AN ABSTRACT OF THE THESIS OF

Allene Townsend Goldman for the M. S. in Child Development
(Name) (Degree) (Major)

Date thesis is presented

Title THE EFFECT OF NURSERY SCHOOL OBSERVATION ON MOTHERS' UNDERSTANDING OF BEHAVIOR IN PRESCHOOL CHILDREN

Abstract approved (Major professor)

The purpose of this study was to compare the level of behavioral understanding of preschool children of mothers who had observed in the nursery school with the level of behavioral understanding of mothers who had not observed. "Behavioral understanding" was defined as a mother's degree of awareness of the factors and forces which contribute to the actions and/or responses of a child in given situations. The hypothesis to be tested was that observing in the nursery school does not affect the mothers' understanding of the behavior of preschool children.

Twenty-two mothers who had a child enrolled in the nursery schools at Oregon State University participated in this study. The mothers were randomly divided into two groups, a control and an experimental group. The experimental group observed in the nursery school for a period of three weeks, a total of six hours of observation.
At no time during the study were the mothers in the control group allowed to observe. During the course of the study no mother in either group was allowed to discuss with the teachers or students any subject relevant to children and their behavior.

A measure of the mothers' level of understanding was determined by The Film Test for Understanding Behavior (FUB). The purpose of the test is to give an objective measure of: (1) understanding of guidance principles as they relate to specific behavior, (2) knowledge of expected behavior and development in three-and four-year-old children, and (3) sensitivity to the feelings of children. The test consists of ten one-minute episodes of behavior of three-and four-year-old children which were filmed in the nursery school. Specific items have been developed for each episode and the response to each item is given in terms of a five point agreement-disagreement continuum: Agree, Agree with hesitation, Uncertain, Disagree with hesitation, and Disagree. The scores range from +2 for the most correct to -2 for the least correct response.

The FUB was administered twice to both groups of mothers: (1) before the experimental group began their observations and (2) after the experimental group completed their three-week period of observation. The scores for each test were computed by two different procedures. First, a total score was computed which showed the scores for the three subscales of the test: (1) knowledge of
guidance principles, (2) knowledge of expected behavior and development, and (3) sensitivity to the feelings of children. Second, each test was scored by a procedure which discriminates between those having an extensive background in child development and psychology (medium-high scale) and those having limited academic work in these subjects (low-medium scale). The mothers having two or fewer courses in child development and psychology were considered to have limited academic course work and those mothers having three or more courses in these subjects were considered to have an extensive background.

A t-test of significance was used to determine the difference of scores between the two groups before and after observation. The results did not show a significant difference of scores at the .05 level of confidence. This was true for both scoring procedures.

These findings indicate a need for further research in establishing the reliability and validity of the FUB and in the use of observation as a method of parent education.
THE EFFECT OF NURSERY SCHOOL OBSERVATION
ON MOTHERS' UNDERSTANDING OF BEHAVIOR
IN PRESCHOOL CHILDREN

by

ALLENE TOWNSEND GOLDMAN

A THESIS
submitted to
OREGON STATE UNIVERSITY

in partial fulfillment of
the requirements for the
degree of
MASTER OF SCIENCE

June 1966
APPROVED:

[Signature]
Associate Professor of Family Life and Home Management

In Charge of Major

[Signature]
Head of Department of Family Life and Home Management

[Signature]
Dean of Graduate School

Date thesis is presented  July 29, 1965

Typed by Marion F. Palmateer
ACKNOWLEDGMENTS

This author wishes to express sincere thanks to Mrs. Marian Aikin for her capable guidance and invaluable supervision in this study. Special acknowledgment is also due my husband, Herb, for his wonderful disposition and enthusiastic encouragement.
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THE EFFECT OF NURSERY SCHOOL OBSERVATION
ON MOTHERS' UNDERSTANDING OF BEHAVIOR
IN PRESCHOOL CHILDREN

INTRODUCTION

Need for the Study and Review of Literature

There is considerable clinical and empirical data to suggest that parents play a very important role in the personality development of their child and, as a result, a great deal of the research in the field of parent education has been focused on methods of helping parents learn more about the behavior of children (Brim, 1957). Among educators it is generally believed that observation, such as in a nursery school situation, is a valuable method both of teaching and learning about behavior (Pease, 1960; Wagoner and Castellanos, 1951). However, there has been very little research done to substantiate this belief.

For these reasons the author felt a study which would investigate observation as a method of parent education would be a worthwhile project. The purpose of this study was to compare the level of behavioral understanding of mothers who had observed in the nursery school with the level of understanding of those mothers who had not observed. In this study "behavioral understanding" was defined as a mother's degree of awareness of the factors and forces which
contribute to the actions and/or responses of a child in given situations as measured by The Film Test for Understanding Behavior (FUB).

### Importance of the Parent-Child Relationship

During the early part of the 19th century the research concerning the child and his later personality development was conducted largely by experimental physiologists and it is not surprising, therefore, that the biological and hereditary influences were more strongly emphasized than those of the environment (Hall, 1957). It was during the later part of the century, when the theories of personality development began to consider the child within an environment and society, that the importance of the parent-child relationship emerged (Ansberry, 1956; Jones, 1957; Symonds, 1939 and 1949).

According to Sullivan (1953) personality is a hypothetical entity which cannot be isolated from interpersonal situations and relationships. A child's first relationship is with his mother or mother substitute and his perception of this relationship is an important factor in the development of his behavior and attitudes (Bossard, 1954; Hoffman, 1964; Watson, 1959). In agreement with this are the results of a study by Serot and Teevan (1961). They compared the child's perception of the parent-child relationship with the child's adjustment as measured by the California Test of Personality. They found a high correlation between how the child perceived this relationship and
his scores on the personality and adjustment tests.

Another study concerning the adjustment of the child is one in which Behrens (1954) investigated 25 families who were coming to a mental health clinic. These families were studied in terms of the "total mother person", Behrens' definition for general maternal attitudes and conduct, in relation to the child's adjustment. Her results showed highly significant correlations between the mothers' attitudes and the child's adjustment. Altman (1958) also investigated the mothers' attitudes, as reflected in their degree of contentedness, to the personality structure of the children. She found that children of more stable mothers were more expansive and vigorous intellectually and emotionally than were the children of less serene mothers. Scott (1940) found a tendency for mothers' attitudes of self-reliance to be associated with the degree of self-reliance in their children.

The parental attitudes of acceptance and rejection towards their children and the effects of these attitudes on the children were studied by Baldwin (1949) and Baldwin, Kalhorn and Breese (1945). The results of these studies indicated that children from actively rejectant homes were found to be non-conformists, resistant to adults, and socially unpopular and unsuccessful whereas the children from the acceptant homes were socially outgoing, active participants in school activities, and socially popular and successful.

Several studies have been done to investigate the degree of
parental control and disciplinary practices and their effects in terms of the child's behavior. One such study by Radke (1946) examined the disciplinary practices and the ways in which parents carried on authority functions in the family. Children from relatively autocratic homes compared with children from more democratic homes were found to rate as more unpopular with other children, more given to fighting and quarreling, and more insensitive to praise or blame. In a similar study Read (1945) compared the relationship between the attitudes of parents concerning child behavior and parental control and the actual behavior of these children in nursery school. Her results indicated that parents who expressed approval of freedom, i.e., had liberal views of parental control, had children whose favorable behavior was judged to occur more frequently than their unfavorable behavior. The conclusions of Sears, Maccoby, and Levin's study (1957) concerning the child rearing practices of mothers suggested that: (1) parents punishing severely for toilet accidents tended to have bed-wetting children, (2) parents punishing severe dependency tended to have dependent children, and (3) children who were punished severely for aggressiveness were apt to be more aggressive than those who were punished lightly.

In caring for the child the parents are doing more than just taking care of his physical needs. They are communicating something of themselves. Their conscious and unconscious motivations
and attitudes concerning the child are reflected in their behavior and in their techniques as they provide for these physical needs (Symonds, 1949; Watson, 1959). In a study by Brody (1956) mothers who were rated sensitive, consistent, and attentive in their attitudes toward the needs of the child were, when actually observed with the child, "conspicuous for their ability to accommodate to the needs of their infants" (Watson, 1959, p. 238). The mothers who had been rated hypersensitive, very inconsistent, and hyperactive in their attitudes were "conspicuously active but also erratic in their attentiveness, efficiency and sensitivity" (Watson, 1959, p. 238).

The mother's influence on a child actually commences before he is born. The studies which were done in Europe during World War II demonstrated the importance of a mother's nutrition during pregnancy and its effect on her child's physical health (Montagu, 1964). Montagu (1964) feels that not only the mother's nutrition but her emotional stability and attitudes towards the pregnancy can have profound and lasting effects on her child's physical and mental well-being.

As these studies have pointed out, parents in relation to their child are in a position to influence their child's behavior and development by direct or indirect means (Bishop, 1951), and they can modify, accelerate, or retard many aspects of this behavior and development.
Attitude Changes

Brim defines parent education as

...an activity using educational techniques in order to effect change in parent role performance (Brim, 1959, p. 20).

In order to effect change in the parent role performance, it is necessary to effect change in the parental attitudes and behavior (Gruenberg, 1959).

The findings in a study by Marshall, et al. (1960) indicated that classroom teaching could modify the attitudes of individual students toward guidance and control of children. Costin (1958) investigated to what extent an undergraduate course in child psychology could change students' attitudes toward the role of the parents in the parent-child relationships and his findings indicated a significant decrease in the intensity of attitudes, i.e., the attitudes became more permissive.

Shapiro (1956) administered a parental attitude questionnaire to parents before and after a series of parent discussion meetings and found a decrease in authoritarian attitudes in the subjects who had attended the meetings. Similar results were found in a study by Scott and Berson (1951). The findings in a study by Bernhardt, et al. (1959) indicated that a class in parent education had been effective in changing attitudes and behavior of the adults who attended.
According to Kelly (1955) attitudes seem to be the least stable characteristic of adult personality, and the review of the above research seems to indicate that the attitudes and behavior of adults are subject to change through education.

Observation as a Method of Education

Educators in child development and related fields are in almost unanimous agreement as to the effectiveness of observation in helping students more clearly understand the behavior of children. It is felt that through observation one can gain insight or perception as to the meaning of behavior (Pease, 1960; Pease and Pattison, 1956; Wagoner and Castellanos, 1951).

In a study by Korsch (1956) pediatricians were allowed to observe and later discuss the mother-child-doctor interactions while another doctor was examining the child and talking to the mother. Korsch concluded that the observational method helped these pediatricians to be more perceptive to the patients' reactions both in relation to their families and to their physicians.

It is generally felt that observation can teach many aspects of behavior which no amount of reading or discussion can quite fully explain because through observation one can witness behavior as it is actually taking place (Norton, 1949; Pease and Pattison, 1956). Suchman states that
Studying child development without observing children makes about as much sense as studying astronomy without looking at the sky... (Suchman, 1959, p. iv).

The results of a study by Karuven (1960) support these beliefs. Part of this study was concerned with the comparison of scores of the students who had had experience in observing the interaction of preschool children in the nursery school with those students who had not had such experience. The results indicated that

... observation experiences in conjunction with coursework in child development tend to increase understanding of behavior of preschool children (Karuven, 1960, p. 51).

Osborn (1956) allowed parents to observe during the nursery school sessions and afterwards held discussion groups with the parents. The parents felt that these observation sessions had been both enjoyable and beneficial.

As stated previously, in order for parent education to be effective it must be able to change the attitudes of the parents which influence their behavior in relation to their children. The only study which could be found which directly relates to the purpose of this study was one by Stillman (1940). She investigated attitude changes of college students by assigning the experimental group two hours per week of observation in the nursery school and assigning the control group two hours per week of extra reading. The only significant change in attitude in the experimental group was with respect to attitudes toward the use of corporal punishment. However, in the control group
significant changes were found not only in the use of corporal punishment but also in regard to attitudes of self-reliance and self-expression.

In view of the fact that there are so few studies which investigate the use of observation as a method of education and since some of the studies which have been done are discussed in terms of subjective evaluations (Korsch, 1956; Osborn, 1956), the author feels that observation as a method of education needs further study and investigation.

**Purpose of the Study and Hypothesis**

The purpose of this study was to compare the level of behavioral understanding of mothers who had observed in the nursery school with the level of understanding of those mothers who had not observed.

The hypothesis to be tested is that observing in the nursery school does not affect the mothers' understanding of behavior in preschool children.
PROCEDURE

The purpose of this study was to compare the level of behavioral understanding of preschool children of mothers who had observed in the nursery school with the level of behavioral understanding of mothers who had not observed. "Behavioral understanding" was defined as a mother's degree of awareness of the factors and forces which contribute to the actions and/or responses of a child in given situations.

In this descriptive study data were collected from 22 mothers who had a child enrolled at either Orchard Street or Park Terrace Nursery School. The data included the number of courses taken in psychology and child development and a before and after measure of the mothers' behavioral understanding which was determined by The Film Test for Understanding Behavior (Schalock and Edling, 1958). A t-test of significance (Li, 1957) was used to determine the significance of the difference of the before and after scores on The Film Test for Understanding Behavior (FUB).

Subjects

The subjects included 22 mothers who had a three-or four-year-old child enrolled at either of the two nursery schools at Oregon State University. This did not include 100 percent of the mothers
since the study was on a voluntary basis and some of the mothers chose not to participate. The subjects can be considered homogenous only in that, as a group, they had had approximately the same number of courses in child development and psychology (Appendix C) and they all had a child currently enrolled in the nursery school. This study did not attempt to control other factors which might influence the results such as the amount of previous experience in observing preschool children or the personality characteristics of the mothers which might influence their ability to observe the children objectively.

Instrument

The measure of behavioral understanding was obtained through the Film Test for Understanding Behavior (FUB). Since it is a test which has been recently developed and lacks published norms, reliability and validity data, a brief description of the development of this instrument is included in this writing.

The authors of the test are Dr. Henry D. Schalock, Oregon State University and Dr. Jack Edling, Oregon College of Education. In the words of the authors, the test is

...a technique for measuring behavioral understanding which attempts to incorporate some of the emotional involvement that is encountered in an interpersonal situation, yet maintains sufficient simplicity to make its administration feasible (Schalock and Edling, 1958).
The purpose of the test is to give an objective measure of: (1) understanding of guidance principles as they relate to specific behavior, (2) knowledge of expected behavior and development in three-and four-year-old children, and (3) sensitivity to the feelings of children. The test consists of ten one-minute episodes of behavior of three-and four-year-old children which were filmed in the nursery school. Specific items have been developed for each episode and the response to each item is given in terms of a five point agreement-disagreement continuum: Agree, Agree with hesitation, Uncertain, Disagree with hesitation, and Disagree. The scores range from a +2 for the most correct to -2 for the least correct response. The items around each episode are in reference to three dimensions of behavioral understanding: knowledge of guidance, knowledge of general facts and principles of development, and sensitivity to feelings of children.

Episodes of behavior were selected on the basis of student interest and training value. The episodes selected include: (1) a child sitting and watching the things going on around him, (2) a child painting at the easel, (3) a child playing a rhythm instrument, (4) a child dressing, (5) a child painting leaves, (6) a child eating, (7) two children taking another child's wagon of leaves, (8) a child's motor development, (9) a child taking dishes from another child, and (10) a comparison of two children working puzzles.

After the episodes were selected, items were developed to
determine which of the three kinds of behavioral understanding could be related to each behavior observed in a particular episode. The items were submitted to numerous students and professionals for an evaluation as to the clarity and readability. After the necessary revisions, an initial item pool of 130 items was established. The items were then studied by a group of five judges holding advanced degrees in psychology and child development and the response scores for each item were jointly determined. The individual answers of each judge were compared within the group and answers which were acceptable to all the judges were the final ones used.

As a result of a study by Karuven (1960) in which the FUB discriminated between students having little background in psychology and child development and students having more academic experience in these subjects, an extensive item analysis involving basically the Likert method (Likert, 1932) was applied to the test. Resulting from this analysis were two scales for scoring the test, both containing 36 items. One scale, the low-medium, is for persons with little background in psychology and child development. The other, the medium-high scale, is for persons with more extensive backgrounds in these subjects. In the present study, mothers who had had two or fewer courses in child development and psychology were scored on the low-medium scale and those having had three or more courses were scored on the medium-high scale.
In the present study a total score was also computed for each test which included the scores for the three subscales measuring knowledge of guidance, knowledge of behavior, and sensitivity to the feelings of children. Using this scoring procedure in addition to the other one made it possible to examine the results of the study in terms of the three subscale scores also rather than in terms of one total score only.

The questions in the FUB are included in Appendix A. A more complete description of the test may be obtained from Dr. Henry D. Schalock, Family Life Department, Oregon State University.

The FUB has been used in three master’s theses and one doctoral dissertation and the results of these studies will be discussed.

The purpose of a study by Karuven (1960) was: (1) to determine if students' understanding of behavior of preschool children increases with the number of courses taken in child development and psychology, (2) to determine whether students of differing levels of maturity (class level) will vary in their understanding of behavior of preschool children, and (3) to determine whether students' understanding of behavior is influenced by the nature of the courses taken in psychology and child development (observation in the nursery school versus non-observation). The subjects were 130 undergraduates with varying levels of course work in child development and psychology who were divided into five experimental and three control groups. The results
of this study indicated that the test discriminated on the subscale of knowledge of guidance principles, at the .01 level of significance, between students having different amounts of background in child development and psychology. Also at the .01 level of confidence the results showed that on the subscales of knowledge of guidance principles and sensitivity to feelings of children the test discriminated between those who had had observation in the nursery school and those who had not.

In a study by Smith (1960) the relationship between academic performance and personality characteristics of 65 Home Economic seniors and their understanding of children's behavior was investigated. The results showed at the .05 level of confidence: (1) a positive correlation between scores on the FUB and the Achievement Potential and Intellectual Efficiency scale of the California Personality Inventory (CPI), (2) a negative correlation between scores on the FUB and the Socialization, Maturity and Responsibility scale of the CPI, and (3) a negative correlation between the FUB scores and the Control and Discipline scale of the Parental Attitudes Research Instrument.

O'Neill (1961) investigated the relationship between personality characteristics and behavioral understanding in college women. The Minnesota Multiphasic Personality Inventory (MMPI) was used to measure the personality variables and the FUB was used to measure
the behavioral understanding. The results of this study showed, at
the .01 level of confidence, a significant relationship between the per-
sonality scores on the MMPI and the behavioral scores obtained from
the FUB. However, in another and similar study by O'Neill (1963)
the results did not support the findings of his earlier study. The
second study sought to develop a prediction equation for each of three
separate groups of college women who had been exposed to varying
amounts of college course work in the behavioral sciences. This
prediction equation had scores from the MMPI and the FUB.

In each case the analysis of regression indicated that
the prediction equation which was evolved was inefficient
and therefore values in the distribution of the film test
scores could not be predicted with confidence from
known values in the distribution of the MMPI scores
(O'Neill, 1963, p. 46).

Method of Procedure

Subjects

The mothers of the children enrolled in the nursery schools at
Oregon State University were contacted by a letter of introduction
which explained the purpose and the procedure of the study and asked
for their help and cooperation (Appendix B). A week later the
mothers were contacted by telephone for their responses. At this
time the schedule for viewing the FUB was explained and the mothers
were able to select the time most convenient for them to take the test.
Administration of the Instrument

The FUB was shown four consecutive evenings for the convenience of the subjects. At this time the data concerning the number of courses taken in psychology and child development was obtained (Appendix C). After the three-week period of observation, the FUB was shown again and in the same manner as before.

Observation Schedule

After the first viewing of the FUB, the mothers were randomly divided into two groups, a control and an experimental group. Originally each group had 12 mothers, but during the course of the study two mothers in the experimental group withdrew leaving only ten mothers in that group.

Both nursery schools were used as laboratories for students and because of the crowded conditions in the schools, it was decided to have each mother in the experimental group observe at the school where her child was enrolled. Each mother observed for two one-hour periods each week giving a total of six hours of observation for the three-week period. The observation times were scheduled from 9:00 A.M. to 10:00 A.M. and from 10:00 A.M. to 11:00 A.M. on Monday, Tuesday, Wednesday, and Thursday. During each week, each mother made one observation from 9:00 A.M. to 10:00 A.M.
and the other observation from 10:00 A.M. to 11:00 A.M. The observation schedule at both nursery schools is shown in Table 1.

Table 1. Observation Schedule

<table>
<thead>
<tr>
<th>Time (A.M.)</th>
<th>Park Terrace</th>
<th></th>
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<th>Orchard Street</th>
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<tr>
<td></td>
<td>M  T  W  TH</td>
<td>M  T  W  TH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 to 10:00</td>
<td>E 4  E 6  E 8  E 7</td>
<td>E 1  E 5</td>
<td>E 9</td>
<td>E 2</td>
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<tr>
<td>10:00 to 11:00</td>
<td>E 8  E 7  E 4  E 6</td>
<td>E 9  E 1  E 5</td>
<td>E 2</td>
<td>E10</td>
</tr>
</tbody>
</table>

The mothers in the experimental group were given only two instructions in regard to what to observe: (1) observe the child-child interactions and (2) observe the teacher-child interactions between the head teacher and/or the graduate assistants only. The students taking Family Life 425, The Nursery School Child, come only one day per week and this is their first course in which they participate in the nursery school. For this reason it was felt that the mothers should observe the more experienced head teacher and graduate assistants.

The mothers in the control group were not allowed to observe in the nursery school at anytime during the course of the study. At no time was any mother in either group allowed to discuss with the teachers or students anything which would be relevant to children and their behavior.
RESULTS

The purpose of this study was to compare the level of behavioral understanding of mothers who had observed in the nursery school with the level of behavioral understanding of mothers who had not observed. The hypothesis to be tested was that observing in the nursery school does not affect the mothers' understanding of behavior in preschool children. To test the hypothesis a t-test of significance at the .05 level of confidence was utilized to determine the difference of scores as measured by The Film Test for Understanding Behavior (FUB).

The results, as summarized in Table 2, do not show a significant difference of the before and after scores between the experimental and control groups as computed by the two scoring procedures. To be significant at the .05 level of confidence the t-values must be greater than +2.086 or less than -2.086 with 20 degrees of freedom. The hypothesis that observing in the nursery school does not affect the mothers' understanding of behavior in preschool children was accepted.

Table 3 shows the mean difference of scores and the t-values within the experimental and control groups. The results do not show a significant difference of scores at the .05 level of confidence within either group. To be significant at this level of confidence the t-values for the experimental group must be greater than +2.262 or less than
- 2.262 with nine degrees of freedom. To be significant at the .05 level of confidence the t-values for the control group must be greater than \(+2.201\) or less than \(-2.201\) with 11 degrees of freedom.

Table 2. Means and t-Values between Experimental and Control Groups

<table>
<thead>
<tr>
<th>Scoring Procedure</th>
<th>Mean Difference ((\bar{y}_1 - \bar{y}_2))</th>
<th>t-Values with 20 d.f.</th>
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<tbody>
<tr>
<td>1. Total Score</td>
<td>-2.8333</td>
<td>-0.3923</td>
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<tr>
<td>Guidance Subscale</td>
<td>1.8667</td>
<td>0.5319</td>
</tr>
<tr>
<td>Behavior Subscale</td>
<td>-2.2000</td>
<td>-1.0080</td>
</tr>
<tr>
<td>Sensitivity Subscale</td>
<td>-0.5000</td>
<td>-0.1176</td>
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<tr>
<td>2. M-H and L-M Scales</td>
<td>0.1830</td>
<td>0.0418</td>
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Table 3. Means and t-Values within Experimental and Control Groups

<table>
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<th>Scoring Procedure</th>
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<th>Control</th>
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<tr>
<td></td>
<td>Mean Difference ((\bar{y}))</td>
<td>t-Value</td>
</tr>
<tr>
<td>1. Total Score</td>
<td>1</td>
<td>0.1472</td>
</tr>
<tr>
<td>Guidance Subscale</td>
<td>4.20</td>
<td>1.4126</td>
</tr>
<tr>
<td>Behavior Subscale</td>
<td>-2.20</td>
<td>-1.9246</td>
</tr>
<tr>
<td>Sensitivity Subscale</td>
<td>-1.00</td>
<td>-0.2483</td>
</tr>
<tr>
<td>2. M-H and L-M Scales</td>
<td>-2.40</td>
<td>-0.6417</td>
</tr>
</tbody>
</table>

Though it does not relate to the hypothesis it is interesting to note that the range of scores, as shown in Table 4, did not vary more
than ten points between the two groups on the first test. However, on the second test the lowest scores in the control group were from 6 to 35 points higher than the lowest scores in the experimental group. The lower scores in the experimental group became even lower after the period of observation whereas in the control group the lower scores were all higher on the second test.

Table 4. Range of Scores

<table>
<thead>
<tr>
<th>Scoring Procedure</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range of Scores</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1st Test Before Obs.</td>
<td>2nd Test After Obs.</td>
</tr>
<tr>
<td>1. Total Score</td>
<td>84 to 3</td>
<td>80 to -1</td>
</tr>
<tr>
<td>Guidance Subscale</td>
<td>32 to 3</td>
<td>32 to -4</td>
</tr>
<tr>
<td>Behavior Subscale</td>
<td>29 to -1</td>
<td>30 to -2</td>
</tr>
<tr>
<td>Sensitivity Subscale</td>
<td>27 to -2</td>
<td>29 to -11</td>
</tr>
<tr>
<td>2. M-H and L-M Scales</td>
<td>40 to -5</td>
<td>47 to -7</td>
</tr>
</tbody>
</table>

As shown in Table 5 the scores for the groups as a whole had no consistent pattern in regard to the procedure of scoring, the subscales, or the nursery schools at which the mothers observed. However, one subject in the control group and two subjects in the experimental group showed a consistent increase in scores. Two subjects in the experimental group also showed a consistent decrease in scores.

The formulas for the t-values are included in Appendix D.
Table 5. Increase and/or Decrease of Individual Scores between First and Second Tests

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Total Score</th>
<th>Guidance Subscale</th>
<th>Behavior Subscale</th>
<th>Sensitivity Subscale</th>
<th>M-H and L-M Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>(OS) E 1</td>
<td>D</td>
<td>D</td>
<td>I</td>
<td>I</td>
<td>D (H)</td>
</tr>
<tr>
<td>(PT) E 2</td>
<td>D</td>
<td>D</td>
<td>I</td>
<td>D</td>
<td>D (L)</td>
</tr>
<tr>
<td>(OS) E 3</td>
<td>D</td>
<td>I</td>
<td>I</td>
<td>D</td>
<td>D (L)</td>
</tr>
<tr>
<td>(PT) E 4</td>
<td>I</td>
<td>I</td>
<td>D</td>
<td>I</td>
<td>I (L)</td>
</tr>
<tr>
<td>(OS) E 5</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I (H)</td>
</tr>
<tr>
<td>(PT) E 6</td>
<td>I</td>
<td>D</td>
<td>*</td>
<td>I</td>
<td>I (H)</td>
</tr>
<tr>
<td>(PT) E 7</td>
<td>D</td>
<td>D</td>
<td>I</td>
<td>D</td>
<td>D (H)</td>
</tr>
<tr>
<td>(PT) E 8</td>
<td>D</td>
<td>D</td>
<td>I</td>
<td>I</td>
<td>D (L)</td>
</tr>
<tr>
<td>(OS) E 9</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I (L)</td>
</tr>
<tr>
<td>(PT) E 10</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D (L)</td>
</tr>
<tr>
<td>C 1</td>
<td>I</td>
<td>I</td>
<td>D</td>
<td>I</td>
<td>I (L)</td>
</tr>
<tr>
<td>C 2</td>
<td>D</td>
<td>D</td>
<td>I</td>
<td>D</td>
<td>D (H)</td>
</tr>
<tr>
<td>C 3</td>
<td>I</td>
<td>D</td>
<td>I</td>
<td>I</td>
<td>I (L)</td>
</tr>
<tr>
<td>C 4</td>
<td>*</td>
<td>I</td>
<td>D</td>
<td>D</td>
<td>D (H)</td>
</tr>
<tr>
<td>C 5</td>
<td>I</td>
<td>D</td>
<td>I</td>
<td>I</td>
<td>I (L)</td>
</tr>
<tr>
<td>C 6</td>
<td>*</td>
<td>*</td>
<td>I</td>
<td>D</td>
<td>I (H)</td>
</tr>
<tr>
<td>C 7</td>
<td>D</td>
<td>I</td>
<td>D</td>
<td>*</td>
<td>I (L)</td>
</tr>
<tr>
<td>C 8</td>
<td>*</td>
<td>I</td>
<td>D</td>
<td>I</td>
<td>D (L)</td>
</tr>
<tr>
<td>C 9</td>
<td>I</td>
<td>I</td>
<td>D</td>
<td>I</td>
<td>D (H)</td>
</tr>
<tr>
<td>C 10</td>
<td>I</td>
<td>D</td>
<td>I</td>
<td>I</td>
<td>D (L)</td>
</tr>
<tr>
<td>C 11</td>
<td>I</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D (H)</td>
</tr>
<tr>
<td>C 12</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I (L)</td>
</tr>
</tbody>
</table>

PT - Observed at Park Terrace Nursery School; OS - Observed at Orchard Street Nursery School;
I - Increase in score; D - Decrease in score; H - Medium-High Scale; L - Low-Medium Scale;
* - No change in score.
DISCUSSION

The purpose of this study was to compare the level of behavioral understanding of preschool children of mothers who had observed in the nursery school with the level of behavioral understanding of mothers who had not observed. The results did not show a significant difference of scores before and after observation between the experimental and control groups. The hypothesis that observing in the nursery school does not affect the mothers' understanding of behavior in preschool children was accepted.

There are two main issues to be considered in this discussion. The first pertains to the limitations of the study and the second to the implications for research suggested by the results of this study.

**Limitations of the Study**

The results of this study could easily have been influenced by the fact that the sample size was small and that participation was on a voluntary basis. Some of the mothers who had children enrolled in the nursery schools chose not to participate whereas some of the mothers chose to volunteer for the study. As a result the subjects cannot be considered a random sample selected from the total number of mothers who had children in the nursery schools.

The small sample size created further limitations in that it
made it impossible to control various factors which might have influenced the mothers' ability to judge a behavior episode seen either in the nursery school or in the FUB. Several studies have investigated some of the factors contributing to a person's ability to judge behavior.

Gage and Cronbach (1955) suggest that a person's understanding of behavior is dependent upon his perceptual ability which is heavily dominated by what the person brings to the situation. In other words, his perception of a behavior episode would be influenced by his attitudes and/or feelings about the expressed behavior. In agreement with this are the results of a study by Estes (1938). He concluded that a person's accuracy of judgement is dependent upon the judge, the subject, and the particular aspects of personality being judged. Estes' conclusions would directly relate to this study. Due to the crowded conditions of the nursery schools as teaching laboratories for students, all the mothers could not observe at one school. As a result the mothers observed at the school where their child was enrolled, and a mother's ability to observe objectively would certainly be influenced when observing her own child.

Bronfenbrenner (1961) states that attitudes of parents toward the behavior of a child differs between various social and economic levels. This would suggest that persons of different social and economic status might perceive behavior episodes differently. In a study by Cline (1955) the results indicated that, in females, social
skills and interests are significantly related to good judging ability. The conclusions of Estes' study (1938) suggested that people with interests in the graphic arts or dramatics make better judges of behavior than those with interests in science or philosophy. Taft (1955) and Horrocks (1956) concluded that there is a slight correlation between intelligence and accuracy of judging behavior. The results of a study by Gaier (1952) indicated that anxiety disturbs one's ability to solve problems. Since the questions in the FUB call for problem solving ability, Gaier's conclusions would suggest that a mother's degree of anxiety might influence her scores on the FUB.

All of these studies have suggested that there are many factors which might contribute to one's ability to judge behavior and in this study it was not possible to control these various factors.

Another limitation of this study might be that the total observation time was only six hours. Six hours of observation time was chosen because it was felt that if the subjects were asked to observe for more than six hours, many of them would not be willing to participate in the study. In a study by Karuven (1960) the results indicated that course work in conjunction with observation in the nursery school tended to increase the students' understanding of behavior. The students' observational experiences consisted of at least one course with observation in the nursery school. This would mean that the students had had a minimum of approximately 12 hours of observation as
compared to six hours in this study. In addition these observational experiences would have been followed by a discussion. This was true also in the studies by Korsch (1956) and Osborn (1956) in which it was felt that observation was a valuable learning experience.

The results of these studies in comparison with the results of the present one suggest that in order for observation to be valuable as a learning experience perhaps it is necessary to observe for a longer period of time and to have the observation time followed by a discussion of the events that happened.

If the mothers in this study were not familiar with the nursery school procedures or if they did not understand the nursery school philosophy, some of the teacher-student-child interactions could easily be misunderstood. The teacher-student-child relationship is very different from that of the mother-child relationship and as a result, ways of doing things at nursery school are very different from those at home. The fact that in this study the lower scores in the experimental group, as a whole, were even lower after the period of observation might suggest that limited observation without a discussion is more confusing than it is beneficial.

Implications for Research

Since the sample size in this study was very small it would be unwise to generalize the results in terms of the effectiveness of
observation as a method of parent education. The limitations of the study suggest that it might be worth-while to conduct a study with a larger sample in which more variables were controlled, more observation time allowed, and to have the observation times followed by a discussion session. A study which could offer one group of subjects only observational experiences but offer another group observation plus a discussion afterwards would help to define the advantages of a discussion session in conjunction with observation.

The results of Karuven's study (1960) indicated that observational experiences tended to increase the subjects' understanding of behavior. It is important to note that since these subjects had had their observational experiences as college students in a laboratory course, these experiences were structured. That is, students in a laboratory course are told what specific characteristics of behavior to watch. This might suggest that observation without some type of structure is not beneficial as a learning experience.

Since the FUB has been used in only a few studies, more research needs to be conducted in terms of its validity and reliability. In the other studies which utilized the FUB the subjects were all college students. However, in this study there were only three students. Also included in the sample were one secretary, one nurse, and three teachers. This suggests that in establishing the reliability and validity of the FUB it would be valuable to use it with various groups.
Several articles and studies (Gately, 1963 and Elliot, 1948) concerning the use of films have emphasized their value as a method of teaching about behavior. It is felt that films can bring to life many kinds of situations and the viewer can become a participant in the situation. The behavior episodes in a film can be shown again and again whereas in a real-life situation the episodes happen and are gone. In this study the lower scores in the control group were, as a whole, higher on the second test than on the first test which might suggest that viewing the FUB is in itself a learning experience for some people. Possibly a study using the FUB as a method of parent education rather than as a measuring instrument would be a very worth-while project.
SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to compare the level of behavioral understanding of preschool children of mothers who had observed in the nursery school with the level of behavioral understanding of mothers who had not observed. "Behavioral understanding" was defined as a mother's degree of awareness of the factors and forces which contribute to the actions and/or responses of a child in given situations.

Twenty-two mothers who had a child enrolled in the nursery schools at Oregon State University participated in this study. The mothers were randomly divided into two groups, a control and an experimental group. The experimental group observed in the nursery school for a three-week period, a total of six hours of observation. At no time during the study were the mothers in the control group allowed to observe. During the course of the study no mother in either group was allowed to discuss with the teachers or students any subject relevant to children and their behavior.

The Film Test for Understanding Behavior was used as a measure of the mothers' level of behavioral understanding. This test was administered twice to both groups of mothers: (1) before the experimental group began their observations and (2) after the experimental
group had completed their three-week period of observation.

The scores for each test were computed by two different procedures. First, a total score was computed which showed the scores for the three subscales of the test: (1) knowledge of guidance principles, (2) knowledge of expected behavior and development in three- and four-year-old children, and (3) sensitivity to the feelings of children. Secondly, each test was scored by a procedure which discriminates between those having an extensive background in child development and psychology (medium-high scale) and those having limited academic work in these subjects (low-medium scale). The mothers having two or fewer courses in these subjects were considered to have limited academic course work while those mothers who had three or more courses in child development and psychology were considered to have an extensive background.

A t-test of significance was used to determine the difference of scores between the control and experimental groups before and after the period of observation.

Conclusions

The results did not show a significant difference of scores between the two groups at the 0.05 level of confidence. This was true for both scoring procedures. These finding indicate a need for further research in establishing the reliability and validity of the FUB and in the use of observation as a method of parent education.
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54. Stillman, Helen V. Knowledge and attitude changes of college students in a home economics child development course influenced by direct observation in the nursery school. Master's thesis. Stillwater, Oklahoma A & M College, 1940. 98 numb. leaves.


APPENDIX A

THE FILM TEST FOR UNDERSTANDING BEHAVIOR

The statements in this booklet are statements about the episodes of behavior you will observe in the film. Some of these statements have do do with how a child feels; some with ways of handling what is happening; and some with general principles of development and behavior.

After observing an episode of behavior, you are to respond to the items pertaining to that episode. Generally speaking, you are to indicate whether you agree with an item, you disagree with it, or whether you are uncertain as to your agreement or disagreement about it. Specifically, your response to each item will be made in terms of one of five categories.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Ah</td>
<td>U</td>
<td>Dh</td>
<td>D</td>
</tr>
<tr>
<td>Agree</td>
<td>Agree, but</td>
<td>Uncertain, due to insufficient evidence in the film to judge or due to hesitation</td>
<td>Disagree, but</td>
<td>Disagree with some</td>
</tr>
<tr>
<td>with some hesitation</td>
<td></td>
<td>insufficient knowledge in the field to judge.</td>
<td>with some hesitation</td>
<td></td>
</tr>
</tbody>
</table>

Thus, if you clearly agree with a statement, you select A for your response. If you generally agree with a statement, but realize that it is likely that there will be exceptions to it, you select Ah for your response. The reverse is true for indicating disagreement. If there
APPENDICES
is insufficient evidence presented in the film for making an agreement-disagreement decision, or if you feel that the knowledge available in the field of human development and behavior is insufficient to permit an agreement-disagreement decision, you select U for your response.

In all cases your response to an item is to depend only on what you see in the film, coupled with what you know generally about the behavior and development of children. Insufficient knowledge of a particular child and his background should not be considered a basis for your response to any item.

You are to indicate your response to each item by blackening the appropriate space on the accompanying answer sheet. Do not write on this booklet.

DO NOT READ THE STATEMENT ABOUT THE EPISODE BEFORE OBSERVING THE EPISODE. Be sure to read, however, "Information Needed in Observing Episode 1, 2, etc.", which appears at the bottom of each page preceding the statements which go with a particular episode.

* * * * * * *

Information Needed in Observing Episode 1.

The boy sitting, facing the camera is the subject of episode 1. He has just reached his third birthday, and this is his second day in nursery school.
EPISODE 1

1. If an adult had helped the child take part in the activities around him, rather than just letting him sit and watch, the child would have adjusted to the situation more quickly.

2. An adult should have suggested that the child move to a place where he was less distracted.

3. Although the child was interested in the activity around him, he really wasn't ready to take a more active part in it.

4. One of the things this child will gain from going to nursery school is more confidence in himself when he enters a new situation.

5. Within a week or so it is likely that the child will play freely with other children.

6. One would judge this child's adjustment to be more adequate had he entered the situation with less hesitation.

7. It is likely that this child hadn't played with many children before entering nursery school.

8. An adult at least should have talked to the child or asked him if there was anything they could do to help.

9. Throughout the elementary school years, this child is apt to sit back and watch for awhile whenever he enters a new situation.

10. It is likely that the child will not be a leader in school.

* * * * * * *

Information Needed in Observing Episode 2.

The girl using the paints is the subject of episode 2. She is nearing her fourth birthday, and has been in nursery school for nearly a year.
EPISODE 2

16. An adult should have shown the child how to use the paint more constructively.

17. If this child is allowed to continue to be messy with paint and other things at nursery school, she will want to be messy at home.

18. Using paint in this way has little value as an art experience.

19. The child probably was seeing how messy she could be with the paints before an adult stopped her.

20. It is likely that this child isn't allowed to be messy at home.

21. The child seemed to be more concerned about getting paint on her clothes than she was with getting it on her hands and arms.

22. If this child is allowed to be messy at nursery school, but not at home she soon will not be sure where she can be messy and where she can't.

* * * * * * *

Information Needed in Observing Episode 3.

The boy that the camera opens on is the subject for episode 3. He is just past three years of age, and he is only in his second week at nursery school.
EPISODE 3

31. The child seemed to feel guilty about not doing as the others were doing.

32. The child seemed to be a well-adjusted child.

33. The child probably was less interested in rhythms than he was in what the children on the ground were doing.

34. An adult should have helped the child stand on the board.

35. An adult should have helped the child do something else.

* * * * * * *

Information Needed in Observing Episode 4.

The girl putting on her trousers is the subject for episode 4.

She is four and a half years old, and has been in nursery school about six months.
EPISODE 4

46. This is a good example of an adult helping a child when the child really didn't need help.

47. The child was becoming upset over not being able to get her trousers on by herself.

48. The adult should have used this situation to point out to the child how to get into her trousers by herself rather than helping her.

49. The next time the child has a problem in dressing she is apt to want help from an adult.

50. The child probably would have become upset if the adult had not helped her when she did.

* * * * * * *

Information Needed in Observing Episode 5.

The child you will see in the film is nearing four years of age.

He has been in nursery school for nearly a year.
EPISODE 5

61. This would have been a more valuable experience for the child had he made a good print of the leaf.

62. An adult should have shown the child how to be less messy in his painting.

63. Apparently, the child didn't care that his picture was a messy one.

64. An adult should have helped the child make a better print.

65. The child shouldn't have been left by himself to do such a complicated task.

* * * * * * *

Information Needed in Observing Episode 6.

The child you will see in the film is three and a half years old and has been in nursery school for about six months.
EPISODE 6

76. The child should not have been allowed to eat with his fingers.

77. It seemed to be easier for the child to eat with his fingers than with his fork.

78. The adult should be sure that the child finishes the food on his plate before he leaves the table.

79. This child has to learn that mealtime is a time for eating rather than a time for playing or just looking around.

80. Most children of this age would not let their attention wander from their eating as much as this child did.

81. When allowed to eat like this at nursery school the child is likely to eat in much the same way at home.

82. The child seemed to resent the adult telling him what to do.

* * * * * * * * *

Information Needed in Observing Episode 7.

The girl putting leaves in the wagon is the subject of Episode 7.

She is nearly four years of age, and has been in nursery school for nearly a year.
EPISODE 7

91. Apparently, the girl is a friendly, sociable child.

92. An adult should have helped the girl keep the boys from taking the leaves.

93. Most children of this age would not have felt so strongly about losing some leaves as this girl did.

94. The boys who took the leaves from the wagon should have been reprimanded.

95. It is likely that these boys are trouble makers in the nursery school.

96. Someone should help the girl realize that she should not cry over something as unimportant as this.

* * * * * * *

Information Needed in Observing Episode 8.

The larger boy on the bars is the subject in Episode 8. He is three and a half years old and has been in nursery school for about six months.
EPISODE 8

106. It is likely that the child is well adjusted since he is so free and confident in his body movements.

107. As an adolescent, it is likely that the child will excell in athletics.

108. An adult should have been near the child when he was playing on the bars.

109. This child probably wouldn't be interested in such things as painting or listening to music.

110. It is likely that this child is a bully.

* * * * * * *

Information Needed in Observing Episode 9.

Two girls are the subjects in this episode. The girl the camera opens on will be called the "lst" girl. The girl who enters the episode later will be called the "2nd" girl. Both are four and a half years old, and have been in nursery school for about six months.
EPISODE 9

121. Leaving the girls to settle their differences by themselves was a good idea.

122. The "1st" girl is likely to be assertive throughout childhood.

123. The "1st" girl probably is an insecure child.

124. An adult should have comforted the "2nd" girl.

125. The "1st" girl should have been reprimanded for taking the toy away from the "2nd" girl.

126. The "1st" girl is a selfish child.

127. After the "1st" girl took the cup away, an adult should have helped the "2nd" girl get started in another activity.

128. The "2nd" girl probably is an insecure child.

* * * * * * * * *

Information Needed in Observing Episode 10.

A girl and a boy are the subjects in Episode 10. Both have just passed their third birthday, and have been in nursery school about a month.
EPISODE 10

136. The girl seemed to be upset by not being able to work the puzzle.

137. It is likely that the difference in the ability of the two children to work puzzles is due to something other than intelligence or the opportunity to practice.

138. An adult should have helped the girl work the puzzle.

139. Even though the girl didn't work the puzzle well, she should have been praised for her effort.

140. An adult should have given the boy a puzzle that was harder for him to work.
Dear Mrs. Blank,

By way of introduction, I am Allene Mann, a graduate assistant at Park Terrace Nursery School. At present I am designing a research study for my master's thesis. In this study I would like to explore the effect of observing children in the nursery school on parents' understanding of child behavior. In order to undertake such a study, I need your help. I am dependent upon your willingness to participate in such a study. A brief description of the study is enclosed. It is hoped that this will give you an idea as to the extent of your participation.

If you need any further information and/or clarification, please feel free to call me. I will contact you next week for your response.

Sincerely,

Allen Mann
Pl 3-8243
Description of Study
Enclosed with Cover Letter

In order to explore parents' understanding of child behavior, the mothers will be requested to take The Film Test for Understanding Behavior. This film, which consists of a series of child behavior episodes, was designed by Dr. Henry D. Schalock in the Department of Family Life at Oregon State University. The showing of it takes about one hour and will be scheduled for several different times for your convenience.

After viewing the film, the mothers will be divided into two groups. Only one group will be making the observations in the nursery school. This group will observe for two one-hour periods per week for a period of three weeks. This will be a total of six hours of observation. Each week one observation must be made between 9:00 A. M. and 10:00 A. M. on one day and between 10:00 A. M. and 11:00 A. M. on the other day.

At the end of the three-week period, all mothers will again take The Film Test for Understanding Behavior. By comparing the two film scores for each individual, the effect of observing children in the nursery school can be studied.
APPENDIX C

Appendix Table 1. Number of Courses Taken by Mothers in Child Development and Psychology

<table>
<thead>
<tr>
<th>Number of Courses Taken</th>
<th>Frequency of Courses Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental</td>
</tr>
<tr>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
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<tr>
<td>3</td>
<td></td>
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<td>2</td>
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<td>5</td>
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<td>6</td>
<td></td>
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<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Number of Courses Taken: 26  24
APPENDIX D

Formula for t-Value Between Groups

\[ t = \frac{\bar{y}_1 - \bar{y}_2}{\sqrt{\frac{s^2}{p} \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}} \]

Formula for t-Value Within Groups

\[ t = \frac{\bar{y} - 0}{\sqrt{\frac{s^2}{n}}} \]