coming in for lunch. The teacher:

_____ a. Says, "You must come in but first you must put your blocks away."

_____ b. Begins taking their blocks down and putting them away, ignoring the boys.

_____ c. Says, "Bill, I'll help you load this wagon. Let's see how many blocks it will hold. Here's one for John to put on," and then begins loading the wagon.

6. Mary and John are playing house in the doll corner. Bill approaches, and Mary calls out, "You can't come in." Bill begins to hit Mary and tried to push his way in. The teacher:

_____ a. Says, "Bill may come in, Mary."

_____ b. Tells Bill to play somewhere else.

_____ c. Says to Bill, "You might ask Mary what you could do in the house. Perhaps she'd like to have you knock first."

7. A group is playing in the sandbox. Jane, a shy, quiet child, stands for some time watching them. The teacher:

_____ a. Asks Jane if she wants to play in the sand.

_____ b. Puts a spoon and truck near Jane.

_____ c. Asks the children to invite Jane to play.
8. Three children are watching a rabbit in his cage. The teacher:
   a. Calls their attention to the rabbit's long whiskers and his wiggling nose. She also suggests they get some lettuce to feed him.
   b. Tells them not to open the door and let the rabbit out.
   c. Does nothing.

9. Three children are walking up a steeply inclined board and climbing into the jungle gym. Three other children are playing in the sand box. The teacher who is supervising the play yard stands.
   a. Close to the children on the inclined board.
   b. Close to the sand box.
   c. Halfway between the two groups.

10. Bill, age 4, has just flushed the toilet and the teacher notices that he is trying to peek under the top. She:
    a. Helps him lift off the top so that he can see the action of the water more easily.
    b. Redirects his activity by saying, "You are ready to go back to the playground and play, Bill," and replaces the lid.
    c. Says, "You must not do that, Bill. This isn't the place to play."

11. John has made a train with blocks. Mary comes by and picks up two of his blocks. John says, "Don't, Mary; I'm making a train." He replaced the blocks, but Mary again picks some of them up. John hits and pushes her. She begins to cry. The teacher:
    a. Says to John, "You mustn't hit Mary, John. Let her have some of your blocks."
    b. Does nothing.
    c. Says to Mary, "John didn't want you to take his blocks. Here are some over here that no one is using."
12. Bill has already watered the plants twice. The teacher says:

   a. "You have done enough watering now. Put the watering can away."

   b. "The plants have had all the water they need now. Put the watering can away."

   c. "Don't you think you better stop watering the plants now?"

13. Jane, age 2½, who has taken almost half of the available clay, starts to reach for some more; several other children are using clay. The teacher says:

   a. "Aren't you going to let the other children have some of the clay? They want it, too."

   b. "You must not take any more clay, Jane."

   c. "Use the clay you have, Jane."

14. Mary has been washing her hands and playing in the water for five minutes. John and Bill are waiting to use the wash basin, but Mary protests she is not through. The teacher says:

   a. "You must not wash any longer, Mary. It is not fair to keep the others waiting."

   b. "Aren't you almost through now, Mary? The other children are waiting to use the wash basin."

   c. "Pull the plug now and dry your hands. They are clean. The other children are waiting for a turn to wash, too."

15. John takes a big bite of mashed potato, spilling some of it in his lap. The teacher says:

   a. "Don't take such a big bits, John, and then you won't spill."

   b. "Take little bites, John. See what nice little bites Janet is taking."

   c. "Take little bites, John. Then it will all go in your mouth."
16. The teacher sees Bill hitting Mary because she won't let him have her tricycle. The teacher stops him, saying:

(a) "Mary is using the tricycle, Bill. You can ask her if she will give it to you when she is through."

(b) "It's Mary's tricycle, Bill. You mustn't hit her. You can play with something else."

(c) "You can't have the tricycle, Bill. You must be a good boy and not hit anyone."

17. Jane, Mary, and John have been playing in the sand box for more than ten minutes. Mary, for some reason not apparent to the teacher, starts throwing sand. The teacher says:

(a) "Stop throwing sand, Mary. It might get in the other children's eyes."

(b) "Play nicely in the sand, Claire, like Jane and John are doing."

(c) "Keep the sand down in the sand box, Mary. If you want to throw, you can get a ball."

18. Don, age 2½, sits up on his bed during rest period, and begins banging his feet noisily against the end of the bed. The teacher:

(a) Does nothing for she wants him to learn to rest by himself.

(b) Approaches him and whispers, "Rest quietly, Don. Rest your head and rest your feet;" pats his bed to indicate where he rests.

(c) Approaches him and whispers, "You mustn't make any noise at rest time. It disturbs the other children."

19. Don, age 2½, refuses to come in when the teacher tells him that it's time to come in and get ready for lunch. The teacher:

(a) Repeats firmly her statement that it is time to come in.

(b) Ignores him, letting him remain outside a little longer.

(c) Takes his hand, saying, "Which door shall we go in?"
20. The wagon that Bill is pulling catches on the post as he turns a corner. He struggles to pull it forward and starts to cry with annoyance. The teacher:

_____ a. Leaves him alone to work on the problem for himself.

_____ b. Says, "The wagon won't go because the wheel is caught on this post. Look. How can you fix it?"

_____ c. Says, reassuringly, "I'll fix it for you, Bill," and lifts it clear of the post as he watches.

21. John, who is very fond of the pet rat, has been home with a cold for a week. On the morning of his return to school, he rushes in and goes directly to the rat's cage without stopping for his regular morning drink of water. The teacher:

_____ a. Waits until he has played with the rat for a few minutes and then says, "Now you can have your drink, John. Then you will be ready to play with the rat again if you wish."

_____ b. Calls him back, saying, "First have your drink, John, then you can play with the rat as long as you want, afterwards."

_____ c. "No, John, we don't play until after we have had a drink."
Observation Blank for Teacher-Child Contacts (5)

Teacher ______________ Child ______________ Observer __________

I. Type of Contact

Physical: Relax_________________________Tense

Child _______________________________

Equipment ___________________________

Clothing ______________________________

Verbal: Subdued Ordinary Stern or Loud Extraordinary

Declarative ______________________________

Imperative ______________________________

Interrogative ____________________________

Exclamatory ____________________________

Social ________________________________

Visual: Gaze _______ Facial Expression _____ Bodily Gesture

Spatial: ________________________________

II. Method

Physical Restraint ___ Physical Compulsion ___ Physical Guidance ___

Physical Assistance ___ Physical Caress or Fondling ___ Physical

Chastisement ___

Example, Demonstration or Illustration _________________________

Suggestion _____ Reason _____ Suggestion _____ Reason _____

Command _____ Reason _____ Command _____ Reason _____
III. Method Goals

Adjustment to Routine: Water _____ Clothing _____ Free Play _____
Putting away Toys _____ Toilet _____ Tomato Juice _____
Rest _____ Lunch _____

Physical Care: _____ Motor Development _____
Emotional Development: _____ Social Development _____
Mental Development: _____ Aesthetic Development: _____

IV. Situations

Date _____________ Time _____________
APPENDIX D

Personal Questionnaire

1. Name ______________________ 2. Age ____ 3. Year in college ____
4. Number of brothers _____ Ages _____ 5. Number of sisters ____

Ages __________

6. Check the following courses you have had in high school and college:

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<th>High School</th>
<th>College</th>
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<td>a. Child Development</td>
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<td>b. Parent Education</td>
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<td>c. Family Relations</td>
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7. Have you had experience caring for pre-school children? Yes ____
   No _______. Explain: ____________________________________________

8. Do you enjoy being with children? Yes ____ No ____

9. Did you feel at ease with children when you started this nursery
   school class? Yes ____ No ____

10. Now that you have completed this nursery school course do you feel
    at ease with children? Yes ________ No ________

11. What do you plan to do after graduation? ______________________
12. Would you like to work with children as a vocation? Check whether it would be your first choice ______, second choice ______, third choice ______, fourth choice ______.

13. Now that you have completed the nursery school course where you have participated as a teacher

Yes ___ No ___ (a) Do you think your attitudes toward preschool children have changed?

Yes ___ No ___ (b) Do you think your attitudes toward preschool children have not been changed?

Yes ___ No ___ (c) Are you doubtful of any change in your attitudes toward preschool children?

Give reasons for the above statement you check:

________________________________________________________________________
________________________________________________________________________
APPENDIX E

Situations Observed (9)

KEY:

A = Initial observation of routine situation
B = Initial observation of free play situation
C = Final observation of routine situation
D = Final observation of free play
a to q = The child in the situation
x = Over five children in a situation
Case number = The student observed

Case 1

A. April 6, 10:05-10:15

She kept telling n to take his wraps off, but she gave him no help. She stood over him and made him sit down each time he started to get up.

B. April 20, 11:05-11:15

She was sitting near the sand pile when e screamed. She jumped up quickly to see what was wrong and found 6 putting sand on e's hair. She said, "Keep sand in the box, not in e's hair."

C. May 13, 11:45-11:55

I and e were kicking the screen between their cots and knocked it over. She walked over with a frown on her face and sat on e's cot and held the screen and his leg.

D. May 20, 11:05-11:20

She walked over and sat down by o, who was playing the victrola. She gave o unnecessary help in running it, and she said, "Be careful with the records." She talked about the music and sang some.
Case 2

A. April 16, 10:30-10:40

She took i upstairs to rest and told him to put his car by him and rest. She sat on his cot, but it wasn't necessary.

B. April 9, 10:45-10:55

She read to h but did not hold book so pictures could be seen easily. She also read rather rapidly.

C. May 14, 11:30-11:40

She was sitting by m during the rest period trying to get him to rest. He said, "Go away," but she didn't pay any attention to him. He said this several times before she moved.

D. May 14, 9:50-10:00

She took hold of n's hand when he started to stand up on the teeter on which he and d were playing. He said, "I wanted to teeter my own style," so she stepped back but stayed near.

Case 3

A. April 15, 11:30-11:40

During rest she went over to o's cot and told her to rest and sat down by her.

B. April 22, 10:45-11:00

She went over to a, who had made several attempts to stack some boards, and showed him how to place them a certain way. She walked away and did not wait to see if he understood.

C. May 13, 12:00-12:10

She was eating lunch with a and j. j wasn't eating her spinach, and she said to her, "j, aren't you going to eat your spinach? I like mine."

a and j asked her several questions, which she didn't bother to answer. j kept tilting in the chair and finally fell over, but 2 didn't say anything to her, just helped her up.
D. May 25, 11:05-11:15

n and 1 were in the doll corner playing and began tossing things out to other parts of play room. They had tossed quite a few things before 2 went up to them and said, "We keep the doll things in here." She took hold of 1's hand as he started to throw something else.

Case 4

A. April 14, 11:55-12:15

She ate lunch with b and k. She had to encourage b to eat and fed her some. k was so noisy and kept jumping up that she took him to another room to finish eating.

B. April 9, 10:55-11:05

1 and m were cutting and pasting. She sat down by them and commented and talked to them. Gave few suggestions to them.

C. May 2, 11:20-11:25

She helped i get the sand out of his shoes when he came in to toilet, then she said, "You can go in to toilet now." She took his hand and went in with him.

D. May 2, 11:05-11:15

i and k were throwing things from the doll corner, and 4 went over to them and said, "We leave the dishes on the table." She took hold of k's hand as he started to throw another and said, "You can set the table and serve the doll's lunch."

Case 5

A. April 16, 11:15-11:20

She said, "o, it is time to go in and get ready for rest." She took hold of o's hand as o jumped from the board she was on. They went inside together.

B. April 22, 10:45-11:00

She was sitting near h, who was building with the blocks. She said to h when they tumbled down, "You will have to start all over now. What are you going to build?"
C. May 25, 11:05-11:10

She was reading to g when it was time to get ready for lunch. She said, "You will have to put the books away now; it is time to get ready for lunch."

D. May 25, 10:30-10:40

She sat by g on the piano bench and played the songs with one hand as g turned to them.

Case 6

A. April 16, 10:30-10:40

She sat by n during rest after picking him up and putting him on the cot several times. "Guess I will have to sit by you just like you are a little boy. Be quiet and you can go downstairs."

B. April 14, 9:25-9:35

She saw that b and f were in the doll corner and o wanted in. She said to b and f, "o wants to play too. Don't be selfish." She moved stool so o could get in.

C. May 12, 10:10-10:15

c refused to go over and drink his juice after 6 had said to him several times, "It is time for juice." She then took his hand and took him over and stood by while he drank it.

D. May 12, 10:30-10:45

She was near e and k who were playing in the sand, and k hit e. She said to k, "If you had said 'hello' to e, that would have been better." In a few minutes he started to throw sand, and she said, "If you want to throw, we have lots of balls. Would you like to have a ball?" She took hold of his hand.

Case 7

A. April 6, 11:30-11:40

She picked o up during rest and put her on the bed and said, "No, it isn't time to go downstairs; you have to rest now." She sat by her.

B. April 13, 11:05-11:15

She was standing near a and d, who were playing on the jungle gym. She kept warning them to be careful.
C. May 25, 10:30-10:45

She helped jo with their rubbers—in fact, she did it all for them and did not suggest to them to help.

D. May 25, 10:45-10:50

She saw c kick l and went over to them and put her arms around l. She said, "You can teeter with d." d was alone on the teeter.

Case 8

A. April 17, 10:55-11:00

"It is time to put the broom away and get ready for lunch, m." He said, "No," and she said, "Which would you rather carry in, the broom or book? I will carry the other one." She held the book out to him, and he started in with broom.

B. April 22, 10:30-10:40

h took hold of the beads s had on and asked her what they were. She explained that they were made from shells and told where shells were found. She took the beads off to let her hold them.

C. May 20, 11:00-11:05

She went over to o at the victrola and said, "Just as soon as you finish this piece it will be time for rest." She stood near, and as soon as the piece was over said, "o knows where we keep the records."

D. May 20, 10:30-10:35

"k, would you like to go over to the greenhouse and see the flowers? There are many pretty flowers over there, and l is going with me." k was playing in the sand but got up quickly.

Case 9

A. April 13, 11:50-12:05

She ate with h and l and talked with them about their morning activities. h was not interested in eating but, with assistance, finished when h did. They were both wanting to go out and play, and she said, "As soon as you finish you may go outside."
B. April 9, 10:10-10:15

She was standing by the sand box when C came up with the yard spray and interfered with other children's play. She said, "C, we use the spray on the grass." She re-directed his activity from the sand box.

C. May 21, 11:10-11:15

She was reading to b and e when it was time to get ready for rest. She said, "We will read one more story, and then it will be time for rest."

D. May 14, 11:00-11:10

She noticed that c and n were fighting over the wagon. n was getting ready to hit c, who had jumped in. She took hold of his hand and turned to c and said, "c, n was playing with the wagon. You come with me, and we will get another, or would you like for me to tie the wagon to tricycle so you can pull it?"

Case 10

A. April 7, 10:45-10:55

She tried to get n away from observers' windows and on his cot to rest. She let him examine the hinges as it closed and then took him over to his cot. She sat by him and showed him how to rest and relax different parts of his body.

B. April 7, 10:30-10:40

She noticed that n and k were painting each other and also the floor. She said, "This paint is for painting on the paper. See how ugly it makes the floor. Let's wipe it up with these rags."

C. May 12, 11:55-12:05

She talked to g while eating lunch. "Where did you go this morning? Was the elevator fun to ride?" They discussed other happenings of the morning.

D. May 21, 10:30-10:45

She played on the xylophone and then explained how it worked by taking out several of the pipes and letting the children examine them. She also played in a simple way that they could also try.
Case 11

A. April 10, 10:30-10:40

d and j were swinging on the tire when it was time to go in for juice. She said to them, "It is time for juice; you can swing again later." They did not want to go. She told them several times, and then the nursery school assistant came up and took charge.

B. April 21, 9:30-9:45

There were several children playing in the sand box, and because there wasn't enough space for each to play separately, she suggested to some that they build something together.

C. May 22, 11:35-11:45

As c went to his cot he slapped k, who began crying. c came back in a second and slapped k again. She went over to c and took hold of his hands and took him to his cot and sat by him.

D. May 22, 10:20-10:30

She was sitting near a, who was building with the blocks. She asked him what he was building. When it continued to fall, she helped him steady the base of it the next time he started.

Case 12

A. April 16, 10:20-10:25

She noticed that j was playing and not drinking tomato juice. She said, "j, you drink your juice now and then you can go outside, or I will read you a story." She sat down by j until she finished.

B. April 21, 9:15-9:30

She rearranged equipment outside and later asked d and e if they would like to teeter on the long teeter. She went over with them and helped them get balanced on it.

C. May 13, 12:00-12:10

As she came to lunch she said to n, who was already eating, "You got a head start on me today." She also talked to him while they ate.
D. May 12, 9:15-9:20

m and n were quarreling over a spade, and she walked over and stood near. She took hold of n's hand as he started to hit m and said, "I know where another spade is if you will come with me.

Case 13

A. April 6, 10:10-10:15

She helped i with his wraps and then said, "You are ready for toilet now." She did not stay to see if he went.

B. April 13, 10:45-10:55

She stood near work bench where a and c were hammering. She saw they were having difficulty getting the nail through, so she helped them get started and showed them how to select the best size nail.

C. May 12, 9:35-9:45

p was playing with the train and asked about the wheels and several other parts. She sat on the floor by him and answered his questions. When it was time for lunch she said, "Now, you can run the train to the station and leave it while you get ready for lunch."

D. May 12, 9:20-9:30

Children (x) were outside playing with jingle bells and marching around the walk jingling them to the victrola music. She walked around with them carrying one, too.

Case 14

A. April 17, 12:00-12:10

She tried to get h to eat and would feed her some but held the fork in an awkward position for h to put it into her mouth. Several times she put her hand on h's head and patted it.

B. April 17, 11:00-11:10

She sat down near j, who was over at bookshelf getting some books. When j had the books she brought them over to where 14 was sitting. She read several stories to j and commented on different parts of the stories.
C. May 22, 12:00-12:10

She said to P, who was at the table waiting for his lunch, "You can drink your milk while you wait. That is M's plate. She talked to him during the meal.

D. May 22, 10:50-11:05

P was playing at the piano and talking about the songs and turned around to tell someone. She walked over and stood by piano and listened to him.

**Case 15**

A. April 8, 10:00-10:10

She said, "I, they said that there was a place for you to toilet now. Come on and you can finish that later." She started to take him from sandbox, and he yelled. She didn't say any more, just stood there.

B. April 15, 10:45-10:55

She had C wipe the paint off the door where he had put it. He only smeared it worse and then threw the rag on floor, and she let him go.

C. May 20, 12:00-12:10

She ate lunch with B and M. They talked about B's swing and other things. She fed M at intervals and said, "You will soon be ready for dessert."

D. May 20, 10:30-10:45

She sat by clay table where L and M were playing with the clay. She also did some simple work with clay, then helped M some with what he wanted to make.

**Case 16**

A. April 6, 11:55-12:10

While eating lunch with G and L she talked with them about the flowers in the room and the things they had done during the morning. She helped L some with his food and suggested to G several times to finish her lunch.
B. April 20, 10:55-11:00

She saw 1 and n rolling the doll buggy recklessly about the room, and she suggested that they roll it without bumping. This suggestion didn't work, so she then suggested rocking the dolls because they might be tired riding.

Case 17

A. April 8, 10:10-10:15

She tried to get m in for tomato juice and said to him, "It is time for tomato juice." He didn't pay any attention. She said, "M, you can jump off the box by holding my hand----that was fine----now we are ready for juice."

B. April 15, 10:10-10:20

a and c were digging worms and she was standing near. Seeing that they needed some help, she went over and helped them pull up the dirt but let them do most of it.

C. May 20, 12:00-12:10

"Hello, k, I am real hungry today." She talked to him while they ate. He played with his cup and she said, "We put the cup on the table when we aren't drinking." She held his chair several times to keep him from jumping up.

D. May 21, 10:35-10:45

She brought electric popper and popped some corn for the children. She let them put some corn in and turn it, but she didn't do enough explaining.

Case 18

A. April 21, 12:00-12:15

She ate lunch with o and talked some while eating but mainly commented on the food. She adjusted o's chair several times so she would be in a comfortable position to eat and helped her some with her food.

B. April 21, 10:45-10:55

She was sitting by the sand box where i was playing with a tractor, when one passed on the street. "I, there goes a tractor just like yours." She ran with him to see it and commented on it while he looked at it.
C. May 14, 10:15-10:25

She tried to get p to drink his juice and said, "Do you want to drink your juice?" When he said, "no," she said, "You must before you can go out and play.

D. May 21, 10:30-10:45

She took movie pictures of the children and showed them to the group. She explained when she took them and what she was going to do. She let them do most of the commenting about the pictures as they were shown.

Case 19

A. April 15, 11:10-11:15

"m, wash your hands now and hurry upstairs. --Now, that's enough; get your towel." He didn't want to leave water, and she just left him.

B. April 17, 10:05-10:10

k started throwing sand on e and she said to him, "Don't throw sand on e. Would you like to throw the ball over there to me?" She stepped nearer him.

C. May 15, 12:05-12:15

She ate lunch with 1 and m and helped them some by putting food on fork for them. She let them fill milk cups too full, and 1 ran away from table several times. She went after him but failed to do anything about his doing it again.

D. May 22, 10:30-10:35

c went up to j and hit him. As he started to do it again, she came up and took hold of c's hand and said, "j, is playing with the train; would you like to build a track for it to run on, or would you like to go with me and get a tricycle?"

Case 20

A. April 7, 11:50-12:00

a didn't want to eat his raw carrot, and she said, "You have to eat your carrot, a. d has already eaten hers." She kept talking about the food.
B. April 20, 9:45-9:55

She sat on edge of sand box where d and m were playing. "d, keep the sand in the sand box. Yes, that's a good pie, m." She kept talking to them unnecessarily.

C. May 12, 12:00-12:10

She ate lunch with n and kept telling him not to take such large bites. She also said a lot about the food. He got up several times, and she went after him.

D. May 25, 11:00-11:10

n was running into train with his tricycle, and she said to him, "Don't run into the train." He did it again, and she took hold of his tricycle and said, "If you want to ride, ride around the train."

Case 21

A. April 9, 11:30-11:45

She took the paper that l had taken with him to rest, and she sat by him. She showed him her watch, and when it would be time to go down stairs.

B. April 16, 11:00-11:10

l was at the work bench trying to saw. She held his hand and helped him and said, "You are doing fine." She showed him to be careful of his other hand.

C. May 12, 10:10-10:15

She was assisting in toilet room but doing very little. She said to k, who still had his rubbers on, "You are ready for juice now." He pointed to his rubbers, and she helped him take them off.

D. May 12, 10:30-10:40

She noticed f in the doll corner, trying to open the drawer of the dresser, and said, "Can't you get the drawer open, f? Did you pull?" She helped her.
Case 22

A. April 7, 10:00-10:05

She was in the toilet room helping with wraps. *"Do you need help with your wraps, b?"* She unfastened b's belt and pulled off her coat for her, then turned to another child.

B. April 21, 10:35-10:45

c was taking the sand from the sand box, and she said, *"Leave the sand in the box."* He kept on, and she did nothing except look at him.

C. May 12, 11:50-12:00

She ate lunch with k, and he left the table several times. She went after him and said, *"We play after lunch."* She watched him and talked to him so he wouldn't leave again.

D. May 12, 10:30-10:35

She had been reading to b and j about elevators, and when they had finished, she asked them if they would like to ride on one. She took them over the the home economics building to ride one.

Case 23

A. April 10, 11:55-12:05

She ate lunch with m. She showed him how to hold his fork better. Later he kept dropping toast, and she said, *"Let's not drop this piece.""

B. April 17, 10:30-10:35

o was painting, and e got the car she had been playing with. She went up to them and said, *"o, you are painting now, and e wants to play with the car.""

C. May 22, 11:50-12:00

She ate lunch with a and g and talked to them. *"What did you play this morning?"* g started talking to someone at another table, and she said, *"g, did you help feed the rabbit this morning? What did you give it?""
D. May 22, 10:45-10:50

j was sawing, and she stood near the work bench. j asked her for help, and she helped some by giving suggestions.

Case 24

A. April 6, 10:10-10:15

She helped n get his wraps off and said, "Where is your locker? You know where to hang them." After he had hung his clothes she said, "You can toilet now, and then you will be ready for juice."

B. April 16, 10:45-11:00

She was helping with finger painting. "m, are you ready for another color? You have enough, n; you just need to spread it over your paper?" She shows him how.

C. May 21, 11:30-11:40

She sat by m for a few minutes when he got upstairs to rest. She held his hand and smiled.

D. May 21, 11:00-11:10

She took k and i a picture and then sat by them in the sand box. They asked questions about the picture, and she showed them the camera.
### APPENDIX F

Data on Nursery School Children

<table>
<thead>
<tr>
<th>Child</th>
<th>Sex</th>
<th>Birth Date</th>
<th>Age as of April 1, 1942</th>
<th>Terms in Nursery School</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>male</td>
<td>May 6, 1938</td>
<td>3 yrs. 11 mos.</td>
<td>4</td>
</tr>
<tr>
<td>b</td>
<td>female</td>
<td>July 9, 1938</td>
<td>3 yrs. 9 mos.</td>
<td>4</td>
</tr>
<tr>
<td>c</td>
<td>male</td>
<td>July 25, 1938</td>
<td>3 yrs. 8 mos.</td>
<td>3</td>
</tr>
<tr>
<td>d</td>
<td>female</td>
<td>July 27, 1938</td>
<td>3 yrs. 8 mos.</td>
<td>4</td>
</tr>
<tr>
<td>e</td>
<td>female</td>
<td>July 30, 1938</td>
<td>3 yrs. 8 mos.</td>
<td>4</td>
</tr>
<tr>
<td>f</td>
<td>female</td>
<td>Sept. 19, 1938</td>
<td>3 yrs. 6 mos.</td>
<td>2</td>
</tr>
<tr>
<td>g</td>
<td>female</td>
<td>Oct. 18, 1938</td>
<td>3 yrs. 5 mos.</td>
<td>4</td>
</tr>
<tr>
<td>h</td>
<td>female</td>
<td>Dec. 11, 1938</td>
<td>3 yrs. 4 mos.</td>
<td>2</td>
</tr>
<tr>
<td>i</td>
<td>male</td>
<td>Jan. 18, 1939</td>
<td>3 yrs. 3 mos.</td>
<td>2</td>
</tr>
<tr>
<td>j</td>
<td>female</td>
<td>Jan. 24, 1939</td>
<td>3 yrs. 3 mos.</td>
<td>2</td>
</tr>
<tr>
<td>k</td>
<td>male</td>
<td>Feb. 13, 1939</td>
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<td>2</td>
</tr>
<tr>
<td>l</td>
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</tr>
<tr>
<td>m</td>
<td>male</td>
<td>May 6, 1939</td>
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<td>1</td>
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<tr>
<td>n</td>
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<tr>
<td>o</td>
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</tr>
<tr>
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