A STUDY OF THE RELATIONSHIPS BETWEEN OCCUPATIONAL EXPLORATION AND THE MEASURED INTEREST OF STUDENTS AT THE EARLY HIGH SCHOOL LEVEL

By

THOMAS WYATT BROWN

Bachelor of Arts in Education
Northeastern Oklahoma State University
Tahlequah, Oklahoma
1965

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1972

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
DOCTOR OF EDUCATION
July, 1977

A STUDY OF THE RELATIONSHIP BETWEEN OCCUPATIONAL EXPLORATION AND THE MEASURED INTEREST OF STUDENTS AT THE EARLY HIGH SCHOOL LEVEL

Thesis Approved:

Harold Polk
Thesis Adviser

Emil W. Haeger

John B. Tate

Robert Terry

Bill F Elsom

Norman N Durham
Dean of the Graduate College

PREFACE

The world of education is continually changing, as well as the individual areas of instruction which in their combined forms make up education. Industrial education is no exception to that statement. The change has been continual and far reaching in its movement from the apprenticeship program, through manual training, and finally to the field of Career Education. All too often we tend to think of industrial education as construction activities only, rather than as a part of the occupational exploration process.

In this study an attempt was made to direct the reader's thoughts toward the beneficial results of integrating occupational exploration and the counseling program of the secondary school program.

This study would not have been possible without the help of many people. Among these are the staff of the Southeast Kansas Area Vocational Technical School, who aided me not only by teaching the units in the experimental program, but also by providing constructive criticism of the methods; and Dr. Harold Polk, who served in the position of thesis adviser and who always took the necessary time to give advice and a helping hand. Finally, to my wife, Pamela, and our sons, John and Erik, without whose help, sacrifice, and faith this study would not have been possible.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Introduction to the Problem

Since World War II the occupational roles within the American society have become highly technical. Relative to the composition of the entire labor force, the demand for unskilled labor is rapidly decreasing. In a study conducted at Pennsylvania State University, an attempt was made to categorize the major occupations in the United States as a percentage of the total labor force. This study examined the trend since 1965 to develop predictions for 1975. The resultant data indicated that there would be loss potential for unskilled and semi-skilled employment in the future.[1]

One of the most important changes in the world of work has been that unskilled and semi-skilled jobs in agriculture and manufacturing have decreased sharply in number while skilled and professional jobs have become far more numerous. This in conjunction with the post world War II population explosion has had the effect of sharply increasing the unemployment of youth.[2] It should be noted that youth who have

---

[1]Bruce Reinhart in an address "A Comprehensive Career Education Model: A Bridge Between School and Work" at Clearwater, Florida, May 16, 1972, pp. 1-16.

[2]Ibid. In the 1930's youth unemployment was one and one-half times as high as the general unemployment rate. For forty years it has increased steadily, and now it is more than three times as high.

had vocational education (a part of career education) have unemployment rates only equal to those of the general population; whereas, youth not having the experience of vocational education have unemployment rates higher than the general population.[3] Supporting data are found in the work of the National Committee on Unemployment of Youth who reported that the inflexible and artificial separation of school from work prevents an orderly and logical sequence of learning and experiences.[4] Robert Worthington in an address before the United Nations Educational, Scientific and Cultural Organization stated:

> The only true form of unemployment insurance in a technological society is a program of education and training which provides people with the skills needed in that society.[5]

This implies that today's occupational society is shifting its demand from the unskilled and skilled to the semi-professional and professional.

Directly related to the educational preparation of youth is the phenomenon of occupational aspiration and career choice.

> . . . central to the belief that career decisions must be made through sensible choice rather than haphazard chance . . . is the proposition that public education, from kindergarten through college, must set about making arrangements of organization and instruction that will meet such needs.[6]

---

[3]Rupert Evans and Gordon McClasky in an address "Rationale for Career Education," at Columbus, Ohio, October 23-26, 1972, p. 1.

[4]"Comprehensive Careers Educational Model," Centergram, (September, 1972), p. 1.

[5]R. M. Worthington, The Implication of Career Education in the United States." Paper presented at the third UNESCO International Conference on Adult Education, Tokyo, Japan, July 25-August 7, 1972.

[6]Kenneth Hoyt, "Career Education and Career Choice," American Vocational Journal, XLVII (March, 1972), p. 84.

The problem is not that the student will select or reject a vocational field, but rather the wisdom upon which this decision is based.

Statement of the Problem

Former U. S. Commissioner of Education, Sidney P. Marland, in a speech before the Secondary Principals Association in Dallas, Texas, focused attention on the concept of "Career Education" and issued the challenge of a new goal to the school, that of helping the individual select and make career decisions appropriate for that individual.[7] Later, when asked about the role of public schools, Marland replied:

> What I would hope for is a new orientation of education--starting with the earliest grades and continuing through high school--that would expose the student to the range of career opportunities, help him narrow down the choices in terms of his own aptitudes and interest, and provide him with education and training appropriate to his ambition . . . .[8]

Implementation of this concept requires a massive orientation program within the state and local school systems. The goals of this program are to produce a unified curriculum evolving from the original academic, vocational, and general education routes followed by most students and to focus the attention of educators and the public on the needs of the individual student through the use of massive numbers of articles published in journals and through workshops with state and local leaders.

---

[7]Larry J. Bailey, and Ronald W. Stadt, Career Education: New Approaches to Human Development. (Bloomington, Illinois, 1973), p. 1.

[8]Office of Education, Washington, D.C.: "Marland on Career Education," American Education DHEW Publication No. COE 72052 (Washington, D.C.: Government Printing Office, November, 1971), p. 1.

One of the more important methods utilized in this introduction was the "Career Education Exemplary Program."[9] Exemplary programs, funded through the 1968 Vocational Education Amendments, attempted to establish comprehensive programs for "career development" from kindergarten through post-secondary education.[10]

The relationship of interest in an occupation as a factor leading to the pursuit and success of that vocation, can be stated in the following problem statement: Would students from a Career Education Exploratory Program display occupational aspiration more consistent with the measured occupational interest than students from a program which did not utilize career development activities as a method of instruction?

Purpose of the Study

The researcher attempted to ascertain the relationship between the stated occupational aspiration, the measured occupational interest, and selected measured abilities in two educational programs.

The major questions the researcher attempted to answer were:

---

[9]Walter M. Arnold, "Career Education--New Relevancy for Our Schools," Industrial Arts Vocational Education, LXI (March, 1972), p. 22.

[10]Gene Bottoms, "Career Development Education K through Post-Secondary and Adult Education" (Huntington, West Virginia: Department of Vocational-Technical Education, Teachers College, Marshall University, 1973). (Mimeographed) Hereafter referred to as "Bottoms," "Career Development."

1. Does the student engaged in career exploration activities exhibit vocational aspirations consistent with his measured interest and measured abilities to a greater or lesser degree than a student who has not been offered organized career exploration activities?
2. Do variables such as sex and grade point average affect the vocational aspiration of students enrolled in an educational program which utilized career exploration activities?
3. Do variables such as sex and grade point average affect the vocational aspiration of students enrolled in an educational program not designated as a career education exploratory program?

Statement of the Hypothesis

The general research hypothesis of the investigation is that students having participated in career education activities will demonstrate occupational aspirations consistent with their measured occupational interests and selected measured abilities to a greater extent than students from a traditional educational program.

The following null hypotheses are used to statistically test the relationship of the two educational programs:

HO_1: There is no significant difference in the relationship of students indicating occupational aspirations which are related to their measured occupational interest in the two programs.

HO_2: There is no significant difference in the relationship of students indicating occupational aspirations related to selected measured abilities in the two programs.

HO_3: There is no significant difference in the relationship of students indicating occupational aspirations related to their measured occupational interest in the two programs as related to the student's sex.

HO_{3A}: There is no significant difference in the relationship of males indicating occupational aspirations which are related to their measured occupational interest in the "Career Exemplary Program."

HO_{3B}: There is no significant difference in the relationship of females indicating occupational aspirations which are related to their measured occupational interest in the "Career Exemplary Program."

HO_{3C}: There is no significant difference in the relationship of males indicating occupational aspirations which are related to their measured occupational interest in the "Traditional Program."

HO_{3D}: There is no significant difference in the relationship of of females indicating occupational aspirations which are related to their measured occupational interest in the "Traditional Program."

HO_4: There is no significant difference in the relationship of students indicating occupational aspirations which are related to their measured occupational interest in the two programs as a result of the student's grade point average for the previous academic year.

HO_{4A}: There is no significant difference in the relationship of female students enrolled in the "Career Exemplary Program" indicating occupational aspirations which are related to their measured occupational interest as a result of the student's grade point average for the previous academic year.

HO_{4B}: There is no significant difference in the relationship of male students indicating occupational aspirations which are related to their measured occupational interest in the "Career Education Exemplary Program" as a result of the student's grade point average for the previous academic year.

HO_{4C}: There is no significant difference in the relationship of female students indicating occupational aspirations which are related to their measured occupational interest in the "traditional" program as a result of the student's grade point average for the previous academic year.

HO_{4D}: There is no significant difference in the relationship of male students indicating occupational aspirations which are related to their measured occupational interest in the "traditional" program as a result of the student's grade point average for the previous academic year.

Definition of Terms

Career Education Exemplary Program is a term used in this study to define a public supported school, or program in the school, receiving either state or federal funds for the expressed purpose of exemplifying career development experiences through a core of occupational experiences.

Traditional Program for the purpose of this study is defined as an organized curriculum in a publicly supported school which does not provide organized career exploration activities for the student at the early high school level.

Career Development Activities refers to those learning activities through which a student can make a career choice based on the awareness of various areas of the world of work, exploration of various clusters of activities, and orientation to the demands of that choice. Career development activities should at no time be confused with vocational education, but rather should be viewed as educational experiences leading to any type of occupation in which man can morally be occupied.

Occupational Aspiration is defined for the purpose of this study as that field of employment in which the student thinks he would like to be employed.

Measured Interest is defined as the scores obtained through the various scales of the Kuder General Interest Survey.

Vocational in this study is defined as any area of gainful employment in which one can morally and ethically secure a livelihood. This term will be intermittently used for or with the term occupation. Both terms will have the same denotement herein.

Level of Significance is set at the .05 level. Computed levels at .05 or above will be accepted as significant, while computed levels below .05 will be rejected as insignificant.

Selected Measures of Ability in this study is defined as the score derived from the California Achievement Tests when interpreted as grade level placement.

Career Model is defined as a representative of a specific career. This term will be intermittently used for or with the terms resource person and/or field trips to occupational work places.

Consistency is defined for the purpose of this study as the first in three scales of the student's measured interest when those scales are identified by John Holland Index of Consistency as consistent.

Assumptions of the Study

This study is limited to students who were attending the career exploration and traditional education programs in that period of time in which the study was conducted; therefore those students entering either program within the above stated period of time will be excluded from the study. Also, because of the nature of various "career education" activities, those students who are prohibited from attending due to illness or other reasons, or those students who are not in attendance 75 per cent of the time, will not be included in the study.

It is assumed that the following are subject to variation:

1. Content of the various course activities offered in both the "traditional" and "Career Education Exemplary Programs."
2. Amount actually learned by the students as a result of the program.
3. Motivational, occupational expectation and the level of individual maturation.

It is assumed that these factors are randomly distributed throughout the two programs; therefore, no consideration will be given to them in the study.

CHAPTER II

REVIEW OF THE LITERATURE

The twentieth-century has been the recipient of a vast number of titles, as exemplified by "the atomic age," "the jet age," or even "the space age," some shortlived, but all based upon a significant change in the life of man. In light of the above mentioned eras it should be conceivable to also entitle this century as the age of "Standardized Testing." In this review of the literature, major emphasis will be given to studies conducted with standardized interest testing, as a tool capable to be utilized in vocational guidance. It will attempt to ascertain the relationship of stated positions presented by various authors in regard to the feasibility of evaluating stated vocational expectation and occupational interest.

Studies reviewed are grouped under the following classifications and defined as:

1. Selected Factors Related to Occupational Expectation--Those studies which have attempted to ascertain the relationship of selected independent variables and the vocational choice of youth.
2. Supportive Data--Those studies which through inference and generalization from a sample or population indicate that vocational expectation and measured interest present data which can be utilized in occupational guidance.

The review of literature employs the sequential order of representation of these two classifications.

Selected Factors Related to Occupational Expectation

It should be stated in the beginning that the relationship between interest and occupations is of such obvious importance that few authors will not acknowledge its existence. However, the level of importance to which various authors assign "interest," in occupational choice, can be compared to a continuum with an infinite number of vectors.

M. S. Tseng and A. R. Carter conducted a study in 1970 which investigated the motivational aspects of adolescents' vocational behaviors. For the purpose of their study, vocational behavior was defined as any interaction between the individual and his environment which is related to work. The variables identified by Tseng and Carter were achievement motivation and fear of failure. This study concluded that school subjects of either high or low motivational potential are viewed in connection to occupational prestige, occupational aspiration, and the prestige levels of the groups studies.[1]

While validating an indecision scale, J. L. Holland and R. C. Nichols conducted studies of personality attributes which contributed to a student's ability to make a vocational decision prior to college

---

[1]M. S. Tseng and A. R. Carter, "Achievement Motication and Fear of Failure as Determinants of Vocational Choice, Vocational Aspiration, and Perception of Vocational Prestige," Journal of Counseling Psychology, XVII (March, 1970), pp. 150-156.

entry. They reported significant differences with regard to some hobbies, school subjects, and sports between subjects who had "decided" on a vocation and subjects who were "undecided." The empirical finding was that subjects who are certain about their occupational goal have significantly higher achievement motivation and lower fear of failure than subjects who are uncertain about their future occupations.[2]

Together Tseng and Carter and Holland and Nichols' findings seem to support the importance of interest but only when used in connection with personality variables.

In 1969, Samuel H. Osipaw attempted to test the hypothesis that individuals selecting different professional and preprofessional fields of study would exhibit different cognitive styles. However, little evidence could be produced to support the theory of relationship between cognitive learning styles and occupational choices.[3]

A similar study conducted by Bodden at Southern Methodist University in 1970 attempted to determine whether or not congenitively complex individuals were more likely to make vocational choices which were "appropriate" in terms of the intellectual ability and personality style when compared to cognitive simple individuals. The resulting statistical significance was not supportive of this theory.[4]

---

[2] Ibid.

[3] Samuel H. Osipaw, "Cognitive Styles and Educational-Vocational Preferences and Selections," Journal of Counseling Psychology, XVI (November, 1969), pp. 534-543.

[4] Jack L. Bodden, "Cognitive Complexity as a Factor in Appropriate Vocational Choice," Journal of Counseling Psychology, XVII (July, 1970), pp. 354-367.

in 1960, Harley D. Christensen endeavored to study the relationship between inventoried and claimed interest. The instrument selected for the study was the Minnesota Vocational Interest Inventory which was administered to 175 subjects graduating from a vocational high school. The primary purpose of the study was to determine if a correlation existed between the interest of the subjects and the interest of men in skilled trades. The resultant median relationship between inventoried and claimed interest was not sufficiently high to warrant its utilization as a counseling aid.[5]

The many studied cited in relation to factors influencing personality variables in testing is unending; however, interest cannot be separated from these factors.

Supportive Data

Vocational interests and preferences are associated with a great range of personal and background information. According to Holland's theory, vocational choice is an expression of personality and "vocational interest" can be stated as the representation of an expression of such factors as hobbies, recreational activities, and preferences.[6] Donald Super and John Crites believe that interest inventories measure both interest and vocational preferences.[7] The result of numerous

---

[5]Harley D. Christensen, "Inventoried and Claimed Interests," Vocational Guidance Quarterly, Vol. XIX, No. 2 (Winter, 1960-1961), pp. 128-130.

[6]John L. Holland, The Psychology of Vocational Choice, (Waltham, Massachusetts), p. 2.

[7]Donald Super and John O. Crites, Appraising Vocational Fitness, (New York, 1962), p.

studies with this concept and similar concepts has been the "interest inventory."[8]

B. R. Borer, in a study entitled "A Diagnostic Interest Blank," 1948, was probably the first to develop an instrument capable of measuring personality when compared to interests and activities and to apparently neutral content (i.e., vocational interests and activities).[9] Borer's work is reported to have influenced Holland's hypotheses that preferences for occupations are expressions of personality.[10] Holland's rationale for the development of the Vocational Preference Inventory contains the following hypothesis:

> The choice of an occupation is an expressive art which reflects the person's motivation, knowledge, personality, and ability. Occupations represent a way of life, an environment rather than a set of isolated work functions or skills. To work as a carpenter means not only to use tools but also to have a certain status, community role, and a special pattern of living. In this sense the choice of an occupational title represents several kinds of information. The S's motivation, his knowledge of the occupation in question, his insights and understanding of himself, and his abilities . . . .[11]

Richard Sharp of the University of Iowa, supported Holland's theory in a study of the "Relative Importance of Interest and Ability in Vocational Decision Making." Sharp indicated that interest was a better predictor than aptitude of which educational curriculum

---

[8]Holland, The Psychology of Vocational Choice, p. 2

[9]Ibid., pp. 3-4.

[10]Ibid., p. 4

[11]Ibid., p. 4

a student will enter and in which occupation that person would be employed ten years later.[12]

Pierson (1962) reported that of 403 Michigan State seniors who changed major fields of study 49 per cent attributed this to lack of interest in course material, whereas only 30 per cent stated lack of ability.[13] Holland and Nichols while investigating vocational choice as related to the change of major fields of study found that approximately 50 per cent of a group (National Merit Finalist) changed their areas of study due to lack of interest in the course. In comparison to this number only 25 per cent changed as a result of aptitude.[14]

Krumboltz (1967) attempted to utilize Holland's theory of interest in a study of vocational problem solving. This study attempted to find ways of motivating students to take advantage of job training opportunities to continue their education, to see the world of work as a set of intriguing problems, and to explore their own career potentialities. It was proposed that a lifelike problem solving experience related to a particular occupation be constructed and tested. It was assumed that if interest is directly related to student's personality, such traits should emerge as measureable data as a result

---

[12]Richard Sharp, "Relative Importance of Interest and Ability in Vocational Decision Making," Journal of Counseling Psychology, XVII (May, 1970), pp. 258-262.

[13]Rowland R. Pierson, "Changes of Majors by University Students," Personnel and Guidance Journal, XL (January, 1962), pp. 458-461.

[14]J. L. Holland and A. R. Nichols, "Exploration of a Theory of Vocational Choice: III. A Longitudinal Study of Change in Major Field of Study," Personnel and Guidance Journal (November, 1964), pp. 235-242.

of stimuli induced through simulated problems.

The instruments selected by the author were the Student Questionnaire, the Kuder Preference Record and the Vocational Survey and were administered to the eleventh grade students of San Carlos High School. In this study the stimuli were accounting problem-solving and related accounting information. As a result of this motivation, interest in accounting was increased by the problem-solving treatment; however, interest in 41 other occupations without the stimuli for the same time period increased no more than would be expected by random fluctuation.[15] It can be inferred from Krumboltz' work that interest can be increased as a result of motivational techniques.

In a similar study, Drabick conducted a study in 1967 based upon his previous work while working in conjunction with Nunulee.[16] In the 1967 study he investigated the sources perceived by high school seniors as having influenced their occupational and educational aspirations. The population for this study consisted of 1,068 North Carolina high school seniors.

In order to compile needed data Drabick requested the subjects to indicate the occupational aspiration and the source which exerted the greatest influence upon this decision. It was found in this study

---

[15]John D. Krumboltz et al., Vocational Problem-Solving Experiences for Stimulating Career Exploration and Interest (August, 1967), ED 015 517, pp. 1-106.

[16]Thomas H. Nunulee, III, and Lawrence Drabick, Occupational Desires and Expectations of North Carolina High School Seniors, 1965, ED 011 925, pp. 1-47.

that two-thirds of the students in the population believed themselves responsible for their occupational decision. However, parents did exert an influence and as a combined group presented the largest external source. Of this group the mother was cited almost twice as often as the father, who retained a position similar to that of a brother or sister. The largest extra-family influence indicated by 16 per cent of the population was a teacher.[17]

The findings of Drabick in regard to parental influence were supported in a study by Richard Rehberg. This investigation attempted to ascertain the proportion of adolescents expressing an expectation to enroll, in either a four-year college or university, in relation to such variables as:

(1) social status,

(2) educational attainment of the parents,

(3) intensity of parental educational pressures,

(4) stress, or influence, and

(5) size of family.

The study suggested that parental education is a partial determinant of the social status of the family; and that both parental education and social status influence adolescent educational expectations. Family size was viewed as a determinant that somewhat reduced the frequency with which both parents and children tend to continue their eduation beyond high school.[18]

---

[17]Lawrence Drabick, Perceived Sources of Influence Upon Occupational and Educational Expectations, 1967, ED 020 352, pp. 1-72.

[18]Richard A. Rehberg, Selected Determinants of Adolescent Educational Expectations, 1967, ED 010 226, pp. 1-44.

It can be assumed that such factors as parental pressures, social status, family size, and numerous other variables affect all students to either a greater or lesser degree. If such an assumption is accurate, then should not the educator inject stimuli capable of aiding that individual in a vocational decision based upon his abilities and interest?

John G. Claudy (1970) conducted a project entitled TALENT, in which he attempted to achieve a better understanding of the career plans and career development of young adults. From an initial population of 400,000 students in grades nine through twelve attending 1,225 selected schools, a sample of 69,000 persons was selected. Subjects were asked to indicate their career choice by selecting one of 36 occupations listed as the alternatives of a single item. This choice was then compared to items relating to number of counselor visits regarding careers and age when the career decision was reached. It was hypothesized that those students who have discussed jobs and occupations with high school counselors a number of times would have a better understanding of their aptitudes for, and interest in, various jobs and would thus be more logical and more stable in their career plans. However, the data obtained did not support this hypothesis. Such findings revealed a tendency for people to choose their careers when they were younger and to be more stable in their career plans.[19]

Bligh and Shaffer (1972), examined the stability of student's expressed educational and vocational plans over a two-year period.

---

[19]John G. Claudy, Occupational Outcomes: Who, What and Why? 1970, ED 043 038, pp. 2-7.

In this study the Ohio Vocational Interest Survey was administered to a population of eighth grade students in Wisconsin and Texas. These subjects were surveyed again in the tenth and later in the twelfth grade with a resultant sample of 633 students.

The data reported indicates that student interest and plans to change, that they tend to change more in the early secondary grades, and that these plans are influenced by the educational opportunities which are available to students in their community. It should be noted that many students are interested in courses of a vocational nature; however, they need more exposure to information relating to vocational education programs before they can be expected to make realistic program choices.[20]

A similar study conducted by Kapes and Lotowycx at Pennsulvania State University investigated the occupational values of students between the ninth and tenth grades. The values related to all student characteristics studies were interest and satisfaction as measured by the Occupational Values Inventory.[21] The resultant data was similar to that found by Winefordner. Both generally agree that young people work best when pursuing something that concerns them personally. Thus school programs should be based upon a sound vocational development theory and built around a conceptual framework appropriate for student interest involvement. Winefordner states:

---

[20]Harold T. Bligh and Michael W. Shaffer, Stability of Student's Educational and Vocational Plans, 1972, ED 065 801, pp. 57-60.

[21]Jerome T. Kapes and Leo W. Lotowycz, Changes in the Occupational Values of Students Between Ninth and Tenth Grades as Related to Course of Study and Other Student Characteristics, 1972, ED 066 597, pp. 1-46.

> There is a definite need to establish systems that will tie occupational information and job opportunities to student interest, aptitudes, educational course selection and curricular planning.[22]

Given an educational program consisting of awareness of existing occupations, exploration of clusters relating to those occupations, and orientation of values incurred in those vocations, is the student capable of making a decision regarding his future career?

Rose and Elton applied Holland's theory to a hypothesis which attempted to test the relationship between verbalized statements of interest and measured interest. This study utilized the Student Profile of the American College Test Battery (ACT) and the Strong Vocational Interest Blank (SVIB). The Profiles obtained from the ACT battery were categorized by Holland's classification system. These scales served as the basis upon which to project the scores obtained on the SVIB corroborated the choice declared by the student during his senior year in high school.[23]

In his study which asked 5,200 students in grades 6 through 12 to state a vocational choice or indicate indecision in a cross-sectional study, John Hollender concluded that the majority of adolescents are able to formulate vocational plans and to verbalize their choices at some time during the high school years.[24] Thus, the educator can aid

---

[22]David W. Winefordner, "Interest Measurement in Vocational Decision Making: The Use of the Ohio Vocational Interest Survey," American Vocational Journal, XXXXIV (February, 1969), pp. 56-57.

[23]Harriett Rose and Charles F. Elton, "Ask Him or Test Him?" Vocational Guidance Quarterly, XIX (September, 1970), pp. 28-32.

[24]John W. Hollender, "Development of Vocational Decisions During Adolescence," Journal of Counseling Psychology, XVIII (May, 1971), pp. 244-248.

the student by providing career exploration experiences during this decision period.

This review of literature has presented evidence that vocational choices are made in the adolescent period of life and that these choices can be measured through the use of interest inventories.

CHAPTER III

EXPERIMENTAL METHODS AND PROCEDURES

The study was an attempt to ascertain those factors which are directly related to student responses as a result of a "Career Education Exemplary Program" and to compare them to student responses obtained from students not having a similar career education experience. Those students who composed the experimental group were enrolled throughout the summer of 1975 in an occupational exploration class. These ninth grade students were between 14 and 17 years of age and residents of Montgomery County, Kansas. The experimental group was composed of 33 males and 18 females. The data obtained from two experimental subjects were rejected because of invalid test scores obtained on the Kuder General Interest Survey, Form E.[1] The resulting experimental group was composed of 31 males and 18 females or a total of 49 subjects.

Those students who composed the control group were selected in 1975 from the schools of Montgomery County which were served by the Southeast Kansas Area Vocational-Technical School. These schools consist of Caney Unified School District, No. 436, Cherryvale Unified School District, No. 447, Coffeyville Unified School District, No. 445, and Independence Unified School District, No. 446. Student recruitment

---

[1]Frederic Kuder, Kuder General Interest Survey, Form E, Science Research Associates, Inc., pp. 1-5.

was utilized to obtain subjects, however, factors, among which was the length of the summer programs resulted in a difference of population between the two groups.

Selection of Variables

The data used in the study were collected from and in conjunction with the testing bureaus of the four districts, the school permanent record files, and by an occupational expectation scale (OES) distributed to each student.[2] The variables are sex, treatment, 1974-1975 grade point average, reading battery total of the California Achievement Test, math battery total of the California Achievement Test, language battery total of the California Achievement Test, battery total of the California Achievement Test, and a consistency rating developed by John L. Holland used in Relation to the Kuder General Interest Survey, Form E.[3]

Methodology

After receiving permission from school officials to conduct the study, a meeting was held between the investigator and the counseling staff of the participating schools. In this meeting arrangements were made to administer the Kuder General Interest Survey, Form E in the

---

[2]In an effort to comply with the safeguards of student privacy, a permission slip was used to secure parental or guardian approval prior to reviewing school records. A copy of the permission slip is found in Appendix A.

[3]John L. Holland, Making Vocational Choices (Englewood Cliffs, New Jersey, 1973), pp. 1-85.

fall of 1975. Various interest tests were examined in the course of this meeting; however, the Kuder General Interest Survey, Form E best met the needs of the respective counseling programs.

The Occupational Expectation Scale (OES) was developed by the investigator to serve as an aid for the student in the selection of his occupational choices.[4] The scale was primarily a list of different occupations as suggested in the manual of the Kuder General Interest Survey, Form E, and lists within Holland's Making Vocational Choices.[5]

The student was directed to indicate in rank order his first, second, third, fourth, and fifth occupational choices. In addition to these, he was instructed to select a "negative" occupation or an occupation in which he would least want to be employed. This scale was administered to the experimental group as part of the enrollment packet. It was also administered in conjunction with the Kuder General Interest Survey, Form E, for the students of the experimental group, thus becoming the post-test. For those students in the control group only a single OES score was used.

In order to determine the reading, language and math levels of students in both the control and experimental groups, the California Achievement Tests, Forms W, X, and Y were used.[6] Data from these tests were collected following the administration of such tests throughout the months of October and November of the school year, 1975-1976.

---

[4]See Appendix B.

[5]Holland, Making Vocational Choices, pp. 108-109, 111-117, and 124.

[6]Ernest W. Tiegs and William W. Clark, California Achievement Test, Forms W, X, Y, California Test Bureau, 1963. Hereafter referred to as CAT.

The mean, standard deviation and number of cases as determined in the study for reading, math, language and the total battery are reported in Table I.

TABLE I

REPORT OF DATA ASCERTAINED FROM CALIFORNIA ACHIEVEMENT TESTS

Subjects	Battery	Mean	Standard of Deviation	Number of Cases
Control	Reading	8.8387	1.7427	240
Experimental	Reading	8.8102	1.2668	49
Control	Math	8.8479	5.8544	240
Experimental	Math	8.4592	0.9334	49
Control	Language	8.8479	5.8544	240
Experimental	Language	8.6347	1.7553	49
Control	Total Battery	8.5033	1.4888	240
Experimental	Total Battery	8.4612	1.1249	49

The student's grade point average was computed from his grades for the school year 1974-1975. This was compiled using a four-point system. The source of these data was the cumulative records of each student in the study. Permission was obtained for the collection of such data through the use of a permission sheet.

The mean, standard deviation and number of cases as determined in the study by the 1974-1975 grade point average are reported in Table II.

TABLE II

REPORT OF DATA ASCERTAINED FROM GRADE POINT AVERAGE

Subjects	Mean	Standard Deviation	Number of Cases
Control	2.4221	0.9696	240
Experimental	2.6282	0.6511	49

The Experiment

Using the facilities of the Southeast Kansas Area Vocational-Technical, programs were instituted to provide the experimental group with hands-on-work experience in several occupations. These programs consisted of as many "hands-on" activities as was possible while still maintaining good safety procedures.

At the beginning of the program, the student chose three occupational areas to investigate and explore. These areas included:

(1) Welding,

(2) Auto Mechanics,

(3) Health Fields,

(4) Machine Shop Practices,

(5) Office Practice,

(6) Agriculture,

(7) Graphic Communication,

(8) Electronics.[7]

Each student spent two weeks in each area selected. The class met for five hours each day (50 hours). The class size was limited to 15 students.

In an effort to provide an opportunity for students to meet and view workers and job settings, field trips and guest speakers were utilized as well as hands-on experiences within the facilities of the Southwast Area Vocational Technical School.

The following objectives were used to guide the program:

(1) To provide students an opportunity to explore several occupational fields.

(2) To assist students in discovering attitudes and occupational interest through hands-on-work experience.

(3) To provide students with worthwhile summer activities designed to aid them in future employment and enrollment decisions.

---

[7]See Appendix C.

(4) To build the students' self-esteem and confidence in their ability to become a contributing member of society.

Statistical Procedures

The following is a list of the statistical procedures used in this study. A report of percentages resulting from a comparison of the Kuder General Interest Survey Score to Vocational Preference Inventory Index of consistency.[8] A step-wise multiple regression test was used to test each of the independent variables when correlated with themselves. Each of the four batteries of California Achievement Test, the grade point average, students' sex and treatment groups were compared to John L. Holland's index of consistency.

---

[8]Holland, Making Vocational Choices, p. 20.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

The test data and variables data were recorded on key punch cards to prepare them for the computer. The mathematical and statistical program selected for this study was the Statistical Package for the Social Sciences (SPSS).[1] This program contains basic descriptive analysis, data manipulation, capabilities, analysis of variance, factor analysis, regression, discriminate functions analysis and canonical correlation.[2] The computer and statistical program was made available through the Institute for Computer Services and Application (ICSA) located on the campus of Rice University, Houston, Texas.

The Kuder General Interest Survey was utilized to obtain a measurement of interest of students in both the control and experimental groups. The interest profile composed of the 10 scales of the Kuder General Interest Survey was developed and compared with the six scales of Holland's Vocational Preference Inventory (VPI) (Figure 1).

---

[1] ICSA: Orientation Guide, Document Number USE 001, Institute for Computer Services and Application, Rice University, Houston, Texas (January, 1977), p. 4.

[2] Ibid. Appendix A, p. 2.

Inventory	Scales					
Vocational Preference Inventory	Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Kuder General Interest	Outdoor Mechanical	Scientific	Artictic Musical Literary	Social Service	Persuasive	Computational Clerical

Figure 1. Coding of Personality Types

The personality patterns of both the control and experimental groups were compared with Holland's index of consistency.[3] The largest consistent measurement (37.4%) was males of the control group with personalities identified as "realistic."

The personality patterns measured by the VPI were correlated with the Dictionary of Occupational Titles.[4] This correlation was compared to the Occupational Expectation Scale. Reported in Appendix E are the negative and five positive aspirations of the control group. That occupation most often cited as being the occupation in which the student would least want to be employed was policeperson with 15 students indicating this choice. The second highest negative occupation was a teacher in secondary school education with 14 responses of the group. The positive occupational expectation most often identified as the student's first choice was photography with 16 responses. The second,

[3]Holland, Making Vocational Choices, p. 19.

[4]Ibid., pp. 137-138.

third, fourth, and fifth were physician and surgeon, with 15 responses; then teacher in secondary education (17 responses); photography (13 responses); next secretaries (10 responses).

Appendix F presents a summary of the Occupational Expectation Scale completed by the experimental group at time of enrollment in the Occupational Exploration Program. That occupation most often identified as the area in which the student would least wish to be employed was accountant or auditor with eight per cent or four of the responses. The positive occupational expectation most often identified as the student's first choice was photography with five or the responses. Occupations in geology was the choice with largest number of responses for the second occupational choice (N=4). A teacher in secondary education was the highest choice for the third occupational expectation with five responses. Auto mechanics was the most often cited occupation in the fourth choice with five responses. Again in the fifth choice auto mechanics was the area most often selected with three responses. That occupation most commonly selected in the post-test of the control group was auto mechanics. This occupation was selected most often as the negative expectation (N=5), first choice (N=7), and fifth choice (N=5). That occupation selected as the third expectation was farm machinery operators (N=5). A summary of the occupation expectation is listed in Table III.[5]

---

[5]See also Appendix G.

TABLE III

OCCUPATIONAL EXPECTATION SELECTION OF CONTROL AND EXPERIMENTAL GROUPS

	Negative Occupational Choice	First Occupational Choice	Second Occupational Choice	Third Occupational Choice	Fourth Occupational Choice	Fifth Occupational Choice
Group Control	Policeperson	Photography	Physician and Surgeon	Teacher in Secondary Education	Photography	Secretaries
Experimental Pretest	Accountant or Auditor	Photography	Occupations in Geology	Teacher in Secondary Education	Auto Mechanics	Auto Mechanics
Experimental Post-test	Auto Mechanics	Auto Mechanics	Auto Mechanics	Farm Machinery Operators	Auto Mechanics	Auto Mechanics

Comparison of Test Variables

The Pearson product-moment coefficient r was used to measure the strength of relationship between the nine interval-level variables. In this study, the strength of relationship indicates both the goodness of fit of a linear regression line to the data and when r is squared, the proportion of variance in one variable explained by another.

Mathematically, r is defined as the ratio of covariation to square root of the product of the variation in X and the variation in Y, where X and Y symbolize the two variables. This corresponds to the formula utilized as the SPSS for computation as:[6]

(Equation 4-1)

$$p = \frac{\Sigma_{i=1}\ XiYi - (\Sigma^{n}i\ =1\ Xi)(\Sigma^{n}i\ =\ 1Yi)/n}{\left\{ [\Sigma^{4}i\ =\ 1\ X^{2}i - (\Sigma^{n}i\ =\ 1Xi)^{2}/n]\ [\Sigma^{n}1\ =\ 1Yi)^{2}] \right\}\ 1/2}$$

The seven independent variables treatment group, sex, grade point average, reading level, math level, language level, and total battery as well as the dependent variable of Holland's index were analyzed through the use of the Pearson product-moment test of correlation. The analysis was computed for the combined groups of control and experimental (Table III). Of the variables analyzed for this group the relationship was highest between the California Achievement Test (CAT) reading battery and the CAT total battery which was correlated at a level of 0.80358. The second highest correlation was found to exist between

---

[6]Norman Nie et al., SPSS Statistical Package for the Social Science, 2nd ed. (New York, 1975), p. 280.

the CAT language battery and the CAT total battery which was correlated at a level of 0.79159. It should be noted that the two reported batteries compose part of the CAT total battery and that the correlations may be in part the result of comparing the variables with themselves (Table IV).

Multiple regression was selected as the statistical technique through which the relationship between a dependent or criterion variable and a set of independent or predictor variables could be ascertained. In the regression analysis, values of the dependent variable were predicted from a linear formation of the form:

(Equation 4-2)

$$Y - a+b_3\ \text{CAT-r}+b_4\ \text{CAT-M} = b_5\ \text{CAT-L}=b_6\ \text{CAT-TB}+b_7\ \text{GPA} + b_1 + b_2 D_2 + b_3 D_3$$

where D_1 = 0 for control and 1 for experimental

D_2 = 0 for male and 1 for female

$D_3 = D_1 * D_2$

The significance of the unstandardized regression coefficient by evaluating the following F ratio with degrees of freedom 1 and (n-2)

(Equation 4-3)

$$F = \frac{(R^2y,S,1 - R^2y_oS) \ / \ K_1 - K_2)}{(1 - R^2y,S,1) \ / \ N - K_1 - 1)}$$

Where K_1 = number of independent variables from larger regression

K_2 = number of larger regression variables from smaller regression

$R^2y,\ s,\ 1 = R^2$ from larger

$R^2y,\ s = R^2$ from smaller

N = total number of subjects

TABLE IV

CORRELATION MATRIX OF INDEPENDENT AND DEPENDENT VARIABLES

Control and Experimental
N = 289

		1	2	3	4	5	6	7	8
1.	Group	1.00000	-0.09037	-0.04380	0.08369	-0.00643	-0.02732	0.02551	-0.01105
2.	Sex	--	1.00000	-0.02565	0.05863	0.14513	0.04212	-0.14378	-0.07319
3.	Holland's Index		--	1.00000	-0.04970	0.09670	0.06162	0.03551	0.02597
4.	G.P.A.			--	1.00000	0.18739	-0.12240	0.16127	0.13546
5.	Reading Level				--	1.00000	0.15776	0.63136	0.80358
6.	Math Level					--	1.00000	0.19626	0.24666
7.	Language Level						--	1.00000	0.79159
8.	Total Battery							--	1.00000

If the computed F value was larger than the statistical table's critical value for .05 level the null hypothesis was rejected. Otherwise it was concluded that the observed unstandardized regression coefficient was not significant and the null hypothesis was accepted.

The independent variables of the CAT reading, math, language battery, grade point average, and treatment group were compared to the dependent variable of Holland's index of consistency.

Summary statistics are reported from data obtained through the computation of the independent variable of the CAT reading battery and the dependent variable of Holland's index of consistency (Appendix H).

The sign of $\underline{r}$ would indicate that a positive direction of relationship exists between the two variables and the absolute value of $\underline{r}$ (0.09670) can be used as an index of the relative strength of the relationship. However, since R^2 (0.00935) indicates the proportion of variation in the consistency of the Holland index explained by reading ability level of the two groups as measured by the CAT, it is a clearer interpretation of the strength of the relationship. From this one may conclude that the relationship between reading ability and the Holland index is positive and that nine-tenths of one per cent of the variation in consistency of Holland's index may be explained by linear regression of the reading variable.

In order to determine the predicted consistency scores for sample respondents with various levels of language ability, the constants of reading ability and Holland's index were computed in the linear prediction equation of:

(Equation 4-4)

$$Y^1 = 0.34739 + 0.2844(X)$$

where Y^1 = predicted consistency scores

X = any given level of reading ability

Therefore the student with an eighth grade reading ability level would have a predicted consistency on Holland's index of 3.00064. In an effort to test whether the observed linear association was statistically significant two F ratios were computed. The F ratios, one for the overall regression equation and the other for the regression coefficient, are the same in the bivariate regression. For the relationship of reading ability and consistency on Holland's scale F = 2.70925 with one and 287 degrees of freedom. The F distribution table indicates that this value is not significant.[7] Appendix H summarizes the statistics for multiple regression of the independent variables when compared to the dependent variable of Holland's index.

R^2 (0.01691) indicates that 1.6 per cent of the variation in consistency could be explained by the interaction of the CAT reading level and the CAT total battery operating jointly. The prediction of consistency scores from the two independent variables yielded a score of 0.020408 for a student at the eighth grade level as measured by the CAT reading and CAT total battery. The standard error of the estimate

---

[7]Richard S. Burington and Donald May, Handbook of Probability and Statistics with Table (New York, 1970), pp. 378-379.

or the standard deviation of residual = 0.48856. Thus, the average predicted consistency score will deviate from actual scores by 0.48856 units on the consistency index. In order to test the linear association statistical significance the F ratio of the CAT reading and CAT total battery were compared to F table distribution. The degrees of freedom were equal to two and 286. Only the unstandardized regression coefficient of CAT reading was significant.[8]

Appendix H reports the summarized statistics obtained through the computation of the independent variables CAT reading, total battery and grade point average when compared to the consistency of Holland's index.

Comparison of Measured Interest to Holland's Index by Treatment Group and Student's Sex

On the Holland index of the 289 students in both the control and experimental groups, 112 or 38.5 per cent had interests as measured by the Kuder General Interest Survey to be consistent with Holland's index. The control group consisted of 240 students of which 94 or 39.2 per cent were consistent. The males within the control group consisted of 123 students of which 49 or 40.1 per cent had consistent scores on the Holland index. The females were composed of 117 students of which 41 or 35.1 per cent had consistent scores (Figure 2).

---

[8] Ibid.

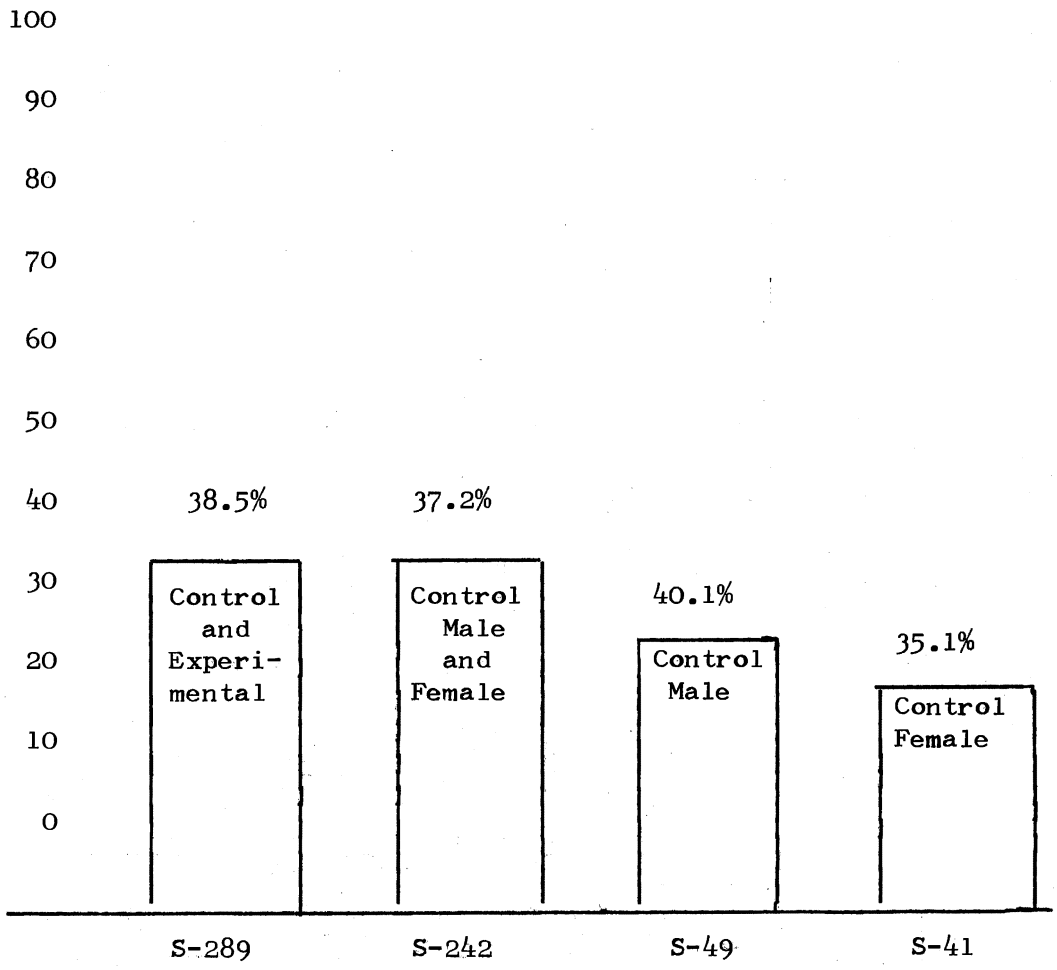

Figure 2. Percentage of Consistency of Measured Interest - Control Group

The students in the experimental group consisted of 49 subjects of whom 22 or 45.1 per cent had measured interests consistent with Holland's index. The experimental group consisted of 31 male students of whom 12, or 38.5 per cent, and 18 female students of whom 10, or 55.9 per cent, had scores consistent with the Holland index (Figure 3).

A chi-square test was conducted between the experimental, control group and Holland's index to measure the significant relationship of consistency. The control group consisted of 94 subjects with measured inconsistent scores. The experimental group consisted of 22 subjects with measured consistent scores and 27 with measured inconsistent scores. A 2 x 2 chi-square analysis was performed investigating the relationship between the groups and the consistency or lack of consistency as measured by the Holland index. The chi-square with one degree of freedom was found to have a value of 0.5579 which was not significant (Table V).

TABLE V

CONTINGENCY TABLE OF THE RELATIONSHIP BETWEEN CONTROL, EXPERIMENTAL GROUPS AND HOLLAND'S INDEX

	Consistent	Inconsistent	
Control	94	146	240
Experimental	22	27	49
	116	173	

X^3 = 0.3433 with 1 Degree of Freedom Chi-Square = 0.5579

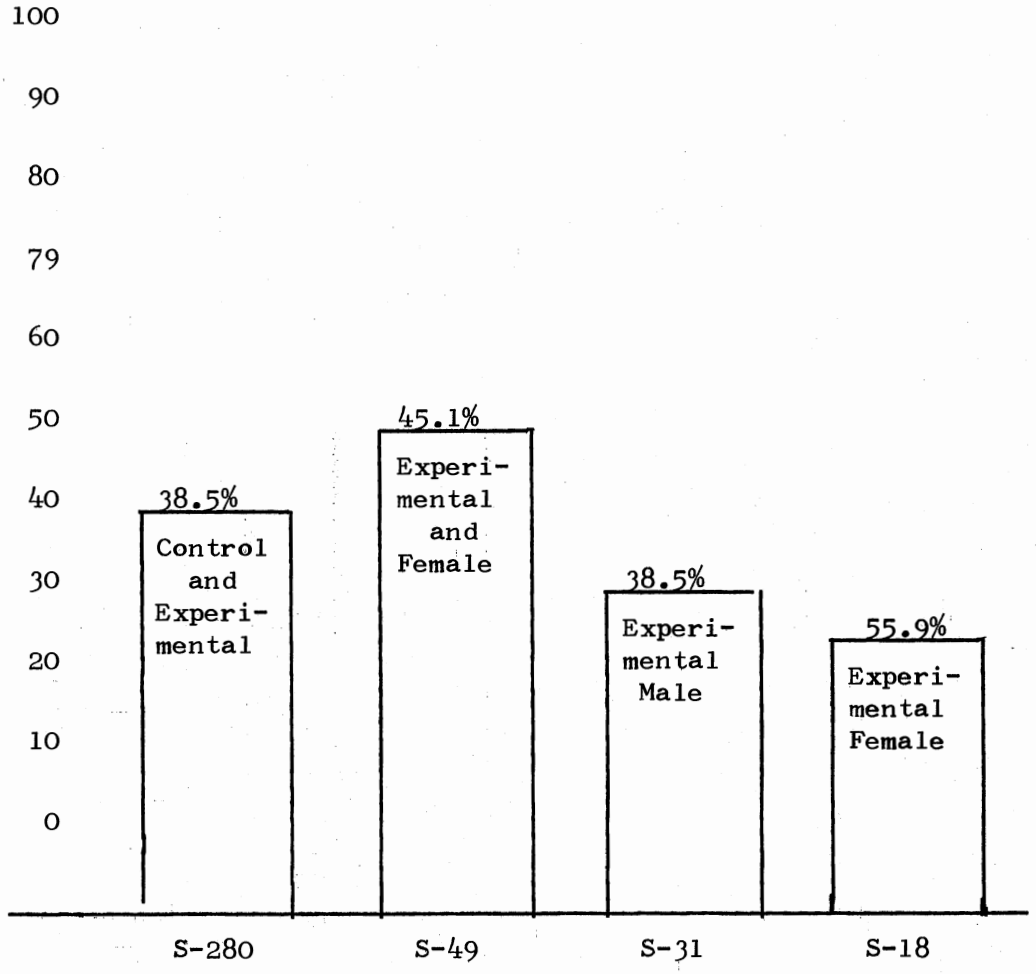

Figure 3. Percentage of Consistency of Measured Interest - Experimental Group

A second chi-square test was conducted between the male and female subjects and Holland's index to measure the significant relationship of consistency. The male students consisted of 154 subjects of which 60 were consistent and 94 inconsistent. The female students consisted of 135 subjects of which 56 were consistent and 79 inconsistent. The chi-square with one degree of freedom was found to have a value of 0.7521 which was not significant (Table VI).

TABLE VI

CONTINGENCY TABLE OF THE RELATIONSHIP BETWEEN MALES AND FEMALES AND HOLLAND'S INDEX

	Consistent	Inconsistent	
Male	60	94	154
Female	56	79	135
	116	173	

X^2 = 0.09976 with 1 degree of Freedom Chi-Square = 0.7521

Test of Hypothesis

The general research hypothesis of the investigation was that students with experiences in career education activities would demonstrate occupational expectations concurrent with their measured interest to a greater or lesser extent than students from a traditional

educational program. The number of possible consistent occupational choices was determined by the five positive choices available for each student as a result of the Occupational Expectation Scale (OES). Table VII presents a summary of reported percentages per group and sex.

Table VII is a report of the percentage of consistent choices of both experimental and control groups were equal to 9.4 per cent with the lowest percentage reported for the control female group of 6.4 per cent or a difference of 3.5 percentage points. The highest percentage of consistency was reported by the experimental female group with 18.8 per cent on the pretest and 20.0 per cent on the post-test or 9.4 and 10.6 percentage points, respectfully. All reported percentages were below the 25 per cent level for both control and experimental, with the experimental group gaining less than two percentage points between the pretest and the post-test. Thus, the general research hypothesis that students with experience in career education activities as described in the occupational exploration program would have occupational expectations more concurrent with their measured interest than students from traditional education programs was rejected.

TABLE VII

PERCENTAGE OF CONSISTENT OCCUPATIONAL EXPECTATIONS BY GROUP AND SEX

Group	Σ of Possible Consistent Choices		Σ of Consistent Choices		Percentage of Consistency	
Control Experimental	1690		158		9.4	
Control Male/Female	1200		107		9.0	
Control Male	625		71		11.5	
Control Female	575		36		6.4	
	Pre-Test	Post-Test	Pre-Test	Post-Test	Pre-Test	Post-Test
Experimental Male/Female	245	245	24	27	10	11.1
Experimental Male	155	155	7	9	4.5	5.8
Experimental Female	90	90	17	18	18.8	20.0

Additional null hypotheses tested in this study:

A 2 x 2 chi-square test with one degree of freedom was conducted between the control and experimental groups to determine if a significant relationship existed. X^2 = 0.5579 which is not significant. Therefore, the null hypothesis (HO_1) , that there is no significant difference in the relationship of students indicating occupational expectations which are related to their measured occupational interest in the two programs was accepted.

A test of multiple regression was conducted between the independent variables. Only the variables CAT reading and CAT total battery were found to be significant. Therefore, the null hypothesis (HO_2) that there is no significant difference in the relationship of students indicating occupational expectations related to selected measured abilities in the two programs was accepted.

A 2 x 2 chi-square test of relationship was conducted between the male/female subjects and Holland's index of consistency. The X^2 = 0.7521 with one degree of freedom was not significant. Thus, the null hypothesis (HO_3) was accepted that there is no significant difference in the relationship of students indicating occupational expectations related to their measured interest in the two programs as related to the student's sex.

The males of the experimental group had a 24.5 per cent measured consistent interest compared to 20.3 per cent of the control group. However, when comparing the consistency per occupational choices the control male was found to have 11.5 per cent consistent occupational choice compared to the experimental males with 4.5 per cent (pre-test) and 5.8 per cent (post-test). In neither comparison did the groups

have more than 25 per cent consistent occupational choices. When sex was used as an independent variable compared to the dependent variable of Holland's index, the resultant F ratio was not significant. Therefore, the null hypothesis (HO_{3A}) was accepted that there is no significant difference in the relationship of males indicating occupational expectations which are related to measured occupational interest in the "Career Exemplary Program." The null hypothesis (HO_{3C}) was accepted that there is no significant difference in the relationship of males indicating occuational expectations which are related to their measured occupational interest in the "Traditional Program."

The females of the experimental group had a 20.5 per cent measured consistent interest compared to 16.9 per cent of the control group. However, when comparing the consistency rate per occupational choice the control female was found to be 6.4 per cent compared to the experimental females 18.8 per cent (pre-test) and 20.0 per cent (post-test). In neither comparison was the groups more than 25 per cent consistent. When sex was used as an independent variable of Holland's index the resultant F ratio was not significant. Therefore, the null hypothesis (HO_{3B}) was accepted that there is no significant difference in the relationship of females indicating occupational expectations which are related to their measured occupational interest in the "Career Exemplary Program." The null hypothesis (HO_{3D}) was accepted that there is no significant difference in the relationship of females indicating occupational expectations which are related to their measured occupational interest in the "Traditional Program."

The student's grade point average for the year 1974-1975 was analyzed as an independent variable when compared to the dependent

variable of Holland's index. It was found that the student's grade point average for both control and experimental was not significant when used jointly with the other independent variables within the study. Therefore, the null hypothesis (HO_4) was accepted that there is no significant difference in the relationship of students indicating occupational expectations which are related to their measured occupational interest in the two programs as a result of the student's grade point average for the previous academic year.

The combined mean of the grade point average of the experimental group was 2.6282 with a mean for the experimental males of 2.51 and females of 2.76. This mean was used as an independent variable and compared to the dependent variable of Holland's index of consistency. It was found that the student's grade point average was not significant when compared with the dependent variable separately or when used jointly with the other independent variables in the study. Therefore, the null hypothesis (HO_{4A}) was accepted that there is no significant difference in the relationship of female students enrolled in the "Career Exemplary Program" indicating occupational expectations which are related to their measured occupational interest as a result of the student's grade point average for the previous academic year. The grade point average of the experimental male was not significant when used as an independent variable in separate computations of when acting jointly with the independent variables in the study. Therefore, the null hypothesis (HO_{4B}) was accepted that there is no significant difference in the relationship of male students indicating occupational expectations which are related to their measured interest in the "Career Educational Exemplary Program" as a result of the student's grade point

average for the previous academic year.

The reported mean grade point average of the control group was 2.4221 for the combined group, 2.53 for males and 2.33 for the females. The grade point average for the control females was used as an independent variable when compared to the dependent variable of Holland's index. It was found that the grade point average was not significant when compared with the dependent variable separately or when used jointly with the other independent variables of the study. Therefore, the null hypothesis (HO_{4C}) was accepted that there is no significant difference in the relationship of female students indicating occupational expectations which are related to their measured occupational interest in the "Traditional Program" as a result of the student's grade point average for the previous academic year. The grade point average of the control male was not significant when used as an independent variable in separate computation or when acting jointly with the independent variables of the study. Therefore, the null hypothesis (HO_{4D}) was accepted that there is no significant difference in the relationship of male students indicating occupational expectations which are related to their measured occupational interest in the "Traditional Program" as a result of the student's grade point average for the previous academic year.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine how selected career education activities relate to occupational expectations. In order to test the relationship of selected activities to occupational expectations students explored career opportunities in the areas of welding, auto mechanics, health fields, machine shop practices, office practice, agriculture, graphic communications and electronics.

Students from four unified school districts within Montgomery County, Kansas, were selected to compose both the control and experimental groups. The cooperating facilities of the Southeast Kansas Area Vocational Technical School provided instruction within the various areas of occupational exploration. The Kuder General Interest Survey and the Occupational Expectation Scale were administered to the students in both the experimental and control groups. Independent variables of the student's grade point average, sex and the four scales of the California Achievement Test (CAT) were compared with the consistency index of John L. Holland's Vocational Preference Inventory. A statistical test of multiple regression was used to determine the significant difference of the independent variables affect on the dependent variable of consistency.

Findings

The statistical data revealed little difference between the control and experimental groups. In comparing the results of the statistical test of the independent variable for the combined groups, control and experimental, there is no evidence that the variables had any influence on the consistency of interest. The multiple regression study revealed that only the variables CAT reading and CAT total battery had a significant affect upon the dependent variable.

The number of students having measured interests consistent with Holland's index was tested with a 2 x 2 chi-square for both treatment groups and subject's' sex. Neither chi-square computation (treatment group, chi-square = 0.5579 and subject's sex, chi-square = 0.7521) was significant.

The general research hypothesis that students with experience in career activities demonstrate an occupational expectation concurrent with their measured interest to either a greater or lesser extent than will students from a traditional education program was rejected. Based upon the variables used in the study, little or no difference in the two groups as a result of the occupational exploration program existed.

The null hypothesis (HO_1) that there is no significant difference in the relationship of students indicating occupational expectations related to their measured occupational interest in the two programs was accepted. An analysis of the data obtained from this study did not show a significant difference in the consistency of measured interest as a result of the nature of treatment.

The null hypothesis (HO_2) that there is no significant difference in the relationship of students indicating occupational expectations related to selected measured abilities in the two programs was accepted. The independent variables of the study were treatment groups, subject's sex, previous grade point average, California Achievement Test (CAT) reading battery, math battery, language battery, and total battery. Only the CAT reading battery and CAT total battery were found to be significant.

The null hypotheses (HO_3), (HO_{3A}), (HO_{3B}), (HO_{3C}), and (HO_{3D}) were accepted that there is no significant difference in the relationship of students indicating occupational expectations related to their measured interest between and within the two programs as related to the student's sex. A 2 x 2 chi-square test of relationship based upon the student's sex and Holland's index was conducted. This chi-square with one degree of freedom was found to have a value of 0.7521 not significant. The percentage of consistent measured interest was compared for experimental and control male. A study of this data indicated 4.2 per cent more of the experimental group had consistent interest than the control group. The percentage of consistent measured interest was compared for the experimental and control female. The result of this comparison was that the experimental group was 3.6 per cent more consistent than the control group. When sex was used as an independent variable of the Holland index the resultant F ratio was not significant.

The null hypotheses (HO_4), (HO_{4A}), (HO_{4B}), (HO_{4C}), and (HO_{4D}) were accepted that there is no significant difference in the relationship of students indicating occupational interest within and between

the two groups as a result of the student's grade point average for the previous academic year. Neither was the student's grade point average when used as an independent variable of Holland's index nor when used jointly with other independent variables found to be significant.

Conclusions

Little difference was found to exist between the control and experimental groups as a result of the study. Therefore, one may conclude that there is no statistical evidence that the variables had any marked influence on the student's measured occupational interest.

The regression study revealed that the variable CAT reading was significant. It was also noted that the CAT reading score was significant when used jointly with the variable CAT total battery. While the importance of reading ability is undeniable in today's society, it is of note that the student was required to read at each phase of the study. Thus if reading were a significant predictor of consistency, the student with a low reading ability level may have been discriminated against in the process of the study. Therefore, one may conclude that other variables may be a better predictor of occupational interest consistency.

Recommendations

As a result of this study the following recommendations are made:

1. This study should be repeated using different independent variables.
2. Standardized measurements should be developed to more accurately measure the consistency of interest inventories with the subject's personality.
3. There is a need to determine the best method of providing occupational exploration experiences for students in the junior/middle school.
4. A study is needed to ascertain the effectiveness of career models as a means through which youth formulate career ability.

BIBLIOGRAPHY

Anderson, Ronald H. Post High School Career Preference Study of District Three High School Junior Students. 1972 ED 066 595.

Anderson, William J. "Guidance in Industrial Arts Education." Man/Society/Technology - Journal of Industrial Arts Education, Vol. XXX, No. 2 (November, 1970), pp. 52-55.

Arnold, Walter M. "Career Education - New Relevancy for Our Schools." Industrial Arts Vocational Education, LXI (March, 1972), p. 22.

Astin, Helen S. "Career Development of Girls During the High School Years." Journal of Counseling Psychology, Vol. XV, No. 6 (November, 1968), pp. 23-25.

Bailey, Larry J., and Ronald W. Stadt. Career Education: New Approaches to Human Development. Bloomington, Illinois, 1973.

Bailey, Roger L. "Testing Holland's Theory." Measurement and Evaluation in Testing, Vol. IV, No. 2 (July, 1971), pp. 139-140.

Bare, Carsle E. "Personality and Self-Concept Correlates of Occupational Aspirations." Vocational Guidance Quarterly, Vol. XVIII, No. 4 (June, 1970), pp. 297-305.

Biorkquist, David, and H. C. Kazanas. "Should We Teach Career Information?" Man/Society/Technology - Journal of Industrial Arts Education, Vol. XXX, No. 3 (December, 1970), pp. 92-95

Bligh, Harold T., and Michael W. Shaffer. Stability of Student's Educational and Vocational Plans (March, 1972), ED 065 801.

Bodden, Jack L. "Cognitive Complexity as a Factor in Appropriate Vocational Choice." Journal of Counseling Psychology, Vol. XVII, No. 4 (July, 1970), pp. 354-367.

Bottoms, Gene. "Career Development Education Kindergarten through Post-Secondary and Adult Education." (Paper presented at Teachers College, Marchall University.) Huntington, West Virginia, 1973.

Burington, Richard Stevens, and Donald Curtis May. Handbook of Probability and Statistics. New York: McGraw-Hill Book Company, 1970.

Buros, Oscar Krisen (ed.). The Seventh Mental Measurements Yearbook. Highland Park, New Jersey: The Gryphan Press, 1972.

Burton, Robert L., and Eugene L. Hartmann. "A Study of Post-Choice Vocational Counseling with the SVIB." Vocational Guidance, Vol. XVIII, No. 3 (March, 1970), pp. 43-45.

Byrn, Delmont K. Career Decisions. Washington, D.C.: National Vocational Guidance Association, 1969.

Carmody, Constance E. The Interest Pattern of Public Health Nurses. April, 1968. ED 021 262.

Carruthers, T. E. "Work Values and Chosen Careers: Note on a Trial of an American Work Value Inventory with British Subjects." Occupational Psychology (1968), pp. 427-451.

Clark, W. B. "An Empirical Study of Attitudes Toward Teaching Selected Values, and Demographic Information of Freshmen and Seniors." (Doctoral Dissertation, Auburn University, 1968.) Ann Arbor, Michigan: University Microfilms, No. 68-5900.

Claudy, John G. Occupational Outcomes: Who, What, and Why? 1970, ED 043 038.

Cole, Nancy S., and G. R. Hanson. "An Analysis of the Structure of Vocational Interest." Journal of Counseling Psychology, XVIII, (September, 1971), pp. 478-485.

Cronback, L. J. "Statistical Methods Applied to Rorchach Scores." Psychological Bulletin (1949), pp. 149-164.

Christiansen, Harley D. "Inventoried and Claimed Interest." Vocational Guidance Quarterly, Vol. IX, No. 2 (Winter, 1960-1961), pp. 128-130.

Cunningham, Davies. "Involvement for the Student's Sake." Man/Society/Technology Journal of Industrial Arts Education, Vol. XXX, No. 2 (November, 1970), pp. 59-60.

D'Costa, Ayres, and David Winefordner. "A Cubistic Model of Vocational Interests." Vocational Guidance Quarterly, Vol. XVII, No. 4 (June, 1969), pp. 242-249.

Drabick, Lawrence W. Perceived Sources of Influence upon Occupational and Educational Expectations, 1967. ED 020 0352.

Evans, Rupert, and Gordon McClasky. "Rationale for Career Education." (Paper presented at Ohio State University, Columbus, Ohio, October, 1972.)

Fairweather, Paul D. "The Appropriateness of Field and Level of Vocational Choice as Related to Self-Concepts. Intelligence School Achievement, and Socioeconomic Status." (Unpublished doctoral dissertation, University of Southern California, 1960.)

Flanagan, John C. et al. Designing the Study. December, 1960.

Folson, C. H., Jr. "An Investigation of Holland's Theory of Vocational Choice." Journal of Counseling Psychology, Vol. XVI, No. 3 (1969), pp. 260-266.

Foreman, Milton E., and Leonard E. James. "Vocational Relevance as Relevance as a Factor in Counseling." Journal of Counseling Psychology, Vol. XX, No. 1 (November, 1969), pp. 541-550.

Fortner, Mildred L. "Vocational Choices of High School Girls: Can They be Predicted?" Vocational Guidance Quarterly, Vol. XVIII, No. 3 (March, 1970), pp. 65-71.

Gaymer, Rosemary. "Career Counseling-Teaching the Art of Career Planning." Vocational Guidance Quarterly, Vol. XXIV, No. 1 (September, 1972), pp. 18-24.

Ginsberg, Eli. "Toeard a Theory of Occupational Choice: A Restatement." Vocational Guidance Quarterly, Vol. XX, No. 3 (March, 1972), pp. 381-384.

Herman, Thomas C. A Curriculum Designed for a Career Exploration Program in the Distributive Occupations for the Tenth Grade Secondary Student, 1972. ED 070 844.

Hill, Joseph E., and Derek Nonney. "Career Mobility Through Personalized Occupational Education." American Vocational Journal, Vol. XLVI, No. 7 (October, 1971), pp. 36-39.

Hilton, Thomas L. Cognitive Processes in Career Decision-Making, 1962. ED 003 029.

Hofstodter, Richard, and Wilson Smith. American Higher Education, Vol. I. Chicago, Illinois: The University of Chicago Press, 1961.

Holland, John L. "Exploration of a Theory of Vocational Choice. Part II: Self-Descriptions and Vocational Preferences." Vocational Guidance Quarterly (Autumn, 1963), pp. 599-602.

Holland, John L. Making Vocational Choices. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1973.

Holland, John L. The Psychology of Vocational Choice. Waltham, Massachusetts: Blaisdell Publishing Company, 1966.

Holland, John L., and A. R. Nichols. "Exploration of a Theory of Vocational Choice: III. A Longitudinal Study of Change in Major Field of Study." Personnel and Guidance Journal (1964), pp. 235-242.

Hollender, John W. "Development of Vocational Decisions During Adolescense." Journal of Counseling Psychology, Vol. XVIII, No. 3 (May, 1971), pp. 244-248.

Hoyt, Kenneth B. "Career Education and Career Choice." American Vocational Journal, Vol. XLVII, No. 3 (March, 1972), pp. 84-88.

ICSA. Orientation Guide. Document Number USE 001. Houston, Texas: Institute for Computer Services and Application, Rice University, January, 1977.

Johnson, Richard W. "Congruence of Strong and Kuder Interest Profiles." Journal of Counseling Psychology, Vol. XVIII, No. 5 (September, 1971), pp. 450-455.

Kapes, Jerome T., and Leo W. Lotowycz. Changes in the Occupational Values of Students Between Ninth and Tenth Grade as Related to Course of Study and Other Student Characteristics, 1972. ED 066 597.

Kerr, Clark. The Uses of the University. Cambridge, Massachusetts: Harvard University Press, 1963.

Krippner, Stanley. A Study of the Vocational and Educational Interests of Junior High School Girls and Boys, 1961. ED 002 848.

Krumboltz, John D. et al. Vocational Problem Solving Experiences for Stimulating Career Exploration and Interest. August, 1967. ED 015 517.

Kuder, Frederic G. "A Rationale for Evaluating Interest." Educational and Psychological Measurement, Vol. XXII, No. 1 (1963), pp. 485-492.

Kuder, Frederic G. Kuder General Interest Survey Form E. Science Research Associates, Inc.

Kunce, Joseph T., Robert H. Dolliver, and James A. Irvin. "Perspectives on Interpreting the Validity of the SVID-M." Vocational Guidance Quarterly, Vol. XXIV, No. 1 (September, 1972), pp. 592-594.

Leonard, Russell L., Jr., W. Bruce Walsh, and Samuel H. Osipaw. "Self-Esteem, Self-Consistency, and Second Vocational Choice." Journal of Counseling Psychology, Vol. XX, No. 1 (1973), pp. 91-93.

Lipsett, Lawrence, and James W. Wilson. "Do Suitable Interest and Mental Ability Lead to Job Satisfaction?" Educational and Psychological Measurement, XIV (1954), pp. 373-380.

Lockwood, Ozelman, David B. Smith, and Robert Trezise. "Four Worlds: An Approach to Occupational Guidance." Man/Society/Technology Journal of Industrial Arts Education, Vol. XXX, No. 2 (November, 1970), pp. 56-58.

McDaniels, Carl. "Youth: Too Young to Choose?" Vocational Guidance Quarterly, Vol. XVI, No. 4 (June, 1968), pp. 70-88.

Marland, Sidney P. Career Education Now. Paper presented to the Convention of National Association of Secondary School Principals, Houston, Texas, January 23, 1971.

Murphy, Gardner, and Lois Barcley Murphy. "The Child as Potential." The Nation's Children, Part 2: Development and Education, Eli Ginsberg (ed.). New York: Columbia University Press, 1960.

Musselman, Dayton L. "Career Esposition: Big Time Version of an Old Guidance Technique." Vocational Guidance Quarterly, Vol. XVIII, No. 1 (September, 1969), pp. 49-53.

Nelson, Gordon A. "Discrepancy between Expressed and Inventoried Vocational Interest." Vocational Guidance Quarterly, Vol. XX, No. 1 (September, 1971), pp. 21-24.

Nie, Norman et al. SPSS Statistical Package for the Social Science, 2nd ed. New York: McGraw-Hill Book Company, 1975.

Nickels, James B., and Guy A. Renzaglia. "Some Additional Data on the Relationship between Expressed and Measured Values." Journal of Applied Psychology, Vol. XLIV, No. 2 (April, 1958), pp. 212-215.

Norton, Joseph L. "Current States of the Measurement of Vocational Maturity." Vocational Guidance Quarterly, Vol. XVIII, No. 3 (March, 1970), pp. 273-279.

Nunalee, Thomas H., III, and Lawrence Drabick. Occupational Desires and Expectations of North Carolina High School Seniors. June, 1965. ED 011 925.

Office of Education. "Marland" on Career Education." American Education, DHEW Publication No. COE 72052. Washington, D.C.: Government Printing Office, November, 1971.

Ohio State University. "Comprehensive Career Education Models." Columbus, Ohio: Centergram, September, 1972.

Olson, Jerry. "Decision Making Power: Sign of Articulation." American Vocational Journal, Vol. 46, No. 7 (October, 1971), pp. 32-35.

Osipaw, Samuel H. "Cognitive Styles and Educational Vocational Preferences and Selection." Journal of Counseling Psychology, Vol. XVI, No. 6 (November, 1969), pp. 534-546.

Osipaw, Samuel H. et al. "Personality Types and Vocational Choice: A Test of Holland's Theory." Personnel and Guidance Journal (1966), pp. 277-282.

Osipaw, Samuel. Theories of Career Development. New York: Appleton-Century Crafts, 1968.

Osipaw, Samuel, and Jefferson Ashby. "Vocational Preference Inventory High Point Codes and Educational Preferences." Personnel and Guidance Journal, Vol. 47, No. 2 (1966), pp. 459-463.

Peters, Herman J. "Vocational Guidance Theory and Practice." Man/Society/Technology Journal of Industrial Arts Education, Vol. XXX, No. 2 (November, 1970), pp. 52-55.

Peterson, Barbara G. "Teamwork for a Changing Society." Man/Society/Technology Journal of Industrial Arts Education, Vol. XXX, No. 2 (November, 1970), pp. 49-51.

Peterson, Tom W. et al. A Partial Validation of Holland's Theory of Vocational Choice. 1971 ED 050 407.

Pierson, Rowland R. "Changes of Major by University Students." Personnel and Guidance Journal, XL (January, 1962), pp. 458-461.

Polk, Harold J. "The Need for Exploratory Education." Man/Society/Technology Journal of Industrial Arts Education, Vol. XXX, No. 3 (December, 1970), pp. 82-83.

Rehberg, Richard Alan. "Toward an Explanation of Adolescent Educational and Occupational Career Orientation and an Assessment of the Impact. Of Chronic Distress Upon These Career Orientation." (Unpub. doctoral dissertation, The Pennsylvania State University, 1965.)

Rehberg, Richard Alan. Selected Determinants of Adolescent Educational Expectations. January 31, 1967. ED 010 226.

Reinhart, Bruce. "A Comprehensive Career Education Model: A Bridge Between School and Work." (Paper presented at Clearwater, Florida, May, 1972.)

Roe, Ann, and Marvin Siegelman. The Origin of Interests. Washington, D.C.: American Personnel and Guidance Association, 1964.

Roe, Ann. The Psychology of Occupations. New York: John Wiley and Sons, 1956.

Rose, Harriett, and Charles F. Elton. "Ask Him or Test Him?" Vocational Guidance Quarterly, Vol. XIX, No. 1 (September, 1970), pp. 28-32.

Rose, Harriett, and Charles F. Elton. "Sex and Occupational Choice." Journal of Counseling Psychology, Vol. XVIII, No. 5 (September, 1971), pp. 456-461.

Schutz, Richard E., and Robert L. Baker. "A Factor Analysis of the Kuder Preference Record-Occupational, Ford D1." Educational and Psychological Measurement, Vol. XXII, No. 1 (1962), pp. 120-123.

Sinnett, E. Robert, Darry L. E. Matter, and Leroy A. Stone. "Clinical Judgment and the Strong Vocational Interest Blank." Journal of Counseling Psychology, Vol. XIX, No. 6 (1972), pp. 209-214.

Shann, Mary H. "The Interest Dimension as a Determinant of Career Choice of Vocational High School Boys." Measurement and Evaluation in Guidance, Vol. IV, No. 4 (January, 1972), pp. 332-339.

Shappell, Dean L., Lacy G. Hall, and Randolph Tarrier. "An Application of Roe's Vocational Choice Model." The School Counselor, Vol. XIX, No. 1 (September, 1971), pp. 149-153.

Sharp, Richard. "Relative Importance of Interest and Ability in Vocational Decision Making." Journal of Counseling Psychology, Vol. XVII, No. 3 (May, 1970), pp. 258-262.

Soares, Anthony, and Louise M. Soares. A Comparison Study of Personality and Vocational Interests of Disadvantaged and Advantaged Youths. 1972. ED 065 529.

Super, Donald, and John O. Crites. Appraising Vocational Fitness. New York: Harper and Row Publishers, 1962.

Super, Donald E. "The Critical Ninth Grade." Vocational Choice of Vocational Exploration." Personnel and Guidance Journal (October, 1960), pp. 106-109.

Super, Donald E. The Psychology of Careers. New York: Harper and Brothers, 1957.

State Department of Education. A Handbook for Planning, Developing, and Implementing Vocational Education in Kansas. Topeka, Kansas: Division of Vocational Education, 1974.

Thomas, Arthur, and Norman Steward. "Counselor Response to Female Clients with Deviate and Conforming Career Goals." Journal of Counseling Psychology, Vol. XVIII, No. 4 (July, 1971), pp. 352-357.

Tiegs, Ernest W., and William W. Clark. California Achievement Test, Forms W, X, Y. California Test Bureau, 1963.

Tseng, M. S. "Social Class, Occupational Aspiration, and Other Variables." The Journal of Experimental Education, Vol. XXXIX, No. 4 (Summer, 1971), pp. 487-491.

Tseng, M. S., and A. R. Carter. "Achievement Motivation and Fear of Failure as Determinants of Vocational Choice, Vocational Aspiration, and Perception of Vocational Prestige." Journal of Counseling Psychology, Vol. XVII, No. 2 (March, 1970), pp. 150-156.

Wachosick, Dale G. "Model-Reinforcement Counseling with College Males." Journal of Counseling Psychology, Vol. XIX, No. 5 (1972) pp. 387-392.

Wall, Osipaw, and Ashby. "SVIB Scores, Occupational Choices and Holland's Personality Types." Vocational Guidance Quarterly (1967), pp. 275-280.

Wellman, Frank, and Norman C. Gysbers. "Main Question Is: Did the Program Make a Difference?" American Vocational Journal, Vol. XLVI, No. 2 (February, 1971), pp. 422-437.

Westbrook, Bert W., and J. W. Cunningham. "The Development and Application of Vocational Maturity Measures." Vocational Guidance Quarterly, Vol. XVIII, No. 3 (March, 1970), pp. 391-394.

Wilson, Robert H., and Herbert E. Kaiser. "A Comparison of Similar Scales on the SVIB and the Kuder, Form D.D." Journal of Counseling Psychology, Vol. XV, No. 5 (September, 1968), pp. 468-470.

Winefordner, David W. "Interest Measurement in Vocational Decision Making: The Use of the Ohio Vocational Interest Survey." American Vocational Journal, Vol. XXXXIV, No. 22 (February, 1969), pp. 56-57.

Worthington, R. M. "The Implication of Career Education in the United States." (Paper presented to the Third UNESCO International Conference on Adult Education, Tokyo, Japan, July 25-August 7, 1972.)

APPENDIXES

APPENDIX A

PARENTAL PERMISSION FORM

To the Parents or Guardians of _____:

The schools of our community are involved in a constant effort to improve the quality and nature of your son/daughter's educational experience. One method through which we may evaluate our progress is to review our past. It is toward this goal that we request your help.

Our school district, in conjunction with the other public schools in Montgomery County is conducting an educational study to measure student interest in possible careers. In order to conduct the research required it will be necessary to review your son/daughter's 1974-1975 grade point average, the scores obtained on California Achievement Tests, and to administer the Kuder General Interest Survey, and an instrument entitled the Occupational Expectation Scale.

At no time will your son/daughter be identified in the study. Upon evaluation of the above listed material a code number will be assigned and used instead of his/her name.

It is necessary for you to complete and return the attached form in order for your son/daughter to be part of this study. If you have any questions regarding the permission slip, testing, or the study, you may contact me at the following address or phone:

Thomas W. Brown, Director
Montgomery County Career Education Consortium
Independence Community Junior College
Independence, Kansas
Phone College: 331-4100

_____
(Student's Name)

Place a check (✓) in the appropriate box to indicate your decision in reference to this matter.

☐ Yes, my son/daughter may take part in the study described.

☐ No, my son/daughter may not take part in the study described.

☐ I would like to receive additional information before making a decision.

Contact: _____

_____

_____

_____
(Phone)

_____ _____
(Date) (Signature of Parent or Guardian)

APPENDIX B

OCCUPATIONAL EXPECTATION SCALE

Name _____

Date _____

OCCUPATIONAL EXPECTATION SCALE

Directions

This is a scale to measure your occupational attitude (like or dislike) of many different kinds of work. Show the five occupations in which you would like to be employed. These choices should be in order of preference. Place a "1" in the blank beside the occupation which you would like most to be your career. In the blank beside your second choice place a "2", and so on until all five have been identified. If the occupation in which you wish to be employed is not listed, you may "write" it in the space provided.

In the space beside the occupation in which you would least want to be employed place an "N". If the occupation in which you would least want to be employed is not listed, you may "write" it in the space provided:

_____ Airplane Mechanic

_____ Auto Mechanic

_____ Photographer

_____ Teacher

_____ Bank Officer

_____ Policeperson

_____ Bookkeeper

_____ Electrician

_____ Registered Nurse

_____ Chemist

_____ Radio Announcer

_____ Machinist

_____ Minister, Priest, Rabbi

_____ Real Estate Salesperson

_____ Salesperson

_____ Carpenter

_____ Geologist

_____ Truck Driver

_____ Physician	_____ Computer Programmer
_____ Telephone Operator	_____ Heavy Equipment Operator
_____ Secretary	_____ Optometrist
_____ Accountant	_____ Surveyor
_____ Security Guard	_____ Conservation Worker
_____ Office Machine Operator	_____ Ward Clerk
_____ Bank Teller	_____ Airline Pilot
_____ Welder	_____ Sewer or Stitcher
_____ Lawyer	_____ Bricklayer
_____ Auto Body Mechanic	_____ Veterinarian
_____ Librarian	_____ Actor-Actress
_____ Cashier	_____ Laboratory Technician
_____ Editor	_____ Keypunch Operator
_____ Waiter or Waitress	_____ Professional Athlete
_____ Fashion Model	_____ Child Care Center Worker
_____ Draftsman	_____ Laundry Worker
_____ Telephone Lineman	_____ Dental Hygienist
_____ Upholsterer	_____ Plumber
_____ Farmer	_____ Mechanical Engineer
_____ Printer	_____ Painter
_____ Boilermaker	_____ Cosmetologist
_____ Dentist	_____ Chef
_____ Service Station Operator	_____
_____	_____
_____	_____

APPENDIX C

PURPOSE AND OBJECTIVES OF AREAS OF EXPLORATION

Purposes and Objectives of Agricultural Education

Agriculture is the number one industry in Kansas, employing approximately one-third of the state's work force either directly or indirectly. Of the total persons engaged in agricultural occupations in Kansas, approximately 25 per cent are in production (farming and ranching) agriculture, while the balance are engaged in supplies, services, processing, and other supportive agriculture occupations.[1]

Agricultural education was that phase of the Occupational Exploration Program which gave the student an opportunity to explore careers in this area of industry.

OBJECTIVES:

A. To develop an awareness of occupations in animal science, plant science, soil science, agricultural economics and business management.

B. To develop an understanding and appreciation of career opportunities in agriculture and of the preparation needed to progress in production agriculture or in agricultural business occupations or in other careers in agriculture.

---

[1] Vocational Education, A Handbook for Planning, Developing, and Implementing Vocational Education in Kansas, (Topeka, Kansas 1974), p. 23.

Purposes and Objectives of Office Practice

The office practice phase of the Occupational Exploration Program was composed of office, data processing and those areas which compose distributive education. This phase of the program gave the student opportunity to explore careers in fields related to clerical and business occupations.[2]

OBJECTIVES:

A. To develop an awareness of occupations in those fields requiring competence in office practices and distribution of goods and services.

B. To develop an understanding and appreciation of career opportunities in clerical and business occupations and of the preparation needed to progress in such areas.

---

[2]Ibid., p. 39.

Purpose and Objectives of Health Occupations

Health occupations offer the student an unexhaustive array of career opportunities. Experiences related to this area will offer a wider choice of careers than one often relates to health occupations.[3]

OBJECTIVES:

A. To develop an awareness of occupations in the health fields.

B. To develop an understanding and appreciation of career opportunities in the health occupations and of the preparation required to progress in the various levels of associated fields.

---

[3]Ibid., p. 55.

Purposes and Objectives of Industrial Education

Industrial education in Kansas and as related to the Occupational Exploration Program served the fields of welding, auto mechanics, graphic communications, and electronics. Industrial education was that phase of the Occupational Exploration Program which gave the student an opportunity to explore careers in the occupations listed above.[4]

OBJECTIVES:

A. To develop an awareness of occupations in welding, auto mechanics, graphic communications, and electronics.

B. To develop an understanding and appreciation of career opportunities in industrial education and of the preparation needed to progress in welding, auto mechanics, graphic communications, and electronics or in related career fields.

---

[4]Ibid., p. 78.

APPENDIX D

PERCENTAGE SUMMARY OF CONSISTENCY-INCONSISTENCY AS REPORTED FOR PERSONALITY CODES

Classification		MF E C	MF C	F C	M C	MF E	M E	F E
Realistic Consistency	N	76	68	43	43	8	5	3
	%	26.3%	28.3%	34.4%	37.4%	16.5%	16.2%	16.7%
Realistic Inconsistency	N	39	35	22	13	4	4	0
	%	16.6%	14.6%	17.5%	11.3%	8.0%	12.5%	0%
Investigative Consistency	N	12	11	6	5	1	0	1
	%	4.3%	4.6%	4.8%	4.1%	2.2%	0%	5.1%
Investigative Inconsistency	N	3	1	0	1	2	2	0
	%	1.1%	0.4%	0%	0.9%	2.2%	3.5%	0%
Artistic Consistency	N	12	10	4	6	2	2	0
	%	4.1%	4.2%	3.2%	5.3%	4.1%	6.5%	0%
Artistic Inconsistency	N	71	60	27	33	11	6	5
	%	24.6%	25%	21.7%	28.9%	22.5%	19.5%	25.7%
Social Consistency	N	24	19	4	15	5	3	2
	%	8.3%	7.9%	3.5%	12.0%	9.9%	10.0%	10.5%
Social Inconsistency	N	15	12	7	5	3	2	1
	%	5.2%	5.0%	6.1%	4.0%	6.2%	6.5%	5.5%
Enterprising Consistency	N	13	10	4	6	3	1	2
	%	4.5%	4.2%	3.5%	5.3%	6.1%	3.3%	10.5%
Enterprising Inconsistency	N	15	14	2	12	1	1	0
	%	5.2%	5.8%	0.8%	9.5%	2.2%	3.3%	0%
Conventional Consistency	N	18	14	7	7	4	2	2
	%	6.0%	5.8%	6.1%	5.6%	8.2%	6.5%	10.5%
Conventional Inconsistency	N	27	21	13	8	6	4	2
	%	9.3%	8.8%	11.9%	6.4%	12.4%	13.0%	10.5%

Code: M = Male
F = Female
MF = Male and Female
E = Experimental
C = Control

APPENDIX E

PERCENTAGE SUMMARY OF NEGATIVE AND POSITIVE OCCUPATIONAL CHOICES

NEGATIVE OCCUPATIONAL CHOICE

Control Group

DOT Code	Name of Occupation	Frequency	Percentages
005	Civil Engineering Occupations	5	2
007	Mechanical Engineering Occupations	1	0
020	Occupations in Mathematics	5	2
024	Occupations in Geology	3	1
045	Occupations in Psychology	1	0
051	Occupations in Political Science	1	0
070	Physicians and Surgeons	12	5
072	Dentists	6	2
075	Registered Nurses	13	5
078	Occupations in Medical and Dental Technology	2	1
079	Occupations in Medicine and Health, n.e.c.	5	2
091	Occupations in Secondary School Education	14	6
092	Occupations in Primary School and Kindergarten Education	2	1
096	Home Economics and Farm Advisors	2	1
100	Librarians	3	1
110	Lawyers	4	2
111	Judges	1	0
120	Clergymen	4	2
132	Writers and Editors, Publications	1	0

DOT Code	Name of Occupation	Frequency	Percentages
141	Commercial Artist	1	0
143	Occupations in Photography	1	0
150	Occupations in Dramatics	1	0
159	Occupations in Entertainment and Recreation, n.e.c.	1	0
160	Accountants and Auditors	7	3
186	Finance, Insurance, and Real Estate Managers, and Officials	1	0
196	Airplane Pilots and Navigators	1	0
201	Secretaries	4	2
210	Bookkeepers	2	1
211	Cashiers	6	2
212	Tellers	1	0
249	Miscellaneous Clerical Occupations, n.e.c.	1	0
266	Salespersons, Chemical, and Drug Preparations	1	0
280	Salespersons, Transportation Equipment	1	0
289	Salespersons, Commodities, n.e.c.	3	1
299	Merchandising Occupations, except Salespersons, n.e.c.	1	0
303	Housekeepers, Private Family	1	0
306	Maids, Domestic	1	0
313	Chefs and Cooks	12	5
318	Kitchen Workers, n.e.c.	1	8
330	Barbers	8	3
332	Hairdressers and Cosmetologist	4	2
350	Ship Stewards and Related Occupations	5	2

DOT Code	Name of Occupation	Frequency	Percentages
352	Hostesses and Stewards, n.e.c.	1	0
355	Attendants, Hospitals, Morgues, and Related Health Services	3	1
359	Miscellaneous Personal Service Occupations, n.e.c.	5	2
361	Laundry Occupations	1	0
365	Shoe and Luggage Repairpersons, and Related Occupations	3	1
369	Apparel and Furnishing Service Occupations, n.e.c.	5	2
373	Firefighters, Fire Department	2	1
375	Policepersons, Detectives, Public Service	15	6
379	Protective Service Occupations, n.e.c.	1	0
421	General Farming Occupations	7	3
424	Farm Machinery Occupations, n.e.c.	2	1
600	Machinist and Related Occupations	2	1
620	Motorized Vehicle and Engineering Equipment Mechanics and Repairpersons	7	3
621	Aircraft Mechanics and Repairpersons	1	0
624	Farm Mechanics and Repairpersons	1	0
700	Occupations in Fabrication, Assembly, and Repair of Jewelry, Silverware, and Related Occupations	1	0
740	Painters	2	1
787	Sewing Machine Operators, Nongarment	6	2
810	Arc Welders	1	0
821	Occupations in Assembly, Installation, and Repair of Transmission and Distribution Lines and Circuits	2	1

DOT Code	Name of Occupation	Frequency	Percentages
824	Occupations in Assembly, Installation, and Repair of Lighting Equipment and Building Wiring, n.e.c.	3	1
860	Carpenters and Related Occupations	2	1
861	Brick and Stone Masons and Tile Setters	3	1
862	Plumbers, Gas Fitters, Steam Fitters, and Related Occupations	1	0
905	Truck Drivers, Heavy	8	3
955	Occupations in Disposal of Refuse and Sewage	1	0

OCCUPATIONAL ASPIRATIONS

Choice Number 1

Control Group

DOT Code	Name of Occupation	Frequency	Percentage
001	Architectural Occupations	3	1
003	Electrical Engineering Occupations	1	0
005	Civil Engineering Occupations	1	0
007	Mechanical Engineering Occupations	2	1
020	Occupations in Mathematics	4	2
022	Occupations in Chemistry	2	1
024	Occupations in Geology	2	1
040	Occupations in Agricultural Sciences	1	0
045	Occupations in Psychology	3	1
070	Physicians and Surgeons	7	3
072	Dentists	3	1
073	Veterinarians	8	3
075	Registered Nurses	10	4
078	Occupations in Medical and Dental Technology	1	0
079	Occupations in Medicine and Health, n.e.c.	10	4
091	Occupations in Secondary Health Education	6	2

DOT Code	Name of Occupation	Frequency	Percentage
092	Occupations in Primary School and Kindergarten Education	1	0
100	Librarians	1	0
110	Lawyers	4	2
120	Clergymen	5	2
132	Writers and Editors, Publications	1	0
141	Commercial Artist	4	2
142	Designers	1	0
143	Occupations in Photography	16	7
150	Occupations in Dramatics	2	1
152	Occupations in Music	1	0
153	Occupations in Athletics and Sports	1	0
159	Occupations in Entertainment and Recreation, n.e.c.	1	0
160	Accountants and Auditors	2	1
180	Agriculture, Forestry, and Fishing Industry Managers and Officials	1	0
186	Finance, Insurance, and Real Estate Managers and Officials	2	1
195	Occupations in Social and Welfare Work	4	2
196	Airplane Pilots and Navigators	3	1
201	Secretaries	5	2
202	Stenographers	2	1
210	Bookkeepers	1	0
211	Cashiers	1	0
212	Tellers	1	0
213	Automatic Data Processing Equipment Occupations	2	1

DOT Code	Name of Occupation	Frequency	Percentage
249	Miscellaneous Clerical Occupations, n.e.c.	2	1
263	Salespersons, Textiles, Textile Products, and Apparel	1	0
280	Salespersons, Transportation Equipment	6	2
289	Salespersons, Commodities	3	1
297	Demonstrating and Modeling	3	1
299	Merchandising Occupations, except Salesmen, n.e.c.	1	0
303	Housekeepers, Private Family	1	0
313	Chefs and Cooks	2	1
330	Barbers	6	2
332	Hairdressers and Cosmetologists	3	1
350	Ship Stewards and Related Occupations	3	1
352	Hostesses and Stewards, n.e.c.	8	3
359	Misc. Personal Service Occupations, n.e.c.	11	5
365	Shoe, Luggage Repairmen	2	1
369	Apparel and Furnishings Service Occupations, n.e.c.	1	0
375	Policemen and Detectives, Public Service	9	4
379	Protective Service Occupations, n.e.c.	4	2
421	General Farming	10	0
424	Farm Machinery Operators, n.e.c.	1	0
620	Motorized Vehicle Repairing	11	5
621	Aircraft Mechanics	1	0
632	Ordnance and Accessory Repairing	1	0

DOT CODE	Name of Occupation	Frequency	Percentage
660	Cabinetmakers	1	0
612	Occupations in Fabrication and Repair of Surgical, Medical, and Dental Supplies	2	1
780	Upholstering and Mattress Repairing	1	0
787	Machine Sewing	2	1
810	Arc Welding	2	1
824	Assembly, Installation, and Repair of Lighting Equipment	1	0
860	Carpenters and Related Occupations	3	1
861	Brick and Stone Masons	5	2
862	Plumbers, Gas Fitters and Related Work	1	0
905	Truck Drivers, Heavy	6	2

OCCUPATIONAL ASPIRATIONS

Choice Number 2

Control Group

DOT Code	Name of Occupation	Frequency	Percentage
001	Architecture	1	0
007	Mechanical Engineering	1	0
008	Chemical Engineering	1	0
018	Surveyors, n.e.c.	1	0
019	Architecture and Engineering, n.e.c.	1	0
020	Math	1	0
024	Geology	5	2
029	Math, Phy. Science, n.e.c.	2	1
040	Agricultural Sciences	1	0
045	Psychology	1	0
070	Physicians and Surgeons	15	6
072	Dentists	3	1
073	Veterinarians	6	2
075	Registered Nurses	4	2
079	Medicine and Health, n.e.c.	6	2
091	Secondary School Education	6	2
100	Librarian	7	3
110	Lawyers	7	3

DOT Code	Name of Occupation	Frequency	Percentage
120	Clergymen	3	1
132	Writers and Editors	1	0
141	Commercial Artists	4	2
142	Designers	1	0
143	Photography	7	3
144	Painting and Related Work	1	0
153	Athletics and Sports	1	0
159	Entertainment and Recreation, n.e.c.	1	0
160	Accountants and Auditors	5	2
164	Advertising Management	3	1
186	Finance, Insurance, and Real Estate	3	1
195	Social and Welfare Work	2	1
201	Secretaries	12	5
210	Bookkeepers	2	1
211	Cashiers	11	5
212	Tellers	1	0
232	Post Office Clerks	1	0
237	Receptionists and Information Clerk	2	1
249	Miscellaneous Clerical Occu., n.e.c.	3	1
250	Salesmen, Real Estate, and Insurance	3	1
280	Salespersons, Transportation Equip.	3	1
289	Saleswork, Commodities, n.e.c.	1	0
297	Demonstrators and Models	4	2
332	Hairdressers and Cosmetologists	9	4
350	Ship Stewards	4	2

DOT Code	Name of Occupation	Frequency	Percentage
352	Hostess and Stewards, n.e.c.	3	1
355	Attendants, Hospitals, and Health Services	2	1
359	Miscellaneous Personal Services, n.e.c.	8	3
365	Shoe and Luggage Repair	2	1
373	Firemen	3	1
375	Policemen and Detectives	4	2
379	Protective Services, n.e.c.	3	1
406	Horticultural Specialty	1	0
419	Animal Farming, n.e.c.	1	0
421	General Farming	5	2
442	Occupation in Forest Products	1	0
452	Hunting and Fishing Guides	1	0
600	Machinists and Related Occupations	1	0
620	Motorized Vehicle and Equipment Repairing	4	2
621	Aircraft Mechanics	2	1
624	Farm Mechanics	2	1
650	Typesetters	1	0
660	Cabinetmakers	1	0
700	Occu. in Fab. Assembly and Repair of Jewelry	1	0
712	Occupa. in Fab. and Repair of Surgical Supplies	2	1
787	Sewing Machine Operator	4	2
807	Bodyman, Transp. Equip.	5	2
810	Arc Welders	2	1

DOT Code	Name of Occupation	Frequency	Percentage
821	Occ. in Assembly, Installation of Lines and Circuits	1	0
824	Occ. in Assembly, Installation of Lighting Equipment	11	5
840	Construction and Maintenance Painters	1	0
860	Carpenters and Related Occupations	3	1
861	Brick and Stone Masons	3	1
905	Truck Drivers, Heavy	5	2

OCCUPATIONAL ASPIRATIONS

Choice Number 3

Control Group

DOT Code	Name of Occupation	Frequency	Percentage
001	Architectural Occupation	6	2
005	Civil Engineering	1	0
007	Mechanical Engineering	1	0
020	Math	1	0
024	Geology	2	1
029	Math and Phy. Science, n.e.c.	5	2
045	Psychology	2	1
051	Political Science	2	1
070	Physicians and Surgeons	3	1
072	Dentists	2	1
073	Veterinarians	8	3
075	Registered Nurses	5	2
079	Medicine and Health, n.e.c.	6	2
091	Secondary School Education	17	7
092	Primary School and Kindergarten Ed.	3	1
100	Librarians	1	0
110	Lawyers	4	2
120	Clergymen	2	1

DOT Code	Name of Occupation	Frequency	Percentage
132	Writers and Editors	5	2
141	Commercial Artists	9	4
142	Designers	2	1
143	Photography	9	4
152	Music	2	1
159	Entertainment and Recreation, n.e.c.	5	2
160	Accountants and Auditors	2	1
164	Advertising Management Occupations	1	0
186	Finance, Insurance, and Real Estate	3	1
189	Miscellaneous Managers and Officials, n.e.c.	1	0
195	Occ. in Social and Welfare Work	3	1
196	Airplane Pilots	5	2
201	Secretaries	7	3
202	Stenographers	2	1
206	File Clerks	1	0
209	Stenography, Typing, n.e.c.	1	0
210	Bookkeepers	4	2
211	Cashiers	11	5
213	Automatic Data Processing	1	0
249	Miscellaneous Clerical Occupations, n.e.c.	1	0
250	Salesmen, Real Estate, Insurance	1	0
276	Salespersons, Industrial	1	0
277	Salespersons, Farm and Garden Equipment	1	0

DOT Code	Name of Occupation	Frequency	Percentage
289	Salesperson, Commodities, n.e.c.	4	2
313	Chefs and Cooks	5	2
319	Food and Beverage Preparation	1	0
332	Hairdressers and Cosmetologists	2	1
350	Ship Stewards	3	1
352	Hostesses and Stewards	6	2
355	Attendance Worker, Hospital	4	2
359	Miscellaneous Personal Services, n.e.c.	6	2
375	Policemen and Dectectives	6	2
379	Protective Servide Occupations, n.e.c.	2	1
421	General Farming	3	1
424	Farm Machinery Operators, n.e.c.	2	1
452	Hunting and Fishing Guides	1	0
601	Toolmakers	1	0
620	Motorized Vehicle Repairmen	2	1
621	Aircraft Mechanic	3	1
624	Farm Mechanic	3	1
660	Cabinetmakers	1	0
700	Occupa. in Fabrication and Repair of Jewelry	1	0
785	Trailors	1	0
807	Bodymen, Transportation Equipment	4	2
810	Arc Welders	3	1
821	Occupations in Assembly and Repair of Lines and Circuits	4	2

DOT Code	Name of Occupation	Frequency	Percentage
824	Occupations in Assembly and Repair of Lighting Equipment	3	1
840	Construction and Maintenance Painters	2	1
860	Carpenters	10	4
862	Plumbers, Gas Fitters	3	1
905	Truck Drivers, Heavy	5	2

OCCUPATIONAL ASPIRATIONS

Choice Number 4

Control Group

DOT Code	Name of Occupation	Frequency	Percentage
001	Architecture	2	1
005	Civil Engineering	3	1
007	Mechanical Engineering	2	1
020	Math	1	0
022	Chemistry	5	2
029	Math and Physical Sciences, n.e.c.	1	0
040	Agricultural Sciences	1	0
045	Psychology	2	1
051	Political Science	1	0
070	Osteopaths	5	2
073	Veterinarians	2	1
075	Registered Nurse	3	1
079	Medicine and Health, n.e.c.	6	2
091	Secondary School Education	7	3
092	Primary School and Kindergarten Edu.	3	1
096	Home Economics and Farm Advisers	2	1
099	Occupations in Education, n.e.c.	2	1
100	Librarians	2	1

DOT Code	Name of Occupation	Frequency	Percentage
110	Lawyers	5	2
132	Writers and Editors	2	1
141	Commercial Artists	2	1
142	Designers	1	0
143	Occupations in Photography	13	5
150	Occupations in Dramatics	1	0
152	Occupations in Music	2	1
153	Occupations in Athletics and Sports	1	0
159	Occupations in Entertainment and Recreation, n.e.c.	1	0
160	Accountants and Auditors	4	2
164	Advertising Management Occupations	3	1
186	Finance, Insurance and Real Estate	1	0
187	Service Industry Managers	1	0
195	Occupations in Social Welfare Work	4	2
196	Airplane Pilots and Navigating	1	0
201	Secretaries	9	4
202	Stenographers	4	2
205	Personnel Clerks	2	1
209	Stenography, Filing, n.e.c.	1	0
210	Bookkeepers	4	2
211	Cashiers	4	2
212	Tellers	1	0
213	Automatic Data Processing	2	1
235	Telephone Operators	1	0

DOT Code	Name of Occupation	Frequency	Percentage
250	Salesmen, Real Estate	3	1
263	Salesperson, Textiles, Products, and Apparel	1	0
289	Salespersons, Commodities, n.e.c.	4	1
290	Sales Clerks	1	0
297	Demonstrators and Models	1	0
298	Display Men and Window Trimmers	2	1
303	Housekeepers	1	0
313	Chefs and Cooks	6	2
319	Food and Beverage, n.e.c.	1	0
332	Hairdressers and Cosmetologists	4	2
350	Ship Stewards	7	3
352	Hostesses and Stewards	1	0
355	Attendants, Hospital and Health Services	5	2
359	Miscellaneous Personal Services	7	3
369	Apparel and Furnishings, n.e.c.	1	0
373	Firemen	3	1
375	Policemen and Detectives	8	4
379	Protective Service, n.e.c.	1	0
407	Gardening and Groundskeeping	1	0
421	General Farming	8	4
424	Farm Machinery Operators, n.e.c.	1	0
600	Machinists and Related Occupations	2	1
620	Motorized Vehicle and Engineering Equipment	11	5

DOT Code	Name of Occupation	Frequency	Percentage
624	Farm Mechanics and Repairmen	1	0
633	Business and Commercial Machine Operators	1	0
700	Occupations in Fabrication, Assembly of Jewelry	5	2
712	Occupations in Fabrication and Repair of Surgical, Medical Instruments	1	0
780	Upholstering Mattress Repair	1	0
787	Sewing Machine Operator	1	0
801	Fitting, Bolting, Related Occupations	2	1
804	Tinsmiths	1	0
807	Bodymen, Transportation Equipment	2	1
821	Occupations in Assembly, Installation, and Repair of Lines and Circuits	3	1
824	Occupations in Assembly, Installation, and Repair of Building Wiring, n.e.c.	2	1
840	Construction and Maintenance Painters	1	0
844	Cement and Concrete Finishing	1	0
860	Carpenters and Related Occupations	8	4
862	Plumbers, Gas Fitters	4	2
905	Truck Drivers, Heavy	3	1
913	Passenger Transportation, Occup., n.e.c.	1	0
919	Miscellaneous Transportation Occu. n.e.c.	1	0
929	Packaging and Materials Handling Occ. n.e.c.	1	0

OCCUPATIONAL ASPIRATIONS

Choice Number 5

Control Group

DOT Code	Name of Occupation	Frequency	Percentage
005	Civil Engineering Occupations	1	0
007	Mechanical Engineering	3	1
017	Draftsmen, n.e.c.	1	0
018	Surveyors, n.e.c.	1	0
020	Mathematics	3	1
022	Occupations in Chemistry	1	0
024	Occupations in Geology	2	1
029	Occupations in Math and Physical Sciences, n.e.c.	3	1
045	Occupations in Psychology	5	2
051	Occupations in Political Science	6	2
070	Physicians and Surgeons	2	1
072	Dentists	6	2
075	Registered Nurses	5	2
079	Occupations in Medicine and Health, n.e.c.	4	2
091	Occupations in Secondary School Edu.	4	2
096	Home Economists and Farm Advisers	2	1
099	Occupations in Education, n.e.c.	1	0

DOT Code	Name of Occupation	Frequency	Percentage
110	Lawyers	6	2
120	Clergymen	1	0
132	Writers and Editors	3	1
139	Occupations in Writing, n.e.c.	1	0
141	Commercial Artists	2	1
143	Occupations in Photography	9	4
149	Occupations in Art, n.e.c.	1	0
150	Occupations in Dramatics	4	2
152	Occupations in Music	6	2
153	Athletics and Sports	1	0
159	Entertainment and Recreation	2	1
160	Accounting and Auditing	6	2
164	Advertising Management	2	1
186	Finance, Insurance	3	1
195	Social and Welfare Work	2	1
201	Secretaries	10	4
202	Stenographers	4	2
211	Cashiers	6	2
212	Tellers	2	1
213	Automatic Data Processing	4	2
235	Telephone Operators	3	1
249	Miscellaneous Clerical Occupations, n.e.c.	2	1
250	Salesmen, Real Estate	1	0
263	Salespersons, Textile Products	1	0

DOT Code	Name of Occupation	Frequency	Percentage
280	Salespersons, Transportation Equip.	2	1
289	Salespersons, Commodities, n.e.c.	4	2
297	Peddlers	6	2
298	Display Work	1	0
303	Housekeepers	2	1
313	Chefs and Cooks	7	3
319	Food and Beverage Preparation, n.e.c.	1	0
332	Hairdressers	4	2
350	Ship Stewards	4	2
352	Hostesses and Stewards, n.e.c.	4	2
355	Attendants, Hospitals, Related Health Services	3	1
359	Miscellaneous Personal Services, n.e.c.	3	1
372	Guards and Watchmen	1	0
373	Firemen	6	2
375	Policemen and Detectives	5	2
379	Protective Servive Occupa., n.e.c.	4	2
421	General Farming	9	4
600	Machinists and Related Occupations	5	2
601	Toolmakers	1	0
620	Motorized Vehicle Repairmen	9	4
621	Aircraft Mechanics	2	1
650	Typesetters and Composers	1	0
700	Fabrication, Assembly, and Repair of Tools	3	1

DOT Code	Name of Occupation	Frequency	Percentage
807	Bodymen, Transportation, Equipment	1	0
810	Arc Welders	1	0
821	Assembly, Installation, and Repair of Lines and Circuits	3	1
823	Assembly, Installation of Electronic Comm.	1	0
840	Construction and Maintenance Painters	2	1
844	Cement and Concrete Finishing	1	0
860	Carpenters and Related Occupations	3	1
905	Truck Drivers, Heavy	4	2
913	Passenger Transportation Occupations, n.e.c.	1	0
973	Hand Compositors, Typesetters	1	0

APPENDIX F

PERCENTAGE SUMMARY OF PRE-TEST NEGATIVE AND POSITIVE OCCUPATIONAL CHOICES

NEGATIVE OCCUPATIONAL ASPIRATIONS

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
005	Civil Engineering	2	4
022	Occupations in Chemistry	1	1
029	Math, Physical Science, n.e.c.	1	2
070	Physicians and Surgeons	1	2
075	Registered Nurses	2	4
079	Medicine and Health, n.e.c.	1	2
091	Secondary School Education	2	4
100	Librarian	1	2
110	Lawyers	2	4
120	Clergymen	2	4
141	Commercial Artists	2	4
160	Accountants and Auditors	4	8
201	Secretaries	3	6
211	Cashiers	2	4
250	Salesmen, Real Estate	1	2
280	Saleswork, Transportation eq.	1	2
303	Housekeepers	2	4
313	Chefs and Cooks	2	4
330	Barbers	2	4

DOT Code	Name of Occupation	Frequency	Percentage
332	Hairdressers	2	4
350	Ship Stewards	1	2
369	Apparel and Furnishings Services, n.e.c.	1	2
375	Policemen and Detectives	3	6
421	General Farming	1	2
600	Machinist	1	2
700	Fab. Assembly and Repair of Jewelry	1	2
785	Tailors and Dressmaking	1	2
821	Assembly, Installation, and Repair of Transmission, and Distribution Lines	1	2
840	Construction and Maintenance Painters	2	4
862	Plumbers, Gas Fitters	1	2

OCCUPATIONAL ASPIRATIONS

Choice No. 1 - Pretest

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
007	Mechanical Engineering	2	4
020	Math	1	2
024	Geology	1	2
072	Dentist	1	2
073	Veterinarian	1	2
075	Registered Nursing	2	4
091	Secondary School Education	2	4
143	Photography	5	10
196	Airplane Pilot	2	4
201	Secretaries	1	2
213	Automatic Data Processing	2	4
289	Salesperson, Commodities, n.e.c.	2	4
313	Chef and Cooks	1	2
332	Hairdressers	2	4
350	Ship Stewards	2	4
375	Policemen and Detectives	2	4
379	Protective Service Occupations, n.e.c.	1	2

DOT Code	Name of Occupation	Frequency	Percentage
421	General Farming	3	6
620	Motorized Vehicle Repairmen	4	8
621	Aircraft Mechanic	1	2
810	Arc Welders	1	2
824	Occupations in Assembly, Installation and Repair of Lighting Equipment	2	4
840	Construction and Maintenance Painters	1	2
861	Brick and Stone Masons	1	2
905	Truck Drivers, Heavy	6	12

OCCUPATIONAL ASPIRATIONS

Choice No. 2 Pretest

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
002	Aeronautical Engineering	2	4
007	Mechanical Engineering	2	4
024	Geology	4	8
040	Agricultural Sciences	2	4
070	Medicine and Surgery	1	2
073	Veterinarians	1	2
075	Registered Nurse	2	4
079	Medicine and Health, n.e.c.	3	6
091	Secondary School Education	3	6
092	Primary, Secondary, and Kindergarten Education	1	2
110	Lawyers	2	4
141	Commercial Artists	1	2
143	Photography	3	6
153	Athletics and Sports	1	2
159	Entertainment and Recreation, n.e.c.	3	6
160	Accountants and Auditors	3	6
313	Chefs and Cooks	2	4

DOT Code	Name of Occupation	Frequency	Percentage
352	Hostesses and Stewards, n.e.c.	1	2
421	General Farming	1	2
600	Machinists	1	2
620	Motorized Vehicle Mechanics and Repairmen	3	6
624	Farm Machinery Repairing	1	2
637	Utilities Service Repairmen	1	2
807	Bodymen, Transportation Equipment	2	4
810	Arc Welders	1	2
821	Assembly, Installation of Lines and Circuits	1	2
824	Assembly, Installation, Repair of Lighting Equipment	1	2
860	Carpenters	1	2
861	Brick and Stone Masons	1	2
905	Truck Drivers, Heavy	1	2

OCCUPATIONAL ASPIRATIONS

Choice No. 3 Pretest

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
001	Architecture	2	4
019	Architecture and Engineering, n.e.c.	1	2
024	Geology	1	2
029	Math, Physical Science, n.e.c.	1	2
073	Veterinarian	4	8
075	Registered Nurse	1	2
091	Secondary School Education	5	10
100	Librarians	1	2
120	Clergymen	1	2
141	Commercial Artists	1	2
142	Designers	1	2
153	Athletics and Sports	1	2
160	Accountants and Auditors	1	2
186	Finance, Insurance	1	2
196	Airplane Pilots	1	2
201	Secretaries	1	2

DOT Code	Name of Occupation	Frequency	Percentage
211	Cashiers	1	2
332	Post Office Clerks	1	2
350	Ship Stewards	1	2
355	Attendants, Hospitals, and Health Services	1	2
375	Policemen and Detectives	2	4
379	Protective Service	2	4
421	General Farming	3	6
424	Farm Machinery Operators, n.e.c.	1	2
620	Motorized Vehicle Mechanics	4	8
624	Farm Mechanics and Repairmen	1	2
637	Utilities Services, Mechanics, and Repairmen	1	2
787	Sewing Machine Operators	2	4
807	Bodymen, Transportation Equip.	1	2
859	Excavating, Grading, n.e.c.	3	6
860	Brick and Stone Masons	3	6

OCCUPATIONAL ASPIRATIONS

Choice No. 4 - Pretest

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
002	Aeronautical Engineering	1	2
007	Mechanical Engineering	2	4
020	Math	1	2
070	Medicine and Surgery	1	2
075	Registered Nurses	2	4
091	Occupations in Secondary School Education	2	4
096	Home Economics and Farm Advisors	1	2
100	Librarians	2	4
141	Commercial Artists	1	2
143	Photography	3	6
159	Occupations in Entertainment and Recreation, n.e.c.	1	2
201	Secretaries	3	6
211	Cashiers	1	2
212	Tellers	2	4
213	Automatic Data Processing	1	2
280	Salespersons, Trans. Equipment	1	2
313	Chefs and Cooks	1	2

DOT Code	Name of Occupation	Frequency	Percentage
332	Hairdressers	2	4
350	Ship Stewards	1	2
375	Policemen and Detectives	2	4
421	General Farming	2	4
424	Farm Machinery Operators, n.e.c.	1	2
600	Machinists and Related Occupations	1	2
620	Motorized Vehicle Mechanics and Repair	5	10
637	Utilities Service Mechanics and Repairment	1	2
810	Air Welders	1	2
821	Occupations in Assembly, Installation, and Repair of Lines and Circuits	1	2
824	Occupations in Assembly, Installation, and Repairs of Lighting Equipment	1	2
860	Carpenters	4	8
905	Truck Drivers, Heavy	1	2

OCCUPATIONAL ASPIRATIONS

Choice No. 5 - Pretest

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
007	Mechanical Engineering	1	2
023	Physics	1	2
040	Agricultural Sciences	1	2
070	Medicine and Surgery	2	4
072	Dentists	1	2
078	Medicine and Dental Technology	1	2
092	Primary and Kindergarten Education	1	2
110	Lawyers	1	2
143	Photography	2	4
160	Accountants	1	2
189	Misc. Managerial Work, n.e.c.	1	2
196	Airplane Pilots	1	2
201	Secretaries	2	4
202	Stenographers	1	2
211	Cashiers	1	2
213	Automatic Data Processing	1	2
319	Food and Beverage Preparation, n.e.c.	1	2
350	Ship Stewards	1	2

DOT Code	Name of Occupation	Frequency	Percentage
352	Hostesses and Stewards	1	2
355	Attendants, Work, Hospitals	2	4
359	Misc. Personal Services, n.e.c.	1	2
369	Apparel and Furnishings Service, n.e.c.	1	2
375	Policemen and Detectives	1	2
378	Military Service	1	2
379	Protective Services, n.e.c.	1	2
407	Gardening and Groundskeeping	1	2
600	Machining and Related Work	2	4
620	Motorized Vehicle Mechanics and Repairmen	3	6

APPENDIX G

PERCENTAGE SUMMARY OF POST-TEST NEGATIVE AND POSITIVE OCCUPATIONAL CHOICES

OCCUPATIONAL ASPIRATIONS

Negative Choice Post-test

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
001	Architecture	1	2
075	Registered Nurse	1	2
079	Occupations in Medicine and Health, n.e.c.	2	4
091	Secondary School Education	1	2
141	Commercial Artist	1	2
142	Designers	1	2
143	Photography	3	6
153	Athletics and Sports	1	2
164	Advertising Management, Occ.	1	2
186	Finance, Insurance	1	2
202	Stenographers	1	2
211	Cashiers	1	2
213	Automatic Data Processing	1	2
319	Food and Beverage, n.e.c.	1	2
350	Ship Stewards	1	2
355	Attendants, Hospitals, Health Services	1	2
369	Apparel and Furnishings, n.e.c.	1	2
375	Policemen and Detectives	3	6

DOT Code	Name of Occupation	Frequency	Percentage
421	General Farming	3	6
600	Machinist and Related Occupations	4	8
620	Motorized Vehicle Mechanics and Repair	5	10
621	Aircrafts Mechanics	1	2
624	Farm Mechanics	2	4
637	Utilities Service Mechanics	1	2
787	Sewing Maching Operators	1	2
807	Bodymen, Transportation	2	4
810	Arc Welders	1	2
823	Occupations in Assembly, Installation, and Repair of Electronic Comm.	1	2
860	Carpenters	1	2
866	Roofers	1	2
905	Truck Drivers, Heavy	3	6

OCCUPATIONAL ASPIRATIONS

Choice No. 1 Post-test

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
007	Mechanical Engineering	1	2
020	Math	2	4
022	Chemistry	1	2
070	Medicine and Surgery	2	4
073	Veterinarians	1	2
075	Registered Nurse	3	6
091	Secondary School Education	2	4
141	Commercial Art	3	6
142	Designers	1	2
160	Accountants	1	2
196	Airplane Pilots	1	2
201	Secretaries	1	2
211	Cashiers	1	2
212	Tellers	1	2
332	Hairdressers	2	4
375	Policemen	4	8
378	Military Service	1	2

DOT Code	Name of Occupation	Frequency	Percentage
421	General Farming	5	10
424	Farm Machinery Operators	1	2
600	Machinists and Related Occupations	1	2
620	Motorized Vehicle Mechanics and Repairmen	7	14
621	Aircraft Mechanics	1	2
810	Arc Welders	2	4
860	Carpenters	1	2
862	Plumbers, Gas Fitters	2	4
903	Truck Drivers, Inflammables	1	2

OCCUPATIONAL ASPIRATIONS

Choice No. 2 Post-test

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
001	Architecture	1	2
075	Registered Nurse	1	2
079	Medicine and Health, n.e.c.	2	4
091	Primary School and Kindergarten Education	1	2
141	Commercial Artists	1	2
142	Designers	1	2
143	Photography	3	6
153	Athletics and Sports	1	2
164	Advertising Management	1	2
186	Finance and Insurance	1	2
202	Stenographers	1	2
211	Cashiers	1	2
213	Automatic Data Processing	1	2
319	Food and Beverage Preparation, n.e.c.	1	2
350	Ship Stewards	1	2
355	Attendants, Hospitals, and Related Health Services	1	2
369	Apparel and Furnishings, n.e.c.	1	2

DOT Code	Name of Occupation	Frequency	Percentage
375	Policemen and Detectives	2	6
421	General Farming	3	6
600	Machinist and Related Occupations	4	8
620	Motorized Vehicle Mechanics and Repairmen	5	10
621	Aircraft Mechanics	1	2
624	Farm Mechanics	2	4
637	Utilities Service Mechanics	1	2
787	Sewing Machine Operators	1	2
807	Bodymen, Transportation Equipment	2	4
810	Arc Welders	1	2
823	Occupations in Assembly, Installation, and Repair of Electronic Comm.	1	2
860	Carpenters	1	2
866	Roofers	1	2
905	Truck Drivers, Heavy	3	6

OCCUPATIONAL ASPIRATIONS

Choice No. 3 Post-test

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
007	Mechanical Engineering	1	2
020	Math	1	2
022	Chemistry	2	4
070	Medicine and Surgery	1	2
073	Veterinarians	1	2
075	Registered Nurse	1	2
091	Secondary School Education	3	6
141	Commercial Artists	1	2
142	Designers	1	2
160	Accountants and Auditors	1	2
196	Airplane Pilots	1	2
201	Secretaries	1	2
211	Cashiers	1	2
212	Sellers	1	2
332	Hairdressers	1	2
375	Policemen and Detectives	3	6
378	Soldiers and Military Service	3	6

DOT Code	Name of Occupation	Frequency	Percentage
421	General Farming	4	8
424	Farm Machinery Operators, n.e.c.	5	10
600	Machinery and Related Occupations	1	2
620	Motorized Vehicle and Engineering Equipment Repair	2	4
621	Aircraft Mechanic	1	2
810	Arc Welders	1	2
860	Carpenter's and Related Occupations	2	4
862	Plumbers, Pipe Fitters	1	1
905	Truck Drivers, Heavy	1	2

OCCUPATIONAL ASPIRATIONS

Choice No. 4 Post-test

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
001	Architectural	1	2
005	Civil Engineering	1	2
020	Math	1	2
051	Political Science	1	2
092	Primary School and Kindergarten Education	2	4
141	Commercial Art	1	2
143	Photography	2	4
201	Secretaries	2	4
210	Bookkeepers	2	4
211	Cashiers	1	2
213	Automatic Data Processing	1	2
223	Stock Clerks	1	2
313	Chefs and Cooks	1	2
332	Hairdressers	1	2
350	Ship Stewards	2	4
373	Firemen	1	2
375	Policemen and Detectives	2	4

DOT Code	Name of Occupation	Frequency	Percentage
378	Military Service	1	2
379	Protective Services, n.e.c.	1	2
600	Machinists and Related Occupations	1	2
620	Motorized Vehicle, Mechanics and Repairmen	7	14
807	Trans., Equip., Assembling	3	6
810	Arc Welding	1	2
860	Carpenters	3	6
862	Plumbers, Gas Fitters	1	2
866	Roofers	1	2
905	Truck Drivers, Heavy	7	14

OCCUPATIONAL ASPIRATIONS

Choice No. 5 Post-test

Experimental Group

DOT Code	Name of Occupation	Frequency	Percentage
001	Architectural	1	2
020	Math	2	4
141	Commercial Artists	2	4
143	Photography	1	2
160	Accountants and Auditors	2	4
189	Misc. Managers and Officials, n.e.c.	1	2
193	Radio Operators	1	2
201	Secretaries	1	2
202	Stenographers	2	4
211	Cashiers	3	6
249	Misc. Clerical Occupations, n.e.c.	1	2
313	Chefs and Cooks	1	2
332	Hairdressers	2	4
355	Attendants, Hospitals, and Related Health Services	2	4
359	Misc. Personal Service Occupations, n.e.c.	1	2
361	Laundering Occupations	1	2

DOT Code	Name of Occupation	Frequency	Percentage
375	Policemen and Detectives	1	2
421	General Farming Occupations	1	2
424	Farm Machinery Operators, n.e.c.	1	2
606	Boring Occupations	1	2
620	Motorized Vehicle Mechanics and Repair	5	10
633	Business and Commercial Machine Repair	2	4
780	Upholstering and Mattress Repair	1	2
807	Bodymen, Trans. Equipment	4	8
810	Arc Welders	2	4
824	Occupations in Assembly, Installation, and Repair of Light Equipment	1	2
840	Construction and Maintenance Painters	1	2
860	Carpenters	1	2
861	Brick and Stone Masons	1	2
905	Truck Drivers, Heavy	2	4

APPENDIX H

SUMMARY OF MULTIPLE REGRESSION STATISTICS OF THE INDEPENDENT VARIABLES AND DEPENDENT VARIABLE HOLLAND'S INDEX OF CONSISTENCY - CONTROL AND EXPERIMENTAL GROUP

Control and Experimental Group

Computation Number One

Multiple r	0.09670	Analysis of Variance	DF	SS	F
R^2	0.00935	Regression	1	0.64937	2.70925
Standard Error	0.48948	Residual	287	68.79008	
Variable	B	Beta	Standard Error B		F
Reading	0.2844	0.09670	0.01728		2.709
Holland's Scale	0.34730				

Computation Number Two

Multiple r	0.13003	Analysis of Variance	DF	SS	F
R^2	0.01691	Regression	2	1.17414	2.45955
Standard Error	0.48856	Residual	286	68.16531	
Variable	B	Beta	Standard Error		B F
CAT Reading	0.06296	0.2147	0.02897		4.723*
CAT Total Battery	-0.05008	-0.14606	0.03378		2.199
Holland's Scale	0.46799				

Computation Number Three

Multiple r	0.14830	Analysis of Variance	DF	SS	F
R^2	0.02199	Regression	3	1.52727	2.13645
Standard Error	0.48815	Residual	285	67.9217	
Variable	B	Beta	Standard Error		B F
CAT Reading	0.06769	0.23017	0.02920		5.372
CAT Total Battery	-0.05115	-0.14916	0.03376		2.295
Grade Point Average	-0.03852	-0.07262	0.03165		1.482
Holland's Scale	0.52984				

Computation Number Four

Multiple r	0.15843	Analysis of Variance	DF	SS	F
R^2	0.02510	Regression	4	1.74283	1.82788
Standard Error	0.48823	Residual	284	67.69661	
Variable	B	Beta	Standard Error		B F
CAT Reading	0.06907	0.23486	0.02925		5.578*
CAT Total Battery	-0.05779	-0.16852	0.03448		2.809
Grade Point Average	-0.03381	-0.06374	0.03204		1.114
CAT Math	0.00536	0.05834	0.00563		0.904
Holland's Scale	0.51546				

Computation Number Five

Multiple r	0.16279	Analysis of Variance	DF	SS	F
R^2	0.02650	Regression	5	1.84019	1.54077
Standard Error	0.48874	Residual	283	67.59926	
Variable	B	Beta	Standard Error		F
CAT Reading	0.06892	0.23435	0.02928		5.542
CAT Total Battery	-0.05790	-0.16885	0.03452		2.814*
Grade Point Average	-0.03210	-0.06051	0.03218		0.995
CAT Math	0.00531	0.05787	0.00564		0.888
Group Membership	-0.04910	-0.03759	0.07691		0.408
Holland's Scale	0.52223				

Computation Number Six

Multiple r	0.16626	Analysis of Variance	DF	SS	F
R^2	0.02765	Regression	2	1.91978	1.33634
Standard Error	0.48932	Residual	282	67.51967	
Variable	B	Beta	Standard Error		F
CAT Reading	0.00933	0.23574	0.02932		5.591*
CAT Total Battery	-0.07322	-0.21352	0.04359		2.821*
Grade Point Average	-0.03376	-0.06363	0.03235		1.089
CAT Math	0.00526	-0.05730	0.00565		0.868
Group Membership	-0.05128	-0.03925	0.07710		0.442
CAT Language	0.01566	0.05572	0.02716		0.332
Holland's Scale	0.52001				

*Significant at the .05 level.

Symbols used in summary of multiple regression statistics:

r	Correlation coefficient
R^2	Correlation coefficient squared
DF	Degrees of freedom
SS	Sum of squares
F	F ratio
B	Unstandardized regression coefficient
Beta	Standardized regression coefficient

APPENDIX I

SUMMARY OF MULTIPLE REGRESSION STATISTICS OF THE INDEPENDENT VARIABLES AND DEPENDENT VARIABLE HOLLAND'S INDEX OF CONSISTENCY - CONTROL GROUP

Control Group

Computation Number One

Multiple r	0.13716	Analysis of Variance	DF	SS	F
R^2	0.01881	Regression	1	1.07571	4.56300*
Standard Error	0.48554	Residual	238	56.10762	
Variable	B	Beta	Standard Error		F
CAT Reading	0.03850	0.13716	0.01802		4.563*
Holland's Scale	0.26807				

Computation Number Two

Multiple r	0.15591	Analysis of Variance	DF	SS	F
R^2	0.02431	Regression	2	1.39002	2.95227
Standard Error	0.48520	Residual	237	55.79332	
Variable	B	Beta	Standard Error		F
CAT Reading	0.04286	0.15270	0.01840		5.425*
Grade Point Average	0.03821	0.07575	0.03307		1.335
Holland's Scale	0.32206				

Computation Number Three

Multiple r	0.16771	Analysis of Variance	DF	SS	F
R^2	0.02813	Regression	3	1.60839	2.27660
Standard Error	0.48527	Residual	236	55.57494	
Variable	B	Beta	Standard Error		F
CAT Reading	-0.06557	0.23361	0.02991		4.805*
Grade Point Average	-0.03859	-0.07649	0.03308		1.361
CAT Total Battery	-0.03341	-0.10164	-.03470		0.927
Holland's Scale	0.40633				

Computation Number Four

Multiple r	0.17706	Analysis of Variance	DF	SS	F
R^2	0.03135	Regression	4	1.79261	1.90133
Standard Error	0.48549	Residual	235	55.39072	
Variable	B	Beta	Standard Error		F
CAT Reading	0.06696	0.23857	0.02997		4.992*
Grade Point Average	-0.03379	-0.06698	0.03354		1.015
CAT Total Battery	-0.0344B	-0.12163	0.03549		1.268
CAT Math	0.00497	0.05948	0.00562		0.782
Holland's Scale	0.39415				

Computation Number Five

Multiple r	0.17894	Analysis of Variance	DF	SS	F
R^2	0.03202	Regression	5	1.83094	1.54804
Standard Error	0.48636	Residual	234	55.35240	
Variable	B	Beta	Standard Error		F
CAT Reading	0.06863	0.24450	0.03031		5.127*
Grade Point Average	-0.03545	-0.07027	0.03385		1.097
Grade Point Battery	-0.04015	-0.12221	0.03556		1.275
CAT Math	0.00478	0.05720	0.00565		0.715
Sex	0.02590	0.02652	0.06435		0.162
Holland's Scale	0.37413				

Computation Number Six

Multiple r	0.18140	Analysis of Variance	DF	SS	F
R^2	0.03291	Regression	6	1.88171	1.32136
Standard Error	0.48718	Residual	233	55.30162	
Variable	B	Beta	Standard Error		F
CAT Reading	0.06875	0.24492	0.03036		5.128*
Grade Point Average	-0.03745	-0.07423	0.03518		1.200
CAT Total Battery	-0.05534	-0.16845	0.04846		1.305

Computation Number Six (Continued)

		Analysis of Variance	DF SS	F
CAT Math	0.00470	0.05620	0.00566	0.687
Sex	0.03058	0.03131	0.06525	0.220
CAT Language	0.01573	0.05622	0.03400	0.214
Holland's Scale	0.37164			

*Significant at the .05 level

APPENDIX J

SUMMARY OF MULTIPLE REGRESSION STATISTICS OF THE INDEPENDENT VARIABLES AND DEPENDENT VARIABLE HOLLAND'S INDEX OF CONSISTENCY - EXPERIMENTAL GROUP

Experimental Group

Computation Number One

Multiple r	0.027099	Analysis of Variance	DF	SS	F
R^2	0.07343	Regression	1	0.89020	3.72494
Standard Error	0.48886	Residual	47	11.23225	
Variable	B	Beta	Standard Error		F
CAT Total Battery	-0.12107				
Holland's Scale	1.5738				

Computation Number Two

Multiple r	0.31311	Analysis of Variance	DF	SS	F
R^2	0.09804	Regression	2	1.18843	2.49990
Standard Error	0.48754	Residual	46	10.93402	
Variablw	B	Beta	Standard Error		F
CAT Total Battery	-0.25747	-0.57632	0.13691		3.537*
CAT Reading	0.13618	0.34326	0.12157		1.255
Holland's Scale	1.52981				

Computation Number Three

Multiple r	0.32868	Analysis of Variance	DF	SS	F
R^2	0.10803	Regression	3	1.30957	1.81668
Standard Error	0.49019	Residual	45	10.81288	
Variable	B	Beta	Standard Error		F
CAT Total Battery	-0.27215	-0.60916	0.13919		3.823*
CAT Reading	0.14855	0.37445	0.12347		1.448
Grade Point Average	0.07803	-0.10110	0.10990		0.504
Holland's Scale	1.75003				

Computation Number Four

Multiple r	0.34080	Analysis of Variance	DF	SS	F
R^2	0.11615	Regression	4	1.40798	1.44551
Standard Error	0.49347	Residual	44	10.71446	
Variable	B	Beta	Standard Error		F
CAT Total Battery	-0.25244	-0.56505	0.14351		3.084*
CAT Reading	0.16849	0.42472	0.12819		1.728
Grade Point Average	-0.08457	-0.10958	0.11111		0.579
CAT Math	-0.06943	-0.12895	-.10821		0.404
Holland's Scale	2.01210				

Computation Number Five

Multiple r	0.34374	Analysis of Variance	DF	SS	F
R^2	0.11809	Regression	5	1.43154	1.15156
Standard Error	0.49862	Residual	43	10.69091	
Variable	B	Beta	Standard Error		F
CAT Total Battery	-0.23011	-0.51508	0.16214		2.014
Grade Point Average	-0.08060	-0.10444	0.11301		0.509
CAT Math	-0.07047	-0.13090	0.11041		0.407
Sex	-0.05102	-0.04945	0.16575		0.095
Holland's Scale	1.99126				

Computation Number Six

Multiple r	0.34535	Analysis of Variance	DF	SS	F
R^2	0.11927	Regression	6	1.44590	0.94800
Standard Error	0.50419	Residual	42	10.67655	
Variable	B	Beta	Standard Error		F
CAT Total Battery	-0.24953	-0.55855	0.18318		1.856
CAT Reading	0.16198	0.40831	0.14939		0.511
Grade Point Average	-0.08175	-0.10592	0.11437		0.420

Computation Number Six (Continued)

		Analysis of Variance	DF SS	F
CAT Math	-0.07258	-0.13481	0.11199	0.420
Sex	-0.04246	-0.04115	0.17142	0.061
CAT Language	0.01194	0.04171	0.05024	0.057
Holland's Scale	1.97660			

*Significant at .05 level

VITA

Thomas Wyatt Brown

Candidate for the Degree of

Doctor of Education

Thesis: A STUDY OF THE RELATIONSHIPS BETWEEN OCCUPATIONAL EXPLORATION AND THE MEASURED INTEREST OF STUDENTS AT THE EARLY HIGH SCHOOL LEVEL

Major Field: Higher Education

Biographical:

Personal Data: Born in Seminole, Oklahoma, December 20, 1941, the son of Mr. and Mrs. Wyatt C. Brown.

Education: Graduated from Wewoka High School, Wewoka, Oklahoma in May, 1959; received the Bachelor of Arts in Education degree from Northeastern Oklahoma State University in 1965; received Master of Science from Oklahoma State University in 1972; completed requirements for the Doctor of Education degree at Oklahoma State University in July, 1977.

Professional Experience: Teacher of Industrial Education, Bokoshe Public Schools, 1965-66; teacher of Industrial Education, Sapulpa Public Schools, 1966-72; research assistant, Oklahoma State University, Stillwater, 1972-73; coordinator of Industrial Training, Lawrence Unified School District, Lawrence, Kansas, 1973-74; Director of Career Education, Montgomery County, Kansas, 1974-76; member of instructional staff, Texas City Schools, 1976-77.

Professional Organizations: American Vocational Association, Phi Delta Kappa, Iota Lambda Sigma.