AN ABSTRACT OF THE THESIS OF

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The purpose of this study was to assess changes in attitudes toward behavioral understanding, marital role expectations, and self concept in a selected group of high school girls. These subjects were enrolled in a one semester child development course which included observation and participation experiences with young children.

The subjects were 18 unmarried tenth, eleventh and twelfth grade girls; nine of the 18 subjects were enrolled during the first semester of the 1967-68 school year and nine during the second semester.

The data consisted of pretest and posttest scores on the Film Test for Understanding Behavior (FUB), the Dunn Marital Role Expectation Inventory (DMREI), and the Interpersonal Checklist (ICL).

Three hypotheses were tested with respect to three groups of subjects: first semester (N = 9), second semester (N = 9) and a

combination of the two semesters (Total Group N = 18). The Wilcoxon matched-pairs signed-ranks test was used to test for significance of difference between pretest and posttest scores for the following null hypotheses:

Hypothesis I: Comparison of pretest and posttest scores reveal no significant changes in levels of behavioral understanding.

Hypothesis II: Comparison of pretest and posttest scores reveal no significant changes in marital role expectations.

Hypothesis III: Comparison of pretest and posttest scores reveal no significant changes in reports of self concept.

The tests of hypotheses indicated that the first semester subjects evidenced the greatest amount of change. These subjects recorded significant increases on the Total Score of the FUB, and on the Corrects subscale of the DMREI. The significant increase on the FUB reflects an increase in the understanding of children's behavior and the increase on the DMREI reflects an increase in equalitarian views of marital role expectations. First semester subjects also indicated a significant decrease on the Undecided subscale of the DMREI demonstrating a willingness to respond more directly to more of the questions regarding marriage role expectations.

For the second semester subjects, no significant changes were recorded and for the Total Group only one significant change, an

increase on the Total Score of the FUB, was found. For the Total Group this significant increase in the understanding of children's behavior is probably more reflective of the strength of the increase of the first semester subjects, although second semester subjects did report an increase.

In general it was concluded that the subjects as a Total Group increased their level of understanding of children's behavior as measured by the FUB.

Limitations of the study and suggestions for further research were discussed.

Assessment of a Selected Group of High School Girls' Experience in a Child Observation Center

by

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INTRODUCTION

Background of the Study

As early as the 1920's colleges and universities recognized the value of giving students experiences with young children and established nursery schools as laboratories for studying child care and child guidance. Currently an increasing number of colleges and universities are using nursery schools and child development laboratories to support the teaching of child development courses in home economics, psychology, and education. Other departments such as speech, architecture, recreation, and medicine are also utilizing child development laboratories and demonstration schools.

At the high school level, laboratories for studying young children have been used to a much lesser extent. However, with the enactment of the 1963 Vocational Education Act, there have been an increasing number of high schools establishing child observation centers. While the federal monies have been made available primarily for vocational training, the centers may be used to supplement a number of other courses.

A general pattern in vocational training has been to provide job descriptions by defining the skills needed to perform designated tasks. However, in training people to work with children the task

is more complex. The importance of the pre-primary years and the importance of the child's adult contacts are readily recognized. Therefore, the dimension of sensitivity to people, especially to young children, must be incorporated into the training programs. This dimension of behavioral understanding is more difficult to teach and much more difficult to assess than the skills usually associated with child care.

Recognizing that the content of programs associated with vocational training is likely to evolve from the job descriptions, there is a danger that skills training may be over emphasized to the detrement of elements such as behavioral understanding. This is not to say that skills are unimportant, but rather that in addition to skills in child care and child guidance, students need to develop a sensitivity to behavioral situations.

Since the number of programs training young people to work in the child services area is increasing, it is imperative to attempt to assess the impact of these programs so that they better meet the needs of the students and the needs of the occupations which these students will fill.

Purpose of the Study

The purpose of this study was to assess changes in attitudes in a selected group of tenth, eleventh, and twelfth grade girls during

their enrollment in a high school level child development course. The course involved not only classroom discussion and study of normal growth and development patterns of young children, but also participation in a child observation center. Attitude changes were measured by the Film Test for Understanding Behavior (FUB), the Dunn Marital Role Expectation Inventory (DMREI), and Leary's Interpersonal Checklist (ICL).

For these high school subjects, participating in a child development course requiring training in work with young children, pretest and posttest comparisons were directed toward tests of the following hypotheses:

Hypothesis I: Comparison of pretest and posttest scores reveal no significant changes in levels of behavioral understanding.

Hypothesis II: Comparison of pretest and posttest scores reveal no significant changes in marital role expectations.

Hypothesis III: Comparison of pretest and posttest scores reveal no significant changes in reports of self concept.

The sample size in this study suggested the utilization of nonparametric techniques for data analysis. Therefore, the Wilcoxon matched-pairs signed-ranks test was used to test for significance of difference between the pretest and posttest scores for each of the hypotheses. Since the Wilcoxon test analyzes only scores which

have changed, the number of subjects analyzed on each subscale of the tests was reported.

Supplementary analysis of the subjects included the use of the Mann-Whitney U test to determine whether or not a significant difference existed between the pretest scores of the first semester subjects (Group I) and the second semester subjects (Group II).

REVIEW OF LITERATURE

An attempt has been made to organize the review of the literature under a number of subheadings. For the purposes of logical development, behavioral understanding is discussed followed by attitude changes as related to behavioral understanding. Two areas important to this study and probably to an adolescent's behavioral understanding of children are his attitudes about himself and his attitudes toward marriage. These two areas are discussed as subheadings under attitude changes.

Behavioral Understanding

Among the many criteria for an effective teacher of young children is the ability to understand behavior. For the purposes of this study, understanding children's behavior is defined as having three dimensions: 1) knowledge of facts and principles of growth, development, and behavior of young children, 2) knowledge of guidance principles, and 3) sensitivity to the needs of children.

A number of authors have written about the relationship of sensitivity or empathy to understanding behavior (Cantrell, 1966; Dixon and Morse, 1961; Dymond, 1949; Dymond, 1950). Under the title of empathy, this ability is considered to be one of the underlying processes on which the ability to understand others is built.

Dymond (1949, p. 127) defined empathy as "the imaginative transposing of oneself into the thinking, feeling, and acting of another and so structuring the world as he does." Examples of adult sensitivity to children or adult responses of empathy are: the ability to respond to a child's expression of needs through the recognition and acceptance of a child's feelings, to respond with warmth and sympathy toward a child, and to see a child's behavior in terms of causes.

From another point of view, Dixon and Morse (1961) state that empathy has two aspects: an intellectual type of experience and an emotional or feeling condition. They describe the intellectual type of experience as being able to "put oneself in the other fellow's shoes," and the emotional condition as a feeling state which may range from close or warm to cold or distant. Most test instruments have attempted to measure the intellectual experience of empathy rather than the emotional experience because measurement in the intellectual area is relatively less difficult. In general, however, the measurement problem in this area has been a most difficult one and although a number of conceptual systems exist, systematic measurement approaches have come slowly.

One of the more feasible approaches to measurement of the ability to understand behavior appears to be in measuring attitudes. An attitude may be defined as a readiness to respond to situations, persons, or objects in a consistent learned manner (Freeman, 1962).

Attitudes may vary from being extremely positive through a gradation to being extremely negative, but attitudes have a well-defined object of reference. For the purposes of this study attitudes toward three interrelated areas have been brought together: attitudes toward the understanding of the behavior of preschool children, attitudes toward oneself, and attitudes toward marriage roles.

Attitudes toward behavioral situations have been studied in several ways. A number of researchers have developed attitude checklists such as the Parent Attitude Research Instrument (Shaefer and Bell, 1958), the Child Guidance Survey (Wiley, 1950), and the University of Southern California Parent Attitude Survey (Shoben, 1949) to measure an adult's understanding of children and their behavior. These and other attitude tests appear to be based on several assumptions: 1) that the statements deal with controversial questions, 2) an individual's feelings or attitudes will determine his responses to the various statements, and 3) the statements can be scaled regarding the degree to which they favor or oppose the question under consideration (Freeman, 1962).

Another method of measuring attitudes has been through the use of situational tests, for example the Dawe-Jones Empathy Test (Jones, 1954). This test consists of 20 line drawings of situations involving a child and an adult. Accompaning each picture is a hypothetical statement ascribed to the child in the picture. Subjects

respond to the given situation; i. e., the picture and accompanying statement, with a verbal statement which is considered the test response. Cantrell (1966) used the Dawe-Jones Empathy Test and found that as knowledge of children and their behavior increased, empathy as measured by this test also increased.

Several other attempts to use situational tests (Cline, 1955; Schalock and Edling, 1958; Schvaneveldt, 1964) have used filmed episodes of behavior thus enabling all subjects to respond to the same situations which are as similar to real life as possible. One such test developed for the purpose of measuring the understanding of behavior is the Film Test for Understanding Behavior (Schalock and Edling, 1958). The test, hereafter called the FUB, is built around ten filmed episodes of three and four year old children in a nursery school. After each episode, subjects respond to statements about the observed behavior. These statements are focused on the feelings of the observed children, the guidance needed in the situation, and the level of development of the children. Such a test is thus presumably able to measure attitudes toward specific behavioral situations common to all subjects.

Responses to situational tests, including the FUB, theoretically involve attitudes toward behavior; and if in fact, attitudes are the measurable dimension of behavioral understanding, then questions arise concerning the stability of attitudes. Can attitudes be changed?

Can additional knowledge or education affect attitudes? What effect do personality variables have on attitudes relating to behavioral understanding?

In order to assess whether or not attitudes do change over time or as the result of experiences, pretests and posttests are the most frequent means of analysis; i. e., a test is given before exposure to a course or an experience and is repeated, or an alternate form of the test is given at the completion of the course or after the designated experiences.

According to Kelly (1965) personality continues to change through adulthood, and attitudes are perhaps the least stable dimension of personality. A likely factor influencing changes in attitudes is an increase in knowledge, since objective knowledge of a situation does appear to influence judgments concerning the situation (Asch, Block, and Hertzman, 1938). It has also been suggested that knowledge is likely to produce more stable attitudes and ones more resistent to change. Therefore, knowledge of a situation or subject is likely to affect attitudes toward the situation. A number of studies have attempted to relate attitude changes to college courses and group learning situations.

Attitude Changes

This section of the review will focus on studies of attitude

changes in general and then more specifically attitude changes in the areas of behavioral understanding, self concept and marital role expectations. Group learning situations have been found to be a successful means of changing attitudes and have been used in several areas of study (Costin, 1960; Kornhauser, 1930; Marshall et al., 1960; McNeill, 1944; Morgan and Ojemann, 1942; Walters and Fisher, 1958). An early study in attitude change investigated an undergraduate economics course (Kornhauser, 1930). Students involved were given content and attitude tests at the beginning of the course and at its completion. Attitudes were measured by responses to controversial questions of economic policy; responses were given as either agree, disagree, or undecided. Although findings indicated a significant increase in knowledge of economics, the investigator found no relationship between the final grades and improvement on tests. The investigator concluded that changes in attitudes were related to the course, but that they had little relationship to economic knowledge or intelligence.

Understanding Children's Behavior

Costin (1958, 1960) has reported on studies involving an undergraduate course in child psychology. His findings indicated that after a one semester course in child psychology, students showed more permissive and more accepting attitudes toward parent-child

relationships. His study also indicated that it was the nature of the course itself which affected the changes in attitudes since students' attitudes toward parent-child relations did not change in an introductory psychology course taught by the same instructor. Costin also found that high achievers and low achievers changed equally in the direction of permissiveness; although achievement is not always highly related to intelligence, it does raise the question of the role of intelligence with respect to behavioral understanding. It may be that Costin's observation of equal change by high and low achievers is related to Taft's (1955) earlier report of low correlations of intelligence and accuracy of analytic judgments. In this report, Taft reviewed studies of the ability to judge behavioral characteristics; he distinguished between two types of judgments: 1) analytic judgment requiring conceptualizing and quantifying specific characteristics of the one being judged, i.e., rating and ranking traits, writing personality descriptions; and 2) nonanalytic judgments involving global responses to the ones being judged, i.e., matching persons with personality descriptions, making predictions of behavior. The judgments which the subjects in the present study were called upon to make regarding the measuring of behavioral understanding would be considered nonanalytic judgments in Taft's scheme.

A number of authors have found that attitudes of students

toward the guidance of young children can be modified by classroom teaching (Ingle and Robinson, 1965; Leton, 1961; Marshall et al., 1960; Walters and Fisher, 1958). Because sensitivity to behavioral situations is especially important for people working with children, attitude changes are a concern in child development programs.

Walters (1959) reported that students taking an introductory child development course made significantly greater gains than a control group in responses to the Child Guidance Survey (Wiley, 1950). He found little difference, however, in attitude changes as measured by the University of Southern California Parent Attitude Survey (Shoben, 1949). An earlier study by Walters and Fisher (1958) indicated that attitudes toward child guidance continued to change over a two year period. Their study further suggested 1) that attitudes continue to change with additional child development instruction, 2) that attitudes are not merely a function of maturation, and 3) that previous experience with the test instruments does not affect the results significantly.

Findings in a study by Karuven (1960) indicated that the maturity of students, as measured by class level, has little or no effect on behavioral understanding, as measured by the FUB. No significant differences were found on the Guidance subscale of the FUB between groups of college sophomores, juniors, and seniors having similar backgrounds in child development and psychology course work. In her study a positive relationship existed between the number of

courses taken in child development and psychology and the knowledge of guidance principles. Her study also indicated that observation experiences in conjunction with course work in child development tended to increase the understanding of behavior of preschool children, but her study did not support the assumption that participation experiences enhance the ability to evalute preschool children's behavior.

Also working in a higher education setting, Ingle and Robinson (1965) studied an educational psychology course. Thirty-four students in a block-time course spent one class period a week observing children; a control group of the same course had no observation. At the end of the course both groups indicated a more positive attitude toward young children. Although there was no significant difference between the two groups on their posttest scores, the direction of gain was in favor of the experimental group.

Observation of young children is used in conjunction with many child development courses and currently most educators in this academic area feel that observation is an effective way to help students more clearly understand the behavior of children (Pease and Pattison, 1955; Read, 1966). Pease and Pattison (1955, p. 755) state:

> A study of growth and development, because of its dynamic qualities, requires objective observation and evaluation of behavior while it is going on. In this way students begin to increase their knowledge and understanding of children as growing and developing individuals.

In a related setting, observation of behavior has been used in areas of professional study attempting to help students increase their level of behavioral understanding. In a study involving pediatricians, the investigator concluded that observation and discussion of the mother-child-doctor interaction of another doctor helped the pediatricians to be more perceptive to patients' reactions in their families and to their physicians (Korsch, 1956).

The studies by Karuven (1960), Ingle and Robinson (1965), Korsch (1956), and Walters (1959) support the thinking that opportunities to make systematic observations and to have practice in interpreting the observed behavior help students to develop greater behavioral understanding.

Implicitly involved in making observations of children are the subjective values of the observer. Gage and Cronbach (1955) suggest that an individual's social perception, including his understanding of behavior, is dominated by what the person or "judge" brings to the situation rather than by what he actually observes.

A number of studies have attempted to relate personality characteristics to behavioral understanding (Cline, 1955; Dymond, 1950; Marshall, 1958; O'Neill, 1961; O'Neill, 1963; Smith, 1960) and in general, data from these studies indicate that behavioral understanding is difficult to predict from personality variables.

Smith (1960) investigated the relationship between academic

performances and personality characteristics of 65 home economics seniors and their understanding of children's behavior. A significant positive relationship existed between scores on the FUB and the Achievement Potential and Intellectual Efficiency scales of the California Personality Inventory. The Socialization, Maturity, and Responsibility scales of the California Personality Inventory indicated significant negative relationships with the FUB as did the Control and Discipline scales of the Parent Attitude Research Instrument; i.e., high scores on the FUB were related significantly to low scores on the California Personality Inventory and the Parent Attitude Research Instrument. Smith found no relationship between the FUB scores and the Taylor Manifest Anxiety Scale, Intelligence Quotients, grade point averages, grades in a child development course, or ratings of effectiveness with children in a nursery school laboratory.

O'Neill (1961) used the Minnesota Multiphasic Personality Inventory (MMPI) to measure personality variables and the FUB to measure behavioral understanding. His results indicated a significant relationship, at the .01 level of confidence, between personality scores on the MMPI and the behavioral understanding scores on the FUB. With a different sample in 1963, a similar study by O'Neill did not support the findings of his earlier study.

Although many educators agree with Gage and Cronbach (1955) that an individual's social perception is to some degree dependent upon his

personality characteristics, attempts to predict behavioral understanding from personality variables have met with difficulty.

It is also generally accepted that one's self understanding is related to the ability to understand others. Medinnus and Johnson (1969) refer to the evidence from Wylie's (1961) review of the literature on self which strongly indicated that self-acceptance was related to adjustment. In general, individuals who are self-accepting are seen to be accepting of others (Wylie, 1957). If understanding others is in fact dependent upon self understanding, it would be logical to look for changes in attitudes about oneself in relation to attitude changes regarding behavioral understanding.

Self Concept

The self concept has a number of definitions, but in essense refers to an individual's feelings and attitudes about himself. Thus an individual's self concept encompasses that which he believes himself to be, that which he aspires to be, that which he hopes he is now, that which he fears he is now, and his perception of how others see him (Brownfain, 1952). According to Brownfain, whenever an individual is evaluating himself he inevitably makes reference to a system of central meaning that he has about himself and his relations to the world about him which is called his self concept. Therefore, every evaluative statement a person makes about himself may be

considered an example of his self concept. These evaluative statements made by the individual are part of his conscious; therefore, an individual's conscious self concept contains only the perceptions of and feelings about himself which he allows into his awareness. While students of self concept suggest that the self concept may be considered as having both conscious and unconscious elements, the lack of instruments for measuring the unconscious elements of the self has necessitated that most studies of adolescent self concept focus on the conscious level (Douvan and Gold, 1966).

Although there are a number of aspects of the self concept, recent literature has suggested two bases of self concept: the social roles and the body image (Medinnus and Johnson, 1961). The social roles of the self concept refer to what has sometimes been called the "looking glass self," reflections of how others see one, or what is expected of an individual because of his assigned roles. The dimension of body image is closely related to physical reality and an individual's feelings about his body.

The adolescent years are usually considered ones of rapid change with respect to physical changes of the body and changes in social roles; and for the adolescent these fundamental changes appear to generate a central developmental problem. The adolescent discovers that he is looking different and feeling different, that he responds to situations in a different manner, and that others respond

differently to him. Erikson (1950) referred to this problem as the crisis of identity and suggested that the integration of these changing aspects is a major developmental task for the adolescent. Because an individual's feelings about himself are directly related to his changing body and changing role expectations, it would seem reasonable to expect changes in self concept during the adolescent period.

However, the stability of the self concept during adolescence has been studied by a number of authors and apparently it is difficult to document a change during adolescence. For example, Engle (1959) found that over a two year period, from eighth to tenth grade, the self concept of 172 middle class students remained relatively stable. In her study the self concept was measured by a rank ordering of personality traits. Findings in a study by Carlson (1965) were consistent with Engel's data in indicating that self-esteem is a relatively stable dimension of the self. In his study of a group of students over a six year period between the sixth and twelfth grades the median self-esteem scores for boys and girls were the same at the pre-adolescent and adolescent level, although the social-personal orientation emerged as an independent dimension of the self image. In addition, Piers and Harris (1964) compared the stability of the self concept among third, sixth, and tenth grade students and found that over a four month period the self concept remained relatively stable at all three age levels.

This in itself does not completely offset the possibility of change during this time. Part of the difficulty of accepting these indications of stability as definitive stems from the fact that measures of the self concept are usually obtained by responses to descriptive statements by the individuals being tested. In evaluations of this type of measurement, it has been suggested that the social desirability of a descriptive item has an affect on the subject's responses; Edwards (1957) found .83 and .87 product-moment correlations between the probability of endorsement and the social desirability of items on the Interpersonal Checklist. His findings indicate that subjects may respond with how they think they should feel rather than how they actually feel, therefore suggesting that individuals may not be giving an accurate evaluation of their self concept.

Since the self-reported self concept may be affected by the social desirability of the traits, an individual may report himself differently than others see him and at the same time be quite aware that he is reporting inaccurately. In a study of student teachers, Dixon and Morse (1961) found that student teachers who had "good" empathy scores were seen as better teachers by their pupils. Supervising teachers also saw the "good" empathy groups as significantly better teachers than the "poor" groups. According to Dixon and Morse, "the important quality of empathy, as we recognize it in teaching, is a highly interpersonal phenomenon with the subject and

object bound up in a mutual response" (1961, p. 323). In rating themselves, however, the student teachers exhibited no significant difference between the mean scores of the overall self-ratings of the "good" and "poor" empathy groups. Evidently, student teachers who had low empathy scores were not aware that they were seen as "weaker" teachers by their pupils and supervisors. One possibility is that the student teachers in the low empathy group were not aware of how they were viewed by others; however, it may also be that this group was responding in terms of the social desirability of the items.

The studies by Dixon and Morse (1961) and Edwards (1957) have relevence for understanding the self concepts of adolescents. As adolescents experience the changes of their bodies and the ensuing changes in social roles, it would seem likely that their self concepts would also change. However, if in fact, self-ratings are influenced by the social desirability of items, then it would also be logical that their ratings of self concepts would reflect to some degree how they think they should feel. Since the social desirability of items remains fairly constant, the stability of self concept scores of adolescents may be explainable on this basis. Consequently the logic of expecting change in self concept during adolescence would not be weakened to a great extent.

Marital Role Expectations

During adolescence an area of increasing interest is the preparation for marriage and family living. Havighurst (1952) considers preparation for marriage and family living to be one of the developmental tasks of adolescence. Since attitudes toward marriage and family living have been strongly influenced by home experiences and formed throughout the individual's life, adolescents exhibit great variability in attitudes toward marriage; their attitudes range from being uncertain and fearful of marriage to considering marriage the most important aspect of life and looking forward to it. In this connection, however, most adolescents consider marriage as the accepted manner of living (Havighurst, 1952; Parke and Glick, 1967). Since attitudes toward marriage and family living are a part of each individual's unique background, each individual brings his own ideas and attitudes to his marriage. Because of the variety of attitudes towards and expectations of marriage roles, it is important that adolescents recognize their own attitudes toward family living and their expectations of their marriage partners.

A series of articles dealing with changes in the family was compiled by Edwards (1969) in an attempt to bring together various factors affecting family life. It has been suggested that the family structure is changing from a patriarchial-institution type to an

equalitarian-companionship type in which roles of family members are not highly institutionalized (Dunn, 1960; Hill, 1964; Kogan and Jackson, 1963). In an attempt to determine whether the equalitarian viewpoint toward family roles has been institutionalized, Dyer and Urban (1958) studied 300 single university students, an equal number of men and women, and 100 male students and their wives, most of whom were not students. Single and married people were studied on the premise that if a norm is institutionalized it would be relatively constant for both married and single individuals. The questionnaire used in the study included five areas of family activities: child-rearing, decision making, finances, household tasks, and recreation; if equalitarian views were institutionalized it was anticipated that each of these areas would indicate equalitarian actions. The questionnaire for the single students asked them to indicate their expectations of future marital roles and the questionnaire for the married students asked them to indicate both their actual marital roles and their desired roles. Three of the areas investigated: child-rearing, decision making, and recreation substantiated the hypothesis of the institutionalization of equalitarian family norms. In the areas of finances and household tasks selected aspects appeared to be equalitarian, but the responses as a whole indicated that the equalitarian viewpoint was not institutionalized in these areas.

The results of this study indicate that institutionalization of equality

of action between husband and wife appears to exist in certain areas of family activity but not in all areas. If the families of today and of the future are indeed undergoing some changes in the delineation of family roles, it is especially important for young people to know their own attitudes and why they feel as they do about marriage relationships and expectations of marital roles.

During the adolescent years relationships with others, especially those with the opposite sex, take on added importance. Adolescent interest in learning more about relationships with others and about family living is exhibited in part by the increasing enrollments in child development and family living courses. According to Duvall (1965) the objectives of marriage education and family living courses are most often stated in terms of knowledge, attitudes, competence in interpersonal skills, and values concerning marital integrity. Discussion of attitudes toward marriage and family living are considered an integral part of marriage courses. In reviewing more than 80 studies reporting the "effectiveness" of marriage courses, Duvall found that all of them were reported as being effective by the measures used to evaluate them; students' attitudes toward love, sex, marriage, and family living, as well as toward themselves and others became more realistic, more flexible, and more responsible as the result of their experiences in a marriage course.

One new supplement to teaching methods in these courses

dealing with the family has been the utilization of study and observation of young children. Also, in teaching child development many courses focus on the child in the family setting and the interrelationships of the family members. Discussion of children's relationships with their parents and with other children assist students in developing an awareness of the dynamics of interpersonal relations so much a part of family living. Since observation of young children and experiences with children are likely to influence individual's attitudes towards themselves as well as toward children, the nursery school has been referred to as a human relationships laboratory (Read, 1966).

As students observe and interact with young children, they are likely to reflect on their feelings and interactions with people in general, their expectations of others, and the role the family plays in a child's life. It may be that these reflections together with objective information concerning the growth and development patterns of young children lead to changes in marital role expectations.

METHOD

Subjects

The subjects for this exploratory study were 18 unmarried tenth, eleventh, and twelfth grade girls who elected to take a one semester course in child development at the only senior high school in an Oregon city with a population of about 34,000. In total 22 students were enrolled in the class and participated in the study; however, 4 were eliminated from the sample because of incomplete data. Nine of the remaining 18 were enrolled in the course during the first semester, and 9 were enrolled during the second semester of the 1967-68 school year.

Data including the ordinal position of the subjects and the socio-economic level as related to grade level and grade point averages of the subjects are included as Appendix A. These data were compiled from background information supplied by the subjects and from the grade point averages supplied by the school. A copy of the student questionnaire used to gather this background information is included as Appendix B.

A comparison of the grade point averages of the first semester subjects and the second semester subjects is presented in Table 1. The Mann-Whitney U test was used to test for significance of difference between the grade point averages of the two groups; no

significant difference was found at the .05 level of confidence.

Table 1. Comparison of the grade point averages and Mann-Whitney U value of the first semester group and the second semester group.

	First Semester Group I (N = 9)	Second Semester Group II (N = 9)	U Value
G.P.A.	$\overline{X}$ = 2.72	$\overline{X}$ = 2.19	22

P < .05, U = 21 or less

Educational Setting

The child development course was part of a pilot project sponsored by funds appropriated by the Vocational Education Act of 1963. An important aspect of this course was the child observation center which enabled students to gain experience in observing and interacting with young children while taking an introductory child development course. Ten three and four year old children from the community, five boys and five girls, participated in the child observation center three half-days per week. Included within the group were children from different ethnic and socioeconomic backgrounds and children of varying ordinal positions within families of various sizes.

The child development class met for 50 minutes five days a week. Two class periods per week were spent in class and three class periods per week participating in the child observation center.

The teacher of the child development course was also the teacher in the child observation center. In the child observation center the major teaching method was the teacher's demonstration of principles and techniques to use when working with young children. As the semester progressed, subjects took responsibility for the program planning including such activities as reading stories, supervising creative activities, leading music activities, serving juice, and planning individual projects. During the other two class periods per week the teacher used several methods of teaching including films, a text and readings, reports, projects, and lecture-discussions. The class discussions were focused on facts and principles of growth and development, guidance principles, the participation in the child observation center, and the subjects' understanding of themselves and their peers. Subjects were continually involved in evaluating the course and their participation experiences. The teacher invited their ideas and comments throughout the course since the entire program was part of an exploratory project.

The child observation center was also used for observation by the family living classes. During the first semester the child development classes had a number of joint meetings with the family living classes. Due to the exploratory nature of the child observation center, the teachers were attempting to best utilize the center and their resources and thus selected aspects of the child development

classes and the family living classes were team taught.

Instruments

Socioeconomic Index

Descriptive data of the subjects were collected in order to determine the social position of each subject. Social position was assigned by using Hollingshead's Two Factor Index of Social Position (1957). It is based on three assumptions: 1) there is a class structure in society, 2) positions within the structure are determined mainly by two characteristics, and 3) the characteristics symbolic of status may be scaled and used statistically. The two characteristics symbolic of status used by Hollingshead are education and occupation. Each occupation and level of education is given a scale score and multiplied by the factor weight of seven for occupation and four for education. These two products are then added to yield an Index of Social Position Score. Scores range on a continuum from a low of 11 to a high of 77. The scores are grouped into social class positions according to Hollingshead's suggestion for predicting social class position of an individual or a nuclear family.

Social Class	Range of Computed Scores
I Upper	11-17
II	18-27
III	28-43
IV	44-60
V Lower	61-77

(Hollingshead, 1957, p. 10).

The Film Test for Understanding Behavior

According to the authors, the Film Test for Understanding Behavior (FUB) is "a technique for measuring behavioral involvement that is encountered in an interpersonal situation, yet (it) maintains sufficient simplicity to make its administration feasible" (Schalock and O'Neill, 1960, p. 1). The test consists of responses to ten filmed episodes of three and four year old children in a nursery school. Each episode is observed for approximately one minute; after each episode the subjects respond to the items referring to that particular episode. The subjects' responses to the items are given by using a five point agreement-disgreement continuum: Agree, Agree with Hesitation, Uncertain, Disagree with Hesitation, and Disagree.

The behavioral episodes emphasize incidents which frequently occur in the nursery school, which are of interest to observers, and which seem to be of particular value in a learning situation. The episodes include a child simply sitting and watching that which is occurring around him, a child playing in paint, a child taking part in rhythms, a child dressing, a child painting leaves outside, a child eating, a situation in which two children confiscate the property of another with its attending consequences, a motor development sequence, a sequence involving agression, and an episode enabling

comparative judgments of mental ability.

After the episodes were selected, test items were developed to obtain the major kinds of behavioral understanding which were observed in each particular episode. The items were developed with reference to three dimensions of behavioral understanding: 1) knowledge of facts and principles of growth, development, and behavior of young children, 2) knowledge of guidance principles, and 3) sensitivity to the needs of children. Items included questions about the child's feelings in the situation, the kinds of guidance that could be given to the child in the situation, and questions relating to general information about the development and behavior of children of this age. In order to evaluate the clarity and readability of the items, the test items were submitted to a number of judges outside the field of psychology and human development. After the completion of necessary revisions, an initial item pool of 130 items was established.

Scores for each item range from +2 for the most correct response to -2 for the least correct response. The response weights of each item were assigned jointly by a group of five persons holding advanced degrees in psychology, child development or the field of nursery school education. Items which were rated as being strong by four of the five judges, and which had at least 85% interjudge agreement as to the "most correct" responses were selected for each episode. A ranking of these responses was made to determine the

scoring weights of each item.

Additional testing and item analysis occurred in 1960 and resulted in the more discriminating Form II of the Film Test (Schalock and O'Neill, 1960). Two scoring keys were established for Form II of the test, with each key containing 36 items. The high key (part H) is used for people having considerable academic work in child development and psychology; the low-medium key (part L) is used for people having little or no background in child development and psychology. In this study the low-medium key of Form II of the FUB was used for scoring the responses.

The Dunn Marital Role Expectation Inventory

The Dunn Marital Role Expectation Inventory (DMREI) is designed to reflect role expectations of youth in such a way that the scores can be treated statistically. The inventory has two forms (Form M for boys, Form F for girls) each having a general statement, "In my marriage I expect" followed by 71 items to which the subjects respond 1) strongly agree, 2) agree, 3) undecided, 4) disagree, or 5) strongly disagree. As determined by Dunn, 37 of the items are authoritarian and 34 are equalitarian. Dunn further divided the instrument to assess role expectations in seven areas: authority, homemaking, care of children, personal characteristics, social participation, education, and employment. Each area contains both equalitarian and authoritarian items.

The 71 items used in the test differentiated between "high" and "low" groups of adolescent subjects at the five percent level of significance. Intrinsic validity is claimed on the basis of this significance and by the fact that the items were selected by a consensus of qualified judges (Buros, 1965).

According to Dunn (1960) the reliability of the instrument was determined by a split-half correlation coefficient computed on scores of 50 respondents. The resulting coefficient of .953 was corrected to .975 and is of sufficient magnitude to permit interpretation of a substantial degree of reliability in the instrument.

The scoring on the DMREI takes into account Dunn's philosophy that equalitarian items are more desirable than authoritarian items. Therefore in scoring, a positive value was given to the subjects responses when the subject indicated she strongly agreed or agreed with the equalitarian items and when she indicated she disagreed or strongly disagreed with the authoritarian items. Consequently, the subscale Corrects refers to equalitarian items, while the Incorrects subscale refers to authoritarian items. An undecided score reflects a choice of responses somewhere between the equalitarian and authoritarian viewpoints.

The Interpersonal Checklist

The Interpersonal Checklist was used in this study to measure

the selfconcept. "As one of the more frequently used instruments to assess interpersonal behavior, especially the self-concept, the Interpersonal Checklist (ICL) has apparent advantages over other similar instruments" (Briar and Bieri, 1963, p. 193).

The ICL is a self-rating adjective checklist developed for use as a part of Leary's Interpersonal Diagnosis of Personality. Adjective checklists generally consist of a list of words or brief phrases; subjects are thus able to describe themselves or other persons by checking the appropriate items. In this study the subjects were asked only to describe themselves.

The ICL has 128 descriptive items representing eight interpersonal traits which are present in everyone to some extent:

1) managerial-autocratic
2) competitive-exploitive
3) aggressive-blunt
4) skeptical - distrustful
5) self-effacing-modest
6) docile-dependent
7) cooperative-overconventional
8) responsible-overgenerous

These eight interpersonal traits are identified in Figure 1.

According to Briar and Bieri (1963, p. 193), Leary and his colleagues refer to these traits as

> . . . a set of eight personality dimensions called octants which presumably reflect important aspects of personality functioning. These octants yield scores which when combined in certain ways from rationally determined formulae are assumed to reflect two overall behavioral dispositions, dominance and love. Such an instrument as the

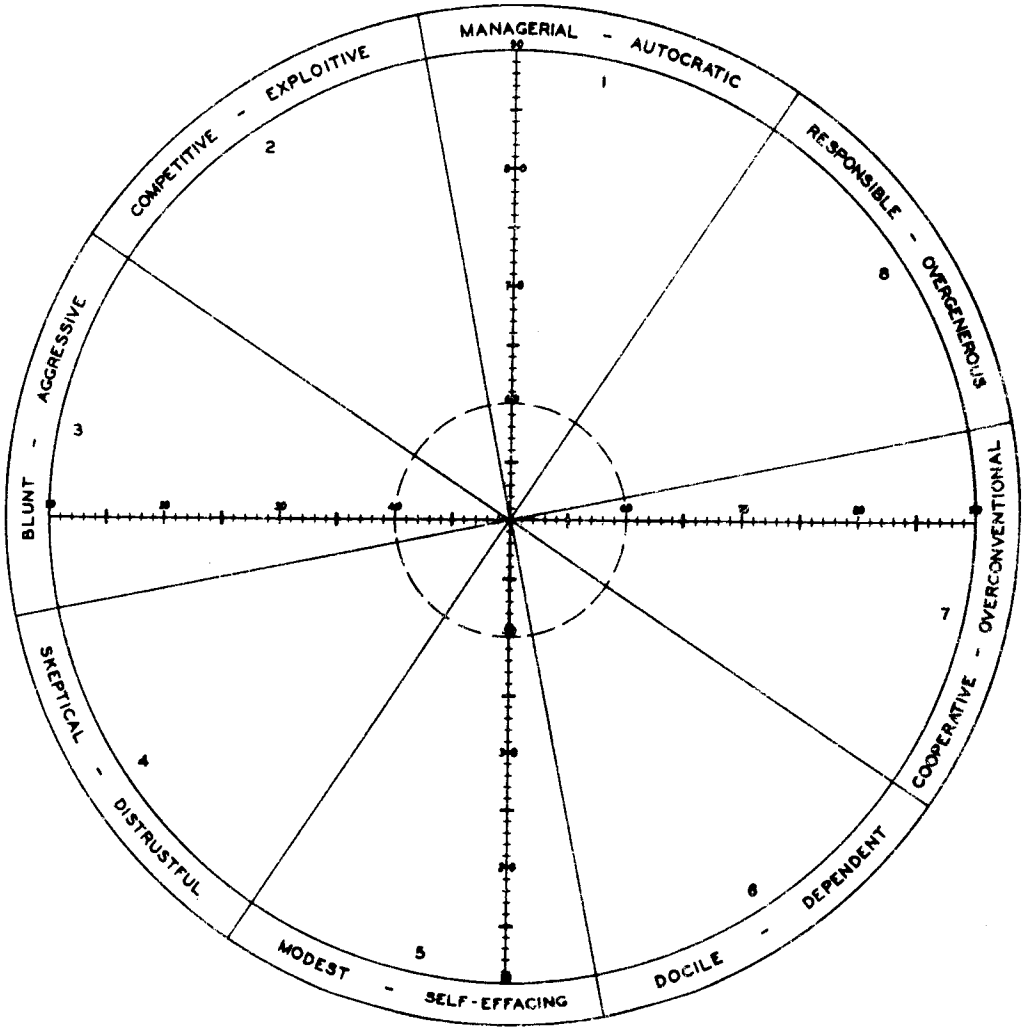

Figure 1. Leary Interpersonal Checklist Diagnostic Grid.

> ICL thus has the advantage over some other checklist procedures of rather careful delineation of those personality dimensions which it purports to measure.

The dominance and love dimensions of the ICL were confirmed by Foa (1961) by factor analysis. The dominance and love dimensions are converted to a standard score and then placed on a circular grid as shown in Figure 1.

In developing the ICL each item was categorized according to "intensity." Low intensity items referred to traits in necessary and moderate amounts. Intensity also referred to the endorsement frequency of the items. The final four rated intensity levels corresponded approximately to 90, 67, 33, and 10 percent of the examinees agreeing with the phrases as being self-descriptive. Item selection was also based on the frequencies with which intensity levels were checked, the average test scores, the tallies of words not understood, summaries of verbal complaints obtained by interviews, trait inter-correlations and item inter-correlations (Buros, 1965). The fourth revision and more discriminating form of the ICL occurred in 1955. There is no copyright on the ICL and thus the instrument is to be used for research purposes only.

LaForge and Suczek (1955) found test-retest correlations from .73 to .78 on the ICL which indicate sufficient stability for personality research.

Administration of the Instruments

The teacher of the child development class administered the tests and informed the students that she was attempting to evaluate the child development course and the child observation center because they were part of an exploratory project. The students were told that the testing would not influence their individual course grades and each subject was given a code number so that individuals would remain anonymous. It was explained that code numbers were also necessary in the matching of pretests and posttests and the completed background data sheet.

At the beginning of each semester two class periods on successive days were used to administer the tests. The teacher first explained each section of the background data sheet which provided information concerning the socioeconomic level of the family, the subject's birthdate, and her ordinal position in the family. After completing the background information, the subjects were given the Dunn Marital Role Expectation Inventory, the Interpersonal Checklist and the Film Test for Understanding Behavior. The teacher explained each test to the students as it was administered. At the end of one school semester the subjects were given retests on the test instruments previously administered. All the data were collected by the teacher of the child development class in the same manner and

sequence during the pretest and posttest sessions. The answer sheets were all scored and double checked by hand keys.

RESULTS

The data from this study were collected from 18 high school girls who had elected to take a one semester child development course involving participation with young children. Data collection extended over the two semesters of the 1967-1968 school year and involved nine subjects each semester. Pretest and posttest measures on the Film Test for Understanding Behavior (FUB), the Dunn Marital Role Expectation Inventory (DMREI), and the Interpersonal Checklist (ICL) were individually analyzed for significant changes in the following combinations: first semester (N = 9), second semester (N = 9), and Total Group (semesters combined N = 18).

The Mann-Whitney U test was used to determine whether the pretest scores of the two groups were significantly different, and results of these tests are shown in Table 2. The non-parametric analyses reported in this chapter deal only with the rank order of scores; however, mean values are reported in the tables since other ratings would provide little usable information regarding trends. None of the U values in Table 2 reach the .05 level of significance indicating that the pretest scores of the two groups were not significantly different.

Table 2. Summary of the mean values and Mann-Whitney U values of pretest scores.

Variables	Pretest $\bar{X}$		U Score
	Group I	Group II	
Film Test: Total	- 4.78	0.67	29.5
Subscale : Knowledge	- 0.44	- 1.33	38.0
Subscale : Guidance	- 5.67	- 0.11	25.5
Subscale : Sensitivity	2.11	2.11	42.5
DMREI Cor	43.78	48.56	28.0
DMREI Inc	10.86	12.00	33.0
DMREI Und	17.56	10.44	25.0
ICL Dom	55.00	55.22	32.5
ICL Lov	54.22	54.00	37.5

$P < .05$, $U = 21$ or less.

The Wilcoxon matched-pairs signed-ranks analysis was used to test the hypotheses dealing with changes in behavioral understanding, marriage role expectations, and self concept. The remainder of this chapter is organized around the tests of hypotheses.

Hypothesis I: Comparison of pretest and posttest scores reveal no significant changes in levels of behavioral understanding.

A summary of the results of the Wilcoxon T test for the subscales Knowledge, Guidance, and Sensitivity and for the Total Score on the Film Test for Understanding Behavior are reported in Table 3. For the first semester subjects, Group I, the T value of 3.5 associated with the Total Score comparison is the only significant result; therefore, for Group I, the null hypothesis can be rejected only with

Table 3. Summary of the mean values and Wilcoxon T comparisons of pretest and posttest scores for the Film Test for Understanding Behavior.

Variables	Pretest $\overline{X}$	Posttest $\overline{X}$	Wilcoxon T Score
	First Semester Group I (N = 9)		
Film Test: Total	-4.78	9.67	3.5*
Subscale : Knowledge	-0.44	3.44	12.0
Subscale : Guidance	-5.67	1.44	10.0
Subscale : Sensitivity	2.11	4.89	9.5
	Second Semester Group II (N = 9)		
Film Test: Total	0.67	5.56	15.0
Subscale : Knowledge	-1.33	1.44	10.0
Subscale : Guidance	-0.11	0.0	16.0
Subscale : Sensitivity	2.11	3.89	15.5
	Total Group (N = 18)		
Film Test: Total	-2.06	7.61	34.0*
Subscale : Knowledge	-0.89	2.44	43.0
Subscale : Guidance	-2.89	0.72	56.0
Subscale : Sensitivity	2.11	4.39	43.5

* Significant at the .05 level.

respect to the Total Score. The mean pretest and posttest data presented indicate that behavioral understanding, as measured by the FUB, increased throughout the semester. Although scores on the Knowledge, Guidance, and Sensitivity subscales all increased, other changes were not significant.

For the second semester subjects, Group II, none of the T scores for the pretest and posttest comparisons on the FUB reach significance. The null hypothesis, therefore, cannot be rejected for Group II. The mean values reported indicate that, in general, scores on the Knowledge, Guidance, and Sensitivity subscales as well as on the Total score increased for this group.

The combination of subjects from first semester with those from second semester for Total Group comparisons yields only one significant change. This is associated with the Total Score on the FUB, the same area of significance as for the first semester comparison. The T value of 34 is significant at the .05 level of confidence; thus the null hypothesis can be rejected with respect to the Total Score of the FUB for the Total Group of 18 subjects. Mean scores of the pretests and posttests on the three subscales of Knowledge, Guidance, and Sensitivity increased for the Total Group of subjects indicating, in general, an increase in the understanding of the behavior of preschool children.

Hypothesis II: Comparison of pretest and posttest scores reveal no significant changes in marital role expectations.

Table 4 presents a summary of the results of the Wilcoxon T test for the Corrects, Incorrects, and Undecided subscales of the Dunn Marital Role Expectation Inventory (DMREI). For Group I, two of the subscales, Corrects and Undecided, yielded significant changes. The Corrects subscale is significant at the .02 level of confidence (T = 0.0) and the Undecided subscale is significant at the .05 level of confidence (T = 4.5).

The means of the pretest and posttest scores show a decrease in the number of responses on the Undecided subscale indicating that the subjects responded more directly to more of the questions on the posttest. The increase in the mean on the Corrects subscale points out that subjects became more equalitarian in their views of marriage role expectations. Therefore, the null hypothesis was rejected for Group I with respect to the Corrects and Undecided subscales of the DMREI.

For the second semester subjects, Group II, and the combination of subjects from Group I and Group II into the Total Group (N = 18), none of the T scores for the pretest and posttest comparisons on the DMREI reach significance. Therefore, the null hypothesis can not be rejected for Group II or for the Total Group. In general, the

Table 4. Summary of the mean values and Wilcoxon T comparisons of pretest and posttest scores for the Dunn Marital Role Expectation Inventory.

Variables	Pretest $\overline{X}$	Posttest $\overline{X}$	Wilcoxon Score
	First Semester Group I (N = 9)		
DMREI Cor	43.78	51.00	0.0**
DMREI Inc	10.86	11.75	4.0
DMREI Und	17.56	9.55	4.5*
	Second Semester Group II (N = 9)		
DMREI Cor	48.56	47.44	29.0
DMREI Inc	12.00	13.44	18.0
DMREI Und	10.44	10.11	20.5
	Total Group (N = 18)		
DMREI Cor	46.17	49.22	41.0
DMREI Inc	11.47	12.65	54.5
DMREI Und	14.00	9.83	44.0

* Significant at .05 level.

** Significant at .02 level.

scores of the Total Group evidence an increase on the Corrects subscale and a decrease on the Undecided subscale; these changes reflect an increase in the equalitarian viewpoint and are most likely reflective of the attitude changes of Group I.

Hypothesis III: Comparison of pretest and posttest scores reveal no significant changes in reports of self concept.

The results of the Wilcoxon T test for the Dominance and Love subscales of the Interpersonal Checklist are shown in Table 5. For each of the three pretest and posttest comparison, Group I, Group II, and Total Group, the Wilcoxon T test indicated no significant changes in reports of self concept; thus the null hypothesis could not be rejected for any of the comparisons.

In summary, the tests of these hypotheses have indicated the greatest amount of change to be associated with the first semester subjects, Group I. During the course of the semester these subjects recorded significant increases on the Total Score of the Film Test for Understanding Behavior and on the Corrects subscale of the Dunn Marital Role Expectation Inventory. The significant increase on the FUB reflects increased understanding of children's behavior and that on the DMREI reflects increased equalitarian views regarding marital role expectations. Group I also recorded a significant decrease on the subscale Undecided on the DMREI and this decrease reflects a

Table 5. Summary of the mean values and Wilcoxon T comparisons of pretest and posttest scores for the Interpersonal Checklist.

Variables	Pretest $\overline{X}$	Posttest $\overline{X}$	Wilcoxon T score*
	First Semester Group I (N = 9)		
ICL Dom	55.00	52.00	16.0
ICL Lov	54.22	54.67	19.5
	Second Semester Group II (N = 9)		
ICL Dom	50.22	51.89	22.0
ICL Lov	54.00	54.44	10.5
	Total Group (N = 18)		
ICL Dom	52.61	51.94	98.5
ICL Lov	54.11	54.56	61.5

* No T scores are significant.

greater willingness to respond directly to questions regarding marital role expectations.

No significant changes were recorded for the second semester subjects, Group II, and for the Total Group only one significant change, an increase in Total Score on the FUB, was recorded. Although both groups evidenced an increase on the Total Score of the FUB, this latter change probably reflects the strength and direction of change in Group I .

A summary of all the Wilcoxon T analyses for each group is presented in Appendix C.

SUMMARY AND DISCUSSION

Summary

The purpose of this study was to assess changes in attitudes toward behavioral understanding, marital role expectations, and self-concept of a selected group of high school girls enrolled in a child development course which included observation and participation experiences with young children.

The subjects were 18 unmarried tenth, eleventh, and twelfth grade girls in an Oregon city with a population of about 34,000. Nine of the 18 subjects were enrolled during the first semester and 9 during the second semester.

The Film Test for Understanding Behavior (FUB), the Dunn Marital Role Expectation Inventory (DMREI), and the Interpersonal Checklist (ICL) were used to collect data relating to behavioral understanding, marital role expectations, and the self concept. Pretest and posttest measures were collected and these data were then used to test the following null hypotheses:

Hypothesis I: Comparison of pretest and posttest scores reveal no significant changes in levels of behavioral understanding.

Hypothesis II: Comparison of pretest and posttest scores reveal no significant changes in marital role expectations.

Hypothesis III: Comparison of pretest and posttest scores reveal no significant changes in reports of self concept.

The three hypotheses were tested with respect to three groups of subjects: first semester (N = 9), second semester (N = 9), and a combination of the two semesters (N = 18). The Wilcoxon matched-pairs signed-ranks test was used to test for the significance of difference between the pretest and posttest scores for each hypothesis.

The tests of hypotheses indicated that the first semester subjects, Group I, exhibited the greatest amount of change. Subjects in Group I recorded significant increases on the Total Score of the FUB, and on the Corrects subscale of the DMREI. The significant increase on the FUB reflects an increase in the understanding of children's behavior and the increase on the DMREI reflects an increase in equalitarian views toward marital roles. Students in Group I also indicated a significant decrease on the Undecided subscale of the DMREI thus demonstrating a willingness to respond more directly to more of the questions regarding marriage role expectations.

For the second semester subjects, Group II, no significant changes were recorded and for the Total Group only one significant change, an increase on the Total Score of the FUB, was found. For the Total Group this significant increase in the understanding of children's behavior is probably more reflective of the strength of the

increase of Group I, although Group II did report an increase.

Discussion

Because Group I evidenced three significant changes and Group II indicated none, questions arise concerning the similarity of the backgrounds of the subjects in the two groups. Comparison of the groups on factors such as ordinal position, socioeconomic status, and grade point averages might suggest some important differences in the two groups. A summary of the comparative information on these factors for both groups is presented as Appendix A.

The summary of the ordinal positions of the subjects, in Table 6, shows that two-thirds of the first semester subjects were the first child in the family, and in general, the families of the first semester subjects were smaller than those of the second semester subjects. One might expect that the first born children would have the opportunity to witness more situations of adult guidance of children than would later siblings. Walters (1959) studied the effect of ordinal position and family size on the pretest scores of his subjects and found little relationship between family size and attitudes concerning guidance of children; however, subjects who were the oldest children in their families indicated significant differences on both the Child Guidance Survey and the USC Parent Attitude Survey. Walters'

findings suggest that subjects who are the oldest children in their families may indeed have different attitudes toward child guidance than their younger siblings.

Table 7 presents the socioeconomic background of the subjects. The first semester subjects, Group I, were mostly from the middle social class; whereas, subjects in Group II were predominantly from the two lower social classes. On the basis of social class differences, one might expect some differences in attitudes toward child rearing practices, family roles, and guidance of children. Inspection of the means of the two groups indicates that the pretest scores on the Total Score and Guidance subscale of the FUB reported by Group II were higher than those reported by Group I, although it was Group I that changed significantly during the course of the semester. Perhaps part of this difference in the pretest scores is reflective of the subjects' backgrounds in that the middle class has generally been considered to employ more rigid child rearing practices than the lower classes, therefore making it more difficult for the middle class subjects to agree with the more "permissive" specialists who were responsible for the weighting of the test items on the FUB. O'Neill (1963) used the FUB in attempting to establish a prediction equation involving personality scores of subjects and their scores on the FUB. He observed that in his three groups of subjects, as the percentage of middle class subjects in the groups decreased, corresponding

significant increases in scores on the FUB were reported. A chi-square test across the socioeconomic groups, however was not significant. In addition, Bronfenbrenner (1961) has reported that middle class parents have moved away from the more rigid means of discipline and child rearing practices toward greater tolerance of the child's impulses and desires and use of "psychological" methods of discipline such as verbal reasoning. Along with this change in attitudes of the middle class, Bronfenbrenner reports that the gap between the social classes in their child rearing practices appears to be narrowing as working class parents are beginning to adopt both the values and techniques of the middle class.

Although not significantly different, the mean grade point average of the first semester group was higher than that of the second semester group. Several authors have studied the relationship between grade point averages, intelligence, and course grades to changes in attitudes and the ability to apply facts to specific situations (Costin, 1960; Horrocks, 1946; Kornhauser, 1930; Smith, 1960; Taft, 1955; Walters, 1959). In general these researchers have found little evidence to support the idea that changes in attitudes are related to intelligence or grade point averages or that intelligence and knowledge of facts are related to the effective application of these facts to various situations. Although grade point averages may not be related to the ability to apply knowledge or to the understanding of behavior

per se, they may be reflective of general interest in school or interest in learning in general and thus might be considered an influence in the subjects' responses in that the first semester subjects evidenced a higher grade point average and a greater amount of change on the test instruments administered. The distribution of the grade point averages is shown in Table 8; in general, the two lower cases exhibit lower grade point averages.

Another factor possibly related to the observed differences in the groups is that the first semester subjects were a more select group. Since the child development course and child observation center were part of an exploratory project, students enrolled during the first semester were interviewed and selected primarily on the basis of their interest in the course and their vocational plans. For the second semester, students were not given the opportunity to indicate an interest in the course due in part to scheduling difficulties and the fact that the nature of the course limited the number of students in the child observation center at any one time. Another consideration for the second semester subjects is that counselors recommended the course for some of the subjects in anticipation that some specific needs and problems of these students might be better met due to the nature of the course. These subtle differences between the two groups may be reflected in some of their test scores.

Although background differences are noted between the two

groups, the impact of these differences is difficult to assess.

For the subjects as a Total Group the level of behavioral understanding as measured by the Total Score of the FUB, increased significantly during the one semester child development course. Incorporated into the Total Score of the FUB are also the three subscales of Knowledge, Guidance, and Sensitivity; thus, the Total Score is indicative of several aspects of understanding children's behavior. Although Group II did not reach significance on the recorded increase in Total Score of the FUB, posttest scores on the Total Score and all three subscales were higher than the pretest scores.

On the Dunn Marital Role Expectation Inventory only the first semester subjects reported significant changes. Although social status and family size might well affect one's attitudes toward marriage and marital role expectations, Moser's (1961) study found that responses on the DMREI were not significantly different with regard to social class and number of siblings in the family. The changes reported by Group I in marital role expectations, however, may be a reflection of the team teaching of selected aspects of the family living and child development courses during the first semester which did not occur during the second semester.

The reports of self concept remained relatively constant in comparing means of pretest and posttest scores. While there were no significant changes, the greater amount of change was evidenced

by the subjects in Group I whose scores became less dominant on the posttests. Mackie's (1969) study of high school girls' self concept and ideal self concept indicated that a significant decrease was desired by these subjects on the dominance scale of the ICL at the ninth, tenth, eleventh, and twelfth grade levels for late maturers and at the ninth and twelfth grade levels for early maturers. The decrease in the dominance score found in this study may possibly be reflective of a change in the direction of the desired self concept as reported in Mackie's study. Even though the general conclusions of studies of the adolescent self concept indicate that this dimension remains relatively stable, knowledge of the rapid physical and social changes experienced by adolescents during what Erickson (1950) refers to as the identity crisis and the social desirability of items found in the ICL by Edwards (1957), leads one to question the stability of the self concept at the adolescent level. Mackie's (1969) evidence of the desired changes in self concept toward less dominance suggests that additional study of the stability of the adolescent self concept may be needed.

Limitations

Several limitations were encountered during the course of this study: 1) the sample size limited analysis, 2) the sample was restricted to one community, 3) differential selection procedures were followed for the two semesters, 4) due to the difference in

background factors of the two groups, comparison of the experience for the first and second semester subjects was difficult.

These limitations place restrictions on the generalizations possible from this study.

Recommendations for Further Study

As a result of this study of changes in selected attitudes of high school girls enrolled in a child development course, several recommendations for further study have emerged.

First, a larger sample would allow a focus on a broader cross-section of adolescents and careful selection could provide various socioeconomic classes, ordinal positions, family sizes and grade point averages for additional comparisons.

Second, an increase in the time interval between pretests and posttests might allow more integration of the material presented in the course and possibly allow more differences to emerge if valid differences exist.

Third, a study relating personality variables to changes in attitudes at the high school level would be meaningful.

Fourth, selection and comparison of other test instruments attempting to measure behavioral understanding to ascertain their usefulness with a high school population should be a concern in future studies.

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APPENDICES

APPENDIX A

Table 6. Distribution of ordinal position of subjects in first and second semester groups.

Family Size	Position in Family									
	First Semester					Second Semester				
	1	2	3	4	5	1	2	3	4	5
1										
2	XXX									
3	X					X	X	X		
4	X	X	X				X			
5		X				X	X			X
6	X									
7										X
8										
9										X
10										

Table 7. Distribution of socioeconomic class by grade level for subjects in first and second semester groups.

Social Class	Grade Level						Total
	First Semester			Second Semester			
	10	11	12	10	11	12	
I					X		1
II	X	X		X			3
III	XXX	X	X				5
IV			XX	X	XXX		6
V				XX	X		3
Total	4	2	3	4	5	0	18

Table 8. Distribution of grade point averages according to subjects' socioeconomic class.

	Social Class				
	I	II	III	IV	V
G. P. A.	2.32	2.68	3.74	3.32	2.16
		2.13	3.16	2.78	2.15
		2.09	2.78	2.44	1.65
			2.75	2.15	
			2.37	2.04	
				1.52	

APPENDIX B

STUDENT QUESTIONNAIRE

Code Number _____

For most of your life did you live (check one)

_____in a city of more than 50,000 population
_____in a town of more than 10,000 but less than 50,000 population
_____in a town of more than 500 but less than 10,000 population
_____on a farm

Are your parents living together: (check one)

_____Yes _____No

For those who checked "No":

Were your parents separated by (check one)

_____Death _____Divorce _____Other

Your father's occupation _____

Your family's main source of income:

wages, hourly wages, piece work, weekly checks_____

salary, monthly checks_____

private relief, odd jobs, share cropping, seasonal work_____

profits and fees from a business or profession _____

savings and investments earned by my father and mother_____

public relief and charity_____

inherited savings and investments_____

Your father completed

_____years of high school
_____years of college

Your mother completed

_____years of high school
_____years of college

Your mother's occupation _____

The approximate ages of your brothers: _____ _____ _____ _____ _____

The approximate ages of your sisters: _____ _____ _____ _____ _____

Your age _____ Your birthdate _____

Sex_____ Married _____ Single _____

Approximate grade point average _____

APPENDIX C

Table 9. Summary of Wilcoxon T scores for the comparison of pretest and posttest differences on the Film Test for Understanding Behavior, the Dunn Marital Role Expectation Inventory, and the Interpersonal Checklist.

Variables	1st Semester Group I		2nd Semester Group II		Total Group	
	N	T score	N	T score	N	T score
Film Test: Total	8	3.5*	9	15.0	17	34.0*
Subscale: Knowledge	9	12,0	8	10.0	17	43.0
Subscale: Guidance	9	10.0	8	16.0	17	56.0
Subscale: Sensitivity	8	9.5	9	15.5	17	43.5
DMREI Cor	7	0.0**	9	29.0	16	41.0
DMREI Inc	7	4.0	8	18.0	15	54.5
DMREI Und	9	4.5*	9	20.5	18	44.0
ICL Dom	9	16.0	9	22.0	18	98.5
ICL Lov	7	19.5	8	10.5	15	61.5

* significant at .05 level.

** significant at .02 level.