AN EXAMINATION OF CERTAIN VARIABLES ASSOCIATED WITH PERSONAL AND SOCIAL ADJUSTMENT CHANGE IN SCHOOL DROPOUTS ENROLLED IN A RETRAINING PROGRAM

By

BENJAMIN RICHARD QUINN

Bachelor of Science
Northwest Missouri State College
Maryville, Missouri
1956

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1962

Submitted to the Faculty of the Graduate School of
the Oklahoma State University
in partial fulfillment of the requirements
for the degree of
DOCTOR OF EDUCATION
August, 1965

AN EXAMINATION OF CERTAIN VARIABLES ASSOCIATED WITH PERSONAL AND SOCIAL ADJUSTMENT CHANGE IN SCHOOL DROPOUTS ENROLLED IN A RETRAINING PROGRAM

Thesis Approved:

Edwin C. Vineyard
Thesis Adviser

Charles E. Larsen

Harry K. Bobst

Fred Tewell

J. Paschal Twyman

J. J. Boggs
Dean of the Graduate School

PREFACE

The problem of the school dropout has, in recent times, become a major concern of educators in particular and the nation in general. Much has been published recently in both scholarly journals and popular magazines which indicates that youth who drop out of school are not only unable to cope with the changed demands of the labor force and, thus, are chronically unemployed, but also provide negative kinds of contributions to the society in general. These young people are commonly associated with such local and national problems as delinquency, increased crime rate, habitual welfare aid, and other forms of asocial behavior. Concern for a solution to the school dropout program has manifested itself in federal legislation which allows for programs for the training of the high school dropout. One such program was the Oklahoma City Dropout Retraining Program, whose subjects were involved in this study.

The principal objectives of this study were to investigate the change in personal and social adjustment which came about in these retraining subjects and in subjects who received no training, and examine the relationship of such changes to certain specific personal and family history characteristics.

Grateful acknowledgment is made of the contributions of the writer's committee, Drs. Edwin E. Vineyard, Chairman, Harry K. Brobst, Charles E. Larsen, Paschal Twyman, and Fred Tewell. Their sincere interest and efforts to enhance the production of this study are most deeply appreciated by the writer.

Recognition is due the Oklahoma State University School Dropout Research Team for their cooperation. Special recognition is also extended to Dr. John Egermeier, Associate Director of this team, whose long hours, patience, and interest were a source of inspiration. Acknowledgment is also made to Donald and Iola Frazier, whose conscientious assistance in data collection and tabulation was most valuable.

Sincere appreciation is expressed to Sondra Quinn, the writer's wife, whose endless hours of work at the typewriter and continuous encouragement made the study a reality. Also, thanks to the children, Shannon, Michael, and Laura Lee, whose sacrifices cannot be fully conceived by the adult mind.

TABLE OF CONTENTS

LIST OF TABLES

Table | Page

CHAPTER I

INTRODUCTION

This thesis reports a body of work done relevant to the personal and social adjustment change brought about through a retraining program designed for high school dropouts. It examines certain variables which are felt to be particularly salient in adjustment change in this specific group of young people.

For some time Americans, and educators, most particularly, have been concerned and aware of the school dropout. It would seem that it has only been in comparatively recent history, post World War II, that we as a nation have undertaken a concerted effort to deal with the problem of the school dropout and its multiple ramifications. Daniel Schreiber, (50, p.2) Director of Project: School Dropouts for the National Education Association, states:

> For all its current urgency in the public concern, dropout is no rare phenomenon. It is doubtless an inevitable fact of the educational process--and probably will be, so long as "successful" high school graduation is not compulsory. In the history of American public education, it has been a small enough issue, for the reason (among others) that, until fairly recently, the dropouts have outnumbered the graduates. Ironically, this century has witnessed a steady and impressive growth in school retention rates, i.e., in the proportion of ninth-grade pupils who achieve their high school diplomas four years later. At the turn of the century, for example, not more than 6 or 7 of every 100

> ninth grade students graduated four years later. By 1930 the proportion had risen to one-half; at present, it stands at about two-thirds. But it is the problem, not the fact, of dropout which is new and contemporary. And this problem, though it revives a range of fundamental educational questions, is initially posed by forces and contingencies largely extrinsic to the school.

The effectiveness with which the problem is met is believed to be of most crucial significance to the national well-being and the domestic security of the country in general. This view is expressed by many leading figures in American public life.

The late President John F. Kennedy did, on numerous occasions, speak publicly of his concern. In his "State of the Union" message to Congress on January 14, 1963, President Kennedy (40) commented as follows:

> The future of any country which is dependent on the will and wisdom of its citizens is damaged, and irreparably damaged, whenever any of its children is not educated to the fullest extent of his capacity, from grade school through graduate school. Today, an estimated four out of every ten students in the fifth grade will not even finish high school--and that is a waste we cannot afford.
>
> In addition, there is no reason why one million young Americans, out of school and out of work, should all remain unwanted and often untrained on our city streets when their energies can be put to good use.

If the flurry of activity surrounding the various poverty programs which are about to get underway is an acceptable criterion, the current administration's feelings and attitudes are little different than those expressed by the late president. There are five federal programs under Sargent Shriver's Office of Economic Opportunity which have

as a primary goal the assistance of culturally deprived youth. It is this group which has the highest incidence of dropouts.

Those who are to be served in the kinds of projects sponsored by poverty legislation have the same types of descriptive phrases applied to them, and the same environmental correlates seem to be involved as for those in the school dropout group. Some of the more common parallels have been pointed out as: (1) reading retardation, (2) grade retention, (3) subject failure, (4) lower intelligence, (5) family attitudes--lower economic level, occupation of parents, siblings, (6) school--size, organization, location, double sessions, (7) self image, (8) dislike of school, and (9) lack of interest in school. (30) (35,p.272)

Significantly, it has been indicated that the dropout problem has very intrinsic relationships to several political, economic and social problems which are of current concern.

The high rate of draft rejectees has become a matter of specific concern for the Armed Services. Most particularly, the matter of increased rejections because of personality disorder is a subject of intensive investigation. Dr. John H. Roher, (50, pp.54-60) who is studying this problem, states:

> If one were to eliminate those adolescents who had dropped out of school at the tenth grade level or lower, one would eliminate approximately eighty per cent of the personality disorder discharges from the armed services.

General George Walton (65) of the United States Selective Service Commission relates that: "One of every four examinees are rejected for failing the written Air Force Qualifying Test." Further, of those who were examined in the first half of 1962, fifty-eight per cent failed the physical or mental examination. The General feels:

> Of all those who fail the Air Force Qualifying Test, the most tragic, it seems to me, are the young men shown by further tests to be indeed illiterate but still quite intelligent. Some of these are foreign born but have not yet mastered the English language. But most of them are native Americans who have not had, or somehow did not grasp, the opportunity to acquire an adequate education.

It is not uncommon to say, as Schreiber (46) is often quoted, that "All juvenile delinquents are not dropouts nor are all dropouts juvenile delinquents." Recognition must be made, however, of the increased frequency of delinquency among dropouts. Juvenile delinquency is ten times more frequent among dropouts than among high school graduates. The following excerpt from the report of the President's Committee on Juvenile Delinquency and Crime (40) offers further evidence of the connection between dropouts and juvenile delinquency:

> The relationship between inadequate schooling, difficulty in securing employment and delinquency is obviously an important one. It has been estimated that 95% of the 17 year old delinquents are school dropouts, 85% of the 16 year olds, and 50% of the 15 year olds.

The problem of unemployment is particularly salient to the dropout. It is conservatively estimated that the non-graduate is three to five times more susceptable to

lay-off and unemployment than is his graduated counterpart. Miller (35, p.281) states, "About five times as many boy dropouts as graduates were at the lowest end of the wage scale." A report of the Department of Health, Education and Welfare (37) indicates that, during the past decade, jobs filled by high school graduates rose by thirty per cent, while jobs for those with no secondary school education decreased by twenty-five per cent.

Conant (10) reports in one large city slum area there was a sixty-three per cent unemployment rate for male dropouts between the ages of seventeen and nineteen years of age. He further indicates that forty-seven per cent of the same age group in the same area who were high school graduates are also unemployed. Although there is an apparent difference in the rates for the two groups, these kinds of data indicate that the high school diploma, per se, may not be the total answer to the problem of youth employment.

If one were to project the current status of the dropout into 1970 and 1980, his future looks even less bright.

> The latest projections by the Bureau of Labor Statistics indicate that the labor force may grow from 77 million in 1964 to 86 million in 1970, and to 101 million in 1980.
>
> This increase of 24 million workers in 16 years means adding 1½ million jobs a year, on the average, in order merely to absorb the growth in labor force. Such an increase would do nothing to offset the effects of increasing productivity or to reduce the level of unemployment. (12)

There is also ample evidence that dropouts are products of unemployed and marginally employed parentage. In short, dropouts tend to produce dropouts, and unemployed tend to rear unemployed. (47, p.5) These two groups, the dropouts and the unemployed, although they are statistically tabulated as separate groups in most instances, do in fact incorporate a high proportion of the same people. (46) This is illustrated by supporting statements for the Economic Opportunity Act, (17) which reveal that "of some three million children and families receiving public assistance in 1961 under Aid to Dependent Children (A.D.C.) programs, forty per cent were descended from grandparents who received similar aid.

The preceding introductory data is included to indicate the general importance of the problem and to provide an initial background for the general understanding of the group of youth with which this study is concerned.

Statement of the Problem

It is well documented that the dropout is, to a great extent, a product of a different cultural milieu than the so-called normal or average student enrolled or high school graduated person in the American society. Recognition is made of fundamental differences in values, attitudes, and aspirations in numerous publications.

The problem herein investigated deals with the personal-social adjustment change which has come about in the retraining students as a result of participation in the Oklahoma City Dropout Retraining Program.

The training program which is considered in this study was neither designed nor operated in such a fashion as to deal with or attempt to change these variables in any specific, expressed or overt manner. No specific curricular incorporations were made or intensive counseling services provided.

Further, the relationship of personal-social adjustment change to certain selected personal and family history characteristics is investigated. These characteristics are some of those which have been most frequently identified by researchers in the field as being particularly salient. Specifically, those personal and family history characteristics which will be considered in relation to personal-social adjustment change include: (1) length of time between school dropout and retraining

program, (2) employment while in the retraining program, (3) highest grade completed before dropping from the academic school program, (4) automobile ownership, (5) primarily rural or urban background, (6) marital status and children of the retraining student, (7) income level of parents or home, (8) parents or home situation, (9) level of education of father and mother. Finally, comparisons were made of the different effects on personal-social adjustment change for the varied education programs undertaken by the dropouts and the duration of these programs.

In order to facilitate the investigation of the Oklahoma City Dropout Retraining Program, it was necessary to make some specific group divisions. The term experimental group is used to designate the total number of students undergoing retraining. The experimental group is further subdivided in accordance with the type of retraining they received. The academic only subgroup are those students who underwent high school subject matter classwork for a period of three hours per day, five days a week for forty-three weeks. The vocational only subgroup are those students who participated in one of the nine vocational training programs offered. These programs required five hours per day, five days per week, but the number of weeks varied according to the program pursued. (See Table I) The combination subgroup are those students who participated in both of the aforementioned subgroups

for a total of eight hours per day. The total control group is designated as that group which received no treatment or minimal treatment. The no treatment subgroup are those who were never enrolled or did not participate in the program. The second subgroup of the controls are those students who began but withdrew before completing fifteen per cent of their program.

The term early and late post testing is used to refer to the two time periods when the post test battery was given. The early post tests were administered after twenty-six weeks of the total program was completed, because at this time four of the vocational classes were terminated. One-half of the academic only group was included. The late post testing was administered in the last month of retraining for those programs which terminated at a later date (See Table I).

These clarifications of terms are made to provide direction for the reading of the hypotheses which are stated in the next section. Further descriptions are provided in Chapter III.

The hypotheses state the specific investigations that were made relevant to those variables included in the statement of the problem.

Hypotheses

1. There will be no significant difference between the total experimental group and total control group in:
   A. Composite personal and social adjustment change
   B. Personal adjustment change
   C. Social adjustment change
2. There will be no significant difference between the total experimental group and the early re-dropout control group in:
   A. Composite personal and social adjustment change
   B. Personal adjustment change
   C. Social adjustment change
3. There will be no significant difference between the total experimental group and the no treatment control group in:
   A. Composite personal-social adjustment change
   B. Personal adjustment change
   C. Social adjustment change
4. There will be no significant differences between the experimental treatments (academic, vocational, and combined) in:
   A. Composite personal-social adjustment change
   B. Personal adjustment change
   C. Social adjustment change

5. There will be no significant difference between groups divided as to the duration of experimental treatment received prior to post testing in:
   A. Composite personal-social adjustment change
   B. Personal adjustment change
   C. Social adjustment change
6. There will be no significant difference between the control group of people who received early post tests and the control group who received late post tests in:
   A. Composite personal-social adjustment change
   B. Personal adjustment change
   C. Social adjustment change
7. There will be no significant difference between the groups divided on the personal history characteristics indicated below in:
   A. Composite personal-social adjustment change
   B. Personal adjustment change
   C. Social adjustment change

   Division of groups on personal history characteristics will be made on the following bases:
   A. Length of time between school dropout and retraining program.
   B. Employment while in the retraining program
   C. Highest grade completed before dropping from the academic school program
   D. Automobile ownership
   E. Primarily rural or urban background

F. Marital status and children of the retraining student

8. There will be no significant difference between the groups divided on the family history characteristics indicated below in:

A. Composite personal-social adjustment change

B. Personal adjustment change

C. Social adjustment change

Division of groups on family history characteristics will be made on the following bases:

A. Income level of parents or home

B. Parents or home situation

C. Level of education of father and mother

Limitations of the Study

The initial limitation of the study is that imposed by the selection procedures used in obtaining those students who have undergone retraining. The Oklahoma Employment Security Commission was the selection agency responsible for procurement of candidates for the program. Minimal score achievement on the General Aptitude Test Battery was the basic criterion used for selection of trainees into particular areas of training. Also, a personal interview determined whether there existed any mental or physical deformities which would preclude training.

No conclusive evidence is obtainable to indicate that those who are undergoing training in the project under observation are typical of the larger group of dropouts either locally or nationally. Conversely, there is no evidence of an empirical nature that this group, herein discussed, is atypical.

Another limitation of this study is related to geography. Most of those participating in retraining and control group membership are products of the state of Oklahoma and may bear the same cultural characteristics, in some measure, as the general population of the state. It is recognized that such variables as an agriculturally dominated economy, relatively low population concentrations, and limited industrial output place definite limitations upon generalizations made to other state or community populations.

It must be further stated that the educational and training experiences undergone by the trainees is peculiar to this program and is not identical to any previously operated programs, nor is it a product of a stringent, perscriptive organizational structure dictated by any of the sponsoring organizations. It becomes necessary, then, to state that a discussion of the program which was offered at Oklahoma City is specifically relevant to that program only, and applications to other programs must be made with care and consideration for the unique nature of the program from which this study is derived.

The investigator recognizes the limitations introduced in selection of any single standardized instrument, such as the California Test of Personality, used for measurement of personal-social adjustment change. It is further conceded that the interview method of data collection, no matter how carefully the instrument is constructed or how conscientiously the interview is pursued, contains in it no absolute assurance of the honesty of the respondent. The responses were checked against other data sources wherever possible.

The intent of Chapter I has been to acquaint the reader with the dropout problem in general terms and to provide a basis for the examination which is to be made in this study. A background of greater depth and detail shall be presented in the next chapter. The approach to

developing the background shall be in the form of reviewing the major legislative action relevant to the problem, followed by a discussion of a number of dropout programs and studies which are considered to be of some importance. The final section of the next chapter is devoted to the relationship of personal and social adjustment to the problem of dropout retraining.

CHAPTER II

REVIEW OF THE LITERATURE

Major federal legislation salient to the problem of dropouts is the Manpower Development and Training Act of 1962. (33) Under Title Two, Training and Skill Development Programs, Congress authorized the expenditure of some 419 million dollars to be spread over a three year period. It was under this act that the Oklahoma City Dropout Retraining Program, partially investigated in this thesis, received its financial support. The ramifications of this act which are pertinent to this study are discussed more fully in Chapter III.

The more recent and perhaps most far reaching legislation is the Economic Opportunity Act of 1964, sponsored by the Johnson administration. (17) This act authorizes a 1965 fiscal expenditure of 962.5 million dollars and contains several specifically designated programs which are aimed at the dropout-age youth. These programs are:

1. The Community Action Program (C.A.P.). This program, under the comparatively recently created Office of Economic Opportunity, will make grants available to local and state organizations for programs of their own choosing and design. This

program has a current budget of 249 million dollars and a proposed 1966 budget of 620 million. The bill makes specific mention of basic education and literacy training.

2. The Youth Program Section under the Office of Economic Opportunity has a total current budget of 412.5 million dollars and is divided into three parts.

Part A establishes a Job Corps to provide education, work experience, and vocational training in conservation camps and residential training centers. It would enroll 40,000 young men and women aged 16 to 21 this year and 100,000 such persons next year. It will be administered by the Office of Economic Opportunity with a total cost of 190 million dollars.

Part B establishes a Work Training Program under which the director of the Office of Economic Opportunity would enter into agreements with state and local governments or non-profit organizations to pay part of the cost of full or part-time employment to enable young men and women, 16 to 21, to continue or resume their education or to increase their employability. This program would directly involve 200,000 young adults. It will be administered by the

Labor Department at a total cost of 150 million dollars.

Part C establishes a Work Study Program under which the director of the Office of Economic Opportunity would enter into agreements with institutions of higher learning to pay part of the cost of part-time employment for undergraduate and graduate students from low income families to permit them to enter upon or continue college level education. This would involve 140,000 youths the first year and is administered by the Department of Health, Education and Welfare at a total cost of 72.5 million dollars.

Other titles of the Economic Opportunity Act are not as definitive in their application to young people, but will have direct as well as indirect effects upon dropout populations in many sections of the nation. Such programs as small loans to rural low-income families, migrant farm worker aid, small business loans, work experience programs for unemployed fathers, and child day care programs are all contributions to the alleviation of those factors which provide many of the causes for youths dropping out of school. Those offices on the national level which are most intimately involved in the dropout problem are: (1) the U.S. Department of Labor, (2) the U.S. Department of Health, Education and Welfare, (3) the Office of Economic Opportunity,

under the executive wing of the government, and (4) The Project: School Dropouts, which is sponsored by the National Education Association and financed by the Ford Foundation.

The Department of Labor and the Department of Health, Education and Welfare have jointly administered the Manpower Act and are assigned a similar role in the Economic Opportunity Act. The Department of Labor will administer the Work Training Program; the Department of Health, Education and Welfare will administer the Work Study Program and the Community Work and Training Programs. The Office of Economic Opportunity shall be the administrator of the new Job Corps, VISTA, and Community Action Program as well as the Migrant Worker Program.

The Project: School Dropouts program, administered by Daniel Schreiber, is involved in numerous dropout projects in several locales and serves as a coordinating and information disseminating force for programs in operation throughout the nation. They describe their functions as one of a consultation and clearing house nature. (40)

An intensive review of the wording of the two major pieces of legislation which are herein covered and the dropout programs they are fostering reveals that limited attention is being directed to the personal and social adjustment levels of those whom the programs are designed to help. This particular factor is one in which this study is most interested. The concern for dropouts by legislators

and federal program directors is closely related to such variables as unemployment rates, problems created by automation and technological progress and various kinds of skill training programs for which there is a dearth of personnel on the labor market. These concerns are evidenced most graphically by the purposes stated in the Manpower Development and Training Act of 1962: (17)

> 1. Evaluate the impact of, and benefits and problems created by automation, technological progress, and other changes in the structure of production and demand on the use of the Nation's human resources; establish techniques and methods for detecting in advance the potential impact of such developments; develop solutions to these problems and publish findings pertaining thereto;
> 2. Establish a program of factual studies of practices of employers and unions which tend to impede the mobility of workers or which facilitate mobility, including but not limited to early retirement and vesting provisions and practices under private compensation plans; the extension of health, welfare, and insurance benefits to laid-off workers; the operation of severance pay plans; and the use of extended leave plans for education and training purposes. A report on these studies shall be included as a part of the Secretary's report required under section 104.
> 3. Appraise the adequacy of the nation's manpower development efforts to meet foreseeable manpower needs and recommend needed adjustments, including methods for promoting the most effective occupational utilization of and providing useful work experience and training opportunities for untrained and inexperienced youth;
> 4. Promote, encourage, or directly engage in programs of information and communication concerning manpower requirements, development, and utilization, including prevention and amelioration of undesirable manpower effects from automation and other technological developments and improvement of the mobility of workers; and
> 5. Arrange for the conduct of such research and investigations as give promise of furthering the objective of this Act.

Note may be made that within the stated purposes of this act there is no mention of such items as personality variables, value orientations, or social attitudes. In view of these expressed purposes, it is not inconsistent to find the training programs which are outgrowths of this bill include little consideration for personal or socially related kinds of variables. Examination of programs reveals a paucity of designs which deal with such content as attitudes, values, the society, or feelings. Further, these kinds of variables seem to be omitted as criteria for measuring program success or as being expressly desired goals in dropout retraining. On the other hand, it seems to be conceded by those involved with dropout retraining from the upper echelons of the administration to the local level operating program that the dropout is in part a product of deprivation, less than adequate parental home situations, histories of inadequate social and school adjustment, poor motivation, and indefinite, ill-defined educational, vocational and life goals.

Researchers investigating dropouts compared to non-dropouts in a large metropolitan high school in Atlanta, Georgia, found that, "The personal adjustment of 'withdrawals' toward their school, home and family, and health is poorer than that of the 'non-withdrawals'." (11)

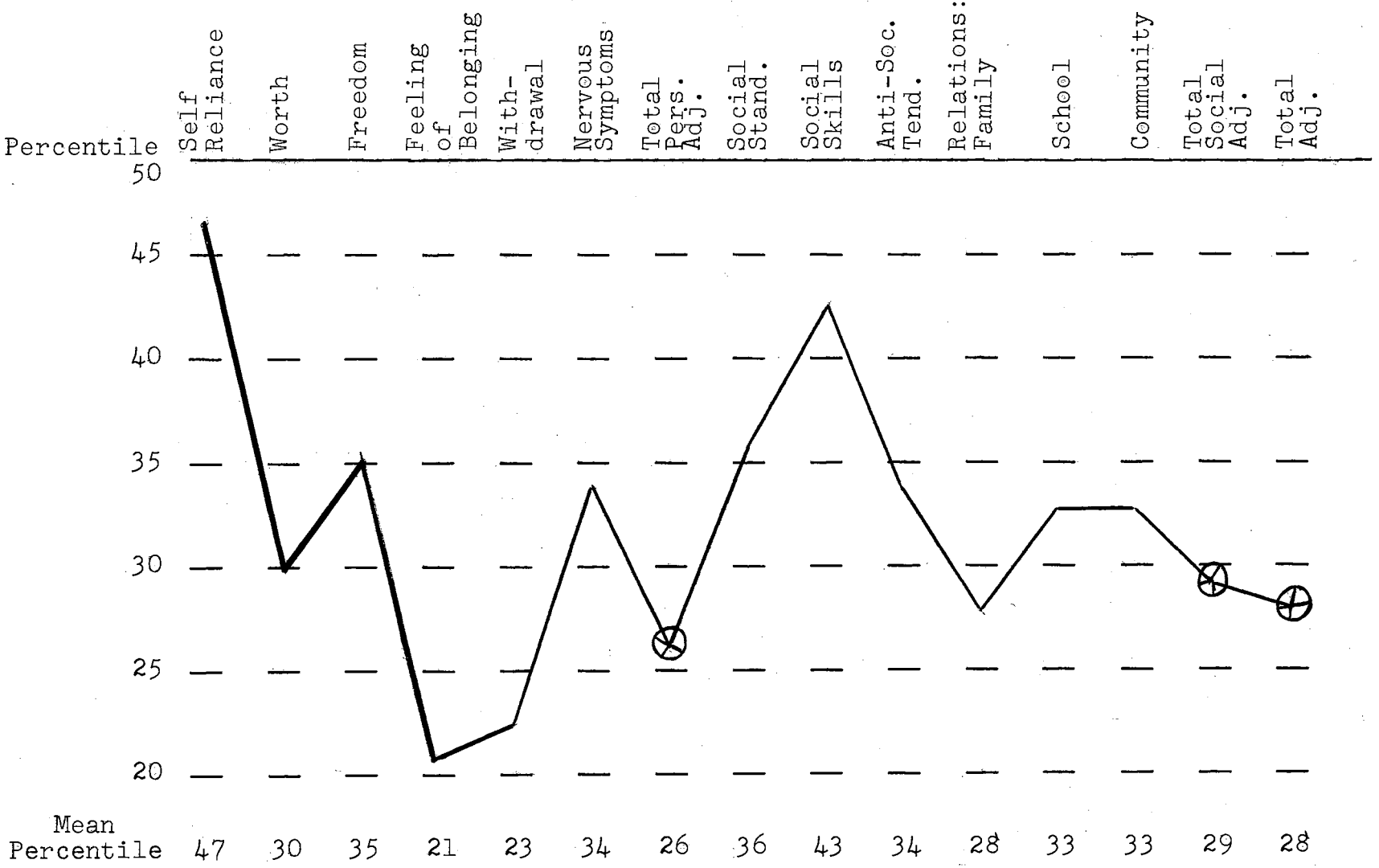
Davie (15), investigating social class factors in school attendance, found that dropouts increase sharply with each downward step of a six step social scale. One

of the three factors he stressed as providing major impetus to this downward trend was "a configuration of beliefs, values and attitudes pertaining to the purpose and value of education." Similar social attitude differences are pointed up frequently in Hollingshead's Elmtown's Youth. (25, pp.83-203)

As part of the pre-test data analysis of the Oklahoma City Dropout Retraining Program, a composite profile of median scores was prepared on the California Test of Personality for the experimental groups. This profile reveals that upon entry into the program the students as a group scored well below the norm median on all but two of the fifteen scales. The areas of Self Reliance and Knowledge of Social Skills, although higher than other scales, were still below the median of the normal population. The profile, which appears on the following page, reveals that the group undergoing retraining was indeed atypical in terms of personal and social adjustment at the outset of their programs. It is noted that such a profile very probably could have been hypothesized from the studies and data which are cited elsewhere in this report.

With these factors in mind, an examination of dropout programs in operation will indicate how the problem of personal-social adjustment change is treated in other sectors of the country. A review of programs indicate that some sixteen projects now underway for which reports were available neither mention measurement of personality or

CALIFORNIA TEST OF PERSONALITY - PRE TEST
TOTAL EXPERIMENTAL GROUP
UNDERGOING RETRAINING



attitudinal variables nor include in their retraining plan a treatment or assessment program. Evaluation of such variables by reading the reports and/or designs of these projects is difficult. However, it is noteworthy that omission of professional counseling services, guidance facilities, and social-personal adjustment curricular activities was the rule of these programs.

It is probably unfair to dropout programs currently in operation to state emphatically that no consideration is being given to personality and attitudinal variables. Some programs which have not provided specific treatment along these lines do report that improvement is noted in students in attitude toward retraining, ability to hold a job, and optimism for the future. Reports from The Kansas City Work Study Research Program indicate:

> At this point, we are gratified with the progress made by the boys in the program. They are developing good work habits and attitudes while learning certain skills at the same time. Many of the boys are developing a sense of pride in their work and can now recognize a job well done. (49)

The report on the Ken-Gar, Maryland program, which features the field work technique of sending social workers into the high dropout area, states:

> Teachers of the schools attended by the children from Ken-Gar, who early began to notice marked improvements in attitude and performance and a decline in disciplinary cases, now hold periodic conferences with the parent helpers to coordinate efforts and to share information about individual pupils. (49)

The Everett Plan of Everett, Massachusetts, states as one of its goals "to assist youth in identifying the elements of life planning that contribute to success, continued growth and happiness." The plan was introduced, developed and coordinated by the Chamber of Commerce, and no specific guidance or testing functions are provided. The director of guidance of the Everett Public Schools states that he feels "the Everett Plan can be a supplementary asset to the work of the guidance department." (19)

The San Francisco Special Cooperative Work-Experience Program is designed to coordinate youth employment with school work and allow the student to continue in school or the dropout to return. In terms of goals, it is stated that, "The ultimate objective of the program is that each trainee will develop stronger work habits, dignity, and self-respect while participating in the training program." (44)

A particularly unique design is the "Boy Builders of Bloomington" plan which is operated as a corporation and draws upon wives and retired faculty members of the University of Indiana. Its program states, "Each boy will have an individual tutor or counselor, using the wives of faculty members or retired teachers, to whom he will look for guidance and assistance." (3)

The training program in operation at Virginia State College, Norfolk Division, provides an excellent example of curricular considerations being made which are designed

to develop personal values and bring about attitudinal changes. (4) The "hard-core unemployed" is the pool from which their subjects are drawn, and the authors of the program indicate their feeling that it is necessary to "inculcate the concepts necessary for understanding the behavior of oneself and others and for understanding the dynamics of human groups." To facilitate the pursuit of this goal, special curricula on human relation were offered in addition to the skills training. The following are excerpts from the General Outline and a Sample Unit from this section of the training program, which serves to illustrate the program designers' attempt to deal with attitudes as well as personal-social adjustment.

Course Outline, Occupational Information and Human Relations

I. General Objectives
   A. To offer practical information pertaining to our "Work World" that will be supplementary to the shop training.

. . . . . .

II. Specific Objectives
   A. To develop on the part of these adults a clear understanding and appreciation of--
      1. Job entry requirements
      2. General requirements for advancement on the job.
      3. Some policies or procedures used in hiring workers . . .
      4. Labor-management relationships
      5. Some acceptable procedures used in applying for a job.
      6. Some reasons why workers are fired or dismissed.
      7. Some reasons why workers are given promotions.
      8. Laws and business procedures that are directly applicable to male adult workers who are heads of families or households.

9. Safety (on and off the job safety practices).
10. Employment outlook.

B. To develop on the part of these adults a desire to use the above cited experiences to improve their personal and family status.

Sample Units, Occupational Information and Human Relations

I. Some Basic Acceptable Occupational Principles--Assignments
   A. Your Future Is What You Make It
   B. Retraining Today for Tomorrow's Jobs
   C. Some Major Divisions or Job Classifications of Trades:
      1. Automobile Mechanics--Fields of Specialization

. . . . . .

III. Trade Code /or Ethics
IV. Future Trends in the Occupation
V. General Requirements for Advancement on the Job
   A. The development of the ability to become realistic--look into the mirror to see: WHY AM I UNEMPLOYED?
   B. Acceptable occupational attitudes
   C. The ability to read, think and evaluate are vital for the retrained adult worker
   D. The cultivation of reliable work habits
VI. Some Reasons Why Workers Are Fired
VII. Some Procedures or Policies Used in Hiring Workers
VIII. How Does Everybody Make a Living

. . . . . .

C. Personal budgeting

A rather complete supplementary films series was also introduced into the program at appropriate intervals and discussion ensued. A partial list and resume of some of the films which are illustrative of the program's attempt to deal with personal-social attitudes and values is herein included:

Film Series on Human Relations

Title	Description or Resume of Film
Get A Grip on Yourself. .	Discusses methods for controlling emotions
Marriage	Is family more important than two people in love? Discusses a young couple deciding on a secret elopement. Points out that marriage is a contract involving parents, future children, grandparents, and others.
Self-Control	Appraises the importance of self-control in life by citing examples in which control is required for good performance, and for industrial and scientific accomplishments.
Responsibility	Shows how one's position in a community might be used for the benefit of others in the community.
With Malice Toward Some.	Starts by showing a child receiving a blood transfusion from a donor of another ethnic group. The film argument focuses on these points: 1. Blood has no race, 2. One man's freedom stops where that of another begins.
Group Living	Shows responsibilities of individuals in groups.
Opportunity.	Discusses the opportunities available to U.S. citizens for a satisfying life both in spiritual and practical sense. Also, it underscores the value of the American precepts of individual freedom, the opportunities for self-development and economic advancement, and the inner pleasures that can be derived.
Perseverance	Emphasizes the importance of "stick-toitiveness," giving reasons why a worker should not quit a job because it is a difficult one or because of a temporary human-relations problem.

Title (cont.)	Description or Resume (cont.)
A Better World Begins With Me	Discusses the need for people to learn to appreciate the need of correcting their own faults before attacking those of others.
Honesty	Discusses honesty and integrity of individuals.
Personal Integrity . . .	Presents a situation in which a corporal must decide between his personal integrity and the possibility of losing his buddy's friendship.
Family	Discusses the moral responsibilities of a husband to his home as well as to his work.

The New York City programs for dropouts are another noteworthy attempt at dealing with attitudinal change. (56) (57) The three programs exhibit definite consideration of this in their objectives and design.

Project I was designed, in part, to assist potential dropouts in motivation to achieve an attainment of clear, realistic vocational goals. Significant ($p=.05$) improvement in these two areas was reported. It was expected that a resultant improvement in personal-social characteristics in the school situation would ensue even though this was not an expressed goal at the outset. However, the difference, though present, was not statistically significant ($p=.15$)

Project II was adopted to meet the needs of those dropouts who were not completely alienated from school and could attend an evening school program. Major features of this program were special provisions for counseling to assure availability of counseling help and allowing the

student to pursue education in adult surroundings. The hypotheses of this project related to improvement in school adjustment, job adjustment and attainment of clear goals. Chi square analyses at the end of the program showed significant changes pertinent to these criteria and, in addition, there was a statistically significant change ($p=.01$) in students' personal-social characteristics.

Project III was designed for the school alienated dropout who was oriented toward work, not toward school return. It was designed without formal academic involvement and instead utilized concerted pre-employment training. Special guidance and vocational classes were made available as well as ample counseling time and referral sources. The initial goal was to get the dropout employed within one month and then to continue with him in planned vocational-guidance courses and counseling.

The same hypotheses were tested as Project I and II and significant changes were found to have occurred. Unemployment rates were down significantly and major improvements came about in work performance and job attitude. Ratings of personal-social characteristics showed significant improvement (.01 level).

Several studies have been made on state and large city levels to assess the magnitude of their dropout situation and identify its characteristics. From such studies as the Washington Study (5), the Kentucky Study (68), and Holding Power (48) there has resulted a proliferation of

descriptive data. Some of these data were introduced in Chapter I. Also, recommendations have been forthcoming for dropout programs of local design and for public school changes to curtail the influx of new people into the dropout category. States such as Washington (5) and Maryland (34) indicate a major concern shall be to stem the flow of potential dropouts into the unemployment ranks. Programs such as these may be termed preventive approaches and represent yet another facet of the larger complex which encompases the dropout problem.

Many feel that if one is to assume a contributing role in our society he can best do so after he has an understanding of the functions and values of the society of which he is a part. Succinctly, in order to contribute maximally the individual needs to achieve a level of social adjustment which will allow him to function harmoniously and in accord with the values and mores which are esteemed by the larger society. This is true of the world of work in general, and is especially pertinent to the dropout, as he is at best a fringe member of the employment ranks. This is indicated by Secretary of Labor Wirtz, who states that one in four dropouts are unemployed and those three who are employed may look forward to layoffs and spasmodic employment. An assumption is made that the dropout aspires to a place of some permanence and security offered to one in the world of work. (41, p.162) It has been further assumed in the programs and legislation

reviewed to this point that the major mode of assisting the dropout in accomplishing this aspiration is to train him in a skill operation which is marketable and aid him in employment procurement. These kinds of objectives are being met with great success in the better programs throughout the nation.

It is, however, herein submitted that greater attention should be brought to bear upon the personality structure and the facilitation of the new societal role the retrained dropout is expected to assume immediately after the termination of his training.

The dropout has been variously characterized as having: a negative feeling of self worth, feelings of inadequacy, poor adjustment histories, and attitudes of belligerence and persecution prior to entry into training. (36) (38) (39) (47, pp.195-207) Dr. Edgar Friedenburg (50, pp.36-37) sums up the ideology of the dropout in his short chapter in The School Dropout. His description is:

> I have a name for this boy; I call him Edsel; and I think it is time we withdrew him from production and got out a more responsive and less hazardous model. Even the practical-minded may not have much use for him any more; the locals seem to be getting pretty tired of Edsel and are about ready to get him out of there, with a hammer and sickle if necessary. But if we are to grow anything better, the dropouts are the kids to start with, for they have come part way on their own, against heavy opposition, already. They are ill-disciplined. They have no basic skills. They are so sore that any place you touch them hurts; and when they are hurt, they hurt back. They are extremely parochial, limited in their experience of the world to a few city blocks of desolate slum, and, therefore, both gullible and suspicious about

> anything beyond it. They are sometimes homeless; they never have any quiet place to study and think. They are inconveniently aware of their own sexuality and inconveniently skilled at bringing it to the attention of others. They live, their teachers sometimes say, like animals; and as they say it, a ghost sobs, harshly. But if these youngsters are trapped, it is not in their apprehensions of pseudo events. They are not alienated. They still have access to their sense-data and, on their own terms, are accustomed to fidelity.
>
> These are the qualities that, I believe, we hoped to preserve and continually renew by building an open society in which a sensitive, compulsively masculine boy could become an Ernest Hemingway and a poor but beautiful waif, a Marilyn Monroe. At this juncture, less fatal alternatives to mediocrity are needed. Can a school geared to success and social mobility help formulate them? Its traditions are against it, its staff are against it; its relationship to the community power structure is against it.

The societal attitude of many of those who are being retrained is reflected by Daniel Schreiber (50, p.33), who says:

> The dropouts, by and large, don't like middle-class culture. . . . The school has been the arena in which these youngsters encounter middle class life; this is where the dropouts fight the 10-year idealogical war that ends in their defeat and rout. In this warfare, core values of both their culture and that which the school represents are at issue; any one that we start by considering will lead to the others.

Arthur I. Stinchcombe (58, p.87), in his book Rebellion in the High School, states a similar premise in a different manner when he says, "It is my contention that expressive alienation and high school rebellion are 'reaction formations' which actively reject partially internalized goals of success." Dropping out of school may well be the final overt expression of alienation. It is also noted that the

term "school alienated youth" is used in the New York City projects to describe that portion of the dropout subculture which is viewed as not being amenable to return to the regular academic setting. (56)

Hollingshead (25, pp.163-243) adds a peer group dimension to the social context of the dropout. Through the use of the five division social class scale applied to "Elmtown" it was found that the lower (IV and V) classes included the vast bulk of dropouts or "out-of-schoolers," and further, that on sociometric choice of "best friends" the youths of these classes more frequently named an out-of-school youth. It was discovered that working part time, in the case of girls particularly, was closely associated with termination of education. Further, it was found that a definite job class was associated with likelihood of completing high school. Waitresses were the extreme low end of the working prestige scale, and working as a waitress at certain restaurants such as the "Blue Triangle" created an almost inevitable peer group alienation which generated sufficient pressure to bring about quick school withdrawal.

Schreiber's book, Guidance and the School Dropout, (47, pp.24-39) gives further evidence of the importance of emotional and social well being in his chapter entitled "Climate Effects Fallout." In this chapter, acceptance is given paramount importance, and it is suggested that such acceptance must come from both peer and school environment

sources if the potential dropout is to remain in the academic setting.

The interdependence of personality and attitudes toward self and behavior is well documented in psychological literature. "It is an accepted fact that behavior is purposive and not happenstance." (31, p.20) The reasons underlying behavior are expressed in various theoretical frameworks, depending upon the source consulted. Anne Roe, reporting in Borow (2, pp.196-214), puts this idea in a different context when she says, "People behave in ways which are expected to attain certain of their values and avoid behaving in ways which negate, or are expected to negate, these values." This basic conception is particularly relevant to the study of the dropout, because it indicates that the past behavior of the dropout has not been a random, undirected, or totally purposeless reaction to his environment.

The opposite of this construct is what Lindgren (31, p.21) calls the "common sense approach" when he says:

> "Common sense," on the other hand, perceives much of human behavior as senseless and purposeless. If we follow the dictates of "common sense" in this matter, we are faced with the necessity of accepting what appears to be the inevitable stupidity of mankind, or becoming cynical, or taking steps to <u>force</u> people to act sensibly in spite of their perverse nature. The psychologist's approach is quite different. Since he assumes that all behavior has a purpose, his task is to discover that purpose. No matter how senseless and unreasonable human behavior appears, he knows that if he can discover the purposes, he can understand and predict the occurrence of this behavior and perhaps even undertake to help people control and redirect it.

There is not, however, common accord among psychologists concerning the nature or relationship of the psychic mechanisms which precede the observed behavior. Many approaches are somewhat fragmented in that they deal with specific factors. This is illustrated by the work of Fine (2, p.196), who is involved with the construction of a "functional occupational classification structure" based upon temperament and work situations, and the somewhat more comprehensive work of Holland (2, p.272), whose typology study is described in Borow and is based upon "personal orientations."

With man so complicated an organism, it is not surprising that many schemes would exist for conceptualizing his personality. Briefly, a few of them are:

> The trait and type approach, associated with such men as Cattell and Kraepelin, is based upon the theory of classification of individuals into types by their pattern of traits.
>
> The association-learning viewpoint, represented by Dollard and Miller, contends that personality takes place in accord with the laws of learning. Consequently, behavior is the observable result of learned habits of responses that an individual makes to his internal and external environment.
>
> The psychoanalytic point of view is based, to a large extent, upon Freudian constructs. Lazarus (26, p.131) states that this system is largely clinical

in nature, as opposed to other theories which were generated in laboratory contexts. The effects of this system may not be overemphasized, not only because of its position as a leading theory in itself, but also because of its influence upon other approaches.

The phenomenological point of view includes in it those systems which are sometimes termed organismic, holistic and self theories.

The reviewer will confine himself to a few of those concepts most related to self theories, particularly those of Carl Rogers and Snygg and Combs. Rogers sees the self concept, how one sees himself, as developing out of the interaction with the environment. Learning, development, and change are viewed in terms of organization and reorganization of the individual's perceptual field. The self theory of Snygg and Combs is somewhat similar to that of Rogers, but one difference in terminology is of importance for interpretation. Snygg and Combs use the term "phenomenal field" to represent the psychological environment. (9, pp.31-35) In their view, this term includes both the phenomenal self and the self concept.

Self theories are frequently considered as a new approach to understanding behavior. However, it is noted that as early as 1890 William James discussed formulations of the self in his Principles of Psychology. (26, p.105)

Lazarus (26), in reviewing self theories, states:

> Many psychologists agree with the use of the concept of self in some form as an organizer of behavior. These approaches, with their emphasis upon the individual and his own particular interpretation of events, are most appealing to clinical psychologists and others whose emphasis is on understanding and helping the individual person.

It is in these terms--helping the individual--that the researcher feels that an examination of personal-social variables relevant to the dropout may best be made. Previous evidence has been cited to indicate that the environment or, as Snygg and Combs would term it, the phenomenal field of the dropout is not one which directs the dropout on the route of smooth transition into a maximally contributory societal position. Further, data indicate that dropouts in general and the Oklahoma City retraining group in particular come to the retraining environment with concepts and attitudes toward self and society which are, in most respects, atypical. The retraining program itself represents a concentrated, intensive experience which attempts to upgrade the individual's competencies and skills in necessary and important areas. According to self theorists, increased effectiveness in these so-called coping behaviors might well be expected to alter the individual's concept of his own adequacy as a person. A well accepted premise seems to be that individuals with different past experiences and, hence, different perceptual organizations, will respond differently to similar treatment and experience. Therefore, it may well be expected that differences in

personal-social adjustment change may be related to significant variables in the life histories of the subjects. It is toward an examination of some of these related variables that the previously stated hypotheses have been directed.

CHAPTER III

DESIGN AND METHODOLOGY

This study bears certain relationships to a legislative enactment, a specific program for dropout retraining, and a separate and independent grant for research. The act, the program, and the grant are herein explained briefly, accompanied by statements of their relationship to this thesis.

The Manpower Development and Training Act of 1962 (33)(Public Law 87-415) is the act under which the program for dropout retraining in Oklahoma City was submitted. It was the stated purpose of this act to "require the federal government to appraise the manpower requirements and resources of the nation, and to develop and apply the information and methods needed to deal with the problems of unemployment resulting from automation and technological changes and other types of persistent unemployment." This act was designed to be put into operation under the dual auspices of the offices of the Secretary of Labor and the offices of the Secretary of Health, Education and Welfare.

Under Title II, Part A of the aforementioned act, the Secretary of Labor is delegated the responsibility for selection of trainees, training allowances, for on-the-job

training, and for entering into agreements with each state's appropriate agency for carrying out the functions of the act. The Oklahoma Employment Security Commission is that office on the state level through which the Department of Labor has channeled its efforts relevant to this act.

Under Title II, Part B, the Secretary of Health, Education and Welfare is delegated the responsibility for entering into agreements with appropriate state vocational education agencies who will provide programs and training needed. The Oklahoma State Board for Vocational Education is the agency which agreed to the performance of this task.

The Oklahoma City Dropout Retraining Program is a product of the joint proposals of the two previously mentioned state agencies. Their proposal contains the selection procedures, staff procurement, curriculum and financial arrangements in accordance with the specific functions of the Department of Labor and the Department of Health, Education and Welfare which are relevant to the Manpower Act.

The major area which is not included in the scope of responsibility of these agencies is the research function. The research phase of the M.D.T.A. Project in Oklahoma City was initiated under the authorship of Dr. J. Paschal Twyman (64), Associate Professor of Education at Oklahoma State University, and is coordinated by the Oklahoma State University Research Foundation. This phase of the total function was proposed separately but with

full cooperation of the two state administering agencies. The proposal for financial support for research was submitted and approved by the Ford Foundation and sufficiently funded to carry the program through its three year period beginning September 1, 1963. It has since been extended to September 1, 1967.

The financial support for the Oklahoma City Dropout Retraining Program comes from several sources. The Department of Health, Education and Welfare provided $131,999. which was administered through the Oklahoma State Board of Vocational Education. The Department of Labor, through its contracted agent, contributed $197,843. The Ford Foundation made $185,000. available to the Oklahoma State University School Dropout Research Team, which is used in research and follow-up study. The Oklahoma State University contributed approximately $34,975. to the project, and numerous contributions in the form of facilities and services were made by the Oklahoma City Public School System.

Relationship of the Present Study

This thesis bears definite relationship to the research phase of the total project since both utilize the same subjects and portions of the same data and collection methods. The writer of this study has had opportunity, over the past year, to work with the research staff which bears responsibility for the larger Ford Foundation sponsored study. (64) Space was provided in the offices of

this group, and the writer has participated in the collection of data during the past year. The Oklahoma State University School Dropout Research Team has maintained a close working relationship with both the Oklahoma Employment Security Commission and the State Board of Vocational Education. The writer has not had cause to establish contacts in these agencies directly, but has been given complete access to the files pertinent to their operation, which are in the Oklahoma State University School Dropout Research Team office.

This study does not purport to answer any of the specific research objectives or questions which are enumerated in the proposal to the Ford Foundation for a grant for research. It is the feeling of the writer, indeed his desire, that the present study may be of some value in providing partial answers to the Ford Foundation investigation. This study is not to be considered a segment of the Ford Foundation Grant for Research, although its contents may be incorporated into said report at the discretion of the research team.

Location of Training Facilities

The Oklahoma City Dropout Retraining Program was located at Central High School for the most part, with three vocational classes--Auto Mechanics, Sheet Metal, and Welding--being located in the Washington School facilities. Office space was provided at Central High School for a

Program Coordinator, comptroller, and two secretaries as well as classroom and training space for the other courses.

Central High School is located in downtown Oklahoma City, making it most accessible to other community agencies such as the Y.M.C.A., Y.W.C.A., public transportation, employment services, and the major job market. It is also in reasonably close proximity to the residential areas which contributed a number of the subjects undergoing retraining. This residential area may be characterized as the older, multiple tenement dwellings and small residences, intersperced with commercial business houses which are on the perimeter of the mainstream of commercial activity. Sociologically, the school serves that area which houses the lower two classes of the five class system used by Hollingshead. (25, pp.83-120)

The Subjects

At the beginning of the program on August 3, 1964, all the subjects had been selected by the Oklahoma Employment Security Commission after being interviewed and after having completed an interest inventory and the General Aptitude Test Battery. All were school dropouts (ages 18-22) who were unemployed, had been out of school for at least a year, and all achieved scores on the test instruments which indicated a reasonable chance for success in the program. (63)

The students were assigned to experimental treatment groups on the basis of a combination of factors, including interest test scores and number of openings. In general, the control group members were selected according to the same set of criteria. (63)

The maximum number of trainees (250) were in training at the outset of the program. By replacing the trainees who were forced to drop from retraining, the Employment Service was able to maintain the maximum number until the third week of training. In accordance with the policy established by the training facility which specified no replacements after fifteen per cent of the training program had elapsed, those classes running twenty-six weeks or less were closed at August 31, 1964. (54)

The total number of subjects included in this study is 217 persons. The following is a breakdown by training groups:

1. Academic only - 33
2. Academic and Vocational - 76
3. Vocational only - 51
4. Control (re-dropouts before completion of 15% of the program) - 27
5. Control, no treatment - 30

There were 250 students enrolled after 15% of the 26 week training period had elapsed. As of April 15, 1965, 174 students were participating in programs.

Training Programs

The following table indicates the training programs provided for the retraining student. It is based upon the Oklahoma Employment Security Commission's Special Youth Project Report of March 10, 1965. (54)

TABLE I

OKLAHOMA CITY PROJECT TRAINING PROGRAMS

Program	Weeks of Train'g	No. in Train'g at 15%	No. Finishing Program	Post Tested early/late
Steno. Refresher	26	30	20	early
Clerk-Gen. Office	20	30	24	early
Office Machine Serviceman	36	20	13	late
Cosmetology	43	20	14	late
Cosmetology	43	20	19	late
Machine Tool Operator	26	20	14	early
Welder, Comb.	26	20	17	early
Production Sheet Metal	36	20	5	late
Auto Mechanic	48	20	13	late
Academic	Variable	53	35	late & early

Method of Data Collection

The California Test of Personality was administered on a pre and post test basis as a measure of personal and social adjustment evidenced by both experimental and control groups at the onset and conclusion of the program. The California Test of Personality was first administered on August 3, 1964, and absentees tested on their return to the school. The post testing was divided into two test periods. The early post testing occurred on January 4 and 5, 1965. It involved those students whose program terminated early (20-26 weeks) and one-half of the experimental group undergoing academic training only. The late post test was given on April 26 and 27, 1965, and involved those groups whose program was of longer duration and the latter half of the academic-only training group. The students in the academic-only group who were posted early were selected randomly by use of a table of random numbers.

Interviews were conducted in the early stages of the retraining programs by members of the research staff. The interviews were usually recorded on tape. Direction was provided by a standard interview form constructed by the Oklahoma State University School Dropout Research team, in order to provide some assurance that the desired data would be collected and that the manner of collection would be uniform. All of the experimental group interviews were taped. Some control group interviews, however, were not

taped. The reason for this surrounded the circumstances of the interview. There were instances when the interview had to be conducted in the home, in the car, on the job and, in one instance, in the city jail. In these cases an interview form was used and notes taken by the interviewer.

After recording the interviews, a typescript was prepared from each tape. The data for this study was extracted from the typescripts and interviewer notes. A code system for computer tabulation was constructed, and each typescript read and data recorded on code sheets.

The Instruments

The interview instrument was constructed by the research staff under the direction of Dr. John C. Egermeier and in consultation with the Psychology Department at Oklahome State University. A high degree of familiarity with the instrument was attained by the interviewers before actual interviewing was begun, and each was aware of the kinds of data desired and the future utilization of the data in research.

There was general agreement of the research staff that the interview methods and instruments were successful in deriving responses pertinent to the intent of the question. One exception to this statement must be made in regard to the sociometric choice questions. When asked to identify peer group members, the interviewees failed in many instances to elicit the desired number of choices and,

in some instances, any choice at all. Early plans which had called for the inclusion of this variable in the study were abandoned.

The California Test of Personality (62), Forms BB (pre-test) and AA (post-test), was the instrument selected by the Oklahoma State University School Dropout Research Team as the measuring device for personal and social adjustment. This test was chosen after consultation with members of both the Education and Psychology Departments at Oklahoma State University and after reviewing the major tests available in the area. It was felt that the test most nearly met the needs for measurement of the research questions which were formulated in the Ford Foundation proposal (63), and that the kinds of variables which were measured by the instrument were salient to the questions being asked of dropout research.

For the purpose of this study, it was the decision of the researcher to use only the two major subscores (total personal adjustment and total social adjustment) and the total composite score as the criteria for measurement. The reason for this decision is primarily due to the fact that there are only fifteen items available for response on each of the twelve subscales. By using only the two major subscores, the length of the test, relative to personal adjustment and social adjustment, was extended to ninety items each. The composite score is then a total of one hundred eighty items. The rationale for this decision is

based upon the premise that increasing the sample of performance (the number of items) makes it possible to obtain a more accurate measurement. Cronbach (14, p.130) states:

> The importance of lengthening tests is that with every question added, the sample of performance becomes a more adequate index of performance on all possible questions.. . . By asking more and more questions of the same general sort, we come closer to a good estimate.

Thorndike and Hagen concur in this statement:

> As the length of the test is increased, the chance errors of measurement more or less cancel out; score comes to depend more and more completely upon the characteristics of the person being measured, and a more accurate appraisal of him is obtained. (61, p.188)

The manual for the California Test of Personality quotes the following concerning the test reliability, and Table II on the following page shows both reliability coefficients and score reliability data:

> The coefficients of reliability, number of cases, and standard errors of measurement are given below for the sub-sections and totals of the California Test of Personality in terms of raw scores for the various levels. These reliability coefficients have been computed with the Kuder-Richardson formula.

It was discovered by the researcher through review of some fourteen personality tests and inventories that validity data of an empirical nature are not normally quoted by this type personality test. The California Test of Personality is no exception to this trend.

The validity of this instrument is defended on the grounds of success achieved with it by other investigators. The following are excerpts from the validity section of the test manual. (62)

The Educational Research Bulletin of the New York City Schools carries this statement regarding the California Test of Personality: "This procedure, (inventories organized so students can answer questions by themselves) which is followed in the California Test of Personality is perhaps the most diagnostic of any test of this type."

Syracuse University found that the California Test of Personality correlated more closely with clinical findings than any other personality test.

Buhler has pointed out that the California Test of Personality provides a means of obtaining data for individuals usually obtained by time-consuming interviews, and that the instrument may be considered a "Level I" projection test.

TABLE II

RELIABILITY COEFFICIENTS
C.T.P. - SECONDARY (62)

Components	Form AA or BB		Both Forms	
		S. E. Meas.		S. E. Meas.
1. Personal Adjustment	.90	3.72	.95	5.26
A. Self-reliance	.70	1.64	.82	2.54
B. Sense of Personal Worth	.77	1.20	.87	1.80
C. Sense of Pers. Freedom	.84	1.00	.91	1.50
D. Feeling of Belonging	.91	.75	.95	1.12
E. Withdrawing Tendencies	.86	1.31	.92	1.98
F. Nervous Symptoms	.82	1.49	.90	2.22
2. Social Adjustment	.89	3.48	.94	5.14
A. Social Standards	.84	.60	.91	.90
B. Social Skills	.86	1.31	.92	1.98
C. Anti-social Tendencies	.84	1.00	.91	1.50
D. Family Relations	.91	.90	.95	1.34
E. School Relations	.73	1.43	.84	2.20
F. Community Relations	.78	1.29	.88	1.90
Total Adjustment	.93	5.56	.96	8.40
Number of cases	2262			

Some ninety research studies in which the test is used are cited in the test manual as providing strength to the question of validity.

Reviews of the test indicate that, in general, the test is regarded favorably in its field, but that it suffers from the same limitations as do other inventories which purport to measure similar kinds of personality variables. The major consistent criticism was the lack of established validity. This criticism was voiced by Verner M. Sims (55) in his review of the California Test of Personality in Buros' Fifth Mental Measurements Yearbook. (6, pp.100-103) After a criticism of the indirect methods of reporting on validity, Dr. Sims comments on the test's validity in the following manner:

> In spite of limitations, however, the additional evidence on validity reported or referred to in the manual not only answers some of the earlier criticisms but convinces this reviewer that as a measure of self-concept in the, as of now, vaguely defined area called adjustment, this test is as valid as most such instruments.

The review concludes with, "All in all, in spite of criticism, as personality inventories go, the California test would appear to be among the better ones available."

It is noted that of one hundred seventeen references identified in which the California Test of Personality is used, there are publications appearing in most relevant professional journals. The range of publications include the areas of education, psychology and sociology. The Journal of Educational Research has published seven articles

using this instrument as a measuring device. Others include: Journal of Educational Psychology (4), Journal of Consulting Psychology (4), American Psychologist (4), Sociometry (3), Journal of Social Psychology (2), Journal of Genetic Psychology (2), Journal of Clinical Psychology, Journal of Applied Psychology, and Journal of Exceptional Children.

The high-low change design of this study was also found to have been used in a similar manner by other researchers. Taylor and Combs (59) used this method in measuring differences in self-acceptance and adjustment. Hinkleman (24) used the test data in a similar manner in his study of personality adjustment in delinquents and non-delinquents.

Discussion of Terms

1. Experimental Group. This group includes those students who have undergone training in the program. The training may have been academic, vocational, or both. It may have been of long or short duration.
2. Control Group. This group includes two distinct categories. The first are those former trainees who dropped from their respective programs before fifteen per cent of the training was completed. The second control group is those students selected at the time of the experimental groups but received no training.
3. The Dropout.

> A Dropout is a pupil who leaves a school, for any reason except death, before graduation

or completion of a program of studies and without transferring to another school.

> The term "dropout" is used most often to designate those elementary and secondary school pupils who have been in membership during the regular school term and who withdraw from membership before graduating from secondary school (grade 12) or before completing their programs of studies. Such an individual is considered a dropout whether his dropping out occurs during or between regular school terms, whether his dropping out occurs before or after he has passed the compulsory school attendance age, and, where applicable, whether or not he has completed a minimum required amount of school work. (40)

4. Personal Adjustment. This variable is subject to interpretation, and it is recognized that psychologists do not always agree. The term is herein interpreted in a broad sense to include the kinds of sub-test variables measured by the instrument used. They are: self-reliance, sense of personal worth, sense of personal freedom, feeling of belonging, withdrawing tendencies, and nervous symptoms.
5. Social Adjustment. The subtests which contribute to the interpretation of this term are: social standards, social skills, anti-social tendencies, family relations, school relations, and community relations.
6. Re-dropout. This is a control group composed of those students who were pre tested but dropped out of training before fifteen per cent of their program was completed. They were brought back for post testing.
7. Adjustment Change. This term denotes the difference between pre and post testing on the California Test of Personality. The personal adjustment change is the

pre-post score difference + 30. The same is true of social adjustment change. The composite adjustment change (personal and social) included total adjustment change + 60 points. The addition of points was done to avoid negative numbers which would be contributed by the few subjects who scored lower on post than on pre testing.

8. High Change. This term describes that upper portion of the group who manifested the greatest positive change between pre and post tests.

9. Low Change. This term describes the lower half of the group who evidenced the least change.

10. M.D.T.A. This refers to the Manpower Development and Training Act of 1962.

11. C.T.P. This is the common reference made to the California Test of Personality, 1953 Revised Edition.

12. The Oklahoma City Dropout Retraining Program. This term applies to the M.D.T.A. retraining program which was conducted in Oklahoma City, Oklahoma. The federal code number is MDTA-OK224.

13. The Oklahoma State University School Dropout Research Team. This term is referred to in the study as that group of research personnel who were extended a grant to research the Oklahoma City Dropout Retraining Program.

14. Unemployed. This term is used by the Employment Security Commission to denote those people who were not

employed at the time of consideration for the program, nor were their prospects of becoming employed in any manner good. The term underemployed was used as a possible category in original selection, but none of the subjects selected found themselves in this category.

The Groups

The first major division is between experimental and control. The experimental groups include all those who have undergone retraining. The control group is divided into two classifications. C_1 denotes those people who were selected initially and received no treatment. C_2 indicates those who began a program but withdrew prior to the completion of fifteen per cent of their program.

The experimental group is subdivided into three major classifications. They are: academic only training, vocational only training, and those who received training in both academic and vocational classes.

The Variables

Subtotal and composite total scores are the major criteria against which the other variables are tested. The three scores used represent the pre-post test difference in total personal adjustment, total social adjustment, and composite personal-social adjustment. The median is established for each of the three criteria. Those above

the median are categorized as high change. Those below are the low change group.

The variables, as related in the hypotheses, against which the three major criteria are to be tested, are:

1. A comparison of all who received treatment against all those who did not receive or received only minimal treatment. This is done to provide basic evidence relative to whether the treatment did bring about change which those not treated did not experience.
2. This variable involves a test to indicate if those who received a full program treatment differ from those who were selected for treatment but withdrew prior to completion of fifteen per cent of their program.
3. In a similar vein, the third variable measures the difference in change between those who received absolutely no treatment and those who were treated.
4. The test of this variable is made to discover the differences in the three adjustment criteria among the three types of treatments extended to the experimental groups. These experimental groups are: (a) those receiving both academic and vocational training, (b) vocational training only (which includes all nine vocational programs), (c) training in academic subjects only, (d) no

treatment control group, and (e) the re-dropout control group.

5. The fifth variable examines the results in terms of change of differences in length of time the experimental students spent in retraining. As the programs were of different duration, those whose programs ended at twenty-six weeks or earlier were tested early, and one-half of the academic only experimental group were included in these test data. The remaining one-half of the academic only group and those vocational training programs terminating later were tested later. (Refer to Chapter II, Vocational Training Programs.)
6. The test of this variable measures the difference in early and late post testing relative to the total control group.
7. The seventh series of variables are tested to measure the high-low change groups of the treated students against six personal history characteristics. These characteristics are:
   A. The length of time between dropout and retraining, divided into three cells:
      (1) Less than $1\frac{1}{2}$ years time lapse
      (2) $1\frac{1}{2}$ but less than 3 years time lapse
      (3) More than 3 years time lapse

B. Full or part-time employment and unemployis measured in this test.

C. The highest point achieved in education before dropping out of a regular school program, divided into the following cells:
   (1) 8th grade or less
   (2) Began 9th grade - finished 10th
   (3) Began 11th or more

D. Automobile ownership and maintenance is measured in this test. Married women living with the husband were included in the own and maintain category. Parent owned and maintained vehicles were excluded, even though the student may have immediate access.

E. A comparison of students who came from primarily rural or urban backgrounds was made. Census Bureau figure of 2,000 people or less was used to determine rural criteria. "Primarily rural" denotes the major portion of time spent in this setting relative to the student's age.

F. Marital status of the subject, divided into three categories:
   (1) Married
   (2) Single
   (3) Divorced or separated

   The criteria for children or no children is based upon whether primary responsibility

for care and/or support of the child is undertaken by the trainee.

8. The final hypotheses compared high-low adjustment change on the three criteria to certain expressed family history characteristics.

   A. A determination of adequate-inadequate income was established, based upon a formula of amount of income available in the home, either parents or their own, over the numbers of people who must share the income. A minimal standard of $50.00 per person per month was used. This is based upon the National Policy Committee on Pockets of Poverty quotation. (17)

   B. This variable relates to the kind of home situation in which the trainee lived as he was undergoing his retraining. The classifications are:

      (1) Living at home (Both parents)

      (2) Maintaining separate abode (Single)

      (3) Living at home (One parent absent)

      (4) Maintaining separate abode (Married with spouse)

   C. This sub hypothesis concerns attained education of the parents of the trainee. The classifications for both mother and father, separately, were:

(1) 8th grade or less

(2) Some high school

(3) High school graduate

(4) Some post high school (includes college)

(5) No data

Another test which was made which does not relate specifically to the hypotheses but which is fundamental to the study was that test for difference between the high-low change groups in the experimental subjects. An "F" test is used to measure this difference.

No hypothesis was formulated to include a comparison in personal-social adjustment change relative to sex of the trainee. Three "F" tests were made to compare males with females in terms of total composite, personal, and social adjustment change.

Statistical Treatment

An "F" test of difference is applied to the high-low change division of the experimental group.

Chi-square treatment is used in all other tests to determine significant differences between the variables stated in the section of Chapter III immediately preceding this section.

The chi-square test is felt to be the most appropriate method of analysis pertinent to the type of data under investigation. Most data yielded was of a categorical nature and was readily amenable to treatment with this

technique. It was found to be the usual statistical treatment used in the three other publications which attempt to report personality related kinds of statistical data on dropout. These publications are: The Drop-out Problem in Iowa High Schools (67), Youman's The Rural School Dropout (68), and The Maryland Cooperative Study of Dropouts. (34)

This chapter represents the salient factors of how the study was conducted. The contents are to provide pertinent methodological information as well as an acquaintance with the design of the study. The following chapter includes the analysis of the tests which were made in accordance with the hypotheses previously stated in Chapter I and with the description of variables discussed in Chapter III.

CHAPTER IV

PRESENTATION AND ANALYSIS OF RESULTS

This chapter deals with the treatment of those data collected during the past academic year which are based upon the dropout students undergoing retraining (experimental groups) and two dropout control groups. The dependent variables used in this experimental design were those scores derived from the pre and post test administrations of the California Test of Personality. Two subscores, the Total Personal Adjustment and the Total Social Adjustment, were used as well as the Total Composite score, which is a combination of the personal and social adjustment subscores.

Each of the three scores used was divided into high change and low change categories. A change score was obtained for each of the 217 subjects represented in this study by determining the difference between the subject's pre and post test scores. In order to avoid the use of negative numbers, thirty points were added to the subject's personal adjustment difference in scores and thirty points to his social adjustment difference in scores. An addition of sixty points was made to each subject's total composite adjustment difference in scores.

After obtaining a change score for each subject on the three dependent variables, the next treatment was the division into high change and low change categories. This division was made by determining the median change of the total subjects, of the experimental groups, and of the control groups. Those subjects whose change scores were above the median were designated high change and those below the median were designated low change. This process was followed for each of the three dependent variables.

The independent variables, which are stated in each hypothesis, were treated by the chi-square method of analysis. Date for each chi-square test which was made appears in table form in the context of the chapter. In order to facilitate the interpretation, they are arranged in multiples of three tables which correspond with the three dependent variables stated in the hypotheses.

Before proceeding to the examination of the hypotheses, an explanation of the preliminary "F" and "t" tests of significance is necessary. These tests are made in order to determine the difference, if any, between the experimental and the control groups on the basis of the pre-test scores of the California Test of Personality. No significant difference was found among the three dependent variables used in this study. This test provides evidence that no difference existed at the beginning of the retraining program (August 3, 1964) between the experimental and control groups on the three scores of the California Test of Personality utilized in this study.

Another "F" test was made to assess the difference between the sexes relative to the degree of change on the three dependent variables. This test revealed that the female subjects engaged in retraining made a significantly greater degree of positive change relative to Social Adjustment than did the males. There was no significant difference in Total Composite Adjustment and Personal Adjustment between the male and female experimental subjects.

There were seventeen of the subjects of this study who participated in a study conducted by Carl Willis, graduate student at Oklahoma State University. Mr. Willis' study involved small group interaction relative to personal or social problems. An "F" test revealed that these subjects did not differ significantly (p. less than .05) from the remainder of those participating in this study on either of those dependent variables used.

In order to determine if the experimental and control groups evidenced change from pre to post administrations of the California Test of Personality, a series of "t" tests were made. The results of those tests are presented in the following table. These tests indicate that some change did, in fact, occur in the pre and post tests of both the experimental and control groups. The single exception to this fact occurred when the Social Adjustment Change of the experimental group was found not to have changed significantly. The control group revealed significant (.05) change relative to this measure.

In relation to Composite Adjustment, both groups evidenced significant change. The control groups indicated this change at the .01 level, and the experimental group revealed somewhat less change but still significant at the .01 level.

TABLE III

THE "t" VALUES OF ADJUSTMENT CHANGE IN THE EXPERIMENTAL (≤E) AND CONTROL (≤C) GROUPS

Dep. Variable	Group	"t" value	Significance
Comp. Adj. Change	≤E	2.45	.05
	≤C	3.02	.01
Pers. Adj. Change	≤E	3.77	.01
	≤C	3.27	.01
Soc. Adj. Change	≤E	.35	Not sig.
	≤C	2.28	.05

Both the experimental and the control groups revealed a significant amount of change relative to Personal Adjustment. The "t" values of the two groups indicated that the amount of change which occurred in each group was quite similar.

The following analyses relate to the hypotheses proposed for this study. The order of treatment is the same as the order in which the hypotheses were stated in Chapter I. They are restated at the beginning of each of the sets of

analyses in order to aid the reader and to provide some continuity in the pattern of reporting.

Hypothesis I

There will be no significant difference between the total experimental group and total control group in:

A. Composite personal-social adjustment change

B. Personal adjustment change

C. Social adjustment change

This hypothesis is related to the total number of subjects in the study. They were divided into two specific groups. The total experimental group (ΣE) included all of those 160 subjects who received retraining, with the exception of dropouts from the retraining program. The total control group (ΣC) was comprised of those 57 subjects who either received no treatment or who dropped before completing fifteen per cent of the retraining program.

Median divisions of the 217 subjects were made in order to derive the high-low change categories for each of the three dependent variables.

TABLE IV

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN EXPERIMENTAL GROUPS (ξE) AND CONTROL GROUPS (ξC)

Change	ξE	ξC	Totals
High	76	41	117
Low	84	16	100
Totals	160	57	217
Chi-square: 10.10		d.f.: 1	p. < .05

TABLE V

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN EXPERIMENTAL GROUPS (ξE) AND CONTROL GROUPS (ξC)

Change	ξE	ξC	Totals
High	77	32	109
Low	83	25	108
Totals	160	57	217
Chi-square: 1.49		d.f.: 1	p. > .05

TABLE VI

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN EXPERIMENTAL GROUPS (ξE) AND CONTROL GROUPS (ξC)

Change	ξE	ξC	Totals
High	75	38	113
Low	85	19	104
Totals	160	57	217
Chi-square: 4.52		d.f.: 1	p. < .05

The Total Composite Adjustment Change (Table IV) and the Social Adjustment Change (Table VI) analyses revealed that significant differences in degree of change did occur between pre and post testing for the two groups compared. The Total Composite Adjustment Change test indicated a difference between the groups which was significant at the .01 level, and the difference in Total Social Adjustment change between the groups was significant at the .05 level. The Personal Adjustment Change test failed to indicate a difference at an acceptable level of significance. In all three chi-square analyses the data seemed to indicate a greater degree of positive change for the control groups than for the experimental groups.

HYPOTHESIS II

There will be no significant difference between the total experimental group and the early re-dropout control group in:

A. Composite personal-social adjustment change

B. Personal adjustment change

C. Social adjustment change

Results of tests of the change evidenced by the total experimental subjects and the early re-dropouts are shown in Tables VII, VIII, and IX. The total experimental subjects included all 160 subjects in this study who underwent a retraining program. The early re-dropouts were those control group subjects who withdrew before fifteen per cent of their programs were completed.

TABLE VII

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE EXPERIMENTAL GROUPS (ξE) AND THE REDROPOUT CONTROL GROUP (C_1)

Change	ξE	C_1	Totals
High	76	20	96
Low	84	7	91
Totals	160	27	187
Chi-square: 6.53		d.f.: 1	$p. < .05$

TABLE VIII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE EXPERIMENTAL GROUPS ($\leq$E) AND THE REDROPOUT CONTROL GROUP (C_1)

Change	$\leq$E	C_1	Totals
High	77	14	91
Low	83	13	96
Totals	160	27	187
Chi-square: .13		d.f.: 1	p. > .05

TABLE IX

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE EXPERIMENTAL GROUPS ($\leq$E) AND THE REDROPOUT CONTROL GROUP (C_1)

Change	$\leq$E	C_1	Totals
High	75	18	93
Low	85	9	94
Totals	160	27	187
Chi-square: 3.62		d.f.: 1	p. > .05

The Total Composite Adjustment test was the only one of this group of three chi-square analyses which was significant at the .05 level. The direction of change revealed by these tests seemed to favor the control group, as was also indicated by the tests of Hypothesis I.

Hypothesis III

There will be no significant difference between the total experimental group and the no treatment control group in:

A. Composite personal-social adjustment change

B. Personal adjustment change

C. Social adjustment change

These analyses are related to the difference between the 160 subjects who underwent a retraining program and the 30 member control group which did not receive retraining.

TABLE X

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE EXPERIMENTAL GROUPS (ΣE) AND THE NO TREATMENT CONTROL GROUP (C_2)

Change	ΣE	C_2	Totals
High	76	21	97
Low	84	9	93
Totals	160	30	190
Chi-square: 5.12		d.f.: 1	$p. < .05$

TABLE XI

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE EXPERIMENTAL GROUPS (ΣE) AND THE NO TREATMENT CONTROL GROUP (C_2)

Change	ΣE	C_2	Totals
High	77	18	95
Low	83	12	95
Totals	160	30	190
Chi-square: 1.43		d.f.: 1	p. > .05

TABLE XII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE EXPERIMENTAL GROUPS (ΣE) AND THE NO TREATMENT CONTROL GROUPS (C_2)

Change	ΣE	C_2	Totals
High	75	20	95
Low	85	10	95
Totals	160	30	190
Chi-square: 3.96		d.f.: 1	p. < .05

Chi-squares for both the Total Composite Adjustment Change test and the Social Adjustment Change test were significant at or beyond the .05 level. The Personal Adjustment Change test was not significant.

As was the case previously, the direction of change is in favor of the control group.

Hypothesis IV

There will be no significant differences between the group divisions (combination, vocational, academic, no treatment control, and re-dropout control) in:

A. Composite personal-social adjustment change

B. Personal adjustment change

C. Social adjustment change

These thirty tests were made to indicate the differences between the five group divisions which were made on the basis of the three dependent variables stated in the hypotheses. The group divisions were:

1. Combination retraining group - the seventy-six experimental subjects who participated in both academic and vocational training programs.
2. Vocational training group - This group included the fifty-one subjects who received only vocational training.
3. Academic training group - The thirty-three subjects in this group received only academic instruction designed to lead to high school graduation.
4. The no treatment control group - This group was comprised of those thirty students who were not enrolled in any retraining program.

5. The early re-dropout control group - The twenty-seven subjects in this group were those who began a retraining program but, for various reasons, withdrew before fifteen per cent of their program was completed.

The scores of the total number of subjects (217) were utilized in establishing each of the three median high-low change categories required in the design of the study.

Presentation of the chi-square tables follows the order in which the dependent variables were stated in the hypotheses. All those tests of group relationship which involved Total Composite Adjustment Change appear first. They are followed by those tests relevant to Personal Adjustment Change and, next, by the Social Adjustment Change tests.

TABLE XIII

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE VOCATIONAL TRAINING GROUP (2)

Change	1	2	Totals
High	32	28	60
Low	44	23	67
Totals	76	51	127
Chi-square: 2.00		d.f.: 1	p. > .05

TABLE XIV

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE ACADEMIC TRAINING GROUP (3)

Change	1	3	Totals
High	32	16	48
Low	44	17	61
Totals	76	33	109
Chi-square: .38		d.f.: 1	p. > .05

TABLE XV

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE NO TREATMENT CONTROL GROUP (4)

Change	1	4	Totals
High	32	21	53
Low	44	9	53
Totals	76	30	106
Chi-square: 6.69		d.f.: 1	p. < .01

TABLE XVI

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE REDROPOUT CONTROL GROUP (5)

Change	1	5	Totals
High	32	20	52
Low	44	7	51
Totals	76	27	103
Chi-square: 8.15		d.f.: 1	p. < .01

TABLE XVII

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE VOCATIONAL TRAINING GROUP (2) AND THE ACADEMIC TRAINING GROUP (3)

Change	2	3	Totals
High	28	16	44
Low	23	17	40
Totals	51	33	84
Chi-square: .33		d.f.: 1	p. > .05

TABLE XVIII

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE VOCATIONAL TRAINING GROUP (2) AND THE NO TREATMENT CONTROL GROUP (4)

Change	2	4	Totals
High	28	21	49
Low	23	9	32
Totals	51	30	81
Chi-square: 1.80		d.f.: 1	p. > .05

TABLE XIX

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE VOCATIONAL TRAINING GROUP (2) AND THE REDROPOUT CONTROL GROUP (5)

Change	2	5	Totals
High	28	20	48
Low	23	7	30
Totals	51	27	78
Chi-square: 2.74		d.f.: 1	p. > .05

TABLE XX

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE ACADEMIC TRAINING GROUP (3) AND THE NO TREATMENT CONTROL GROUP(4)

Change	3	4	Totals
High	16	21	37
Low	17	9	26
Totals	33	30	63
Chi-square: 3.00		d.f.: 1	p. > .05

TABLE XXI

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE ACADEMIC TRAINING GROUP (3) AND THE REDROPOUT CONTROL GROUP (5)

Change	3	5	Totals
High	16	20	36
Low	17	7	24
Totals	33	27	60
Chi-square: 4.05		d.f.: 1	p. < .05

TABLE XXII

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN THE NO TREATMENT CONTROL GROUP (4) AND THE REDROPOUT CONTROL GROUP (5)

Change	4	5	Totals
High	21	20	41
Low	9	7	16
Totals	30	27	57
Chi-square: .11		d.f.: 1	p. >.05

TABLE XXIII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE VOCATIONAL TRAINING GROUP (2)

Change	1	2	Totals
High	40	24	64
Low	36	27	63
Totals	76	51	127
Chi-square: .38		d.f.: 1	p. >.05

TABLE XXIV

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE ACADEMIC TRAINING GROUP (3)

Change	1	3	Totals
High	40	13	53
Low	36	20	56
Totals	76	33	109
Chi-square: 1.61		d.f.: 1	p. > .05

TABLE XXV

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE NO TREATMENT CONTROL GROUP (4)

Change	1	4	Totals
High	40	18	58
Low	36	12	48
Totals	76	30	106
Chi-square: .47		d.f.: 1	p. > .05

TABLE XXVI

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE REDROPOUT CONTROL GROUP (5)

Change	1	5	Totals
High	40	14	54
Low	36	13	49
Totals	76	27	103
Chi-square: .004		d.f.: 1	p. > .05

TABLE XXVII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE VOCATIONAL TRAINING GROUP (2) AND THE ACADEMIC TRAINING GROUP (3)

Change	2	3	Totals
High	24	13	37
Low	27	20	47
Totals	51	33	84
Chi-square: .48		d.f.: 1	p. > .05

TABLE XXVIII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE VOCATIONAL TRAINING GROUP (2) AND THE NO TREATMENT CONTROL GROUP (4)

Change	2	4	Totals
High	24	18	42
Low	27	12	39
Totals	51	30	81
Chi-square: 1.27		d.f.: 1	p. > .05

TABLE XXIX

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE VOCATIONAL TRAINING GROUP (2) AND THE REDROPOUT CONTROL GROUP (5)

Change	2	5	Totals
High	24	14	38
Low	27	12	39
Totals	51	26	77
Chi-square: .16		d.f.: 1	p. > .05

TABLE XXX

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE ACADEMIC TRAINING GROUP (3) AND THE NO TREATMENT CONTROL GROUP (4)

Change	3	4	Totals
High	13	18	31
Low	20	12	32
Totals	33	30	63
Chi-square: 2.67		d.f.: 1	p. > .05

TABLE XXXI

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE ACADEMIC TRAINING GROUP (3) AND THE REDROPOUT CONTROL GROUP (5)

Change	3	5	Totals
High	13	14	27
Low	20	13	33
Totals	33	27	60
Chi-square: .93		d.f.: 1	p. > .05

TABLE XXXII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN THE NO TREATMENT CONTROL GROUP (4) AND THE REDROPOUT CONTROL GROUP (5)

Change	4	5	Totals
High	18	14	32
Low	12	13	25
Totals	30	27	57
Chi-square: .38		d.f.: 1	p. > .05

TABLE XXXIII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE VOCATIONAL TRAINING GROUP (2)

Change	1	2	Totals
High	31	24	55
Low	45	27	72
Totals	76	51	127
Chi-square: .49		d.f.: 1	p. > .05

TABLE XXXIV

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE ACADEMIC TRAINING GROUP (3)

Change	1	3	Totals
High	31	20	51
Low	45	13	58
Totals	76	33	109
Chi-square: 3.63		d.f.: 1	$p. > .05$

TABLE XXXV

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE NO TREATMENT CONTROL GROUP (4)

Change	1	4	Totals
High	31	20	51
Low	45	10	55
Totals	76	30	106
Chi-square: 5.77		d.f.: 1	$p. < .05$

TABLE XXXVI

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE COMBINATION TRAINING GROUP (1) AND THE REDROPOUT CONTROL GROUP (5)

Change	1	5	Totals
High	31	18	49
Low	45	9	54
Totals	76	27	103
Chi-square: 5.35		d.f.: 1	$p. < .05$

TABLE XXXVII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE VOCATIONAL TRAINING GROUP (2) AND THE ACADEMIC TRAINING GROUP (3)

Change	2	3	Totals
High	24	20	44
Low	27	13	40
Totals	51	33	84
Chi-square: 1.47		d.f.: 1	$p. > .05$

TABLE XXXVIII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE VOCATIONAL TRAINING GROUP (2) AND THE NO TREATMENT CONTROL GROUP (4)

Change	2	4	Totals
High	24	20	44
Low	27	10	37
Totals	51	30	81
Chi-square: 2.93		d.f.: 1	p. >.05

TABLE XXXIX

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE VOCATIONAL TRAINING GROUP (2) AND THE REDROPOUT CONTROL GROUP (5)

Change	2	5	Totals
High	24	18	42
Low	27	9	36
Total	51	27	78
Chi-square: 2.73		d.f.: 1	p. >.05

TABLE XL

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE ACADEMIC TRAINING GROUP (3) AND THE NO TREATMENT CONTROL GROUP (4)

Change	3	4	Totals
High	20	20	40
Low	13	10	23
Totals	33	30	63
Chi-square: .25		d.f.: 1	p. > .05

TABLE XLI

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE ACADEMIC TRAINING GROUP (3) AND THE REDROPOUT CONTROL GROUP (5)

Change	3	5	Totals
High	20	18	38
Low	13	9	22
Totals	33	27	60
Chi-square: .23		d.f.: 1	p. > .05

TABLE XLII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN THE NO TREATMENT CONTROL GROUP (4) AND THE REDROPOUT CONTROL GROUP (5)

Change	4	5	Totals
High	20	18	38
Low	10	9	19
Totals	30	27	57
Chi-square: .00		d.f.: 1	p. > .05

When the experimental groups were compared with each other (groups 1, 2, and 3) no significant differences at the .05 level were found for any of the dependent variables.

The same statement may also be made regarding the relationship between the two control groups (groups 4 and 5) in either Total Composite, Personal, or Social Adjustment Change.

The significant (.05 level) differences resulted when certain experimental groups were compared to the control groups. When the combination group (group 1) was compared to each control group (groups 4 and 5), significant differences (.05 level) resulted in both Total Composite and Social Adjustment Change.

In each of the five chi-square tests where significance beyond the .05 level was indicated, control group subjects appear to have made greater positive change than

experimental group subjects. The same pattern was also apparent in those tests which did not reach a suitable level (.05) of significance for reporting.

Hypothesis V

There will be no significant difference between groups divided as to the duration of experimental treatment received prior to post testing in:

A. Composite personal-social adjustment change

B. Personal adjustment change

C. Social adjustment change

There were two dates established for post testing. On January 4 and 5, 1965, those who terminated programs of 26 weeks or less, one-half of the academic group, and one-half of the control subjects were post tested. The remainder of the subjects were post tested on April 26 and 27, 1965. These tests examined the difference between early and late post testing in the experimental groups.

The total experimental subjects (160) were used in establishing median divisions of high and low change.

TABLE XLIII

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN EXPERIMENTAL GROUPS POST-TESTED EARLY AND EXPERIMENTAL GROUPS POST-TESTED LATE

Change	Early	Late	Totals
High	51	16	67
Low	66	27	93
Totals	117	43	160
Chi-square: .525		d.f.: 1	$p. > .05$

TABLE XLIV

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN EXPERIMENTAL GROUPS POST-TESTED EARLY AND EXPERIMENTAL GROUPS POST-TESTED LATE

Change	Early	Late	Totals
High	60	16	76
Low	57	27	84
Totals	117	43	160
Chi-square: 2.497		d.f.: 1	$p. > .05$

TABLE XLV

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN EXPERIMENTAL GROUPS POST-TESTED EARLY AND EXPERIMENTAL GROUPS POST-TESTED LATE

Change	Early	Late	Totals
High	52	20	72
Low	65	23	88
Totals	117	43	160
Chi-square: .054		d.f.: 1	p. > .05

No significant difference was revealed between those experimental subjects who were post tested early and those who were post tested late.

Hypothesis VI

There will be no significant difference between the control group of people who received early post tests and the control group who received late post tests in:

A. Composite personal-social adjustment change

B. Personal adjustment change

C. Social adjustment change

The following tables analyze the difference between early and late post testing within the control groups. All fifty-seven control subjects were used, with thirty-one subjects tested on the early date and twenty-six on the later date.

TABLE XLVI

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE BETWEEN CONTROL GROUPS POST-TESTED EARLY AND CONTROL GROUPS POST-TESTED LATE

Change	Early	Late	Totals
High	20	20	40
Low	11	6	17
Totals	31	26	57
Chi-square: 1.039		d.f.: 1	p. > .05

TABLE XLVII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE BETWEEN CONTROL GROUPS POST-TESTED EARLY AND CONTROL GROUPS POST-TESTED LATE

Change	Early	Late	Totals
High	16	16	32
Low	15	10	25
Totals	31	26	57
Chi-square: .565		d.f.: 1	p. > .05

TABLE XLVIII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE BETWEEN CONTROL GROUPS POST-TESTED EARLY AND CONTROL GROUPS POST-TESTED LATE

Change	Early	Late	Totals
High	18	17	35
Low	13	9	22
Totals	31	26	57
Chi-square: .319		d.f.: 1	p. > .05

As with experimental group subjects, no significant difference was found between those controls post tested early and those post tested late.

Hypothesis VII

There will be no significant difference between the groups divided on the personal history characteristics indicated below in:

A. Composite personal-social adjustment change

B. Personal adjustment change

C. Social adjustment change

Division of groups on personal history characteristics will be made on the following basis:

A. Length of time between school dropout and retraining program.

B. Employment while in the retraining program

C. Highest grade completed before dropping from the academic school program

D. Automobile ownership

E. Primarily rural or urban background

F. Marital status and children of the retraining student

These tests were made in order to examine the relationship of the eight personal history characteristics to personal and social adjustment change in the experimental groups.

The one hundred sixty experimental subjects made up the samples. In the order of presentation of the tables, each independent variable is shown in relation to high-low change in Total Composite Adjustment, Personal Adjustment, and Social Adjustment. The tables appear in multiples of three and an explanation precedes the tables for each independent variable. The results of the tests are reported following each of the three groups of tables.

A. Length of time between school dropout and the beginning of the retraining program is divided into four categories. They are:

1. Less than $1\frac{1}{2}$ years
2. $1\frac{1}{2}$ but less than 3 years
3. More than 3 years

TABLE XLIX

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE AND LENGTH OF TIME BETWEEN DROPOUT AND RETRAINING

Change	1	2	3	Totals
High	15	13	30	58
Low	19	28	42	89
Totals	34	41	72	147
Chi-square: 5.809		d.f.: 2		p. > .05

TABLE L

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND LENGTH OF TIME BETWEEN DROPOUT AND RETRAINING

Change	1	2	3	Totals
High	17	18	34	69
Low	17	23	38	78
Totals	34	41	72	147
Chi-square: .510		d.f.: 2		p. > .05

TABLE LI

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND LENGTH OF TIME BETWEEN DROPOUT AND RETRAINING

Change	1	2	3	Totals
High	15	20	29	64
Low	19	21	43	83
Totals	34	41	72	147
Chi-square: 2.332		d.f.: 2		p. >.05

These tests indicated that there was no significant relationship in the degrees of personal-social adjustment change of students who were out of school for varying lengths of time.

B. The following tests measured the difference in personal-social adjustment change relative to the employment status of the experimental subject while undergoing a retraining program.

TABLE LII

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE AND EMPLOYMENT IN RETRAINING

Change	Employed	Unemployed	No Data	Totals
High	15	52	-	67
Low	20	71	2	93
Totals	35	123	2	160
Chi-square: 1.462		d.f.: 2		p. > .05

TABLE LIII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND EMPLOYMENT WHILE IN RETRAINING

Change	Employed	Unemployed	No Data	Totals
High	15	61	-	76
Low	20	62	2	84
Totals	35	123	2	160
Chi-square: 2.328		d.f.: 2		p. > .05

TABLE LIV

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND EMPLOYMENT WHILE IN RETRAINING

Change	Employed	Unemployed	No Data	Totals
High	14	58	-	72
Low	21	65	2	88
Totals	35	123	2	160
Chi-square: 2.220		d.f.: 2		p. >.05

No significant relationship was revealed between those experimental subjects who were employed and those who were not employed in regard to the three personal and social adjustment change measures.

C. The next test concerns the highest grade completed before dropping from the academic school program. The independent variable was divided and coded in the following manner:

1. 8th grade or less
2. Began 9th up to finishing 10th
3. Began 11th grade or more

TABLE LV

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE AND THE HIGHEST GRADE COMPLETED BEFORE DROPPING FROM THE REGULAR ACADEMIC SCHOOL PROGRAM

Change	1	2	3	Totals
High	6	32	29	67
Low	4	47	42	93
Totals	10	79	71	160
Chi-square: 1.441		d.f.: 2		p. > .05

TABLE LVI

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND THE HIGHEST GRADE COMPLETED BEFORE DROPPING FROM THE REGULAR ACADEMIC SCHOOL PROGRAM

Change	1	2	3	Totals
High	7	36	33	76
Low	3	43	38	84
Totals	10	79	71	160
Chi-square: 2.177		d.f.: 2		p. > .05

TABLE LVII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND THE HIGHEST GRADE COMPLETED BEFORE DROPPING FROM THE REGULAR ACADEMIC SCHOOL PROGRAM

Change	1	2	3	Totals
High	4	37	31	72
Low	6	42	40	88
Totals	10	79	71	160
Chi-square: .259		d.f.: 2		p. > .05

The tests indicate that there was no significant relationship between the categories of highest grade completed before dropping out of school and in the degree of personal or social adjustment change.

D. The next variable was related to automobile ownership. A distinction was made herein between those experimental students who owned and provided the major maintenance for their automobiles and those students who did not.

TABLE LVIII

χ^2 ANALYSIS OF COMPOSITE ADJUSTMENT CHANGE AND AUTOMOBILE OWNERSHIP

Change	Ownership	No Ownership	Totals
High	47	20	67
Low	61	32	93
Totals	108	52	160
Chi-square: .368		d.f.: 1	p. > .05

TABLE LIX

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND AUTOMOBILE OWNERSHIP

Change	Ownership	No Ownership	Totals
High	55	21	76
Low	53	31	84
Totals	108	52	160
Chi-square: 1.564		d.f.: 1	p. > .05

TABLE LX

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND AUTOMOBILE OWNERSHIP

Change	Ownership	No Ownership	Totals
High	51	21	72
Low	57	31	88
Totals	108	52	160
Chi-square: .663		d.f.: 1	p. > .05

It was indicated that owning and maintaining an automobile had no significant relationship to Personal and Social Adjustment Change while undergoing this retraining program.

E. This variable involved the division of experimental subjects into primarily rural or urban background categories. This division was made to test the difference between those coming to the retraining program from farm and small rural communities and those from a primarily urban environment. There were those subjects whose background was of such a nature that it was not possible to provide a clear dichotomy regarding the amounts of time spent in the environments represented by the two categories. These subjects appear in a separate "mixed" category.

TABLE LXI

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE AND RURAL, MIXED, OR URBAN BACKGROUNDS

Change	Rural	Mixed	Urban	Totals
High	6	8	53	67
Low	8	13	72	93
Totals	14	21	125	160
Chi-square:	.142	d.f.: 2		p. > .05

TABLE LXII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND RURAL, MIXED OR URBAN BACKGROUNDS

Change	Rural	Mixed	Urban	Totals
High	6	11	59	76
Low	8	10	66	84
Totals	14	21	125	160
Chi-square:	.326	d.f.: 2		p. > .05

TABLE LXIII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND RURAL, MIXED, OR URBAN BACKGROUNDS

Change	Rural	Mixed	Urban	Totals
High	5	9	58	72
Low	9	12	67	88
Totals	14	21	125	160
Chi-square: .625		d.f.: 2		p. > .05

This chi-square method of analysis revealed no significant relationships between the three environmental categories in Personal and Social Adjustment Change of a median division design.

F. This variable is related to marital status and children of the retraining students. Two sets of three chi-square tests were made which relate to this independent variable.

The first group of three tests involved the marital circumstances of the experimental subjects. The second set dealt exclusively with the support of children while undergoing retraining.

TABLE LXIV

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE AND THE MARITAL STATUS OF THE RETRAINING STUDENTS

Change	Married	Single	Divorced or Separated	Totals
High	36	24	7	67
Low	39	32	22	93
Totals	75	56	29	160
Chi-square: 4.926		d.f.: 2		p. > .05

TABLE LXV

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND THE MARITAL STATUS OF THE RETRAINING STUDENTS

Change	Married	Single	Divorced or Separated	Totals
High	41	24	11	76
Low	34	32	18	84
Totals	75	56	29	160
Chi-square: 3.09		d.f.: 2		p. > .05

TABLE LXVI

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND THE MARITAL STATUS OF THE RETRAINING STUDENTS

Change	Married	Single	Divorced or Separated	Totals
High	41	24	7	72
Low	34	32	22	88
Totals	75	56	29	160
Chi-square: 8.035		d.f.: 2		p.< .05

TABLE LXVII

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE AND THE SUPPORT OF CHILDREN

Change	With Children	No Children	Totals
High	34	33	67
Low	54	39	93
Totals	88	72	160
Chi-square: .842		d.f.: 1	p.> .05

TABLE LXVIII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND THE SUPPORT OF CHILDREN

Change	With Children	No Children	Totals
High	40	36	76
Low	48	36	84
Totals	88	72	160
Chi-square: .328		d.f.: 1	p. > .05

TABLE LXIX

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND THE SUPPORT OF CHILDREN

Change	With Children	No Children	Totals
High	37	35	72
Low	51	37	88
Totals	88	72	160
Chi-square: .689		d.f.: 1	p. > .05

This analysis revealed a significant (.05 level) change in Social Adjustment in favor of the married students. The Total Composite Adjustment test failed only slightly to achieve significance at the .05 level and the direction is again in favor of the married group. The Personal Adjustment Change was not found to be significantly related, but

the trend favored the married group. In each instance, the analysis of the relationship between having children or not having children revealed insignificant chi-square results.

Hypothesis VIII

There will be no significant difference between the groups divided on family history characteristics indicated below in:

A. Composite personal-social adjustment change

B. Personal adjustment change

C. Social adjustment change

Division of groups on family history characteristics will be made on the following basis:

A. Income level of parents or home

B. Parents or home situation

C. Level of education of father and mother

The tests involved in this hypothesis were designed to measure the relationships among three specific family history characteristics relative to composite, personal, and social adjustment change.

The tests are, again, in multiples of three. Each group of three tests relate to the independent variables under investigation.

A. Income level of parents. This variable is divided into (1) adequate and (2) inadequate groupings in accordance with the criteria

discussed in Chapter III. Category three was reserved for that group which was found not to be amenable to classification.

TABLE LXX

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE AND THE INCOME LEVEL OF PARENTS OR HOME

Change	1	2	Totals
High	50	17	67
Low	62	31	93
Totals	112	48	160
Chi-square: 2.25		d.f.: 1	p. > .05

TABLE LXXI

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND THE INCOME LEVEL OF PARENTS OR HOME

Change	1	2	Totals
High	57	19	76
Low	55	29	84
Totals	112	48	160
Chi-square: 3.819		d.f.: 1	p. > .05

TABLE LXXII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND INCOME LEVEL OF PARENTS OR HOME

Change	1	2	Totals
High	54	18	72
Low	58	30	88
Totals	112	48	160
Chi-square: 2.744		d.f.: 1	p. > .05

No significant relationship was revealed between the experimental students when divided according to the income level of the parents or the home. However, the trend seemed to be in favor of those in the adequate income category.

B. The next variable involves the home situation of the experimental students divided into four categories. The categories are:

1. Living at home - Both parents
2. Maintaining separate abode
3. Living at home - One parent absent
4. Separate Abode - Married with spouse

TABLE LXXIII

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE AND THE HOME SITUATION

Change	1	2	3	4	Totals
High	17	14	4	32	67
Low	35	21	1	36	93
Totals	52	35	5	68	160
Chi-square:	5.794		d.f.: 3		p. > .05

TABLE LXXIV

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND THE HOME SITUATION

Change	1	2	3	4	Totals
High	23	15	2	36	76
Low	29	20	3	32	84
Totals	52	35	5	68	160
Chi-square:	3.250		d.f.: 3		p. > .05

TABLE LXXV

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND THE HOME SITUATION

Change	1	2	3	4	Totals
High	21	12	2	37	72
Low	31	23	3	31	88
Totals	52	35	5	68	160
Chi-square:	5.363		d.f.: 3		p. >.05

Tests of these criteria indicated no significant relationship between the four categories of home situation on either of the three dependent variables. The trend, however, seemed to be in favor of those students who were married and living with spouse.

C. This variable related to the level of education of the parents of the retraining students. Tests were applied to the father's and mother's level of education.

The level of education for both father and mother was divided into five categories. They are:

1. 8th grade or less
2. Some high school
3. High school graduate
4. Post high school (including college)

TABLE LXXVI

χ^2 ANALYSIS OF TOTAL COMPOSITE CHANGE AND THE FATHER'S LEVEL OF EDUCATION

Change	1	2	3	4	Totals
High	29	15	10	5	59
Low	41	15	12	13	81
Totals	70	30	22	18	140
Chi-square:	2.43		d.f.: 3		p. > .05

TABLE LXXVII

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND THE FATHER'S LEVEL OF EDUCATION

Change	1	2	3	4	Totals
High	30	15	13	8	66
Low	40	15	9	10	74
Totals	70	30	22	18	140
Chi-square:	1.98		d.f.: 3		p. > .05

TABLE LXXVIII

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND THE FATHER'S LEVEL OF EDUCATION

Change	1	2	3	4	Totals
High	33	18	9	4	64
Low	37	12	13	14	76
Totals	70	30	22	18	140
Chi-square: 6.981			d.f.: 3		p. > .05

TABLE LXXIX

χ^2 ANALYSIS OF TOTAL COMPOSITE ADJUSTMENT CHANGE AND THE MOTHER'S LEVEL OF EDUCATION

Change	1	2	3	4	Totals
High	20	25	10	4	59
Low	30	22	20	8	80
Totals	50	47	30	13	139
Chi-square: 3.92			d.f.: 3		p. > .05

TABLE LXXX

χ^2 ANALYSIS OF PERSONAL ADJUSTMENT CHANGE AND THE MOTHER'S LEVEL OF EDUCATION

Change	1	2	3	4	Totals
High	23	27	9	5	64
Low	27	20	21	7	75
Totals	50	47	30	12	139
Chi-square: 6.54			d.f.: 3		p. > .05

TABLE LXXXI

χ^2 ANALYSIS OF SOCIAL ADJUSTMENT CHANGE AND THE MOTHER'S LEVEL OF EDUCATION

Change	1	2	3	4	Totals
High	20	21	16	4	61
Low	30	26	14	8	78
Totals	50	47	30	12	139
Chi-square: 2.470			d.f.: 3		p. > .05

These tests, involving three degrees of freedom, indicated no significant relationship between the level of education of the parents and personal-social adjustment of the experimental subjects. However, a possible slight curvilinear relationship was suggested. Subject's whose parents

had at least some high school and, in some cases were high school graduates, tended to make greater gains on dependent variable measurements.

CHAPTER V

SUMMARY AND DISCUSSION OF FINDINGS

Analysis of pre test data indicated that there was no significant difference between the combined experimental and combined control groups at the beginning of the program on their Total Composite Adjustment, Personal Adjustment, and Social Adjustment, as measured by the California Test of Personality.

Eleven of the chi-square tests in the study gave results which merit special interpretation.

A greater degree of change in a positive direction was found in Social Adjustment and Composite Adjustment for the total control group than for the total experimental group. Further breakdowns of the control group revealed that both the no treatment control group and the early redropout control group evidenced a significantly greater degree of change than did the total experimental group on the Composite Adjustment Change variable. The no treatment control group also indicated a greater degree of Social Adjustment Change than did the total experimental group.

When the total experimental and total control groups were divided into their respective sub-groupings of: (1)

combination, (2) vocational training, (3) academic training, (4) no treatment control, or (5) redropout control, and related to the three dependent variables, some additional evidence is contributed in favor of the control groups of subjects. Both the redropout control group and the no treatment control group indicated a greater degree of Total Composite and Social Adjustment Change when compared to the combination retraining group. The test comparing the academic treatment group with the redropout control group in Social Adjustment also indicated a greater degree of change in favor of the redropout group.

The comparison of marital status as related to social adjustment indicated a greater degree of change in favor of the married student when compared to whose who were single, divorced, or separated.

The results of those tests which failed to yield a significant chi-square value at the .05 level may be most succinctly reported in broader categories. Statistical tests which were utilized failed to indicate significant relationships between Personal Adjustment Change and any independent variable included in this study.

The tests involving the comparison of experimental groups with each other and those comparing the two control groups with each other failed to achieve significance when related to any of the three dependent variables. The experimental groups were: combination retraining group, vocational retraining group, and academic retraining group.

The control groups were the no treatment group and the early redropout group.

Tests of relationships between personal history and family history characteristics of the experimental groups and the dependent variables generally failed to indicate a significance at the .05 level. These tests involved the relationship of Total Composite, Personal, and Social Adjustment Change of the experimental students to the following personal and family history characteristics: time between dropout and program entry; employment; highest grade completed before dropping out of school; automobile ownership; rural or urban background; two marital status tests; children; income level; parent or home situation; and level of education of father and mother. The single significant finding was in the analysis relating marital status to Total Composite Adjustment Change, which was reported earlier in this chapter.

Discussion

It may seem somewhat strange that those significant tests made in this study reveal a consistent trend in favor of the control groups of students. Such results are not in keeping with the more common conclusions of research studies utilizing experimental and control groups in the design. The usual findings indicate a trend in favor of the experimental subjects. The trend in favor of the control groups in this case may be rather disconcerting to the reader.

In consideration of the possible reasons for such results, it becomes evident that an explanation could very well be found at several levels of rationale. It is also possible that this result may be attributable to a number of factors, thus involving a possibility of multiple causation with regard to the apparent advantage revealed in the control groups of subjects. Some of the possible explanations are worthy of enunciation.

A factor which may contribute to the results could be found in the treatment which was extended to the experimental subjects during the course of their retraining programs. It was indicated in Chapter I that the design of this study did not provide for services of a professionally trained guidance worker. The central objective of the overall research program of the Oklahoma State University School Dropout Research Team was to compare the effectiveness of three basic instructional formats (academic only, vocational only, and academic-vocational combination) in producing socially desirable changes in subjects. Guidance services, as such, were not incorporated in the inquiry. No curricular incorporations were made which were designed for the direct and explicit purpose of dealing with values or attitudes relative to personal or social adjustment changes. It is also true that no direct treatment relative to personal or social adjustment was provided for the two control groups during the same period of time.

It should be noted that this study was essentially an appendage on the overall school dropout research design, and was carried out in addition to analyses planned for that program. The study reported herein is a supplemental kind of examination rather than an integral part of the originally planned research. Further, the study is relevant to the subjects included in this program and caution must be taken in making generalizations to other programs which may have different curricular structure or which may provide professional guidance services on an individual or group basis.

An explanation of the differences which are indicated in this study may be found in the kinds of interpersonal interactions in which the experimental and control groups were involved during the time between pre and post testing. Those subjects in the experimental groups were engaged in the more closed type of societal interaction of students undergoing training and education in the school context. At the beginning of the program, their role in the social environment was at least somewhat altered by their return to the social climate of the school. It also seems possible that their personal perspectives were changed in regard to their view of themselves.

Those students in the control groups continued in essentially the same life style and social context as they had prior to pre testing, thus undergoing little or no alteration in their pattern of living as a result of a

retraining program. It may not be unreasonable that their continued coping with the social environ in which they find themselves has led to a higher degree of social adjustment for the control subjects than that of the experimental students who, by virtue of enrollment in a retraining program, have changed their social context. More succinctly, the world of the student may have different social characteristics than those of the world of the person the same age who is not in a school setting. Further, the change from one social context to another may have implications which are reflected in the measured personal and social adjustment of the individual. However, while observable trends during the limited period of the study seem to favor the control group in these respects, it would not necessarily follow that long-term changes might not indeed reverse this trend as coping behaviors of retrained students begin to prove effective, thus resulting in possibly marked changes in self concept and social adjustment modes. A two-year follow-up of subjects included in this study will be conducted under the sponsorship of the Ford Foundation and the Oklahoma State University Research Foundation. Follow-up data should indicate whether there is, in fact, such a "catching up" by subjects included in the experimental groups.

Another significant factor which may be easily overlooked when discussing the control group's significantly higher degree of Social and Total Composite change during

the time of study is the secondary, but nontheless important, factor that the experimental groups apparently made less change during the pre-post testing period. These groups tended to cluster closely to the median division lines, which themselves tend to center near zero change. This indicates strongly that little change did, in fact, occur in Personal, Social, and Total Composite Adjustment in experimental group subjects.

A series of "t" tests were computed to determine if significant change did, in fact, occur between pre and post testing in the experimental and control groups relative to the three dependent variables. The tests revealed that significant change did occur in all but one instance. The experimental group failed to evidence significant change in Social Adjustment. The control groups did, however, seem to evidence greater change in terms of Composite and Social Adjustment. Both the experimental and control groups indicated similar amounts of change in Personal Adjustment.

Consideration of factors of the foregoing nature also lead to the discussion of the ramifications of the design of the study and measuring instruments used which may have inadvertently influenced the findings.

It may be suggested that the control group was aware that a training program had been conducted and that they had not participated. Higher adjustment scores may have resulted from their desire to appear well or to justify their position as non-participants. Also, in regard to

the control group, the post testing of controls was of necessity done in smaller groups and in a somewhat more personal climate. Consciousness of this individualized treatment may have caused control subjects to "fake good" on the post test so as to avoid embarrassment if the test administrator examined individual test item responses.

It was stated in the limitations section of Chapter I and in Chapter III that the test used to measure the dependent variables--namely, the California Test of Personality--contains those structural weaknesses characteristic of personality tests in general. The standard error of measurement of the instrument is: 3.72 for Personal Adjustment, 3.48 for Social Adjustment, and 5.56 for Total Composite Adjustment. These standard errors of measurement are magnified to some extent when a change measure between pre and post testing of the instrument is used. Stated more directly, when the pre test is administered, the scores are subject to the stated standard error measurement. When the equivalent form of the test is administered on a post test basis, the scores are again subject to the standard error of measurement. Thus, when a pre-post change measure is used, it is based upon the two sets of scores, each of which is subject to some unreliability. It must be stated that the error is not doubled by using the change score, but is, however, increased. This problem was bypassed at least in part by selection of the chi-square statistic for making tests. The probability of a subject's

score exceeding the inter-cell cut-off point (distribution median) due to unreliability inherent in the California Test of Personality seems to be no greater for one criterion group than for another.

A factor which is worthy of consideration is the somewhat gross nature of the chi-square method of analysis when applied to groups divided upon a median change basis. Such a division attributes equal weight to those scores which are located close to the median division and to those scores which are located well out from the median division. This factor may be particularly salient to this study, as there was a tendency for subjects in each of the groups to distribute themselves closely on both sides of the median high-low change division.

Recommendations

It is readily apparent that recommendations relative to a research study are based upon experiences and observations which were encountered during the course of operationalizing a given procedure. It is unlikely that even the best designed experimental study will be carried to completion without some degree of unforeseen incidents when the subjects for the study are located outside the laboratory and are, in a large sense, volunteers. A very similar kind of situation occurs when any new approach is attempted, such as the retraining program investigated in this study.

In view of these kinds of unexpected occurrences, the following recommendations are felt by the researcher to be most apropos.

This study could have been improved somewhat by identifying and testing control group subjects separate and apart from the training program context. Such a procedure would have provided a better indication of the degree of adjustment change that may occur among individuals who are provided with no training.

A recommendation may be made relative to the matter of experimental design. Due to the manner in which the groups distributed themselves, it may be suggested that a more finite measure of adjustment change could reveal a more distinct division relative to the three dependent variables. The chi-square method of analysis is a somewhat gross kind of treatment and requires a rather high degree of change to have occurred in order to yield significant findings. An example of another kind of analysis is the Kolmogorov-Smirnov test which allows the researcher to classify the dependent variable into a greater number of cellular divisions. This would provide for different categorizations for those subjects who evidenced a great deal of change and for those who changed little. It would also allow the researcher to make comparisons of proportions rather than frequencies.

An indication which seems to be supported by this study is one which related to desired change in retraining

programs. This evidence indicates that personal and social adjustment change does not come about as a result of providing a retraining program, per se. If the change in personal and social attitudes are an expressed objective of the program, it would seem advisable to incorporate some type of planned treatment for the retraining subjects. Also, long term effects as well as short term effects of such experimental treatment should be studied since it is conceivable that differences might be found in this respect.

BIBLIOGRAPHY

1. Allport, Gordon W. Pattern and Growth in Personality. New York: Holt, Rinehart and Winston, 1961.

2. Borow, Henry. Man In a World of Work. Boston: Houghton Miflin Co., 1964.

3. Boy Builders of Bloomington, Inc. "A Synopsis of a Program for School Dropouts in Bloomington, Indiana." Chartered on September 17, 1962.

4. Brooks, Lyman B., Provost. Training the Hard-Core Unemployed. "A Demonstration-Research Project at Virginia State College, Norfolk Division. Washington, D.C.: U.S. Department of Health, Education and Welfare, 1964.

5. Bruno, Louis. Dropouts: Washington's Wasted Resource. Olympia, Washington: State Office of Public Instruction, March, 1963.

6. Buros, Oscar Krisden. Fifth Mental Measurements Yearbook. Highland Park, New Jersey: The Gryphon Press, 1959.

7. Cantoni, Louis J. "Stay-Ins Get Better Jobs" Personnel and Guidance Journal, Vol. XXXIII (May, 1955), 351-353.

8. Caplow, Theodore. The Sociology of Work. Minneapolis: University of Minnesota Press, 1954.

9. Combs, Arthur W., and Donald Snygg. Individual Behavior. New York: Harper and Row, 1959.

10. Conant, James Bryant. Slums and Suburbs. New York: McGraw-Hill Book Company, 1961.

11. Cook, Edward S., Jr. "An Analysis of Factors Related to Withdrawal from High School Prior to Graduation" Journal of Educational Research, Vol. L (November, 1956), 191-96.

12. Cooper, Sophia, and Denis F. Johnston. "Labor Force Projections" Special Labor Force Report No. 49, Monthly Labor Review, (February, 1965).

13. Coplein, Leonard E. "Techniques for Study of Dropouts" The Clearing House, Vol. XXXVI (May 1962), 526-30.

14. Cronbach, Lee J. Essentials of Psychological Testing. New York: Harper and Brothers, 1960.

15. Davie, James S. "Social Class Factors and School Attendance." Harvard Educational Review, Vol. XXIII (1953), 175-84.

16. Donovan, John C. "Implications of Manpower Training for American Education." Phi Delta Kappan, Vol. XLVI, (April, 1965) 366-370.

17. Economic Opportunity Act of 1964. Calendar No. 1111, 88th Congress, Second Session.

18. Epps, Margaret, and W. C. Cottle. "Further Validation of a Dropout Scale." Vocational Guidance Quarterly, Vol. V (1958), 153-55.

19. The Everett Plan. Washington Report: Special Supplement, (April 12, 1963). Washington, D.C.

20. An Explanation of the Manpower Development and Training Act. Published by the U.S. Department of Labor, Office of Manpower, Automation and Training, 1962.

21. Factbook on the School Dropout in the World of Work. New York: U.S. Department of Labor, Bureau of Labor Statistics, 1964.

22. Garrett, Henry E. Statistics In Psychology and Education. New York: Longmans, Green and Company, 1958.

23. Hill, Winfred F. Learning: A Survey of Psychological Interpretations. San Francisco: Chandler Publishing Company, 1963.

24. Hinkelman, Emmet Arthur. "A Comparative Investigation of Differences in Personality Adjustment of Delinquents and Non-Delinquents." Journal of Educational Research, Vol. XLVI (April, 1953), 595-601.

25. Hollingshead, August B. Elmtown's Youth. New York: John Wiley and Sons, 1949.

26. Lazarus, Richard S. Adjustment and Personality. New York: McGraw-Hill Book Company, Inc., 1961.

27. Lee, Beatrice C. "School Dropouts" Research Memo, 1961-63. Washington, D.C.: National Education Association, 1961.

28. Levan, Frederick D. Oklahoma City's Approach to the Dropout Problem. (unpub. Ed.D. dissertation, Oklahoma State University, 1964).

29. Levine, Sol. "Occupation and Personality: Relationship Between the Social Factors of the Job and Human Orientation." Personnel and Guidance Journal, Vol. XLI (March, 1963), 602-605.

30. Lichter, Solomon O., and Elsie B. Rapien, Frances M. Seibert, and Morris A. Sklansky, M.D. The Drop-Outs. New York: The Free Press of Glencoe, 1962.

31. Lindgren, Henry Clay. The Psychology of Personal and Social Adjustment. New York: American Book Co., 1959.

32. Livingston, Hugh A. "Key to the Dropout Problem: The Elementary School." Elementary School Journal, (February, 1959), 267-70.

33. Manpower Development and Training Act of 1962. Public Law 87-415. 87th Congress, S. 1991.

34. The Maryland Cooperative Study of Dropouts. "Our Drop-outs - What Can Schools Do?" Baltimore: Maryland Department of Education, June, 1963.

35. Miller, Carroll H. Guidance Services: An Introduction. New York: Harper and Row, 1965.

36. Neisser, Edith G. "School Failures and Dropouts" Public Affairs Pamphlet, No. 346, 1963.

37. A New Look at School Dropouts. Washington, D.C.: U.S. Department of Health, Education and Welfare, April, 1964.

38. Pine, Gerald J. "Social Class, Social Mobility and Delinquent Behavior." The Personnel and Guidance Journal, Vol. XLIII (April, 1965), 770-74.

39. Procedures For the Identification of Potential High School Dropouts. "A Report of the Illinois Dropout Study." Issued by the Office of the Superintendent of Public Instruction, State of Illinois, 1962.

40. "Project: School Dropouts" Newsletter, Vol. I, No. 2, (February, 1963). Washington, D.C.: National Education Association.

41. Reissman, Frank. The Culturally Deprived Child. New York: Harper and Brothers, 1962.

42. Riendeau, Albert J. "Facing Up to the Dropout Problem" The Clearing House, Vol. XXXVI (May, 1962), 523-26.

43. Rude, H. Neil, and Donald C. King. "Aptitude Levels in a Depressed Area" The Personnel and Guidance Journal, Vol. XLIII, (April, 1965), 785-89.

44. San Francisco's Bridge to Youth Employment. Bulletin of Programs in Progress in San Francisco Unified School District, March, 1963.

45. Schiffman, Jacob. "Employment of High School Dropouts in 1961." Special Labor Force Report No. 21, Monthly Labor Review, May, 1962.

46. Schreiber, Daniel S. "The Dropout and the Delinquent: Promising Factors Gleaned from a Year of Study." Phi Delta Kappan, Vol. XLIV (1963), 215-21.

47. _____. Guidance and the School Dropout. Washington, D.C.: National Education Association, 1964.

48. _____. Holding Power / Large City School Systems. Washington, D.C.: National Education Association, 1964.

49. _____. "School Dropouts" National Education Association Journal (May, 1962), 51-58.

50. _____. The School Dropout, Washington, D.C.: National Education Association, 1964.

51. _____. "The School Dropout - Fugitive From Failure" Bulletin of the National Association of Secondary School Principals, (May, 1962), 46.

52. Schwebel, Milton. "Learning and the Socially Deprived" The Personnel and Guidance Journal, Vol. XLIII (March, 1965), 646-653.

53. Seidman, Jerome M. The Adolescent - A Book of Readings. New York: Holt, Rinehart and Winston, Inc., 1953.

54. Shannon, Jack T. M.D.T.A. OK-224, Special Youth Project, Oklahoma City, Oklahoma, March 10, 1965 (unpublished).

55. Sims, Verner M. "Review" The Fifth Mental Measurements Yearbook, Highland Park, New Jersey: The Gryphon Press, 1959.

56. Slotkin, Herman, and George Forlano. New Programs For Dropouts in New York City. New York: Office of Research and Evaluation (December, 1962).

57. Slotkin, Herman. "New Programs for Dropouts" Vocational Guidance Quarterly, Winter 1963-64, 127-32.

58. Stinchcombe, Arthur L. Rebellion in a High School. Chicago: Quadrangle Books, 1964.

59. Taylor, Charles and Arthur W. Combs. "Self-Acceptance and Adjustment." Journal of Consulting Psychology, Vol. XVI (April, 1952), 89-91.

60. Tessener, R. A., and L. M. Tessener. "Review of the Literature on School Dropouts." Bulletin of the National Association of Secondary School Principals, Vol. XLII, (May, 1958) 141-53.

61. Thorndike, Robert L., and Elizabeth Hagen. Measurement and Evaluation in Psychology and Education. New York: John Wiley & Sons, Inc., 1961.

62. Thorpe, Louis P., Willis W. Clark and Ernest W. Tiegs. California Test Bureau Manual. California Test of Personality, 1953 Revision.

63. Twyman, J. Paschal. Progress Report - School Dropout Research Project, January 1, 1964 to April 15, 1965. (unpublished)

64. Twyman, J. Paschal. Application to the Ford Foundation for a Grant to Support a Research Project, July 15, 1963. (unpublished)

65. "Uncle Sam's Rejects." Saturday Evening Post, December 8, 1962.

66. Van Dalen, Deobold B. Understanding Educational Research. New York: McGraw-Hill Book Company, 1962.

67. Van Dyke, Lauren A., and K. B. Hoyt. The Dropout Problem in Iowa High Schools. Iowa City: State University of Iowa, Iowa State Department of Public Instruction, 1958.

68. Youmans, E. Grant. "The Rural School Dropout." (Kentucky Study) Bulletin of the Bureau of School Service, Vol. XXXVI, September, 1963. University of Kentucky, Lexington.

VITA

Benjamin Richard Quinn

Candidate for the Degree of

Doctor of Education

Thesis: AN EXAMINATION OF CERTAIN VARIABLES ASSOCIATED WITH PERSONAL AND SOCIAL ADJUSTMENT CHANGE IN SCHOOL DROPOUTS ENROLLED IN A RETRAINING PROGRAM

Major Field: Higher Education

Biographical:

Personal Data: Born in New Hampton, Missouri, January 4, 1934, the son of Benjamin Franklin and Beatrice Quinn.

Education: Received the Bachelor of Science degree in Secondary Education from Northwest Missouri State College, Maryville, Missouri, with majors in Business and Social Science in July, 1956; Received Master of Science degree from Oklahoma State University, Stillwater, Oklahoma, with a major in Guidance and Student Personnel in May, 1962; and completed requirements for the Doctor of Education degree at Oklahoma State University in August, 1965.

Professional Experience: Employed as business education teacher at Sidney Consolidated School District, Sidney, Iowa, from September, 1956 to June, 1958; employed as teacher and coach at Benton High School, St. Joseph, Missouri; attended 1961-62 year N.D.E.A. Counseling Institute at Oklahoma State University; served as graduate assistant in the College of Education, Oklahoma State University the summer of 1962; employed as Director of Student Personnel, St. Joseph Junior College, St. Joseph, Missouri, and as Executive Director of the Calla E. Varner Education Foundation from September, 1962 to June, 1964; served as graduate assistant in the College of Education, Oklahoma State University, from September, 1964 to June, 1965.

Professional Organizations: American College Personnel Association, American Personnel and Guidance Association, Phi Delta Kappa, National Education Association.