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A COMPARISON OF CERTAIN CHARACTERISTICS OF STUDENTS
TAKING A HIGH SCHOOL FAMILY LIVING COURSE
WITH THOSE WHO DO NOT

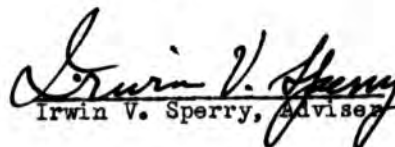
by

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the Faculty of
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Approved by


Irwin V. Sperry, Adviser

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H. G. T.

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

The investigator became very concerned after hearing and reading some of the criticisms of the present family living classes on the secondary level. One of these criticisms is that the family living course is not challenging enough for the better students and another is that only the weaker students should be advised to elect the course. The writer has had experience teaching family living in a secondary school and believes that these criticisms have been based primarily on opinions and individual or isolated experiences. No difference has been observed by the writer between the students who elect family living courses and those who do not elect the courses.

A review of the literature showed that there were some opinions concerning family living education but little research. Very little research has been conducted with family living students to determine whether they are different from students who do not elect the course, and no studies on the secondary level have been found by this writer.

Since no research was found on the characteristics of the students electing the secondary family living course, the writer felt the need for conducting such a study to determine whether there are certain differences between family living students and those not electing the course.

I. THE PROBLEM

Statement of the problem. The purpose of this study was to

determine whether there were differences in selected academic, personality, and economic factors in a group of students who were taking a high school family living course compared with a similar group not taking the course in regard to (1) scholastic grades, (2) personality characteristics, (3) socio-economic status, (4) attitudes toward education, and (5) vocational interests.

Importance of the study. It has been said that the marriage and family living course is not challenging enough for the better students. Some teachers and administrators have indicated that the better students should not be advised to elect the course because it would be of little value to them in college. Some have concluded that only the weaker students would benefit from the course. However, most of these criticisms have been based primarily on opinion and individual experiences. The question arises as to whether they were justified in saying that the marriage and family living course should be taken only by the weak students. One of the concerns of the investigator is whether it is fair for parents and teachers to advise only the weaker students to elect the course.

Getting along with peers and enjoying happy family relationships are two of the many goals expressed by many high school students, regardless of whether they are taking the family living course. It is in this area that many students seem to feel insecure and to need guidance. The investigator became involved with trying to help solve students' problems. In this effort, the investigator's curiosity was aroused. Did the students in the group electing family living possess certain traits different from the students who were not members of the family living

class?

Five working hypotheses were established in this study. These hypotheses in the order in which they were treated in the study are:

1. There is no significant difference in scholastic achievements of the students electing the family living course and those not electing the course as measured by grades.
2. There is no significant difference in certain personality traits of students electing the family living course and those not electing the family living course as measured by the California Psychological Inventory.
3. There is no significant difference in the economic status of family living students and non-family living students as measured by the Cornell Socio-Economic Scale.
4. There is no significant difference in attitudes toward education of the family living members and those not taking family living as measured by the Hieronymous Student Education Questionnaire.
5. There is no significant difference in the vocational interests of the family living members and those not taking family living in the ten areas of interest as measured by the Kuder Vocational Preference Record.

II. DEFINITIONS OF TERMS USED

To gain a clearer understanding of this investigation, certain terms will be defined according to their usage in this study.

Marriage and family living course refers to an elective course taught by the home economics teacher stressing the understanding of one's self and the problems involved in family living.

Marriage and family living students include those students electing the marriage and family living course.

Non-marriage and family living students include those students who did not elect the marriage and family living course.

High School refers to grades nine, ten, eleven, and twelve in three different schools.

Class refers to the year in high school as freshmen, sophomores, juniors, or seniors.

Scholastic grades refer to the subject grades given to each student. The subject grades were the recorded number evaluations of the quality of work in school subjects. Recordings were made at the end of each six-week period, and a semester average was taken from these six-weeks grades and a final examination on the subject. The two semester grades were averaged to obtain the yearly average. The yearly averages were the grades used for this study. The grades were for the previous years in high school. No grades were taken from the present year since the study was begun before semester averages were obtained. The same numerical values used by Madison-Mayodan High School were used to convert letter grades in the other two schools to numerical values if not recorded numerically (Table I).

Intelligence quotient was the score most recently recorded in a student's cumulative folder.

Age refers to the chronological age of a student based on a birth date given in the cumulative folder.

California Psychological Inventory was an inventory given to determine personality characteristics of students used in the sample. The traits were defined as follows:

TABLE I
 NUMERICAL EQUIVALENT OF LETTER GRADES
 USED AT MADISON-MAYODAN HIGH SCHOOL*

Letter Grade	Numerical Grade
A ⁺	100.00
A	97.5
A-	95.0
B ⁺	94.0
B	91.0
B-	88.0
C ⁺	87.0
C	82.0
C-	77.0
D ⁺	76.0
D	73.0
D-	70.0
F	60.0

*Note: In order to make the data comparable, the same numerical equivalent for the same letter grades were used for all high schools.

California Psychological Inventory was an inventory given to determine personality characteristics of students used in the sample.

The traits were defined as follows:

1. Do (dominance) To assess factors of leadership, ability, dominance, persistence, and social initiative.
2. Cs (capacity for status) To serve as an index of an individual's capacity for status (not his actual or achieved status). The scale attempts to measure the

- personal qualities and attributes which underlie and lead to status.
3. Sy (sociability) To identify persons of outgoing, sociable, participative temperament.
 4. Sp (social presence) To assess factors such as poise, spontaneity, and self-confidence in personal and social interaction.
 5. Sa (self-acceptance) To assess factors such as sense of personal worth, self-acceptance, and capacity for independent thinking and action.
 6. Wb (sense of well-being) To identify persons who minimize their worries and complaints, and who are relatively free from self-doubt and disillusionment.
 7. Re (responsibility) To identify persons of conscientious, responsible, and dependable disposition and temperament.
 8. So (socialization) To indicate the degree of social maturity, integrity, and rectitude which the individual has attained.
 9. Sc (self-control) To assess the degree and adequacy of self-regulation and self-control and freedom from impulsivity and self-centeredness.
 10. To (tolerance) To identify persons with permissive, accepting, and non-judgmental social beliefs and attitude.
 11. Gi (good impression) To identify persons capable of creating a favorable impression, and who are concerned about how others react to them.
 12. Cm (communality) To indicate the degree to which an individual's reactions and responses correspond to the modal ("common") pattern established for the inventory.
 13. Ac (achievement via conformance) To identify those factors of interest and motivation which facilitate achievement in any setting where conformance is a positive behavior.
 14. Ai (achievement via independence) To identify those factors of interest and motivation which facilitate achievement in any setting where autonomy and independence are positive behaviors.
 15. Ie (intellectual efficiency) To indicate the degree of personal and intellectual efficiency which the individual has attained.

16. Py (psychological-mindedness) To measure the degree to which the individual is interested in, and responsive to, the inner needs, motives, and experiences of others.
17. Fx (flexibility) To indicate the degree of flexibility and adaptability of a person's thinking and social behavior.
18. Fe (femininity) To assess the masculinity or femininity of interests. (High scores indicate more feminine interests, low scores more masculine.)¹

The Cornell Socio-Economic Scale was a fourteen point scale used to determine the economic status of each student. Each student checked whether or not his or her family possessed the following items:

1. Water piped into house.
2. Indoor bathroom.
3. Power washing machine.
4. Deep freeze unit.
5. Pressure cooker or pressure saucepan.
6. Electric vacuum cleaner.
7. Piano.
8. Telephone.
9. Concrete basement floor.
10. Radio.
11. Television.
12. Electric clock.
13. Model of car.
14. Number of magazines regularly received.

¹Harrison G. Gough, Ph.D., California Psychological Inventory, (California: Consulting Psychologists Press, Inc., 1960), 12-13.

The Student Education Questionnaire was given to students in the sample to determine their attitudes concerning education. It is a standardized scale consisting of forty-six items which indicate the student's opinions about education.

The Kuder Preference Record is a scale given to determine vocational preferences of students. It consists of ten subscales as follows:

Outdoor interest means that you prefer work that keeps you outside most of the time and usually deals with animals and growing things. Forest rangers, naturalists, and farmers are among those high in outdoor interests.

Mechanical interest means you like to work with machines and tools. Jobs in this area include automobile repairmen, watchmakers, drill press operators, and engineers.

Computational interest means you like to work with numbers. A high score in this area suggests that you might like such jobs as bookkeeper, accountant, or bank teller.

Scientific interest means you like to discover new facts and solve problems. Doctors, chemists, nurses, engineers, radio repairmen, aviators, and dieticians usually have high scientific interests.

Artistic interest means you like to do creative work with your hands. It is usually work that has "eye appeal" involving attractive design, color, and materials. Painters, sculptors, architects, dress designers, hairdressers, and interior decorators all do "artistic" work.

Literary interest shows that you like to read and write. Literary jobs include novelist, historian, teacher, actor, news reporter, editor, drama critic, and book reviewer.

Musical interest shows you like going to concerts, playing instruments, singing, or reading about music and musicians.

Social service interest indicates a preference for helping people. Nurses, Boy or Girl Scout leaders, vocational counselors, tutors, ministers, personnel workers, social workers, and hospital attendants spend much of their time helping other people.

Clerical interest means you like office work that requires precision and accuracy. Jobs such as bookkeeper, accountant,

file clerk, saleslady, secretary, statistician, and traffic manager fall in this area.²

III. ORGANIZATION OF THE REMAINDER OF THE THESIS

The remainder of the thesis is organized into chapters which present (1) a review of the literature concerning the content of family living courses and the students who elected them, (2) a full discussion of the methods and procedures used in the study, (3) a description of the findings using a controlled matched sample of thirty-three high school students in three high schools electing a family living course and thirty-three students who did not elect the family living course, and (4) a summary of the study and conclusion and the limitations of the methods and procedures used.

²These definitions are given on the copyrighted Profile Sheets used in conjunction with the Kuder Vocational Preference Record and obtained from Science Research Associates, Chicago, Illinois.

CHAPTER II

REVIEW OF THE LITERATURE

Probably because family living as a high school course is relatively new, little research has been done in this area. The interest in research in this area has been directed largely toward the content of the course and evaluations of the course and the teachers. Since the investigator was interested in certain differences between the family living students and those not taking family living, research was sought in this particular area. Although little research was found, other material was located which seems to be of significance.

Family living as a high school course has been of concern to many school administrators. They sought help from the United States Office of Education to obtain material for organizing a course and to familiarize the staff with the content of the course. The United States Office of Education had at the time a research staff member working on compiling the best in all high school courses being offered.³

Some of the concerns of adolescents and youths are their relationship with their peers of both sexes. If these are the true concerns of most adolescents, there should be no difference between students electing family living and those who do not elect family

³Mildred I. Morgan, "Teaching Family Relationships in High School," Marriage and Family Living, XI (Spring, 1949), pp. 43-44.

living. Poffenberger stated that courses in family relations should help students to work through problems which otherwise negatively affect their learning in academic areas.⁴

Hurt and Dales⁵ gave two purposes of teaching family living in school. The first related to helping the adolescent understand himself, his own set of attitudes and values, and how they were similar to or different from others. The second purpose was to help the adolescent develop various approaches for clarifying and solving problems.⁶

Finck⁷ attempted to determine certain differences between participants and non-participants in a marriage education course. He used many of the techniques and procedures used by the investigator in the present study. His sample was obtained in a similar manner and he used the "t" test to determine significance of differences.

The purpose of Finck's⁸ study was to test the assumption that participation in a marriage education course in college was a basis for prediction of success in marriage. The general hypothesis of this study was that, in terms of their marriages and families, participants in courses in marriage education were prepared to engage more successfully in marriage and family life than non-participants. The specific

⁴Thomas Poffenberger, "Family Life Education in This Scientific Age," Marriage and Family Living, XXI (May, 1949), p. 150.

⁵Mary Lee Hurt and Ruth J. Dales, "For Effective Teaching in Family Living," Journal of Home Economics, pp. 349-351, May, 1959.

⁶Ibid., pp. 349.

⁷George H. Finck, "A Comparative Analysis of the Marriages and Families of Participants and Non-Participants in Marriage Education," Marriage and Family Living, XVIII, February 1956, pp. 61-64.

⁸Ibid., p. 63.

hypothesis of this study was that, in terms of their marriages and families, participants in the course in "Marriage and the Family" at the Florida State University between the years of 1930 and 1946 were prepared to engage more successfully in marriage and family life than a matched group of non-participants.

From the period between 1930 and 1946 when the course in "Marriage and the Family" was taught by the same professor, the six graduating classes of 1932, 1933, 1939, 1945, and 1946 were selected as populations from which data to test the formulated hypotheses were obtained. From the class files there were selected the names and addresses of all living four year graduates, unmarried before graduation, with current addresses in the United States. In this manner, 1282 names were secured; 300 who had participated in the course and who became the control group. An initial mailing of questionnaires to those graduates produced 782 replies and a follow up added 135 replies.

The study and control groups were matched with respect to the variables of sex and race because the Florida State University was at the time of those graduating classes accepting only white women students. By the inclusion of four year graduates only, the factor of educational class rank was controlled, and by the control of this factor, pertinent traits such as intelligence, education were controlled also.

In general, the returns indicated very slight differences between the two groups that, with one exception, were not significantly different. An important finding of the study was the degree of incomplete isolation between the study and the control groups. There were many reports of "leakage" of information from students who took the course to those who did not take the course.

The "t" test for determining the significance of the differences between the means was used.

The conclusions of this study were that (1) the factors of difference between participants and non-participants that could be traced to the class experiences of a course in marriage education could not be isolated in the areas examined by this study, (2) participating or not participating in a course in marriage education did not of itself determine certain characteristics of the family configuration and did not demonstrably modify the subsequent behavior of the participants in the direction of getting married, staying married, and having children.

Dorothy Dyer⁹ made a study at the University of Minnesota to determine if there were differences of marital adjustment of students who took the family living course and those who did not. When the responses of a group of University of Minnesota students who took the preparation for marriage course were compared to those of a group of students who did not take the course but who were matched for year in school, college, and sex, some marked differences were found in the responses.

The fact that a significantly greater number of the control group rated themselves as less-than-happy on the rating scale suggested that some factor such as the preparation for marriage course, had been instrumental in developing a point of view, an attitude, or insight which influenced the experimental group toward greater satisfaction in marriage. There seemed to be some evidence that the preparation for marriage course had been instrumental in affecting

⁹Dorothy Dyer, "A Comparative Study Relating Marital Happiness to University Courses Helpful in Marital Adjustment," Marriage and Family Living, August, 1959, pp. 230-232.

happier marriage relationships for those participating in such a course - at least in the early years of married life for this group of college students. She matched her samples in much the same way the present investigator did.

Another study, made by Henderson,¹⁰ was based on the hypothesis that social class was only one of the factors which influenced attitudes. The purpose was to determine what social classes were represented in the population of the study, whether there were differences in the attitudes toward family life of the students of the different social classes and whether the attitudes were changed by one year's attendance at college.

The principal statistics employed by Henderson were the "t" ratios as a test of significance between means. This study involved differences in the attitudes of the students of the different social classes who took the course, and the changes in their attitudes after taking the course. His study was based on social class whereas the present study involved family living students matched with non-participants in the course. The "t" ratios to test significance of means were used in both studies.

Landis¹¹ made a study at Michigan State College evaluating the family living courses at that college. He believed that the course should be given on the freshmen level as a part of a general education

¹⁰Joseph R. Henderson, "The Effect of One Year's Attendance at College Upon Attitudes Toward Family Living of Students of Different Social Classes," Marriage and Family Living, XVIII (August, 1956), pp. 209-218.

¹¹Judson T. Landis, "An Evaluation of Marriage Education," Marriage and Family Living, X (Fall, 1948), pp. 81-83.

program rather than reserving the course for juniors and seniors who were already emotionally involved.

The first year that a full term of marriage education was offered, 1350 students took the course; the second and third year, about 3350 students took the course. Each class was given four times a year with classes meeting once a week in lecture sessions of from 250 to 300 students and three hours a week in discussion sections of approximately 35 students. All instructors taught the same material since all examinations were uniform and all students took a comprehensive examination.

Each term all students filled out an anonymous form evaluating the lectures, the discussions, and the required reading. After evaluations were made by students and teachers, some lectures were dropped and some added. Married students and single students evaluated the lectures but little difference was noted. The students ranked each lecture on a four point scale, "Great Value," "Some Value," "Little Value," and "No Value." The evaluations of class instructors showed that there was a great difference in student response to the same materials when presented by different instructors. In general, the teachers who had courses in marriage and family relations were rated more favorably by students than those who had not had academic training. Student evaluations seemed to indicate that students sensed that the unprepared instructor was not certain of himself.

After evaluating the lectures, the discussions, and the text materials on a scale, each student was asked to give complaints and make suggestions for improving the course. Approximately one fourth of the students listed as their chief complaint the poor class discussions.

Records of books circulated were kept in the library to learn which books were most frequently read. Two books treating the sex phase of marriage were first on the list. Landis stated that one should not be critical of this because one fourth of the students were in the early years of marriage and most of the remainder of the men were over twenty years of age. This group had a definite need for scientific information on the sex phase of marriage.

The students were asked if they would advise others to take the course and approximately ninety per cent said they would recommend the course. A very common comment was that the course should be required of all students. Some felt the course should be offered in high school. Landis' experiment in student evaluation of marriage education would seem to indicate the following:

1. Student evaluations are an aid in constructing a course to meet the needs of the students.
2. Students and staff members are not necessarily in agreement as to what material is of most value.
3. Many texts of marriage omit or treat in a scanty fashion materials which students feel are of most value to them in a marriage course.
4. A well chosen list of outside readings is important to the success of a marriage course.
5. When several instructors are teaching a marriage course there is value in a service training program for newer, inexperienced staff members.
6. Dividing classes into small groups of from five to seven students for discussions with little instructor leadership is of questionable value. There is danger that the result will be more "bull session" marriage education.
7. If marriage education is offered as part of a general education course, it appears that it might be better to have a trained staff concentrate on the marriage term of the course.

8. Students are very much interested in marriage classes but the class will be ineffective unless well-prepared instructors are hired or trained to do the teaching.
9. Marriage courses can be organized so that they meet the needs of both the married and the single students without the necessity for segregation.
10. There is need for greater emphasis in graduate and undergraduate schools upon training for marriage education work. There is rapidly increasing public interest in providing more adequate instruction for home and family living on the primary, secondary, and college level. The greatest drawback to setting up an adequate program is the dearth of trained teachers.¹²

Some research in the general area of family relationships was available. Some writers and educators seemed to have felt the increasing need for it. However, the investigator was unable to locate any research that indicated differences between secondary school students who elected the family living course and those who did not elect it.

¹² Ibid., p. 83.

CHAPTER III

PROCEDURES

The students in the four 1960-1961 family living classes of Madison-Mayodan High School, Bethany High School, and Wentworth High School were matched by age, sex, class, and intelligence quotient with a student not taking family living. Factual data for all persons in the sample were obtained from official school records and analyzed and compared. The California Psychological Inventory, the Cornell Socio-Economic Scale, the Hieronymous Student Education Questionnaire, and the Kuder Vocational Preference Record were administered to each student.

I. THE SITUATION

Three schools in Rockingham County located in the Piedmont area of North Carolina were selected for the sample in this study. Approval was secured from the superintendent of the Madison-Mayodan City unit and the superintendent of Rockingham Public Schools. The investigator, a teacher of one family living class, conferred with three other teachers of family living in the local area to secure their cooperation in conducting the research.

The Madison-Mayodan City School, the largest in the sample, had an enrollment of approximately 2500 students with a professional personnel of 95. This administrative unit was functioning in a community that was both industrial and rural.

Wentworth, the second school selected for the sample, was the county seat of Rockingham County and was an agricultural community. The

school, classified as rural, had a staff of 27 and a student body of approximately 700.

The third school selected as one of the schools in the sample was Bethany High School. The Bethany district maintained a rural school of about 550 students with 23 members on the staff.

The two family living classes of Madison-Mayodan had a combined enrollment of forty-two students, twenty-two of whom could be matched with those not taking the family living course. In the total sample from Madison-Mayodan School, there were thirty boys and fourteen girls, all of whom were seniors.

The investigator was successful in matching nine students from Wentworth.

Of the twelve students in the Bethany family living class, two were matched. This sample included two senior girls and two senior boys. The inability to match more of the students was due to the small enrollment of the senior class.

II. PROCEDURES

Names of family living students were secured from the family living teachers during September. There were forty-two from Madison-Mayodan High School, sixteen from Wentworth High School, and twelve from Bethany High School.

The names of the family living students were listed according to classification and sex. Additional information of birth date and intelligence quotient was taken from the cumulative folders. Some students had more than one intelligence quotient recorded; in those cases, the most recent information was used.

The more lengthy process of securing a matched sample of students not taking family living followed. Cumulative folders from the three high school offices were used. The family living students were separated into classes, either juniors or seniors. With each class group, males and females were separated into two groups. Only age and intelligence quotients remained to be matched individually within each class group of males and females. The cumulative folders were searched until each family living student had a corresponding student not taking family living whose intelligence score was within five points, more or less, and whose age was not more than three months, older or younger.

Because of the small junior and senior class enrollments, only twenty-two of the forty-two Madison-Mayodan students were matched, nine of the sixteen Wentworth students were matched, and two of the twelve Bethany students were matched. This gave a total of sixty-six students for thirty-three pairs in the sample.

All data were taken from permanent school records. Family living students and non-family living students were matched as to age, classification, sex, and intelligence quotient. Scholastic grades were taken from permanent records and the two groups were compared.

A code system was used in securing information so that all information could be recorded on cards without having the information and name of student identified. There was no order or established sequence for the cards. The names were recorded as obtained from class rolls.

All the data for each student were placed on one sheet. Scores were then recorded by matched pairs, differences were obtained, means were calculated, and significance of differences in means were computed.

Scholastic grades. Average yearly grades were obtained from each

student's cumulative record for the high school years (9-12). The scores for family living students were recorded in one column and scores for non-family living students were in a corresponding column so that scores for matched pairs were side by side, making differences easier to obtain. The data sheet for scholastic grades is included in the appendix.

The Cornell Socio-Economic Scale. A fourteen point scale developed by Danley¹³ at Cornell University as part of a Ph.D. thesis was given to each student in the sample to determine the standard of living. The investigator was interested to find out if the economic level was different between students who elected the family living course and those who did not elect the course. The students were asked to check which of the fourteen items they had in the home. The items were scored by the scale developed at Cornell University. Each of the first nine items was given a value of one point.

The Student Education Questionnaire. A questionnaire developed by A. N. Hieronymous¹⁴ was given to determine the students' attitudes concerning education. Each question had five possible answers and students checked the ones preferred. Each response was given a value. The total of these values given was added. The raw score was converted to a scale score and differences were obtained.

¹³R. A. Danley, The Standardization of a Level of Living Scale, Ph.D. thesis, Unpub., Cornell University, 1958.

¹⁴A. N. Hieronymous, "A Study of Social Class Motivation; Relationships Between Anxiety for Education and Certain Socio-Economic and Intellectual Variables," Journal of Educational Psychology, 1951, 42, pp.193-205.

Dr. Hieronymous constructed the scale for the purpose of obtaining the student's opinion as to the value of education. In constructing the scale, Dr. Hieronymous' first step was to secure a large number of statements about the value of an education, approximately half of which were favorable and half unfavorable. From an original compilation of one hundred and seventy such statements, fifty were selected for further refinement. Twenty-five multiple choice items were also prepared, with an attempt being made to select, for consideration by the student, situations in life which reflect the value placed upon education.

In order to secure data for further item refinement, opinions as to the validity of each item were obtained from twenty-eight educators representing a variety of experiences and interest, who sorted into piles, cards bearing the items. Opinions regarding the two types of items were treated separately. Median ratings and inter-quartile range values were computed from ogives. Resulting from this treatment were forty statements and seventeen multiple choice items. These comprised a try out scale. The fifty-seven item scale was administered to two hundred and thirty-one boys and two hundred and eleven girls in grades eight, nine, and ten of two fairly large representative school systems.

The California Psychological Inventory.¹⁵ This test was given to determine personality characteristics for important social living. It contained 480 items and yielded 18 standard scores. The questions were printed in a twelve page reusable booklet and answers were recorded by students on a specially designed hand-scorable answer sheet. The answer

¹⁵Harrison G. Gough, Ph.D., California Psychological Inventory, (California: Consulting Psychologists Press, Inc., 1960), pp. 12-13.

sheets were given to the students and they filled in their names. The question books were then distributed, and the students read the directions as the investigator read them aloud. The investigator then explained the purpose of the test and the use that would be made of the results. It took about an hour each time the test was administered.

The answers were hand scored by placing a scoring template on the answer sheet, carefully lining up the register holes at the top and bottom, and then following the printed line which joins the holes punched for the particular scale. The X's which showed through the template were counted and the total was entered in the proper cell at the bottom of the answer sheet. The raw scores were recorded and converted into standard scores.

The Kuder Preference Record. This record was given to find out the vocational interests of each student and to determine whether family living students have a different vocational preference from a student not taking family living.

The Kuder Preference Record is one of the most popularly used vocational inventories. Anastasi¹⁶ stated that the reliabilities of the Kuder Scales, as determined by the Kuder-Richardson technique, were approximately .90.

In administering the Kuder Preference Record, each student was given a test booklet with the answer sheet inserted. It was thoroughly explained to them that the blanks were for recording preferences. There were no right or wrong answers. It was explained that a number of activities were listed in groups of three. The students were instructed

¹⁶Ann Anastasi, Psychological Testing, (New York: The Macmillan Company, 1957), p. 574.

to read the three activities in each group and then decide which of the three activities they liked most. They were instructed to punch a hole through the left hand circle following this activity. Special pins were provided. They were to decide which activity they liked least and punch a hole through the right hand circle of the two circles following this activity. The investigator stressed the importance of understanding all directions as given in the Kuder Preference Record.¹⁷

The test was scored by counting the chains of circles on each page of the answer pad. Each raw score was written in the box provided for it on the answer pad.

¹⁷F. Frederic Kuder, Kuder Preference Record Vocational, Form CH, Science Research Associates, Chicago, Illinois.

CHAPTER IV

ANALYSIS OF THE DATA

The purpose of this study was to determine whether there were significant differences in selected academic, personality, and economic factors in a group of students who were taking a high school family living course with a similar group not taking the course in regard to (1) scholastic grades, (2) personality characteristics, (3) socio-economic status, (4) attitudes toward education, and (5) vocational interests.

In this study, the null hypothesis was that there were no significant differences between the scholastic grades, personality characteristics, socio-economic status, attitudes toward education, and vocational interests of family living students and those not electing family living.

Because the investigator was dealing with differences between two groups (the family living students and students not taking family living), it was necessary to use the null hypothesis¹⁸ which asserted that there was no predictable difference between the two groups. Any apparent difference was the result of chance factors. If the results were such that it was unreasonable to assume that they could be explained solely by chance, then the null hypothesis, that there was no difference, was rejected. However, rejecting the hypothesis or proving a difference

¹⁸Solomon Diamond, Information and Error, New York: Basic Books, Inc., 1969, p. 11.

significant did not establish the cause for the difference.

Since the investigator was using paired scores, it was necessary to list the scores by pairs, and then establish a D score, which showed the difference between the two conditions for each subject. If the second listed scores exceeded the first, a negative or minus difference was noted. The direction of each difference was important since the investigator was showing the consistency of a trend. The differences were squared and added. The formula for matched pairs as given by Diamond¹⁹ was

$$t^2 = \frac{(n-1)(\sum D)^2}{n \sum D^2 - (\sum D)^2}$$

After the results were established, the t^2 table (first column of the F table) was used for determining the significance level.

From the total of thirty-three pairs in the study, twenty-two pairs were from Madison-Mayodan High School, nine pairs from Wentworth High School, and two pairs from Bethany High School. A further breakdown showed that from the total of sixty-six individual students used in the study, two girls were juniors, twenty-eight girls were seniors, and thirty-six boys were seniors.

The calculations for each individual student with all the scores are shown in the appendix. The intelligence quotient range of the family living students was from 70 to 112, the mean being 94.09. The intelligence quotient range of the non-family living students was from 78 to 115, the mean being 95.27.

Grade Averages. Grades for the previous two (or three) years in

¹⁹Ibid., p. 105.

high school were converted from letters to numerical grades on the scale used by teachers at the Madison-Mayodan High School. Mean grade average for the family living students was 80.3 and mean grade average of non-family living students was 84.3 with a difference of four points between the average grades of the two groups. This distribution of differences yielded a t^2 value of 7.638 which was significant beyond the one per cent level. This indicated there was a significant difference between the

TABLE II
GRADE AVERAGE RANGE, MEAN, t^2 , AND SIGNIFICANCE LEVEL
OF FAMILY LIVING STUDENTS AND NON-FAMILY LIVING STUDENTS

	Family Living*	Non-Family Living*	t^2	P
Range	69-91	71-97	7.1638	.01
Mean	80.33	84.33		

*n=33

means of grades of the two groups compared. Because the value of "t" was a minus figure, the null hypothesis was rejected in favor of the control group not electing the family living course; thus it could be stated with confidence that the grades of students not taking family living courses were significantly better than grades of family living students in this sample.

Personality Characteristics. One of the hypotheses of this study was that there was no true difference in personality characteristics of students in the family living class and those not in the family living class. This hypothesis was supported by the results of the scores on the California Psychological Inventory except for one characteristic,

that of good impression.

The investigator converted the raw scores of the California Psychological Inventory to standard scores. The t^2 values, using the table of F for interpretation, for seventeen of the eighteen personality traits were not significant; therefore, the hypothesis that there was no difference in personality traits of students electing family living and those not electing family living can be stated with confidence except in the one sub-test previously mentioned.

Table III gives the comparative mean scores of the two groups, the t^2 values, and significance levels of each of the eighteen sub-tests included in the California Psychological Inventory.

The good impression trait which is to identify persons capable of creating a favorable impression, and who are concerned about how others react to them, was the trait that did not support the hypothesis of no true difference. The t^2 value was 4.367. The table of F for this value showed the results to be significant at the five per cent level of significance. Therefore, for this sample, the non-family living students had a higher score which indicated that the non-family living students were more co-operative, enterprising, outgoing, sociably warm, and helpful. The students not taking family living were also concerned with making a good impression, as well as being diligent and persistent, as measured by the California Psychological Inventory.

This may perhaps be related to significantly higher scholastic averages achieved by non-family living students. It is possible that making an impression was one of the factors which entered into high school grades.

TABLE III

MEAN, t^2 , AND SIGNIFICANCE LEVEL OF SCORES ON THE CALIFORNIA PSYCHOLOGICAL INVENTORY BETWEEN FAMILY LIVING STUDENTS AND THOSE NOT TAKING FAMILY LIVING

C. P. I.	FAMILY LIVING*	NON-FAMILY LIVING*	t^2	P
1. Dominance	43.18	44.93	.480	N.S.
2. Capacity for Status	34.39	38.03	2.856	N.S.
3. Sociability	45.00	46.93	.816	N.S.
4. Social Pressure	46.72	44.75	1.213	N.S.
5. Self-acceptance	47.30	47.51	.022	N.S.
6. Sense of well-being	35.66	36.12	.015	N.S.
7. Responsibility	38.63	43.03	3.127	N.S.
8. Socialization	47.21	47.69	.023	N.S.
9. Self-control	38.96	41.60	.974	N.S.
10. Tolerance	32.48	36.66	1.675	N.S.
11. Good Impression	38.45	41.63	4.367	.05
12. Communality	52.18	48.93	1.860	N.S.
13. Achievement via Conformance	33.09	36.87	2.867	N.S.
14. Achievement via Independence	38.36	39.24	.180	N.S.
15. Intellectual Efficiency	35.03	37.03	.463	N.S.
16. Psychological Mindedness	38.15	40.39	1.076	N.S.
17. Flexibility	47.12	48.51	.614	N.S.
18. Femininity	51.42	51.60	.009	N.S.

*n=33

Socio-Economic Status. In supporting the hypothesis that there was no true difference in socio-economic status level of family living students and those not taking family living, a mean difference between the socio-economic status, as measured by the revised Cornell Scale, of the matched pairs was computed from the data. This yielded a t^2 value as shown by the table of F. It could therefore be stated with confidence that there was no true difference in the socio-economic status of students electing family living and those not electing family living in

this sample.

TABLE IV
SOCIO-ECONOMIC STATUS MEANS, t^2 , AND SIGNIFICANCE LEVELS
OF FAMILY LIVING STUDENTS AND NON-FAMILY LIVING STUDENTS

Students	Mean	t^2	P
Family Living	4.57	3.29	N.S.
Non-Family Living	4.84		

Attitude Toward Education. Hieronymous' forty-six item Student Education Questionnaire was given to the students to determine their opinion about education. Each student was asked to read the statements of opinion about the educational system and then mark the statement which seemed most nearly to express his or her true feeling.

TABLE V
ATTITUDE TOWARD EDUCATION MEANS, t^2 , AND SIGNIFICANT LEVELS
FOR STUDENTS TAKING FAMILY LIVING AND
THOSE NOT TAKING FAMILY LIVING

Students	Mean	t^2	P
Family Living	17.12	5.04	.05
Non-Family Living	19.12		

A score was given according to the opinion circled by the student for each of the forty-six items. After these forty-six scores were added for a total, they were converted to scale scores. The conversion table is given in the appendix. The mean scores were computed

for family living members and non-family living members.

The hypothesis was that there was no significant difference in the scores of the two groups on their attitudes toward education. Total scores revealed that non-family living members scored higher with a scale score of 631, than family living members who scored a total of 565. The mean score for family living members was 17.12 while that for those not taking family living was 19.12, making a difference of 2.00 in favor of those not taking the family living course. The value was significant at the five per cent level; therefore, the null hypothesis that there was no significant difference between the scores of family living members and non-family living members on their attitude toward education was not supported. Non-family living students scored significantly higher.

Vocational Interests. The investigator's hypothesis was that there was no significant difference between the scores of the family living members and those not taking family living in the ten areas of interest as measured by the Kuder Preference Record.

TABLE VI

KUDER MEANS, t^2 , AND SIGNIFICANCE LEVEL OF FAMILY LIVING MEMBERS AND THOSE NOT TAKING FAMILY LIVING

Kuder	Mean Family Living	Mean Non-Family Living	t^2	P
0. Outdoor	36.78	35.24	.294	N.S.
1. Mechanical	34.06	33.45	.092	N.S.
2. Occupational	22.75	26.57	4.360	.05
3. Scientific	32.03	40.42	15.565	.01
4. Persuasive	40.09	39.84	.010	N.S.
5. Artistic	29.09	27.00	.743	N.S.
6. Literary	19.42	17.81	1.086	N.S.
7. Musical	13.90	10.72	9.584	.01
8. Social Service	44.84	47.03	.777	N.S.
9. Clerical	55.51	55.30	.006	N.S.

The investigator was interested in determining whether the vocational interests were any different between the two groups. Table VI shows a comparison of the means of the scores in each interest area, the t^2 values and the significance levels. Family living members scored higher in the outdoor, mechanical, persuasive, artistic, literary, musical, and clerical areas. Non-family living members scored higher in computational, scientific, and social service areas.

Outdoor

For the outdoor area, the mean score for family living members was 36.78 and the mean score for non-family living members was 35.24. The results yielded a t^2 value of .294 which was not significant; therefore, the null hypothesis that there was no significant differences in the scores of the family living student and those not taking family living was supported in the outdoor area of occupational interest. It could be concluded that family living members did not have a greater interest in outdoor activities than did non-family living students in this sample.

Mechanical

The mean score for family living members was 34.06 and 33.45 for those not taking family living. The t^2 value of .092 was not significant; therefore, the null hypothesis that there was no significant difference in the scores of family living students and those not taking family living was supported in the mechanical area. It was therefore concluded that family living members did not have a greater mechanical interest than students not taking family living in this sample.

Computational

Mean scores for family living students were 22.75 and 26.57 for students not taking family living. The value of t^2 showed that the difference was significant at the five per cent level. The null hypothesis that there was no significant difference between the two groups was unsupported in favor of the students not taking family living. The conclusion was that students not taking family living had a greater true interest in computational activities than students taking family living in this sample.

Scientific

In the scientific area, mean scores for the family living students and those not taking family living were 32.03 and 40.02 respectively. The t^2 value yielded 15.565 which was significant at the one per cent level; therefore, the null hypothesis that there was no significant difference in the scores of family living students and those not taking family living, was unsupported in favor of the students not taking family living. It is stated with confidence that in this sample the non-family living students had a greater interest in scientific problems and activities than students who elected the family living course.

Persuasive

Mean scores for family living students were 40.09 and 39.84 for non-family living students, with only a slight difference which was not significant at the .05 level or better. The null hypothesis that there was no significant difference in the scores of the family living students and students not enrolled in a family living class was supported in the

persuasive area. It could, therefore, be concluded that there was little true difference between the groups in the persuasive area of interest.

Artistic

Family living members scored higher than non-family living students in the artistic area with respective mean scores of 29.09 and 27.00. This difference was not significant; thus the null hypothesis that there was no significant difference in scores in the artistic area between family living students and non-family living students was supported. It was concluded that family living students did not show a greater interest in the artistic area than did the students not taking family living.

Literary

Mean scores, in the literary area, of family living students and students not taking family living were 19.42 and 17.81, respectively. The null hypothesis that there was no significant difference in the scores of family living students and those not taking family living was supported in the literary area. It was concluded that family living students did not, in this sample, show a greater literary interest than students not taking family living.

Musical

A higher mean score, 13.90, was obtained in the musical area by family living students than by non-family living students whose mean was 10.72. According to the value of t^2 , this difference was significant at the one per cent level; therefore, the null hypothesis that there was no

significant difference in the scores of the family living students and students not taking family living was unsupported in favor of family living students. It could be concluded, therefore, that family living students had a greater interest in musical activities than students who did not take family living in this sample.

Social Service

Students not taking family living had a higher mean score, 47.03, than family living students whose mean score was 44.84. The results showed that it was not significant; thus, the null hypothesis that there was no significant difference between the scores of family living students and students not taking family living was supported in the social service area.

Clerical

Mean scores were 55.51 and 55.30, respectively, for family living students and students not taking family living. The small value of t^2 supported the null hypothesis that there was no significant difference in the scores of family living students and students not taking family living. Thus, it was concluded that family living students did not show a greater interest in the clerical area than did students not taking family living.

The scores on the Kuder Vocational Preference Record indicated that there was no significant difference in the mean scores of family living students and non-family living students in the ten areas of interest except in the computational, scientific, and musical areas. Thus, the hypothesis that there were no significant differences in vocational interests of family living students and non-family living

students was supported generally. The data revealed that the computational and scientific areas were of significantly greater interest to non-family living students and musical interests were significantly greater among family living students.

CHAPTER V

SUMMARY AND CONCLUSIONS

In comparatively recent years, teenagers have been more willing and able to discuss marital relationships and problems openly than did their parents. During the time of the study, however, boys and girls were frankly discussing this phase of life with an experienced person who was willing to listen - many times, the high school home economics teacher. This has resulted in a trend toward offering marriage courses to boys and girls in high school.

Surveys and reports indicated that the need for more family living courses in high school was felt by administrators and lay people. It was found that the shortage of qualified teachers was a drawback to offering more such courses. No research was found by the investigator stating different traits, attitudes, and economic levels of students electing the family living course and those not electing the family living course. The research indicated that there was a need for the course but because of a shortage of qualified teachers, problems were created. Studies were made to determine certain differences between participants and non-participants in a marriage education course but again this showed the after effect of the course and did not help to determine if there were differences in the person electing the course and those not electing the course.

There had been some criticisms of the high school family living course, based primarily on opinions and individual experiences. Some had been in favor of the course and others had expressed adverse

opinions stating that the course was not enough of a challenge for the students but merely allowed the students to discuss, reaching no noteworthy conclusions. The investigator became concerned when some would say that only the poorer student should be allowed to take the family living course. It was stated by those believing this that the student should be advised to take courses which would offer a greater challenge to better prepare him for college. It was the belief of the investigator that the students themselves elected the family living course because the need for better family understanding was felt. The investigator believed also that there was no true difference in certain characteristics between the students who elect family living and those who were not able to elect it. The purpose of this study, therefore, was to determine whether there were differences in selected academic, personality, and economic factors in a group of students who were taking a high school family living course and a similar group not taking the course in regard to (1) scholastic grades, (2) personality characteristics, (3) socio-economic status, (4) attitudes toward education, and (5) vocational interests.

The three schools in Rockingham County (Madison-Mayodan, Wentworth, and Bethany) that offered family living were the schools used in this study. After contacting the three principals, class rolls were obtained from the four home economics teachers who taught the course. Madison-Mayodan had two home economics teachers who taught family living. Information was secured from the cumulative records of each student. This information included birthdate, classification, intelligence quotient, and grade averages. Using these data, the investigator matched these family living students with students who were not taking

the family living course. A total of thirty-three pairs were obtained for the study.

In each of the five areas of the study, the hypothesis was that no true significant differences existed between the two matched samples being compared. In order to compare the results statistically, the t^2 test using the first column of the F Table was used to calculate and interpret significance of differences.

A summary of the findings may be found here.

1. Grade Averages. A difference between the means of grades of the family living students and those not taking the family living course was very significant beyond the one per cent level of significance. This indicated there was a significant difference in the grades in favor of the students not taking family living.

2. Personality Characteristics. The hypothesis, that no true differences existed in personality characteristics between family living students and those not taking family living, was supported by all the scores on eighteen subtests of the California Psychological Inventory except for the one which had to do with good impression.

3. Socio-Economic Status. A difference so slight as to be non-significant was found between the socio-economic status, as measured by the Cornell Scale, of family living students and those not taking family living.

4. Attitudes Toward Education. There was a significant difference in attitudes toward education as measured by the Hieronymous Scale in favor of the students not taking family living.

5. Vocational Interests. There was no significant difference in the mean scores of family living students and non-family living students in the ten areas of interest of the Kuder Vocational Preference Record except in the computational, scientific, and musical areas. The computational and scientific scores were higher for non-family living members and musical scores were higher for family living students.

II. CONCLUSIONS

Conclusions as to the limitations of the sample and method. The investigator recognizes the following limitations of this study:

1. The sample did not include all of the family living students because it was impossible to match all of the family living students with non-family living students within the three month age limit and five point intelligence quotient. A larger sample might have produced different results.

2. There was some possibility of inaccuracies in intelligence testing since the intelligence quotients were taken from the cumulative records and the investigator had no control over the intelligence testing.

3. Some of the results may have been influenced by the family living course itself since the instruments were administered after the course was in progress.

4. Failing grades of F were assigned a fixed numerical value of 60 although they may have been higher or lower in some cases.

In attempting to draw any general conclusions, the investigator realized the limitations of the sample. The sample was small although three schools were used. Because of two very small high schools, matching the family living students became difficult as shown by the

fact that only nine of sixteen could be matched in one school and two of twelve could be matched in the other. Even in the larger school, only half of the family living group could be matched. The reason for this difficulty was that most of the seniors in the schools elected the course and therefore, few were left with whom to match. Perhaps the reason that almost all of the seniors in two of the schools elected the course was the lack of other elective subjects.

Conclusions as to recommendations for further research. The results of this study indicated that further study was needed to provide a better understanding of the family living course and the benefits that could be derived from it. The following specific suggestions are made for further studies:

1. A larger sample than the one used in this study would provide the basis for more generalized conclusions.
2. Studies covering many other areas in the state and nation would give wider applications to the conclusions.
3. Data comparing attitudes before and after taking the family living course would determine more specifically the effects of the family living course.

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APPENDIX

TABLE VII
MEAN SUBJECT GRADES

Number	A.	B.	D.	D ²
1.	75	88	-13	169
2.	75	77	- 2	4
3.	81	83	- 2	4
4.	82	95	-13	169
5.	91	84	7	49
6.	85	87	- 2	4
7.	82	75	7	49
8.	74	75	- 1	1
9.	76	79	- 3	9
10.	77	87	-10	100
11.	79	78	1	1
12.	73	81	- 8	64
13.	91	84	7	49
14.	74	91	-17	289
15.	72	80	- 8	64
16.	85	83	2	4
17.	77	78	- 1	1
18.	80	71	9	81
19.	77	90	-13	169
20.	81	93	-12	144
21.	79	83	- 4	16
22.	81	89	- 8	64
23.	91	95	- 4	16
24.	89	75	14	196
25.	82	97	-15	225
26.	87	89	- 2	4
27.	89	96	- 7	49
28.	82	84	- 2	4
29.	69	82	-13	169
30.	86	75	11	121
31.	78	78	0	0
32.	71	87	-16	256
33.	80	94	-14	196
	<u>2651</u>	<u>2783</u>	<u>-132</u>	<u>2740</u>

Mean 80.33 84.33

t² 7.638

Significant at .01 level

TABLE VIII
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, DO SUB-SCALE

Number	A.	B.	D.	D ²
1.	33	33	0	0
2.	40	40	0	0
3.	50	29	21	441
4.	46	21	25	625
5.	62	56	6	36
6.	37	60	-23	529
7.	60	54	6	36
8.	37	46	-9	81
9.	25	62	-37	1369
10.	52	48	4	16
11.	39	35	4	16
12.	45	49	-4	16
13.	57	49	8	64
14.	40	49	-9	81
15.	43	29	14	196
16.	49	50	-1	1
17.	49	34	15	225
18.	35	42	-7	49
19.	33	27	6	36
20.	56	42	14	196
21.	35	58	-23	529
22.	47	45	2	4
23.	48	31	17	289
24.	34	38	-4	16
25.	38	66	-28	784
26.	43	52	-9	81
27.	52	50	2	4
28.	45	45	0	0
29.	41	34	7	49
30.	41	47	-6	36
31.	39	48	-9	81
32.	40	50	-10	100
33.	34	64	-30	900
	<u>1425</u>	<u>1483</u>	<u>-58</u>	<u>6886</u>

Mean 43.18 44.93

t² .480

Not Significant

TABLE IX
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, CS SUB-SCALE

Number	A.	B.	D.	D ²
1.	28	39	-11	121
2.	39	39	0	0
3.	44	20	24	576
4.	39	36	3	9
5.	57	46	11	121
6.	23	33	-10	100
7.	46	44	2	4
8.	33	44	-11	121
9.	23	44	-21	441
10.	28	44	-16	256
11.	31	28	3	9
12.	28	19	9	81
13.	39	47	- 8	64
14.	17	33	-16	256
15.	44	22	22	484
16.	52	41	11	121
17.	22	33	-11	121
18.	44	52	- 8	64
19.	49	46	3	9
20.	39	36	3	9
21.	28	44	-16	256
22.	47	36	11	121
23.	41	33	8	64
24.	19	22	- 3	9
25.	30	39	- 9	81
26.	36	33	3	9
27.	39	44	- 5	25
28.	39	44	- 5	25
29.	19	33	-14	196
30.	28	44	-16	256
31.	26	46	-20	400
32.	36	39	- 3	9
33.	22	52	-30	900
	<u>1135</u>	<u>1255</u>	<u>-120</u>	<u>5318</u>
Mean	34.39	38.03		
t ²	2.856			

Not Significant

TABLE X
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, SY SUB-SCALE

Number	A.	B.	D.	D ²
1.	47	41	6	36
2.	49	43	6	36
3.	57	45	12	144
4.	53	41	12	144
5.	51	49	2	4
6.	37	51	-14	196
7.	53	51	2	4
8.	33	39	-6	36
9.	27	49	-22	484
10.	49	47	2	4
11.	37	41	-4	16
12.	40	32	8	64
13.	53	62	-9	81
14.	34	38	-4	16
15.	66	34	32	1024
16.	55	55	0	0
17.	40	36	4	16
18.	49	51	-2	4
19.	41	33	8	64
20.	43	31	12	144
21.	39	49	-10	100
22.	62	51	11	121
23.	49	41	8	64
24.	21	43	-22	484
25.	43	66	-23	529
26.	53	57	-4	16
27.	53	51	2	4
28.	51	55	-4	16
29.	34	40	-6	36
30.	40	49	-9	81
31.	41	63	-22	484
32.	45	51	-6	36
33.	40	64	-24	576
	<u>1485</u>	<u>1549</u>	<u>-64</u>	<u>5064</u>

Mean 45.00 46.93

t² .816

Not Significant

TABLE XI
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, SP SUB-SCALE

Number	A.	B.	D.	D ²
1.	57	59	- 2	4
2.	46	38	8	64
3.	50	38	12	144
4.	52	33	19	361
5.	57	55	2	4
6.	33	37	- 4	16
7.	50	42	8	64
8.	52	42	10	100
9.	50	52	- 2	4
10.	44	44	0	0
11.	38	40	- 2	4
12.	41	28	13	169
13.	60	55	5	25
14.	36	41	- 5	25
15.	57	30	27	729
16.	57	50	7	49
17.	46	53	- 7	49
18.	63	48	15	225
19.	52	46	6	36
20.	35	42	- 7	49
21.	29	55	-26	676
22.	46	41	5	25
23.	61	50	11	121
24.	34	39	- 5	25
25.	43	50	- 7	49
26.	53	48	5	25
27.	44	44	0	0
28.	43	44	- 1	1
29.	39	32	7	49
30.	39	53	-14	196
31.	40	50	-10	100
32.	54	48	6	36
33.	41	50	- 9	81
	<u>1542</u>	<u>1477</u>	<u>65</u>	<u>3505</u>

Mean 46.72 44.75

t² 1.213

Not Significant

TABLE XII
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, SA SUB-SCALE

Number	A.	B.	D.	D ²
1.	63	47	16	256
2.	41	41	0	0
3.	58	47	11	121
4.	39	39	0	0
5.	71	60	11	121
6.	44	44	0	0
7.	60	60	0	0
8.	36	33	3	9
9.	33	55	-22	484
10.	41	47	-6	36
11.	36	39	-3	9
12.	50	47	-3	9
13.	47	50	-3	9
14.	39	42	-3	9
15.	67	28	39	1521
16.	50	53	-3	9
17.	56	61	-5	25
18.	52	47	5	25
19.	44	58	-14	196
20.	49	49	0	0
21.	41	60	-19	361
22.	53	44	9	81
23.	63	41	22	484
24.	33	36	-3	9
25.	25	67	-42	1764
26.	58	36	22	484
27.	61	44	17	289
28.	36	53	-17	289
29.	28	28	0	0
30.	44	36	8	64
31.	49	60	-11	121
32.	58	58	0	0
33.	36	58	-22	484
	<u>1561</u>	<u>1568</u>	<u>-13</u>	<u>7269</u>

Mean 47.30 47.51

t² .022

Not Significant

TABLE XIII
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, WB SUB-SCALE

Number	A.	B.	D.	D ²
1.	36	51	-15	225
2.	21	49	-28	784
3.	44	14	30	900
4.	49	19	30	900
5.	56	46	10	100
6.	31	49	-18	324
7.	49	26	23	529
8.	26	44	-18	324
9.	44	26	18	324
10.	39	39	0	0
11.	49	16	33	1089
12.	26	12	14	196
13.	35	56	-21	441
14.	56	44	12	144
15.	42	10	32	1024
16.	44	51	-7	49
17.	14	19	-5	25
18.	56	54	2	4
19.	54	41	13	169
20.	9	36	-27	729
21.	31	41	-10	100
22.	49	44	5	25
23.	24	36	-12	144
24.	42	17	25	625
25.	44	24	20	400
26.	26	56	-30	900
27.	28	33	-5	25
28.	21	3	18	324
29.	24	44	-20	400
30.	28	56	-28	784
31.	0	34	-34	1156
32.	29	51	-22	484
33.	51	51	0	0
	<u>1177</u>	<u>1192</u>	<u>-15</u>	<u>13,647</u>

Mean 35.66 36.12

t² .015

Not Significant

TABLE XIV
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, RE SUB-SCALE

Number	A.	B.	D.	D ²
1.	18	48	-30	900
2.	32	28	4	16
3.	58	14	44	1936
4.	52	32	20	400
5.	54	58	-4	16
6.	38	52	-14	196
7.	52	50	2	4
8.	42	38	4	16
9.	38	38	0	0
10.	38	32	6	36
11.	50	44	6	36
12.	29	22	7	49
13.	41	50	-9	81
14.	46	50	-4	16
15.	33	41	-8	64
16.	44	54	-10	100
17.	20	16	4	16
18.	36	52	-16	256
19.	52	44	8	64
20.	40	50	-10	100
21.	46	54	-8	64
22.	33	58	-25	625
23.	32	40	-8	64
24.	22	27	-5	25
25.	54	52	2	4
26.	31	54	-23	529
27.	33	54	-21	441
28.	31	48	-17	289
29.	48	46	2	4
30.	37	46	-9	81
31.	20	30	-10	100
32.	46	44	2	4
33.	29	54	-25	625
	<u>1275</u>	<u>1420</u>	<u>-145</u>	<u>7157</u>

Mean 38.63 43.03

t² 3.127

Not Significant

TABLE XV
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, SO SUB-SCALE

Number	A.	B.	D.	D ²
1.	29	52	-23	529
2.	51	59	- 8	64
3.	58	33	25	625
4.	58	47	11	121
5.	54	61	- 7	49
6.	42	70	-28	784
7.	54	45	9	81
8.	49	35	14	196
9.	56	24	32	1024
10.	45	59	-14	196
11.	58	40	18	324
12.	47	42	5	25
13.	27	57	-30	900
14.	58	51	7	49
15.	51	32	19	361
16.	28	60	-32	1024
17.	21	30	- 9	81
18.	45	54	- 9	81
19.	70	33	37	1369
20.	43	58	-15	225
21.	47	66	-19	361
22.	51	55	- 4	16
23.	28	6	22	484
24.	53	45	8	64
25.	55	42	13	169
26.	32	60	-28	784
27.	55	38	17	289
28.	42	45	- 3	9
29.	51	47	4	16
30.	49	58	- 9	81
31.	42	51	- 9	81
32.	58	61	- 3	9
33.	51	58	- 7	49
	<u>1558</u>	<u>1574</u>	<u>-16</u>	<u>10,520</u>
Mean	47.21	47.69		
t ²	.023			
Not Significant				

TABLE XVI
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, SC SUB-SCALE

Number	A.	B.	D,	D ²
1.	36	47	-11	121
2.	54	58	- 4	16
3.	43	28	15	225
4.	49	39	10	100
5.	42	42	0	0
6.	45	59	-14	196
7.	35	36	- 1	1
8.	31	51	-20	400
9.	53	30	23	529
10.	43	41	2	4
11.	49	35	14	196
12.	35	28	7	49
13.	28	47	-19	361
14.	67	50	17	289
15.	47	36	11	121
16.	36	40	- 4	16
17.	14	28	-14	196
18.	38	51	-13	169
19.	53	47	6	36
20.	31	47	-16	256
21.	42	42	0	0
22.	44	44	0	0
23.	27	36	- 9	81
24.	28	33	- 5	25
25.	57	22	35	1225
26.	21	60	-39	1521
27.	25	29	- 4	16
28.	25	25	0	0
29.	24	46	-22	484
30.	32	62	-30	900
31.	32	45	-13	169
32.	47	42	5	25
33.	53	47	6	36
	<u>1286</u>	<u>1373</u>	<u>-87</u>	<u>7763</u>

Mean 38.96 41.60

t² .974

Not Significant

TABLE XVII
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, TO SUB-SCALE

Number	A.	B.	D.	D ²
1.	33	48	-15	225
2.	40	27	13	169
3.	35	12	23	529
4.	46	35	11	121
5.	54	40	14	196
6.	33	38	- 5	25
7.	29	33	- 4	16
8.	23	46	-23	529
9.	23	21	2	4
10.	35	40	- 5	25
11.	56	27	29	841
12.	20	13	7	49
13.	45	52	7	49
14.	36	27	9	81
15.	31	17	14	196
16.	57	48	9	81
17.	13	36	-23	529
18.	44	54	-10	100
19.	44	54	-10	100
20.	23	50	-27	729
21.	19	44	-25	625
22.	29	50	-21	441
23.	38	35	3	9
24.	17	10	7	49
25.	52	17	25	625
26.	17	48	-31	961
27.	34	43	- 9	81
28.	24	29	- 5	25
29.	17	24	- 7	49
30.	27	50	-23	529
31.	23	29	6	36
32.	10	44	-34	1156
33.	45	59	-14	196
	<u>1072</u>	<u>1210</u>	<u>-124</u>	<u>9376</u>

Mean 32.48 36.66

t² 1.673

Not Significant

TABLE XVIII
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, GI SUB-SCALE

Number	A.	B.	D.	D ²
1.	40	43	- 3	9
2.	62	53	9	81
3.	38	30	8	64
4.	42	38	- 4	16
5.	45	40	5	25
6.	40	55	-15	225
7.	35	27	8	64
8.	32	55	-23	529
9.	50	32	-18	324
10.	45	47	- 2	4
11.	30	40	-10	100
12.	40	38	2	4
13.	25	50	-15	225
14.	58	45	13	169
15.	40	32	8	64
16.	32	43	-11	121
17.	27	27	- 0	0
18.	35	50	-15	225
19.	50	40	10	100
20.	30	48	-18	324
21.	38	40	- 2	4
22.	48	45	3	9
23.	25	37	-12	144
24.	25	37	-12	144
25.	42	33	9	81
26.	38	50	-12	144
27.	27	30	- 3	9
28.	37	27	10	100
29.	33	32	1	1
30.	28	63	-35	1225
31.	40	57	-17	289
32.	42	37	5	25
33.	40	53	-13	169
	<u>1269</u>	<u>1374</u>	<u>-141</u>	<u>5017</u>

Mean 38.45 41.63

t² 4.367

Significant at .05 level

TABLE XIX
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, CM SUB-SCALE

Number	A.	B.	D.	D ²
1.	26	45	-19	361
2.	31	35	- 4	16
3.	58	31	27	729
4.	63	58	5	25
5.	63	54	9	81
6.	54	58	- 4	16
7.	63	58	5	25
8.	54	40	14	196
9.	49	45	4	16
10.	54	58	- 4	16
11.	63	49	14	196
12.	51	24	27	729
13.	55	51	4	16
14.	55	60	- 5	25
15.	46	46	0	0
16.	55	55	0	0
17.	55	51	4	16
18.	63	54	9	81
19.	63	58	5	25
20.	63	58	5	25
21.	58	63	- 5	25
22.	55	55	0	0
23.	35	4	31	961
24.	51	51	0	0
25.	55	46	9	81
26.	55	60	- 5	25
27.	51	51	0	0
28.	55	19	36	1296
29.	51	55	- 4	16
30.	55	51	4	16
31.	17	49	-32	1024
32.	49	63	-14	196
33.	51	60	- 9	81
	<u>1722</u>	<u>1615</u>	<u>-107</u>	<u>6315</u>

Mean 52.18 48.93

t² 1.860

Not Significant

TABLE XX
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, AC SUB-SCALE

Number	A.	B.	D.	D ²
1.	25	38	-13	169
2.	47	42	5	25
3.	44	11	33	1089
4.	36	31	5	25
5.	53	42	11	121
6.	33	44	-11	121
7.	49	36	13	169
8.	29	40	-11	121
9.	38	25	13	169
10.	38	49	-11	121
11.	22	18	4	16
12.	27	27	0	0
13.	29	45	-16	256
14.	50	45	5	25
15.	29	31	-2	4
16.	34	50	-16	256
17.	11	11	0	0
18.	31	47	-16	256
19.	47	42	5	25
20.	25	47	-22	484
21.	42	42	0	0
22.	38	31	7	49
23.	20	44	-24	576
24.	18	27	-9	81
25.	47	41	6	36
26.	29	47	-18	324
27.	38	29	9	81
28.	27	31	-4	16
29.	20	36	-16	256
30.	18	43	-25	625
31.	29	38	-9	81
32.	38	44	-6	36
33.	31	43	-12	144
	<u>1092</u>	<u>1217</u>	<u>-125</u>	<u>5757</u>

Mean 33.09 36.87

t² 2.867

Not Significant

TABLE XXI
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, AI SUB-SCALE

Number	A.	B.	D.	D ²
1.	39	56	-17	289
2.	39	39	0	0
3.	46	27	19	361
4.	41	48	-7	49
5.	53	39	14	196
6.	34	29	5	25
7.	39	37	2	4
8.	22	51	-29	841
9.	37	32	5	25
10.	29	44	-15	225
11.	46	29	17	289
12.	25	25	0	0
13.	45	45	0	0
14.	38	32	6	36
15.	35	25	10	100
16.	52	42	10	100
17.	22	20	2	4
18.	48	51	-3	9
19.	44	51	-7	49
20.	46	51	-5	25
21.	41	34	7	49
22.	32	38	-6	36
23.	34	51	-17	289
24.	28	25	3	9
25.	58	35	23	529
26.	32	42	10	100
27.	38	50	12	144
28.	18	35	-17	289
29.	25	32	-7	49
30.	40	52	-12	144
31.	48	34	14	196
32.	37	44	-7	49
33.	55	50	5	25
	<u>1266</u>	<u>1295</u>	<u>-29</u>	<u>4535</u>
Mean	38.36	39.24		
t ²	.180			
Not Significant				

TABLE XXII
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, IE SUB-SCALE

Number	A.	B.	D.	D ²
1.	35	45	-11	121
2.	34	28	6	36
3.	45	17	28	784
4.	49	26	23	529
5.	49	60	-11	121
6.	28	30	- 2	4
7.	41	34	7	49
8.	26	28	- 2	4
9.	32	21	11	121
10.	26	32	- 6	36
11.	45	26	19	361
12.	44	5	39	1521
13.	50	54	- 4	16
14.	42	26	16	256
15.	44	9	35	1225
16.	48	56	- 8	64
17.	7	28	-21	441
18.	49	49	0	0
19.	41	49	- 8	64
20.	30	47	-17	289
21.	23	41	-18	324
22.	36	44	- 8	64
23.	23	54	-31	961
24.	21	24	- 3	9
25.	50	44	6	36
26.	32	50	-18	324
27.	44	44	0	0
28.	19	32	-13	169
29.	19	44	-25	625
30.	36	42	- 6	36
31.	21	34	-13	169
32.	30	45	-15	225
33.	38	54	-16	256
	<u>1156</u>	<u>1222</u>	<u>-66</u>	<u>9240</u>

Mean 35.03 37.03

t² .463

Not Significant

TABLE XXIII
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, PY SUB-SCALE

Number	A.	B.	D.	D ²
1.	46	29	- 7	49
2.	46	29	17	289
3.	43	18	25	625
4.	36	36	0	0
5.	50	50	0	0
6.	36	39	- 3	9
7.	46	36	10	100
8.	39	61	-22	484
9.	43	32	11	121
10.	46	39	7	49
11.	46	39	7	49
12.	21	32	-11	121
13.	46	50	- 4	16
14.	32	43	-11	121
15.	32	36	- 4	16
16.	54	32	22	484
17.	21	39	-18	324
18.	54	57	- 3	9
19.	43	46	- 3	9
20.	29	54	-25	625
21.	50	54	- 4	16
22.	39	54	-15	225
23.	32	29	3	9
24.	21	36	-15	225
25.	43	39	4	16
26.	29	54	-25	625
27.	29	32	- 3	9
28.	32	25	7	49
29.	32	29	3	9
30.	29	43	-14	196
31.	39	46	- 7	49
32.	43	32	11	121
33.	39	46	- 7	49
	<u>1259</u>	<u>1333</u>	<u>-74</u>	<u>5098</u>

Mean 38.15 40.39

t² 1.076

Not Significant

TABLE XXIV
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, FX SUB-SCALE

Number	A.	B.	D.	D ²
1.	47	73	-26	676
2.	44	44	0	0
3.	50	41	9	81
4.	53	53	0	0
5.	44	56	-12	144
6.	39	36	3	9
7.	47	47	0	0
8.	41	59	-18	324
9.	59	41	18	324
10.	36	53	-17	289
11.	50	50	0	0
12.	36	59	-23	529
13.	50	47	3	9
14.	41	44	-3	9
15.	47	56	-9	81
16.	59	44	15	225
17.	53	53	0	0
18.	41	50	-9	81
19.	61	59	2	4
20.	47	44	3	9
21.	36	41	-5	25
22.	39	39	0	0
23.	61	50	11	121
24.	41	39	2	4
25.	56	56	0	0
26.	44	44	0	0
27.	41	47	-6	36
28.	44	44	0	0
29.	39	47	-8	64
30.	53	47	6	36
31.	41	41	0	0
32.	59	41	18	324
33.	56	56	0	0
	<u>1555</u>	<u>1601</u>	<u>-46</u>	<u>3404</u>

Mean 47.12 48.51

t² .614

Not Significant

TABLE XXV
 SCORES OBTAINED ON THE
 CALIFORNIA PSYCHOLOGICAL INVENTORY, FE SUB-SCALE

Number	A.	B.	D.	D ²
1.	42	37	5	25
2.	42	70	-28	784
3.	65	47	18	324
4.	42	52	-10	100
5.	55	57	-2	4
6.	42	49	-7	49
7.	44	57	-13	169
8.	57	55	2	4
9.	60	37	23	529
10.	60	65	-5	25
11.	60	55	5	25
12.	47	33	14	196
13.	44	33	11	121
14.	65	62	3	9
15.	50	59	-9	81
16.	47	59	-12	144
17.	62	47	15	225
18.	47	42	5	25
19.	44	47	-3	9
20.	62	55	7	49
21.	47	47	0	0
22.	47	47	0	0
23.	39	26	13	169
24.	53	53	0	0
25.	56	59	-3	9
26.	59	53	6	36
27.	59	56	3	9
28.	38	50	-12	144
29.	59	70	-11	121
30.	53	62	-9	81
31.	55	57	-2	4
32.	39	55	-16	256
33.	56	50	6	36
	<u>1697</u>	<u>1703</u>	<u>-6</u>	<u>3762</u>

Mean 51.42 51.60

t² .009

Not Significant

TABLE XXVI
SCORES OBTAINED ON THE CORNELL
SOCIO-ECONOMIC STATUS SCALE

Number	A.	B.	D.	D ²
1.	4	2	2	4
2.	7	7	0	0
3.	3	5	- 2	4
4.	6	6	0	0
5.	7	5	2	4
6.	6	9	- 3	9
7.	1	6	- 5	25
8.	6	4	2	4
9.	5	7	- 2	4
10.	4	6	- 2	4
11.	2	3	- 1	1
12.	3	0	3	9
13.	2	4	- 2	4
14.	2	8	- 6	36
15.	1	1	0	0
16.	6	7	- 1	1
17.	5	3	2	4
18.	5	3	2	4
19.	4	9	- 5	25
20.	2	3	- 1	1
21.	3	5	- 2	4
22.	2	5	- 3	9
23.	8	6	2	4
24.	3	6	- 3	9
25.	7	8	- 1	1
26.	5	2	3	9
27.	2	4	- 2	4
28.	9	6	3	9
29.	3	5	- 2	4
30.	5	1	4	16
31.	7	5	2	4
32.	8	5	3	9
33.	8	4	4	16
	<u>151</u>	<u>160</u>	<u>- 9</u>	<u>241</u>

Mean 4.57 4.84

t² .329

Not Significant

TABLE XXVII

SCALE SCORES OBTAINED ON THE HIERONYMOUS
ATTITUDE TOWARD EDUCATION SCALE

Number	A.	B.	D.	D ²
1.	09	15	- 6	36
2.	13	20	- 7	49
3.	26	14	12	144
4.	20	18	2	4
5.	23	25	- 2	4
6.	15	26	-11	121
7.	13	18	- 5	25
8.	14	25	-11	121
9.	12	21	- 9	81
10.	13	15	- 2	4
11.	16	20	- 4	16
12.	16	12	4	16
13.	22	25	- 3	9
14.	15	16	- 1	1
15.	14	16	- 2	4
16.	17	20	- 3	9
17.	18	17	1	1
18.	21	15	6	36
19.	13	18	- 5	25
20.	20	21	- 1	1
21.	21	17	4	16
22.	19	22	- 3	9
23.	14	19	- 5	25
24.	21	16	5	25
25.	18	24	- 6	36
26.	19	18	1	1
27.	22	21	1	1
28.	16	22	- 6	36
29.	20	17	3	9
30.	18	16	2	4
31.	15	17	- 2	4
32.	16	20	- 4	16
33.	16	25	- 9	81
	<u>565</u>	<u>631</u>	<u>-66</u>	<u>970</u>

Mean 17.12 19.12

t² 5.04

Not Significant

TABLE XXVIII

CONVERSION TABLE FOR ATTITUDE TOWARD EDUCATION SCORES

R.S.	S.S.	R.S.	S.S.	R.S.	S.S.	R.S.	S.S.
217	34	183	18	149	10	115	05
216	32	182	18	148	10	114	05
215	31	181	18	147	10	113	05
214	30	180	17	146	10	112	04
213	29	179	17	145	09	111	04
212	28	178	17	144	09	110	04
211	27	177	16	143	09	109	04
210	27	176	16	142	09	108	04
209	26	175	16	141	09	107	03
208	26	174	16	140	09	106	03
207	25	173	15	139	09	105	03
206	25	172	15	138	08	104	03
205	25	171	15	137	08	103	02
204	25	170	15	136	08	102	02
203	24	169	14	135	08	101	02
202	24	168	14	134	08	100	02
201	24	167	14	133	08	99	02
202	23	166	13	132	07	98	02
199	23	165	13	131	07	97	02
198	23	164	13	130	07	96	01
197	22	163	13	129	07	95	01
196	22	162	13	128	07	94	01
195	22	161	12	127	07	93	01
194	22	160	12	126	07	92	01
193	21	159	12	125	07	91	00
192	21	158	12	124	06	90	00
191	21	157	11	123	06		
190	20	156	11	122	06		
189	20	155	11	121	06		
188	20	154	11	120	06		
187	20	153	11	119	06		
185	19	151	10	117	05		
184	18	150	10	116	05		

R.S. = Raw Score

S.S. = Scale Score

TABLE XXIX
 SCORES OBTAINED ON THE KUDER
 VOCATIONAL PREFERENCE, O SUB-SCALE

Number	A.	B.	D.	D ²
1.	57	61	- 4	16
2.	53	49	4	16
3.	33	51	-18	324
4.	35	36	- 1	1
5.	49	39	10	100
6.	27	27	0	0
7.	40	29	11	121
8.	38	41	- 3	9
9.	37	38	- 1	1
10.	39	52	-13	169
11.	56	49	7	49
12.	19	24	- 5	25
13.	20	26	- 6	36
14.	15	21	- 6	36
15.	22	22	0	0
16.	48	18	30	900
17.	33	21	12	144
18.	30	39	- 9	81
19.	65	41	24	576
20.	24	65	-41	1681
21.	44	45	- 1	1
22.	40	21	19	361
23.	41	49	- 8	64
24.	31	27	4	16
25.	15	42	-27	729
26.	30	27	3	9
27.	49	18	31	961
28.	38	14	24	576
29.	22	19	3	9
30.	17	49	-30	900
31.	55	45	10	100
32.	54	30	24	576
33.	38	30	8	64
	<u>1214</u>	<u>1163</u>	<u>-51</u>	<u>8651</u>

Mean 36.78 35.24

t² .294

Not Significant

TABLE XXX
 SCORES OBTAINED ON THE KUDER
 VOCATIONAL PREFERENCE 1 SUB-SCALE

Number	A.	B.	D.	D ²
1.	53	62	- 9	81
2.	53	38	15	225
3.	49	63	-14	196
4.	64	47	17	289
5.	33	47	-14	196
6.	46	23	23	529
7.	41	34	7	49
8.	41	43	- 2	4
9.	44	63	-19	361
10.	47	63	-16	256
11.	34	40	- 6	36
12.	18	25	- 7	49
13.	21	19	2	4
14.	13	20	- 7	49
15.	17	36	-19	361
16.	30	27	3	9
17.	20	13	7	49
18.	52	50	2	4
19.	47	41	6	36
20.	26	34	- 8	64
21.	42	44	- 2	4
22.	20	20	0	0
23.	36	38	- 2	4
24.	35	18	17	289
25.	18	26	- 8	64
26.	17	8	9	81
27.	24	10	14	196
28.	26	20	6	36
29.	21	27	- 6	36
30.	22	14	8	64
31.	37	40	- 3	9
32.	57	33	24	576
33.	20	18	2	4
	<u>1124</u>	<u>1104</u>	<u>- 20</u>	<u>4210</u>

Mean 34.06 33.45

t² .092

Not Significant

TABLE XXXI
 SCORES OBTAINED ON THE KUDER
 VOCATIONAL PREFERENCE, 2 SUB-SCALE

Number	A.	B.	D.	D ²
1.	29	21	8	64
2.	27	23	4	16
3.	34	33	1	1
4.	27	38	-11	121
5.	10	45	-35	1225
6.	33	17	16	256
7.	26	14	12	144
8.	32	38	-6	36
9.	21	24	-3	9
10.	23	27	-4	16
11.	23	36	-13	169
12.	19	21	-2	4
13.	23	21	2	4
14.	25	24	1	1
15.	22	20	2	4
16.	9	21	-12	144
17.	17	25	-8	64
18.	23	30	-7	49
19.	14	28	-14	196
20.	25	29	-4	16
21.	17	31	-14	196
22.	27	14	13	169
23.	27	35	-8	64
24.	24	14	10	100
25.	24	31	-7	49
26.	20	34	-14	196
27.	16	35	-19	361
28.	20	24	-4	16
29.	22	22	0	0
30.	28	23	5	25
31.	31	25	6	36
32.	14	20	-6	36
33.	19	34	-15	225
	<u>751</u>	<u>877</u>	<u>-126</u>	<u>4012</u>

Mean 22.75 26.57

t² 4.360

Significant at .05 Level

TABLE XXXII
 SCORES OBTAINED ON THE KUDER
 VOCATIONAL PREFERENCE, 3 SUB-SCALE

Number	A.	B.	D.	D ²
1.	29	62	-33	1089
2.	37	42	- 5	25
3.	51	41	10	100
4.	41	54	-13	169
5.	39	58	-19	361
6.	37	45	- 8	64
7.	27	31	- 4	16
8.	44	41	3	9
9.	34	48	-14	196
10.	46	47	- 1	1
11.	49	45	4	16
12.	20	26	- 6	36
13.	13	33	-20	400
14.	12	23	-11	121
15.	35	25	10	100
16.	30	41	-11	121
17.	15	27	-12	144
18.	48	51	- 3	9
19.	25	60	-35	1225
20.	34	54	-20	400
21.	29	47	-18	324
22.	37	26	11	121
23.	32	20	12	144
24.	29	29	0	0
25.	28	43	-15	225
26.	35	35	0	0
27.	25	50	-25	625
28.	26	24	2	4
29.	30	55	-25	625
30.	27	28	- 1	1
31.	41	53	-12	144
32.	30	31	- 1	1
33.	22	39	-17	289
	<u>1057</u>	<u>1334</u>	<u>-277</u>	<u>7105</u>

Mean 32.03 40.42

t² 15.566

Significant at .01 Level

TABLE XXXIII
 SCORES OBTAINED ON THE KUDER
 VOCATIONAL PREFERENCE, 4 SUB-SCALE

Number	A.	B.	D.	D ²
1.	37	29	8	64
2.	31	42	-11	121
3.	38	22	16	256
4.	47	37	10	100
5.	30	30	0	0
6.	49	42	7	49
7.	28	60	-32	1024
8.	42	32	10	100
9.	43	34	9	81
10.	21	43	-22	484
11.	35	35	0	0
12.	50	40	10	100
13.	53	35	8	64
14.	37	29	8	64
15.	34	38	- 4	16
16.	24	32	- 8	64
17.	35	39	- 4	16
18.	40	51	-11	121
19.	44	60	-16	256
20.	43	37	6	36
21.	43	23	20	400
22.	31	62	-31	961
23.	46	47	- 1	1
24.	41	34	7	49
25.	53	31	22	484
26.	40	30	10	100
27.	50	50	0	0
28.	48	44	4	16
29.	49	33	16	256
30.	40	43	- 3	9
31.	44	56	-12	144
32.	37	55	-18	324
33.	40	30	10	100
	<u>1323</u>	<u>1315</u>	<u>8</u>	<u>5860</u>

Mean 40.09 39.84

t² .010

Not Significant

TABLE XXXIV
SCORES OBTAINED ON THE KUDER
VOCATIONAL PREFERENCE, 5 SUB-SCALE

Number	A.	B.	D.	D ²
1.	33	31	2	4
2.	27	25	2	4
3.	9	26	-17	289
4.	17	20	-3	9
5.	47	22	25	625
6.	16	16	0	0
7.	42	15	27	729
8.	17	30	-13	169
9.	26	26	0	0
10.	29	27	2	4
11.	25	35	-10	100
12.	21	40	-19	361
13.	35	48	-13	169
14.	32	46	-14	196
15.	32	26	6	36
16.	49	40	9	81
17.	32	23	9	81
18.	30	20	10	100
19.	51	18	33	1089
20.	16	26	-10	100
21.	22	22	0	0
22.	31	48	-17	289
23.	20	25	-5	25
24.	27	32	-5	25
25.	29	24	5	25
26.	28	27	1	1
27.	44	14	30	900
28.	24	26	-2	4
29.	21	25	-4	16
30.	25	30	-5	25
31.	23	19	4	16
32.	43	27	16	256
33.	37	12	25	625
	<u>960</u>	<u>891</u>	<u>69</u>	<u>6353</u>

Mean 29.09 27

t² .743

Not Significant

TABLE XXXV
 SCORES OBTAINED ON THE KUDER
 VOCATIONAL PREFERENCE, 6 SUB-SCALE

Number	A.	B.	D.	D ²
1.	17	17	10	100
2.	16	20	- 4	16
3.	21	7	14	196
4.	4	19	-15	225
5.	19	14	5	25
6.	8	17	- 9	81
7.	27	19	8	64
8.	19	15	4	16
9.	8	13	- 5	25
10.	19	12	7	49
11.	25	17	8	64
12.	18	7	11	121
13.	31	10	21	441
14.	24	14	10	100
15.	23	23	0	0
16.	24	28	- 4	16
17.	20	22	- 2	4
18.	14	19	- 5	25
19.	6	17	-11	121
20.	35	23	12	144
21.	20	20	0	0
22.	13	21	- 8	64
23.	24	15	9	81
24.	24	27	- 3	9
25.	13	19	- 6	36
26.	29	21	8	64
27.	31	26	5	25
28.	21	21	0	0
29.	20	16	4	16
30.	29	19	10	100
31.	19	14	5	25
32.	8	22	-14	196
33.	12	24	-12	144
	<u>641</u>	<u>588</u>	<u>53</u>	<u>2593</u>

Mean 19.42 17.81

t² 1.086

Not Significant

TABLE XXXVI
 SCORES OBTAINED ON THE KUDER
 VOCATIONAL PREFERENCE, 7 SUB-SCALE

Number	A.	B.	D.	D ²
1.	9	4	5	25
2.	15	10	5	25
3.	6	19	-13	169
4.	8	10	-2	4
5.	13	6	7	49
6.	17	13	4	16
7.	5	7	-2	4
8.	11	5	6	36
9.	16	20	-4	16
10.	9	2	7	49
11.	12	3	9	81
12.	21	17	4	16
13.	16	14	2	4
14.	23	15	8	64
15.	15	16	-1	1
16.	14	11	3	9
17.	13	8	5	25
18.	6	5	1	1
19.	19	5	14	196
20.	5	8	-3	9
21.	17	8	9	81
22.	12	8	4	16
23.	18	7	4	121
24.	16	8	8	64
25.	20	4	16	256
26.	13	12	1	1
27.	15	13	2	4
28.	29	22	7	49
29.	14	15	-1	1
30.	9	12	-3	9
31.	15	19	-4	16
32.	13	14	-1	1
33.	15	14	1	1
	<u>459</u>	<u>354</u>	<u>105</u>	<u>1419</u>

Mean 13.90 10.72

t² 9.854

Significant at .01 Level

TABLE XXXVII
 SCORES OBTAINED ON THE KUDER
 VOCATIONAL PREFERENCE, 8 SUB-SCALE

Number	A.	B.	D.	D ²
1.	29	45	-16	256
2.	46	42	4	16
3.	36	42	-6	36
4.	50	25	25	625
5.	53	38	15	225
6.	38	61	-23	529
7.	48	56	-8	64
8.	42	41	1	1
9.	42	44	-2	4
10.	41	38	3	9
11.	30	48	-18	324
12.	54	54	0	0
13.	46	34	12	144
14.	40	56	-16	256
15.	45	48	-3	9
16.	53	47	6	36
17.	66	67	-1	1
18.	37	40	-3	9
19.	35	33	2	4
20.	57	47	10	100
21.	18	52	-34	1156
22.	60	40	20	400
23.	35	43	-8	64
24.	30	52	-22	484
25.	50	63	-13	169
26.	68	48	20	400
27.	37	62	-25	625
28.	43	49	-6	16
29.	50	51	-1	1
30.	62	57	5	25
31.	44	50	-6	36
32.	34	41	-7	49
33.	61	38	23	529
	<u>1480</u>	<u>1552</u>	<u>-72</u>	<u>6622</u>

Mean 44.84 47.03

t² .777

Not Significant

TABLE XXXVIII
 SCORES OBTAINED ON THE KUDER
 VOCATIONAL PREFERENCE, 9 SUB-SCALE

Number	A.	B.	D.	D ²
1.	47	29	18	324
2.	42	52	-10	100
3.	47	42	5	25
4.	48	51	-3	9
5.	22	48	-26	676
6.	75	60	15	225
7.	56	57	-1	1
8.	57	61	-4	16
9.	60	41	19	361
10.	54	37	17	289
11.	64	41	23	529
12.	66	58	8	64
13.	64	82	-18	324
14.	76	68	8	64
15.	67	51	16	256
16.	36	31	5	25
17.	57	67	-10	100
18.	55	48	7	49
19.	27	48	-21	441
20.	69	30	39	1521
21.	48	46	2	4
22.	59	66	-7	49
23.	55	61	-6	36
24.	53	67	-14	196
25.	83	62	21	441
26.	63	81	-18	324
27.	43	56	-13	169
28.	54	64	-10	100
29.	63	67	-4	16
30.	64	70	-6	36
31.	54	53	1	1
32.	50	61	-11	121
33.	54	69	-15	225
	<u>1832</u>	<u>1825</u>	<u>-7</u>	<u>7117</u>

Mean 55.51 55.30

t² .006

Not Significant