The Effect of Work-Study Programs on Certain Student Behaviors

Stanley Schneider
THE UNIVERSITY OF NEW MEXICO
ALBUQUERQUE, NEW MEXICO 87106

POLICY ON USE OF THESSES AND DISSERTATIONS

Unpublished theses and dissertations accepted for master’s and doctor’s degrees and deposited in the University of New Mexico Library are open to the public for inspection and reference work. They are to be used only with due regard to the rights of the authors. The work of other authors should always be given full credit. Avoid quoting in amounts, over and beyond scholarly needs, such as might impair or destroy the property rights and financial benefits of another author.

To afford reasonable safeguards to authors, and consistent with the above principles, anyone quoting from theses and dissertations must observe the following conditions:

1. Direct quotations during the first two years after completion may be made only with the written permission of the author.

2. After a lapse of two years, theses and dissertations may be quoted without specific prior permission in works of original scholarship provided appropriate credit is given in the case of each quotation.

3. Quotations that are complete units in themselves (e.g., complete chapters or sections) in whatever form they may be reproduced and quotations of whatever length presented as primary material for their own sake (as in anthologies or books of readings) ALWAYS require consent of the authors.

4. The quoting author is responsible for determining “fair use” of material he uses.

This thesis/dissertation by Stanley Schneider has been used by the following persons whose signatures attest their acceptance of the above conditions. (A library which borrows this thesis/dissertation for use by its patrons is expected to secure the signature of each user.)

NAME AND ADDRESS

DATE

6/6/73

July 1971—1,000—GS
This dissertation, directed and approved by the candidate's committee, has been accepted by the Graduate Committee of The University of New Mexico in partial fulfillment of the requirements for the degree of

Doctor of Education in Curriculum and Instruction

THE EFFECT OF WORK-STUDY PROGRAMS

Title ON CERTAIN STUDENT BEHAVIORS

Stanley Schneider

Candidate

Secondary Education

Department

Wayne Stoellenberg

Dean

May 21, 1971

Date

Committee

Robert Dostata

Chairman

Myra Covage

Helen Smith

Robert D. Kline

C. Brown
THE EFFECT OF WORK-STUDY PROGRAMS
ON CERTAIN STUDENT BEHAVIORS

by

Stanley Schneider
B.S., New York University, 1957
M.A., New York University, 1958

DISSERTATION

Submitted in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Education in Curriculum and Instruction
in the Graduate School of
The University of New Mexico
Albuquerque, New Mexico
ACKNOWLEDGMENTS

The writer wishes to thank Professor Doxtator, chairman of the dissertation committee for his invaluable guidance and assistance in the direction of this dissertation. He wishes to thank Professor Runge for his assistance with the technical aspects of the study and his knowledge and assistance with the concept of work-study. He also wishes to thank Professor Keppers for his help and insight in the areas of guidance and drop-outs.

He wishes to thank Professor Brown for his assistance and knowledge in the area of Industrial Education and to Professor Ivins for his guidance in the formulation of the study.

He wishes to thank his wife and children for the patience and encouragement during the writing of this dissertation.
THE EFFECT OF WORK-STUDY PROGRAMS
ON CERTAIN STUDENT BEHAVIORS

BY
Stanley Schneider

ABSTRACT OF DISSERTATION

Submitted in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Education in Curriculum and Instruction
in the Graduate School of
The University of New Mexico
Albuquerque, New Mexico
THE EFFECT OF WORK-STUDY PROGRAMS
ON CERTAIN STUDENT BEHAVIORS

Stanley Schneider, Ed.D.
Department of Secondary Education
The University of New Mexico, 1971

With the number of drop-outs on the increase, the federal, state and local agencies, as well as private industry, have become involved with methods of student retention. The Vocational Amendments of 1968 have given impetus to work-study programs of various types for the possible retention of these students.

The null hypothesis of this study was that the work-study programs examined do not change the characteristics of the potential drop-out which were used to identify him as a potential drop-out.

The study took place at North Babylon, New York. There a general work-study program known as the School to Employment Program and two cooperative programs, the Industrial Cooperative Program and Distributive Education Program were selected and examined. A control group of students having some of the characteristics of the potential drop-out was selected.

Nine characteristics of the potential drop-out were derived from literature and studies in the field. These were: students' degree of self-acceptance, attitude toward school, peer group relations, value of high
The effects of work-study programs

on student academic performance:

An important area of concern for educators is the relationship between work-study programs and student academic performance. This study examines the effects of work-study programs on academic achievement and success in college.

The research findings indicate that students participating in work-study programs tend to have lower academic performance compared to their peers who do not participate in such programs. This is evidenced by lower grades, higher withdrawal rates, and decreased likelihood of graduation.

However, the study also highlights the importance of quality work-study programs which incorporate academic advising and support services to help students balance their work and academic responsibilities. Such programs have shown the potential to enhance student success and engagement.

In conclusion, while work-study programs may have negative effects on academic performance, it is crucial to implement strategies that address these challenges and support student success. Further research is needed to explore effective methods and policies that can maximize the benefits of work-study programs while minimizing their impacts on academic outcomes.
school diploma, participation in extra-curricular activities, participation in class projects, parents' attitudes toward school, and attendance.

In addition, three occupational characteristics were added: occupational goals, attitude toward work, and supervisors' evaluations of student-workers' work.

Pretest questionnaires were filled out by coordinators of the programs and guidance personnel, as of the time the student was selected for the program. Posttest questionnaires were filled out by the same personnel after the students spent a period of six months in the program.

A Likert-type scale was used for evaluation. Each student was rated on each characteristic with a value of from one to seven. A low value indicated that characteristic was one which could be used to predict the student would tend to drop out.

The pretests and posttests were compared, by groups, with an analysis of covariance. As students selected for each program met different criteria, the groups could not be considered alike to begin with. The analysis of covariance takes the difference into account.

The following characteristics were found to be ones in which the students of work-study programs in this study made significant changes as compared to the students of the control group: attitude toward school,
participation in extra curricular activities, participation in class projects and attendance.

The students of the work-study programs showed positive changes in all of the other characteristics, but not significant at the .05 level of confidence when compared to the students of the control group.

One characteristic in the latter group which showed a small numerical change but had some comments on the posttest questionnaire was parents' attitude toward school. Coordinators of the School to Employment Programs mentioned more interest on the part of the parents toward school and toward the program after the students had been in the program for a period of time.

Because four of the characteristics changed significantly for the students of the work-study programs, and because the other characteristics showed a positive change, though not significant, the null hypothesis was rejected.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ACKNOWLEDGMENTS</th>
<th>iii</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xi</td>
</tr>
</tbody>
</table>

## CHAPTER

### I. THE NATURE AND PURPOSE OF THIS STUDY

1

- Introduction
- Purpose of the study
- Basic Assumptions and Delimitations
- Working Definitions
- Organization of remainder of study

### II. REVIEW OF THE LITERATURE

8

- Literature on Work-Study
  - Historical
  - Recent legislation
  - Recent Innovations
  - The Drop-Out

### III. METHOD AND PROCEDURE

36

- Geographic area of study
- Community
- Programs studied
- Characteristic of potential drop-out
- Use of questionnaire
- Treatment of data

### IV. ANALYSIS OF DATA COLLECTED

47

- Statistical treatment used
- Identification of groups
- Profile Characteristics
  - Students' degree of self-acceptance
  - Students' attitude toward school.
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student discipline</td>
<td></td>
</tr>
<tr>
<td>Ability to get along with peer group</td>
<td></td>
</tr>
<tr>
<td>Participation in extra curricular activities</td>
<td></td>
</tr>
<tr>
<td>Students' value of diploma</td>
<td></td>
</tr>
<tr>
<td>Participation in class activities</td>
<td></td>
</tr>
<tr>
<td>Parents' attitude toward school</td>
<td></td>
</tr>
<tr>
<td>Attendance</td>
<td></td>
</tr>
<tr>
<td>Occupational goals</td>
<td></td>
</tr>
<tr>
<td>Attitude toward work</td>
<td></td>
</tr>
<tr>
<td>Supervisors' opinion of work</td>
<td></td>
</tr>
<tr>
<td>V SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</td>
<td>67</td>
</tr>
<tr>
<td>Summary by characteristic</td>
<td></td>
</tr>
<tr>
<td>Summary of drop-out characteristics</td>
<td></td>
</tr>
<tr>
<td>Summary of occupational character-</td>
<td></td>
</tr>
<tr>
<td>istics</td>
<td></td>
</tr>
<tr>
<td>Recommendations</td>
<td></td>
</tr>
<tr>
<td>Areas for further study</td>
<td></td>
</tr>
<tr>
<td>APPENDIX</td>
<td>84</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>89</td>
</tr>
<tr>
<td>CURRICULUM VITAE</td>
<td>91</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>The dropout as a four sided box, as pictured by the Occupational Research and Development Coordinating Unit</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Analysis of the change in degree of self-acceptance, by group.</td>
</tr>
<tr>
<td>2</td>
<td>Analysis of the change in students' attitude toward school, by group.</td>
</tr>
<tr>
<td>3</td>
<td>Analysis of the change in degree of students' discipline, by group</td>
</tr>
<tr>
<td>4</td>
<td>Analysis of the change in students' relations with peer group, by group</td>
</tr>
<tr>
<td>5</td>
<td>Analysis of the change in students' participation in extra curricular</td>
</tr>
<tr>
<td></td>
<td>activities, by group</td>
</tr>
<tr>
<td>6</td>
<td>Analysis of the change in students' value of high school diploma, by group</td>
</tr>
<tr>
<td>7</td>
<td>Analysis of the change in students' participation in class projects, by</td>
</tr>
<tr>
<td></td>
<td>group</td>
</tr>
<tr>
<td>8</td>
<td>Analysis of change in parents' attitude toward school, by group</td>
</tr>
<tr>
<td>9</td>
<td>Analysis of change in attendance pattern, by group</td>
</tr>
<tr>
<td>10</td>
<td>Analysis of changes in ability to decide on occupational goal</td>
</tr>
<tr>
<td>11</td>
<td>Analysis of changes in students' attitude toward work, by group</td>
</tr>
<tr>
<td>12</td>
<td>Analysis of changes in worth of students' work, as evaluated by work-</td>
</tr>
<tr>
<td></td>
<td>supervisor, by group</td>
</tr>
<tr>
<td>13</td>
<td>Comments on questionnaires</td>
</tr>
</tbody>
</table>
CHAPTER I

THE NATURE AND PURPOSE OF THIS STUDY

INTRODUCTION

With increased federal spending on vocational education and a growing interest in the drop-out problem, many new programs are being tried. One type of program that has been in education for half a century is now being explored as a possible salvation for the potential drop-out. That program is work-study.

Congress has, within the past decade, passed legislation authorizing the funding of work-study programs in the financially poor areas as well as high drop-out rate areas. These programs included at one end of the scale the general work-study program which is designed to give the student spending money to allow him to stay in school. At the other end, it included the various cooperative programs which are designed to teach the student a trade.

Statistically, the percentage of drop-outs is decreasing, due to the increase in the total number of school age children. Actually, the number of drop-outs is on the increase.
STATEMENT OF THE PROBLEM

The Vocational Amendments of 1968 expanded the scope as well as finances of work-study programs. Discussions about the amendment point to the work-study programs as the answer to drop-out problems. Many people are not sure of this at all.

Distributive Education and Business Cooperative programs are accused of taking only the most able students, ignoring the potential drop-out. Some Industrial Cooperative programs also are accused of this. The general work-study program is accused of giving the student money for performing some menial task and merely delaying dropping out.

General studies are needed to explore the effects of various types of work-study programs on potential drop-outs. This specific study is an exploratory, statistical one, to find if the work-study programs examined do, in the opinion of coordinators and counselors, change the characteristics of the potential drop-out which were used to label him a potential drop-out.

This study is to find if there is really a relationship between work-study programs and a change in characteristics for students in those programs being explored.

NULL HYPOTHESIS

For the purpose of this study the following null hypothesis was developed: Work-study programs have
no affect on the characteristics of the potential drop-out which were used to identify him as a potential drop-out.

**BASIC ASSUMPTIONS**

It has been assumed in this study that from the descriptive literature for work-study programs, three types of programs can be isolated representative of those described. It is further assumed that the three types of programs identified are also representative of similar programs in the New York area.

From the literature and studies of researchers in the field, it is assumed that characteristics of the potential drop-out can be defensibly derived, that it is possible to create a scale quantifying these characteristics, and that coordinators of work-study programs and guidance counselors can objectively evaluate the students of the selected programs on this scale.

**DELIMITATIONS OF THIS STUDY**

This study by no means implies, or tries to find any evidence, that the work-study program is the only method or even the most effective method of meeting the needs of the potential drop-out.

Vocational, Technical, Industrial, Business, Industrial Arts and other courses will be mentioned in relationship to work-study programs, but will not be
the main consideration of the research.

Counseling, including vocational counseling, will be discussed only as related to the work-study program.

In discussing drop-out characteristics, and in conducting a study of the type reported herein, characteristics will have to be eliminated before comparative measurement can take place. For example, a short period of time such as six months in a work-study program will not likely measureably change the student's I.Q. score, the economic level of the student's home, or the educational level of the student's parents. Unless the work-study program is run in conjunction with a reading program, or has reading improvement aspects programmed into it, it cannot be expected to raise the reading level of the youngster.

This study is primarily concerned with the high school work-study programs, including ninth grade programs being housed in junior high schools. College and junior college programs will be discussed only in historical perspective.

WORKING DEFINITIONS

For the purpose of this study, and in order to make the terms understood in the manner in which they are used, the following definitions are offered:

**Vocational Education:** Vocational Education, as offered in high schools, is a program of education designed to teach the student a salable skill. Within the realm of
Vocational Education there are the concepts of Technical Education, Industrial Education, Vocational-Agricultural Education, Home Economics, Business and Distributive Education. Many types of work-study programs are included under the heading of Vocational Education, as each type of program varies in characteristics and objectives.

**Work-Study Programs:** The term work-study will be used interchangeably with work experience as both represent programs where the student spends part of the day in school, and part of the day on a school-supervised job. The term is broad enough to include programs where the student works at a supervised job but receives no related instruction in school. It also includes programs where the instruction in school is completely related to the job.

**General Work-Study:** There are many programs under many names where the student spends a portion of the school day on a school-supervised job, but the program does not have the intent of teaching a trade. It will offer some form of work experience and may or may not have a class in school related to work orientation. For the purpose of this study, these programs will be classified as general work-study.

**Cooperative Vocational Education:** The 1968 Amendment to the Vocational Education Act defined cooperative vocational education as follows:
Cooperative vocational education program means a cooperative work-study program of vocational education for persons who, through a cooperative arrangement between the school and employers, receive instruction, including required academic courses and related vocational instruction by the alternation of study in school with a job in any occupational field, but these two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and to his employability. Work periods and school attendance may be on alternate half-days, full-days, weeks, or other periods of time in fulfilling the cooperative vocational work-study program.

**Diversified Occupations:** When cooperative programs are designed to cover types of occupations that are normally covered by more specialized types of programs, they are given the all-inclusive title of diversified occupations.

**Distributive Education, Business Education, Office Education:** As the names indicate, these programs are designed to offer a student a work experience situation in a retail store or office, usually closely related to instruction in school.

**Drop-Out:** The U.S. Office of Education Handbook for Pupil Accounting, 1964, gives the following definition of a drop-out:

A drop-out is a pupil who leaves school for any purpose except death, before graduation or completion of a program of studies, and without transferring to another school. The term drop-out is used most often to designate an elementary or secondary school pupil who has been in membership during the regular school term and who withdraws from membership before graduating from the secondary school (grade 12) or before completing an equivalent program of studies. Such an individual is considered a drop-out 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 amount of work.

Potential Drop-Out: A potential drop-out is a student for whom a prediction can be made that he will not complete his schooling. Criteria for the predictable qualities has been derived from the literature.

**Organization of the Remainder of the Study**

Chapter II will contain a review of literature and studies in the fields of work-study and school drop-outs. Chapter III will contain a description of the method and procedure for the study. Chapter IV contains a listing of tabulated data and statistical information, taken from questionnaires. Chapter V will contain a summary of the findings, as well as conclusions and recommendations.
CHAPTER II

REVIEW OF THE LITERATURE

Chapter II will be divided into two sections as follows:

1. Literature on Work-Study Programs
   a. Historical from inception through 1963
   b. Recent Legislation. 1962 to present
   c. Recent Innovations, since 1963

2. Literature and Studies on Drop-Outs

WORK-STUDY PROGRAMS

Historical Background of Vocational Education and Work-Study

The first part of the chapter concerns itself with the history of work-study programs from inception through the post World War II period. The review, for the most part, is based on Wilson Ivins's dissertation which contains a very comprehensive history of the work-study concept.

There was very little vocational training prior to the turn of the century, and no Federal aid for any type of program which may have existed. Pressure applied by the National Association of Manufacturers and the Metal Trades Association of the American Federation of Labor led to the formation of the National
Commission of National Aid to Vocational Education. In spite of opposition, this resulted in the National Vocation Act of 1917, or as more commonly known, the Smith-Hughes Act.

This act was actually in the form of an appropriation which encouraged states and local communities to set up their own occupational training programs. States had to set up their own vocational boards and use specified standards for the hiring of teachers of vocational subjects. Supplementary money was furnished by the George-Reed Act of 1929. Even though other acts of short duration were passed, there was a constant fear that funds would be discontinued.

In 1936, the George-Dean Act was passed with the backing of the American Vocational Association. It authorized the annual appropriation of 12 million dollars for vocational education, which was to be matched by state funds. The main innovation of the George-Dean Act was the specified provision for the distributive occupations training, even though it wasn't until 32 years later that Congress acknowledged cooperative education as a reason for passing a bill.

The Civilian Conservation Corps. During the depression of the 1930's, many new programs were tried to help the economy of the country. The Civilian
Conservation Corps was established by executive order November 22, 1933 as part of the Federal Relief Program. It was planned for the relief and rehabilitation of unemployed youth between the ages of 17 and 23, as well as unemployed veterans. Emphasis was placed on conservation work such as controlling soil erosion and the building up of forest areas. Some of the finest camping areas in the country today are the result of the C.C.C. Education in the camps was voluntary and there were many conflicts between the educational advisors and the war department camp commanders. Initially the education was similar to the traditional school education which many of the enrollees had tried and found wanting.

Later the education was linked to the job the corpsman was doing and many were able to learn trades. There was an aversion on the part of the public schools to cooperate because of their constant doubts about government control of schools. In 1942 with economic conditions improved and the drive for war production increasing, the agency was terminated.

The National Youth Administration was set up to help youth both in and out of the school. Its emphasis was placed on work rather than academic study. Many high schools instituted their first programs of work-study in order to derive the federal benefits of the
N.Y.A. There was fear of the government usurping local power, but controls were left in the hands of local authorities. The N.Y.A. plan of work experience was based on a primary need for financial aid to the students. It was also cognizant of the fact that it would contribute more if a student learned a trade in addition to earning money.

Work project camp programs offered education and job training to youth not in school. Conscious effort was made to assign regular work to each N.Y.A. member that was closely related to the instruction he was receiving. In 1941 the Educational Policies Commission of the National Education Association recommended that the federal agencies be discontinued as separate youth agencies; that their functions be discontinued or transferred to state and local authorities.

This commission recognized the value of these work-study programs and recommended their use in public schools. They agreed to the importance of work-study as an integrated part of the educational process.

The George-Barden Act. In 1946, Congress passed Public Law 586, known as the George-Barden Act. It doubled the appropriations of the George-Dean Act. The act authorized funds for the administration of vocational education, which was lacking in some states. Chief feature of the legislation was the evidence it
gives of recognition of the value of previous vocational programs.

**Beginnings of Work Experience**

Work experience programs began on the college level. Lucinda Prince, an executive committee member of the Women's Educational and Industrial Union of Boston was interested in training girls who wished to become saleswomen. In 1906 a school of salesmanship began under the sponsorship of the union. Her program began very small and as she was able to sell the ideas to merchants, grew. As the merchants became convinced of the value of this program, they agreed to her ideas of full pay to trainees and commitment for hiring the girls after completion of the course.

The *Cincinnati Plan*. Herman Schneider had been dissatisfied with the training of engineers ever since he began his own training. When he taught Engineering, he wanted to combine study and practical work on the part of the students. There was too much theory and not enough application. The college where he taught was too involved in traditional education and wanted no change.

Industrial leaders, and companies such as Westinghouse, American Bridge, and Baldwin Locomotive were impressed with his ideas. As a result of
speeches he made he was offered a position on the faculty of the University of Cincinnati School of Engineering.

Cincinnati was also traditionally minded but he was able to convince the faculty to install his plan of cooperative education. He provided that students of Engineering would actually work in the shops and factories similar to the ones in which they would be employed after graduation. He paired students, two to a job, so that one was always at work while one was always in class. He insisted that the basic objective of the plan was to bring work experience into the classroom and vice versa.

Under Schneider's guidance, the Cincinnati Public Schools began a cooperative education program, followed by ones at Fitchburg, Mass. and York, Penna. In 1913 he had moved to New York City and set up programs in ten high schools.²

Two other college programs that followed Schneider's ideas were F.G. Nichols' Distributive Education Program at Rochester, and William Hudson's program at Blackburn College, Illinois. The most interesting feature of the Blackburn program was that the students did all of the work around the school, from raising the food to doing all of the clerical work. The students even built the school gymnasium, with cooperation from the
local unions.

In 1920 a plan was started at Antioch, Ohio, where work-experience was tied to a liberal arts program. The aim was for young people to become workers in any given field who were neither narrow specialists nor shallow incompetents. Initially the jobs were within the college, but as jobs in outside agencies were available, the students were placed outside of the school. To attain a B.S. or A.B. degree, the Antioch student must spend five years in school of which 120 weeks are devoted to the classroom and 90 to work.

Apprenticeship Training. A Federal Committee on Apprenticeship Training is composed of representatives of employers, organized labor and the public. This committee began its work in 1934 with the purpose of establishing uniform standards and of promoting their acceptance. An apprenticeable trade consists of:

1. One of such complexity as to require a minimum of 4000 hours of reasonably continuous employment.

2. Approved schedule of work experiences to be learned on the job and be participated in by the apprentice.

3. Related classroom instruction (minimum 144 hours per year)
4. Written agreement of terms and conditions.

5. Progressively increasing scale of wages.

An apprentice is a person of at least 16 years of age covered by a written agreement, registered with a state apprenticeship council or the Bureau of Apprenticeship, U.S. Department of Labor, and participating in a program meeting the above minimum requirements of an apprenticeable trade.\(^3\)

Many of the apprenticeship programs include some schooling in general education. The Chicago Public Schools provide the schooling, where applicable, and supply classrooms for apprenticeship classes of the job-related type.

**Post World War II Programs**

The Los Angeles State College offers a work experience program, representative of many of the modern college programs. A maximum of 16 credits may be earned toward a degree in this program. The college feels that this is a tangible thing for the employer as well as for the college.\(^4\)

Many of the programs of work-study began during the depression and grew during World War II because of the necessity of using youth in the labor market. These programs continued to grow after the war. Pope, specialist in Distributive Education, said about the program, "Is it educationally sound to give youths, who show an aptitude for, and an interest in retailing,
the necessary instruction in oral English, in selling, in display, in store arithmetic, in merchandise information, and in other business subjects to enable them to engage effectively in the daily contacts of business life? We in Distributive Education sincerely believe it is."

I.W. Willett, Superintendent of Schools, Richmond, Virginia, made the following points about cooperative programs:

1. With the high degree of specialized training that is required in today’s society, it is no longer feasible for the schools to provide all of the shops and laboratories that are necessary for occupational training.

2. A closer partnership between the schools and occupational world is necessary.

3. In most occupational fields there are many levels of training which can best be met in a cooperative enterprise.

4. The partnership offers avenues of involvement and planning between schools and business interests.\(^6\)

The task force, making recommendations to the National Conference on Vocational Education made the following recommendations under part G of the 1968 Amendments (which will be further discussed under legislation).

1. There is much to be gained by extending some derivative of cooperative vocational education into the 7th and 8th grades.

2. At the lower levels the program should transcend occupational fields in an effort to give students short experiences on which to base occupational choices.
3. Most junior high students likely will not have selected a career goal.

4. Integrated programs (heterogeneous groups) are feasible in high drop-out and unemployment areas.

5. Work stations for the young may be acquired because of the youth's age and physical capacity rather than because of his skills.  

A program that in many respects is similar to that described by the task force is at Hobbs, New Mexico. 

The aims of this program are:

1. Meet needs of students who have no interest in, or ability to adapt to regular school programs.

2. To relieve the classroom teacher of discipline problems that become time consuming to the point that other members of the class are penalized.

3. To establish such a flexible school program that will include activities both in and out of the regular school day.

This program begins on the junior high level as a work experience program with the hope that it may lead to vocational skills in the high school, either through vocational cooperative programs or vocational classes. The eventual objectives of this program are to give the student a trade or salable skill, to help him find his place in society, to develop character and hopefully to guide the student back into the regular school curriculum.

One problem that school cooperative work-study programs may find is that an industrial enterprise is not a school. It is a business having to make a
profit in a highly competitive climate. It is very sensitive to socio-economic and technological pressures. It may have to close its cooperative educational program because socio-economic circumstances warrant it, when, from an educational standpoint, such a program is most needed.9

A similar program to that described by the task force and that of Hobbs, New Mexico, is New York State's School to Employment Program, where the state reimburses any school fifty percent of their program costs for the first five years. To enter the program, the student must be fifteen years of age or older, be at least one year behind in grade level and meet other "qualifications" such as poor attendance, discipline problem, or poor attitude toward school. The student attends school for a half day, taking at least one period a day in a related course. There he is indoctrinated to the world of work, attitudes toward school and work, etc. For the remainder of the day he works at a school supervised job, within the limits of the state labor laws.

The purpose of this program, as of the one previously described, is not to teach the student a trade or skill but to give him some work experience. If he learns some type of skill on the job, it is just incidental to the aims of the program.

This is in contrast to the Industrial Cooperative Educational Program which is described as follows in
the New Jersey State Manual. The basic aims of this program are to educate the student-learner to the world of work via sequential experiences in school and on the job. School subjects scheduled for student learners in the high school include regular school offerings in addition to specific course work which regulates directly to their part time employment.

In an Industrial Cooperative Program, the following conditions should be applied to any establishment where a student learner will work:

1. The training program must be a bona fide training program.
2. Training must require a sufficient degree of skill to necessitate a substantial learning period.
3. The occupational training may be for the purpose of manual dexterity and high production speed in repetitive operations, if this is a realistic type of learning situation for the particular student learner.
4. The employment of the student learner must not have the effect of replacing a regular worker.
5. The occupational needs of the student, community or industry warrant the training of student learners.
6. The facilities of the employer shall be inspected and approved for each educational training objective and for adequacy and safety by the teacher-coordinator and a representative of the State Department of Education.
7. The teacher coordinator must establish standards which will be used to check on the adequacy of the experience.
8. The student learner, during the period of work experience, shall be under the constant supervision of the designated on-the-job trainer, particularly when the work is classified as hazardous.

Recent Legislation

The Manpower Development and Training Act was passed in 1962 for the purpose of aiding unemployed and unskilled youth between the ages of 17 and 21. It provided training funds and allowances up to 104 weeks for unemployed persons receiving training in occupations for which the local employment agency has certified there is a need. This means that youth between 17 and 21, as well as unemployed parents without age restriction can receive a basic education, vocational training, counseling and job placement assistance, while receiving a training allowance during their learning period.

The Vocational Education Act of 1963 allocated money for persons with special needs. It was a federal program requiring the states to match their 10% to the government's 90%. Section 13 of this act authorized support for work-study programs for full time students who may work up to 15 hours of school time per week.

This Act established in the Office of Education an Advisory Committee on Vocational Education, including representation from the Departments of Commerce, Agriculture and Labor. This act allocated money for
trade and industrial education, distributive education, agricultural education, vocational office training, area vocational schools in junior colleges and work-study programs for students in need of money.

The act also provides money for vocational guidance, teacher training for occupational fields, supervision and evaluation of programs as well as research in the area of vocational education.

The Economic Opportunity Act of 1964 emphasizes educational and vocational training as an effective means of overcoming poverty. Through its programs, many forms of vocational training are available. Included are the following:

1. The Neighborhood Youth Corps and college work-study programs enable low income students to earn money while attending school.

2. The Community Action Program tends to mobilize all of the community resources in activities toward the elimination of poverty, or the causes of poverty.

3. Adult Basic Education Programs are directed to all persons 18 years of age or older who need to know the communications skill, thus improving their ability to benefit from vocational training.

4. The Work Experience and Training Program enables the public welfare departments to assist unemployed fathers and other needy persons to receive vocational training by paying some of the cost of such training.
The Elementary and Secondary Education Act of 1965 can be a most useful tool in helping the academically and socio-economically handicapped to enable them to succeed in a regular vocational program.

The Economic Opportunity Act of 1964 provided money for local school districts, distributed through the states on a basis of need. Availability was under the following titles:

1. Title 1. The State Educational Agencies will receive an allocation of funds to be distributed to each of the local agencies which qualify under a formula based on the number of school age children from families with annual incomes less than $2,000 or receiving money from programs for Aid to Families with Dependent Children. Money can be spent to hire additional staff, construction, equipment, for almost any purpose which the local agency feels will meet the educational needs of the disadvantaged youngster.

2. Title 2. Authorized funds for the states to use for library resources, text books and other instructional materials.

3. Title 3. Authorized funds for supplementary educational centers and services particularly to aid in the development of exemplary school programs.

The Appalachian Regional Development Act of 1965 made money available for the construction of area vo-
cational schools in the communities within the region known as Appalachia, which are designed to give the students a comprehensive education which they need for the world of work in an industrial society. 11

The Neighborhood Youth Corps previously mentioned has no requirements attached to it for any related course being taught within the school program. Many schools using Neighborhood Youth Corps funds to pay for work experience will offer some type of course related to the work experience, either for credit or not, and many will give school credit for the actually work experience. This program is to provide a source of money for youngsters from low income homes and is not designed to teach a trade, but the job may, from the very nature of it, provide the student with some skills.

The Job Corps was patterned to some extent after the Civilian Conservation Corps. In order to take the youngster out of his home environment he was placed in a center more than three hundred miles from his home, and often two to three thousand miles away.

Youngsters from New York City, for example, were placed in a center North of Gallup, New Mexico. They were taught skills in the area of conservation. This caused an extremely high drop-out rate as the skills taught had no relevance to the youngster. Later Job Corps Centers were opened in large cities and skills
such as electronics assembly, office work, auto mechanics and commercial baking were taught.

In 1968, Congress passed an Amendment to the Vocational Education Act, which specified aid to various types of work-study programs.

Part B funds may be used for the continuation of existing vocational education programs and for the expansion of cooperative programs to additional youth and occupational fields.

Part G funds are meant for the development of new cooperative programs, especially in designated areas of high drop-outs and unemployed youth. The advantages of Part G may be:

1. Possible funding up to 100% of program cost.

2. Possible reimbursement of employers for added costs of on-the-job training for cooperative students.

3. Possible reimbursement of supervisory, teacher training and other ancillary costs.

4. Possible payment of certain expenses such as transportation for working students.

5. Inclusion of non-profit private schools in the program.

Part H provides funds for work-study programs, and some that may be called exemplary programs will fit under Part D. Part H is most closely related to the type of program referred to in this study as general work-study.
The Co-op Coordinator

Most literature on work-study programs of any type, whether cooperative programs or general work-study, place the strongest emphasis on the selection and duties of the coordinator. The Commissioner of Education, Jefferson City, Missouri, lists here the duties and responsibilities of the coordinator:

1. Aiding in conducting community occupational survey and follow up of students.
2. Aiding in improving inter-school and community relations.
3. Selecting of students through testing and interviewing.
4. Preparing job training plans.
5. Selecting and organizing instructional material into courses of study, study guides and instruction sheets.
7. Maintaining adequate personnel and training records and making reports.
8. Correlating school instruction with work experience.
9. Organizing and supervising adult activities.
10. Conducting conferences with students relative to job achievement and social development.
11. Maintaining a close working relationship with advisory committee.
12. Evaluating students' progress and achievement.

If the student is learning a specific trade, the coordinator does not have to know the technical aspects of it. He should know where to get the information he
needs and how to coordinate it into a program for the
youngster. In a work-study program, the specific job
is not necessarily a part of the in-school program at
all. The coordinator is more concerned with work in
general.13

New Concepts in Work-Study Programs

There are many students in school who would bene-
fit from a trade learned in a cooperative program, but
for one reason or another cannot fit it into their
schedule. New York State in school year 1969-70 start-
ed a program where a student could learn a cooperative
skill during two consecutive summers. Many of the
building trades were more accessible in this program.14

New York, in the past few years, has set up area
vocational centers. Youngsters enrolled would spend
half of the school day in their home school and be trans-
ported to the center for the remainder of the day. This
provided an opportunity for trades to be taught that
wouldn't create enough demand from one school district
for inclusion, but drew sufficient number from schools
in the selected area.

The Mid-Westchester Center for Occupational Educa-
tion has set up a cooperative program, working out of
the area center, designed solely for the potential drop-
out. It is in many respects similar to the School to
Employment Program previously mentioned, but provides
for training in a specific skill and more concentrated counseling.

THE DROP OUT

While the drop-out rate has decreased from 44.7% in 1954 to 36.4% in 1962, increasing enrollments have raised the total number of drop-outs from 1,031,000 in 1954 to 1,105,000 in 1964 and to 1,200,000 in 1965. 15

The late President Kennedy made reference to this problem in his 1963 State of the Union Message when he said:

"The future of any country which is dependent on the will and wisdom of its children is damaged, and irreperably damaged, whenever any of its children is not educated to the fullest extent of his capacity...and that is a waste we cannot afford."

Studies on drop-outs show that they have many traits in common. Some involve personality, some family, some involve living conditions.

Cervantes says that poverty is the condition of the drop-out, but inability to pay for his education is not the reason why the drop-out withdraws. While one out of 50 students in the wealthy class withdraw, one out of two will withdraw in the very poor class. The parents of these students do not place much value on the diploma and do not implant the motivation in their children for high school graduation. 16

Tannenbaum sees the drop-out as from a poor, low
prestige family, often a disenfranchised minority group. He sees the drop-out of today as different from the drop-out of 50 years ago, with different circumstances for dropping out. Tannenbaum would, however, like to separate the voluntary drop-out from the involuntary one who has reasons such as physical disabilities, emotional problems, trouble with the law, or impending parenthood.\textsuperscript{17}

A study in Bloomington, Minn. found that almost 60\% of the fathers of drop-outs had less than a high school diploma, but also found that 90\% of these same drop-outs felt that their fathers had good jobs. Drop-outs interviewed in several studies had over-inflated ideas of their own value on the job market.\textsuperscript{18}

Tannenbaum says that a young person is not prepared enough to choose from a wide range of jobs. He must rely on work shortages in the unskilled and semi-skilled areas. Teenagers and young adults are over-represented on the unemployment lists, primarily because they are the least trained and least experienced job seekers.\textsuperscript{19}

Schreiber found that approximately 2/3 of the parents of drop-outs were either hostile or indifferent toward school and that more than 70\% of them failed to complete the 12th grade.\textsuperscript{20}

Dropouts; A Challenge to Society gives the char-
acteristics of the drop-out as being poorly adjusted socially, personally and generally, with a negative self-image. 21

Cervantes expands on this. The family of the drop-out has no less solidarity than the family of the student remaining in school. The family tends to have fewer friends, or at least fewer problem free friends. The drop-out's friends are not approved by his parents. Usually the drop-out has had some trouble in school, and is not involved in school related activities. He has no feeling of belonging and no interest in school. Lastly, he has a negative self-image and a problem with his peers. 22

A study in New York City using the Iowa silent reading test shows that three times as many poor readers as good readers drop out of school. The Bloomington, Minn. study describes the scores of the drop-outs as considerably lower than the students who remained in school when tested on the 7th grade level using the Gates Reading Survey. For those of the same group who dropped out after the 10th grade, the SRA Diagnostic Test, form B, again showed a considerable difference.

This same group, being tested in the fourth grade with the Kuhlman-Anderson Intelligence test showed a mean for the drop-outs as 94.15 and for the students who later graduated as 106.9. Further information on this same class being studied showed that one third of the
drop-outs returned to school, only to drop-out again. The study found that participation in extra curricular activities lessened as the drop-out advanced in grade.23

A student who has to repeat the grade has many handicaps to overcome. His parents may not accept the fact that he has to repeat the grade and holds it against him. It may even be a stigma against the family. The student will tend to feel like a failure in school and may be branded as such by his peers.

The Occupational Research and Development Coordinating Council sees the drop-out as a four sided box, shown in figure 1, next page. This box represents a synthesis on the part of the authors of drop-out studies that they used as well as their own studies.24

Dillon found that youngsters leaving school in the lower grades tended to have lower I.Q.'s than those leaving in upper grades. 36% of those students leaving in grades beyond seven had I.Q. scores below 85 while 75% of those students leaving in grade seven had I.Q. scores below 85.25

The Bloomington study found this average absence rate:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Drop Out</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>13.0</td>
<td>5.3</td>
</tr>
<tr>
<td>8</td>
<td>16.8</td>
<td>6.5</td>
</tr>
<tr>
<td>9</td>
<td>19.0</td>
<td>6.6</td>
</tr>
<tr>
<td>10</td>
<td>23.3</td>
<td>7.8</td>
</tr>
<tr>
<td>11</td>
<td>19.2</td>
<td>7.3</td>
</tr>
<tr>
<td>12</td>
<td>17.0</td>
<td>8.2 26</td>
</tr>
</tbody>
</table>
THE DROPOUT

FAMILY CHARACTERISTICS
- Weak or broken home
- Low socio-economic group
- Parents' education 8th grade level or below
- Lack of money due to low income

SCHOOL CHARACTERISTIC
- Failure of one or more school years
- Poor school marks
- Poor attendance
- Attended several elementary schools
- No participation in extra curricular activities
- Little interest in school
- Strong resentment toward school

PERSONAL CHARACTERISTICS
- No personal goals for achievement
- Unrealistic expectations concerning future roles
- Low I.Q.
- Marked difference from classmates
- Frequent Illness

SOCIAL CHARACTERISTICS
- Poorly adjusted personally and generally
- Negative self image
- Few friends and associates
- Feeling of not belonging
- Feel rejected by teachers, friends, and classmates
- Boys tend to own cars
- Difficulty with community agencies and the law

---

Figure 1. The Dropout as a Four Sided Box as pictured by the Occupational Research and Development Coordinating Unit.
The Bloomington study found absenteeism an important factor with drop-outs.

Dillon stated that many drop-outs had frequent transfers of schools and found attendance of drop-outs as follows:

75% of school leavers were in attendance 90% of time in elementary school.

60% of school leavers were in attendance 90% of time in junior high school.

40% of school leavers were in attendance 90% of time in high school. 27

In a questionnaire replied to by 763 drop-outs, Dillon found that they made the following suggestions as to the way school would have helped them:

<table>
<thead>
<tr>
<th>Suggestion</th>
<th>Number</th>
<th>PerCent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide work experience</td>
<td>377</td>
<td>23</td>
</tr>
<tr>
<td>Specific vocational instruction</td>
<td>254</td>
<td>15</td>
</tr>
<tr>
<td>Services of a guidance counselor</td>
<td>196</td>
<td>12</td>
</tr>
<tr>
<td>More personal contact with teacher</td>
<td>188</td>
<td>11</td>
</tr>
<tr>
<td>More participation in school activities</td>
<td>184</td>
<td>11</td>
</tr>
<tr>
<td>Opportunity to change courses</td>
<td>175</td>
<td>11</td>
</tr>
<tr>
<td>Smaller classes, more individualized instruction</td>
<td>166</td>
<td>9</td>
</tr>
<tr>
<td>Transfer to another school</td>
<td>131</td>
<td>8</td>
</tr>
</tbody>
</table>

Total number of suggestions: 1662
Number of students replying: 763 28

Schreiber found that 45% of the drop-outs leave school at age 16. He attributed dropping out to parents’ attitude toward school, reading retardation, grade retention, low intelligence, and negative self-image. 29

Dean Hummell found the following characteristics as those of a potential drop-out: low marks, low meas-
ured ability to do school work and read well, over-
age for grade, discipline problem, poor attendance, low level of emotional and social maturity. He also found that the more of these characteristics a student possessed, the more likely he was to drop out of school at the earliest opportunity he legally could. 30

Findley says that language is the key to our culture and they (the drop-outs) do not have it. Every drop-out study points to poor reading. He starts to fail early in elementary school and the habit of failure and frustration deepens as he advances through school. 31

The Bureau of Guidance, New York State Department of Education, finds the following as characteristics of the potential drop-out: grade retention, lack of interest in school, poor marks, parents' attitude, lack of participation in school activities as well as out of school activities, not accepted by other students. The Bureau of Guidance states that these items can predict the male potential drop-out better than the female. Often the potential drop-out may appear to be a slow learner, but under proper conditions of learning, guidance and maturation, his performance may improve mark-
edly. 32
FOOTNOTES FOR CHAPTER II


3. Chicago Public Schools, Apprenticeship Training, Chicago, 1953, p.50,51

4. Los Angeles State College, The Work-Study Program Where the Classroom is Los Angeles, no date, p.11

5. National Education Association, Planning a Cooperative Program in Distributive Education, the Bulletin, NASSP, March 1945, p.80


7. ibid., p.22

8. New Mexico State Education Department, Vocational Core Program in the Hobbs Municipal Schools, Santa Fe, 1967, p.6

9. Director of Vocational Education, Cooperative Industrial Education, Trenton, N.J., no date, p.1

10. ibid, p.2


15. Hemp, op. cit., p.20


19. Tannenbaum, op. cit., p.11


22. Cervantes, op. cit., p.67

23. Randall, op. cit., p.26

24. Occupational Research and Development Coordinating Unit, op. cit., p.19


27. Dillon, op. cit.

28. ibid

29. Schreiber, op. cit., p.4


CHAPTER III

METHOD AND PROCEDURE

Chapter III includes information on the geographic area of the study, type of community, programs studied, student population, characteristics of the potential drop-out, derivation and use of questionnaire, professional personnel assisting in study, and method of treatment of data.

Geographic Area of Study

Initially the study was to take place at two high schools in Albuquerque, New Mexico. Because some essential data were not available, a new area was sought. After obtaining clearance from the investigator's home district of North Babylon, N.Y., and permission from his dissertation committee, the study was changed to the population of the North Babylon Schools.

The change was advantageous in several ways. First, there were records available as to why each student was selected for work-study programs. Secondly, the guidance personnel agreed to work with the coordinators of the programs involved to insure objectivity in evaluating each student on the questionnaire, which will be discussed later in this chapter. Lastly, it was possible to obtain cooperation in the evaluation
of a control group, which was not available in the original Albuquerque study.

Type of Community

North Babylon is located about 50 miles east of New York City, on Long Island. Very few people inhabited North Babylon before World War II, but it has grown steadily since, and now has a population of over 30,000 residents.

There is no industry in the town. The majority of workers either commute to New York City to work or are employed at one of the aircraft factories on Long Island. Many of the residents belong to labor unions and are vocationally orientated. A large area vocational school is available, which the students may commute to by school bus daily.

Programs Studied

1. General Work-Study: The specific program is the School to Employment Program. The program, usually referred to as S.T.E.P., is specifically designed for the potential drop-out. It gives the youngster an opportunity to work at a job and earn money, but not necessarily learn a trade. There is a S.T.E.P. program at both the Belmont Lake Jr. High School and the Robert Moses Jr. High School, both of which were evaluated.

2. Distributive Education: The program requires the student spend part of the day working at a retail establishment, and part of the day in school, with some of his studies related to the retail trade. There are two sections of the program at the North Babylon High School.
3. Industrial Cooperative Program: The student spends part of the day on a job, learning a trade, and the rest of the school day in a formal program of instruction. Part of the instruction is specifically related to the trade undertaken. There are two sections of the program at the North Babylon High School.

It is most important to stress at this time that the programs do vary as to the type of student entering. The School to Employment Program specifies that the program accepts only students identified as potential drop-outs. The Distributive Education Program and Industrial Cooperative Program will accept the potential drop-out as well as other interested students. The coordinator of the programs, together with the guidance staff, have cooperated to select the students in the Distributive Education Program and the Industrial Cooperative Program who have some of the characteristics of the potential drop-out. Only the latter students were considered in this study.

Student Population

The School to Employment Programs answered questionnaires on the entire population of their classes, all identified as potential drop-outs. At the Belmont Lake Jr. High School, the class consisted of 10 girls and 12 boys, or a total of 22 students. At the Robert Moses Jr. High School, the class consisted of 7 girls and 11 boys, or a total of 18 students.
The problem of the size of the program's budget and the constraints on the size of the budget was a topic of discussion.

The importance of the program's budget was emphasized.

In terms of the program's budget, it was crucial to allocate funds efficiently.

The department's budget was also discussed in the context of budget constraints.

Beware of increased prices: the costs are increasing at an alarming rate.
The Distributive Education Program, after the students who showed no drop-out characteristics were eliminated, reported on the following: 24 girls and 18 boys, or a total of 42 students.

The Industrial Cooperative Program, after the students who showed no drop-out characteristics were eliminated, reported on the following: 6 girls and 12 boys, or a total of 18 students.

**Control Group**

At the Robert Moses Junior High School, all of the potential drop-outs entering the ninth grade in September, 1970, were identified. Twenty nine were given the opportunity to enter the School to Employment Program, but only 18 chose to do so. The remaining 11 students, all boys, were taking Ninth Grade Industrial Arts. The Guidance Counselor and Industrial Arts teacher located 14 other Industrial Arts students with some of the drop-out characteristics. The students, 25 in number, were selected to be a control group. Mr. William Jansen, an Industrial Arts instructor for eight years, has coordinated the evaluation of this group.

**Professional Personnel Assisting in Study**

School to Employment Program, Belmont Lake Junior High School: Mr. Ed. Kimmel is in his fourth year coordinating the program.
School to Employment Program, Robert Moses Junior High School: Mr. Steve LaRosa has assisted with the program at Robert Moses Junior High School for two years. 1970 was his first year in complete charge, as the investigator had this program previously for six years, or since its inception. Mr. LaRosa's previous field of interest was business education. Miss Nedda Marus, counselor working with the group, has had eight years experience in guidance.

Distributive Education Program: Mr. Ed Schultheis has coordinated the program for eight years. Several guidance counselors were involved as each counselor remains with a student for his entire stay at the school.

Industrial Cooperative Program: Mr. Amerigo Masi is in his third year of coordinating the program. Previously he had been an Industrial Arts teacher for 12 years. Several counselors were involved, as above.

In addition, the attendance teachers from each school have cooperated in helping with statistics. All teachers involved were contacted for their agreement to participate, either by telephone or by mail, and all were most agreeable. Miss Marus offered to coordinate the project at North Babylon because of the distance involved.

Characteristics of Potential Drop-Outs

The literature was reviewed on the background of the drop-out in public education and the research performed on potential drop-outs. Common characteristics which experts in the field attributed to drop-outs were determined.

All characteristics selected were included in the New York State Bureau of Guidance Manual for S.T.E.P.
Coordinators. All were described in the Occupational Research and Development Coordinating Unit's four sided box, as shown on page 31 of this dissertation. These characteristics were referred to by Schreiber, Dillon and Cervantes. The investigator concluded that by using the following characteristics, the potential drop-out can best be predicted: acceptance of self; attitude toward school; ability to get along with peers; participation in class; student's value of diploma; participation in extra curricular activities; parents' attitude toward school; school attendance; discipline.

There were other characteristics which could be used to predict drop-outs, but as indicated under delimitations in Chapter I, they will not be used in this study. A period of six months in a work-study program could not be expected to change the income level of the home or the parents' educational level. The six month period may possibly make a small gain in the student's I.Q. score or reading level if a concentrated reading program was run in conjunction with work-study, or the work-study program had reading aspects programmed into it. The work-study program by itself will not be evaluated in affecting these characteristics in this study.

All characteristics were worded into statements which were to be evaluated on a Likert-type scale. The Likert scale was found to be the best predictor and to
exhibit the greatest reliability as compared to the Guttman, Semantic Differential and Thurstone scales.\(^2\)

The coordinators and guidance personnel were to rate each student on each characteristic. A value of one would indicate a negative reaction to the characteristic in question, and a value of seven a positive reaction. The more negative the item was rated, the more it indicated that the student was likely to drop-out. As Hummell found, the more of the negative characteristics the student had, the sooner he was likely to drop-out.\(^3\)

In addition, because work-study programs are intended to increase the students' attitude toward work and occupational goals, three questions of these characteristics were added (see questionnaire in appendix).

**Use of the Questionnaire**

Each coordinator, in conjunction with a guidance counselor, was to rate each student on each characteristic as of the time the student was selected for the program. After a period of six months, all students were again evaluated on the same characteristics. The wording on the questionnaire for the second evaluation was changed slightly to make the questions clear. See appendix, questionnaire II.

Each of the characteristics, in addition to the evaluation numerically, was evaluated descriptively
if the coordinator and counselor desired. A space for comments was included and these comments are reported in Chapter IV.

Treatment of Data

All students in each work-study program were examined in aggregate. On each characteristic, the mean score for each group was reported both on the pretest questionnaire and on the posttest questionnaire. The difference was computed and recorded.

The two School to Employment Programs were designed for potential drop-outs only. The Distributive Education Program and the Industrial Cooperative Program, as well as the control group, contain students identified as potential drop-outs as well as students only having some of the characteristics of the potential drop-out. This difference prevented the groups from being compared with any method requiring equal groups at the start.

An analysis of covariance takes this difference into account. All data was compared by Rax computer program U-6604, a program which computes analysis of covariance. If a significant difference was found between the groups on any characteristic, the program compared the groups to find where the difference was.

All groups were compared to each other in the difference between means, but in the analysis of co-
variance, all work-study groups were compared to the control group. This showed not only if the characteristic was changed for the students in the work-study programs, but also the comparison of change with that of the students in the control group.

Summary

The study was moved from the Albuquerque Public Schools to the North Babylon, New York, Public Schools. North Babylon is a town with no industry, but many workers involved in defense industry. Three different types of work-study programs were selected for the study. These were the School to Employment Program, the Distributive Education Program and the Industrial Cooperative Program.

These characteristics of the potential drop-out selected to be used were: acceptance of self; attitude toward school; ability to get along with peers; participation in class; students' value of diploma; participation in extra-curricular activities; parents' attitude toward school; school attendance; discipline.

The characteristics were included in a Likert-type scale, which was to be rated by the coordinator and guidance counselor. Comparisons were to be made on each characteristic as to the difference between the pretest and posttest questionnaire. Each group was compared to the others, as to the change in the characteristic on the part of the students.
The groups were also compared by an analysis of covariance, which showed if there was a significant difference between the groups, and if so, which groups were significantly different from which other group.
FOOTNOTES FOR CHAPTER III


3. Hummell, loc. cit.
CHAPTER IV

ANALYSIS OF DATA COLLECTED

Questionnaires were collected from coordinators of work-study programs for 99 students. Identical questionnaires were collected from the personnel described in the previous chapter for a control group of 25 students. In accordance with the procedure described previously, the following statistical methods were used:

Analysis of Covariance

Computer cards for 124 students, three cards to a student were keypunched in accordance with directives for Rax program U-6604, analysis of covariance. Five characteristics were punched on each card, with a pretest and posttest value for each. As there were twelve characteristics examined, a total of three cards were required for each student.

Nine of twelve characteristics showed significant variance on the pretest, justifying use of the analysis of covariance. The posttest adjusted score took the initial difference into account and showed that on six of twelve characteristics there was a significant difference between the work-study and control groups.

On these characteristics, students' attitude toward school, participation in class activities, participat-
ion in extra curricular activities, attendance and students' attitude toward work, the comparisons were further broken down to show significant differences between groups as compared with the control group.

For all characteristics, whether analysis of covariance was significant or not, a comparison was made between the means of each group. The pretest was listed, followed by the posttest and the difference, whether positive or negative. This difference was useful in determining which work-study programs resulted in a change in student behavior for each of the characteristics, and to what degree.

Identification of Groups

In the tables found in Chapter IV, programs and identifying group numbers were coded as follows:
School to Employment Program, Belmont Lake J.H.S. Group 1
School to Employment Program, Rob't Moses J.H.S. Group 2
Distributive Education Program Group 3
Industrial Cooperative Program Group 4
Control Group Group 5

Evaluators' Comments

All evaluators were given an opportunity to give written comment in addition to numerical evaluation. Each characteristic has, following the table, a representative sampling of descriptive comments.
Profile Characteristic #1

Students' Degree of Self-Acceptance

Table 1. Analysis of the change in degree of self acceptance, by group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4.409</td>
<td>5.944</td>
<td>+ .545</td>
</tr>
<tr>
<td>Group 2</td>
<td>4.722</td>
<td>5.944</td>
<td>+ 1.222</td>
</tr>
<tr>
<td>Group 3</td>
<td>4.171</td>
<td>5.122</td>
<td>+ .951</td>
</tr>
<tr>
<td>Group 4</td>
<td>5.222</td>
<td>5.556</td>
<td>+ .334</td>
</tr>
<tr>
<td>Group 5</td>
<td>4.760</td>
<td>5.040</td>
<td>+ .280</td>
</tr>
</tbody>
</table>

No significant difference at .05 level between groups on adjusted posttest scores.

Evaluators' Comments on Questionnaire

Comments on students' degree of self acceptance came only from School to Employment Programs, only on pretest questionnaires, and all negative. Three comments indicated lack of confidence on the part of the students. Two girls were reported worried about their looks. The evaluators felt that five of the students were overconfident.

Analysis of Table 1

The four work-study programs showed changes on the part of the students on this characteristic in a positive direction. The students of the control group also show-
ed a positive change on the characteristic, but to a lesser degree. The Robert Moses School to Employment Program and the Distributive Education Programs showed that their students made good improvements, but the analysis of covariance showed no significant difference between the five groups. In this study, even though the covariance proved not to be significant, the students of the work-study programs did show a change on this characteristic.

Profile Characteristic #2

Students' Attitude Toward School

Table 2. Analysis of the change in students' attitude toward school, by group

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4.461</td>
<td>4.955</td>
<td>+ .274</td>
</tr>
<tr>
<td>Group 2</td>
<td>4.422</td>
<td>5.278</td>
<td>+ 1.051</td>
</tr>
<tr>
<td>Group 3</td>
<td>3.561</td>
<td>4.561</td>
<td>+ 1.000</td>
</tr>
<tr>
<td>Group 4</td>
<td>3.556</td>
<td>5.056</td>
<td>+ 1.500</td>
</tr>
<tr>
<td>Group 5</td>
<td>4.120</td>
<td>3.920</td>
<td>- .200</td>
</tr>
</tbody>
</table>

Analysis of Covariance: \( f = 4.87^* \)

Group 1 compared to Group 5 \( 11.84^* \)
Group 2 compared to Group 5 \( 10.75^* \)
Group 3 compared to Group 5 \( 8.77^* \)
Group 4 compared to Group 5 \( 13.61^* \)

* significant .01
Evaluators' Comments on Questionnaire

Comments on students in all four work-study programs indicated that they felt school was necessary. In the S.T.E.P. programs, seven students felt this way. The Industrial Cooperative Program and the Distributive Education Program reported 11 of these favorable comments. The posttest questionnaires reported a gain of five students in feeling that school was necessary, as well as a gain of three students in the Industrial Cooperative Program and two students in the Distributive Education Program.

Negative comments from the S.T.E.P. coordinators indicated five students waiting for legal age of withdrawal, five students felt school a waste of time, two felt it to be a necessary evil. These comments were not repeated on posttest questionnaires, though positive comments were not made either.

Analysis of Table 2

The students of all four work-study groups showed a more positive attitude toward school while the students of the control group showed a more negative attitude. The students of the Industrial Cooperative Program showed the largest change in this characteristic of attitude toward school.

The analysis of covariance showed that the four work-study programs all changed significantly at the .01
level of confidence when compared to the control group.

Profile Characteristic #3

Discipline of Student in School

Table 3. Analysis of the change in the degree of students' discipline in school, by group

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4.682</td>
<td>5.000</td>
<td>+ .318</td>
</tr>
<tr>
<td>Group 2</td>
<td>4.278</td>
<td>5.389</td>
<td>+ 1.111</td>
</tr>
<tr>
<td>Group 3</td>
<td>3.560</td>
<td>4.560</td>
<td>+ 1.000</td>
</tr>
<tr>
<td>Group 4</td>
<td>6.611</td>
<td>6.622</td>
<td>+ .389</td>
</tr>
<tr>
<td>Group 5</td>
<td>5.280</td>
<td>5.120</td>
<td>- .140</td>
</tr>
</tbody>
</table>

No significant difference at .05 level between groups on adjusted posttest scores.

Evaluators' Comments on Questionnaire

Several comments reinforced the numerical mark on the scale, such as a mark of 6 or 7 being accompanied by the comment "no problem." The expression "potential discipline problem" appeared on questionnaires from all groups, including the control group. Three comments from S.T.E.P. program students indicated that the discipline depended on the teacher involved.

Analysis of Table 3

Students in the four work-study programs showed that the evaluators felt them to be less discipline problems than they were at the beginning of the school
year. The evaluators felt that the control group became more of a problem in discipline than they had been previously. Though the students of the Robert Moses Jr. High School S.T.E.P. program and the Distributive Education Program showed the greatest improvement, the analysis of covariance showed no significant difference between the groups.

**Profile Characteristic #4**

**Ability to Get Along With Peer Group**

**Table 4. Analysis of the change in students' relations with peer group, by groups**

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4.818</td>
<td>5.409</td>
<td>+ .591</td>
</tr>
<tr>
<td>Group 2</td>
<td>5.056</td>
<td>5.556</td>
<td>+ .500</td>
</tr>
<tr>
<td>Group 3</td>
<td>4.634</td>
<td>5.610</td>
<td>+ .976</td>
</tr>
<tr>
<td>Group 4</td>
<td>5.000</td>
<td>5.944</td>
<td>+ .944</td>
</tr>
<tr>
<td>Group 5</td>
<td>5.360</td>
<td>5.520</td>
<td>+ .160</td>
</tr>
</tbody>
</table>

No significant difference at .05 level between groups on adjusted posttest scores.

**Evaluators' Comments on Questionnaire**

Three comments concerning S.T.E.P. program students indicate that they hate everybody. Two other comments indicated students were disliked by the entire class. There were not many comments on this characteristic by the coordinator-respondents.
Analysis of Table 4

The students in the four work-study programs as well as the students in the control group showed a somewhat better ability to get along with their peers. The two groups representing the older students, the Distributive Education Program and the Industrial Cooperative Program showed the largest change in the characteristic.

Profile Characteristic #5

Students' Participation in Extra Curricular Activities

Table 5. Analysis of the change in students' participation in extra curricular activities, by group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>1.409</td>
<td>2.273</td>
<td>+ .864</td>
</tr>
<tr>
<td>Group 2</td>
<td>2.333</td>
<td>3.777</td>
<td>+ 1.444</td>
</tr>
<tr>
<td>Group 3</td>
<td>2.561</td>
<td>4.000</td>
<td>+ 1.439</td>
</tr>
<tr>
<td>Group 4</td>
<td>1.389</td>
<td>1.889</td>
<td>+ .500</td>
</tr>
<tr>
<td>Group 5</td>
<td>4.440</td>
<td>4.360</td>
<td>- .856</td>
</tr>
</tbody>
</table>

Analysis of Covariance: \( p = 0.016^* \)

Group 1 compared to Group 5 \( .19 \)
Group 2 compared to Group 5 \( 6.45^{**} \)
Group 3 compared to Group 5 \( 10.40^* \)
Group 4 compared to Group 5 \( .23 \)

* significant \( .01 \) ** significant \( .05 \)
Evaluators' Comments on Questionnaire

On the pretest questionnaires, the reasons "lack of time" and "lack of interest" accompanied many of the low scores. A few high scores were accompanied by the word "sports" or the name of a sport.

The Distributive Education Program showed a great change on this characteristic, but few comments to go with the change. The control group indicated comments of "lack of interest" on the posttests.

Analysis of Table 5

The pretest scores on this characteristic were extremely low, with the control group students showing the most involvement in extra curricular activities. The posttest showed that the students of all four work-study programs increased in participation in extra curricular activities.

The students of the Robert Moses Jr. High School S.T.E.P. program and the Distributive Education Program made substantial gains in participation while the students of the control group participated less than they did at the time of the first evaluation. In this study, this characteristic did show a change on the part of the students of the work-study programs.

Profile Characteristic #6

Students' Value of High School Diploma
Table 6. Analysis of the change in students' value of high school diploma, by group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4.318</td>
<td>5.409</td>
<td>+1.091</td>
</tr>
<tr>
<td>Group 2</td>
<td>4.389</td>
<td>5.278</td>
<td>+.889</td>
</tr>
<tr>
<td>Group 3</td>
<td>4.268</td>
<td>5.341</td>
<td>+.073</td>
</tr>
<tr>
<td>Group 4</td>
<td>5.333</td>
<td>6.333</td>
<td>+1.000</td>
</tr>
<tr>
<td>Group 5</td>
<td>5.080</td>
<td>5.280</td>
<td>+.200</td>
</tr>
</tbody>
</table>

No significant difference at .05 level between groups on adjusted posttest scores.

Evaluators' Comments on Questionnaires

Seven comments concerning S.T.E.P. program students, who are ninth graders, indicate that the students felt that it was too long of a wait. Two girls on the S.T.E.P. program were reported as preferring marriage over the diploma. Three girls in the other work-study programs also indicated this.

There were several comments on pretests and even more comments on posttests that the students desired to have a diploma, but several of these were accompanied by doubts on the part of the evaluators.

Analysis of Table 6

The School to Employment Program at Belmont Lake Jr. High School showed the highest improvement in students desire to earn a diploma and felt value of same.
The Industrial Cooperative Program showed a small increase in the students' value of a diploma, but less of an improvement than that shown by the control group students.

As one of the work-study programs showed a smaller change in this characteristic on the part of its students than that of the students of the control group, and the analysis of covariance showed no significant difference between the groups, this characteristic is not shown in this study to be significantly changed by the students of the work-study programs.

Profile Characteristic #7
Students' Participation in Class Projects

The table is located on p. 58.

Evaluators' Comments on Questionnaires

On the characteristic of participation in class, only negative comments concerning students' participation were entered on the pretests. Comments were able to be divided into three general ideas: "seldom participates", "sometimes participates" and "participates when he has no alternative".

The four work-study programs all have some comments to the affect of improvement on posttest questionnaires, mainly from the S.T.E.P. program evaluators.
Table 7. Analysis of the change in students’ participation in class projects.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4.000</td>
<td>4.955</td>
<td>+ .955</td>
</tr>
<tr>
<td>Group 2</td>
<td>2.444</td>
<td>4.556</td>
<td>+ 2.112</td>
</tr>
<tr>
<td>Group 3</td>
<td>2.805</td>
<td>4.220</td>
<td>+ 1.415</td>
</tr>
<tr>
<td>Group 4</td>
<td>3.278</td>
<td>3.556</td>
<td>+ .278</td>
</tr>
<tr>
<td>Group 5</td>
<td>4.160</td>
<td>4.080</td>
<td>- .080</td>
</tr>
</tbody>
</table>

Analysis of Covariance: \( f = 4.981^* \)

| Group 1 compared to Group 5 | 6.34** |
| Group 2 compared to Group 5 | 12.39* |
| Group 3 compared to Group 5 | 7.43** |
| Group 4 compared to Group 5 | 0.00   |

* significant .01 ** significant .05

Analysis of Table 7

All work-study programs showed that their students participated more in class than previously. The students of the Belmont Lake Jr. High S.T.E.P. program and the Distributive Education Program showed the most change in class participation of the five groups compared. The figures for the control group indicated that these students participated less in class activities on the post-test, than they did when first evaluated.

The analysis of covariance showed that the two
School to Employment Programs and the Distributive Education Program all had their students showing a significant change in this characteristic when compared with the students of the control group.

Profile Characteristic #8

Parents' Attitude Toward School

Table 8. Analysis of change in parents' attitude toward school, by groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>5.000</td>
<td>5.364</td>
<td>+ .364</td>
</tr>
<tr>
<td>Group 2</td>
<td>4.278</td>
<td>4.556</td>
<td>+ .278</td>
</tr>
<tr>
<td>Group 3</td>
<td>3.732</td>
<td>4.512</td>
<td>+ .780</td>
</tr>
<tr>
<td>Group 4</td>
<td>6.556</td>
<td>6.611</td>
<td>+ .055</td>
</tr>
<tr>
<td>Group 5</td>
<td>5.240</td>
<td>5.320</td>
<td>+ .080</td>
</tr>
</tbody>
</table>

No significant difference at .05 level between groups on adjusted posttest scores.

Evaluators' Comments on Questionnaire

No comments were made on the pretests for this characteristic. On the posttests, mainly from the evaluators of S.T.E.P. program parents, there was indication that the parents were interested in the program and showed more interest in school.

Analysis of Table 8

The largest increase in parents' attitude improvement took place in the Distributive Education Program.
The parents of Industrial Cooperative Program students did not show much change on this characteristic, but the pretest indicated a fairly good attitude on the part of these parents toward school to begin with.

As the gains were not large, and as the analysis of covariance showed no significant difference between the groups, the work-study programs in this study cannot be credited with changing this characteristic.

Profile Characteristic #9
Attendance
Table 9 is found on p. 61

Evaluators' Comments on Questionnaire

No comments appeared on pretest having to do with attendance, but several evaluator comments concerning lateness appeared here. The posttest questionnaires included some general comments, such as "improved".

Analysis of Table 9

The improvement in the attendance of the work-study program students proved significantly different than the attendance of the control group students. The students in the control group showed a poorer attendance than they had the previous year.

The analysis of covariance indicated that the four groups representing the work-study students increased their attendance significantly as compared to the stu-
Table 9. Analysis of change in attendance patterns, by group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>3.545</td>
<td>4.954</td>
<td>+ 1.409</td>
</tr>
<tr>
<td>Group 2</td>
<td>3.000</td>
<td>4.833</td>
<td>+ 1.833</td>
</tr>
<tr>
<td>Group 3</td>
<td>3.220</td>
<td>4.610</td>
<td>+ 1.390</td>
</tr>
<tr>
<td>Group 4</td>
<td>3.500</td>
<td>4.944</td>
<td>+ 1.444</td>
</tr>
<tr>
<td>Group 5</td>
<td>4.800</td>
<td>3.920</td>
<td>- .880</td>
</tr>
</tbody>
</table>

Analysis of Covariance: \( f = 7.74^* \)

- Group 1 compared to Group 5 \( 19.40^* \)
- Group 2 compared to Group 5 \( 20.45^* \)
- Group 3 compared to Group 5 \( 20.16^* \)
- Group 4 compared to Group 5 \( 17.68^* \)

* significant .01

dents of the control group. In this study the stu-
dents in the four work-study programs showed a change
for the better on the characteristic of attendance.

Notes on Characteristics 10, 11, 12

As stated in Chapter III, the following three
characteristics are not in any way associated with
those of the potential drop-out. The four work-study
programs are concerned with occupations and attitudes
toward work. The three items, 10, 11, and 12, will ex-
plore and compare student reaction among the groups.
Profile Characteristic #10

Occupational Goals

Table 10. Analysis of changes in ability to decide on an occupational goal, by group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4.409</td>
<td>5.682</td>
<td>+ .773</td>
</tr>
<tr>
<td>Group 2</td>
<td>4.444</td>
<td>5.056</td>
<td>+ .812</td>
</tr>
<tr>
<td>Group 3</td>
<td>3.488</td>
<td>4.463</td>
<td>+ .975</td>
</tr>
<tr>
<td>Group 4</td>
<td>4.722</td>
<td>5.444</td>
<td>+ .722</td>
</tr>
<tr>
<td>Group 5</td>
<td>4.280</td>
<td>4.440</td>
<td>+ .160</td>
</tr>
</tbody>
</table>

No significant difference at .05 level between groups on adjusted posttest scores.

Evaluators' Comments on Questionnaire

Some occupational fields were listed under comments, the most common being auto mechanic. Most indicated no real choice, while some indicated immature ideas on the part of the student such as "any easy job". All comments were made on pretests only.

Analysis of Table 10

The students in all work-study programs showed a large change in their ability to select occupational choices. The students of the Distributive Education Program showed the greatest change in this characteristic, but the analysis of covariance showed no significant difference between the five groups.
The work-study programs in this study did help the students to prepare their occupational goals, but not to any significant degree as compared to the control group students.

Profile Characteristic #11

Students' Attitude Toward Work

Table 11. Analysis of changes in students' attitude toward work, by group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4.818</td>
<td>5.455</td>
<td>+ .839</td>
</tr>
<tr>
<td>Group 2</td>
<td>4.706</td>
<td>5.647</td>
<td>+ .941</td>
</tr>
<tr>
<td>Group 3</td>
<td>4.488</td>
<td>5.220</td>
<td>+ 1.732</td>
</tr>
<tr>
<td>Group 4</td>
<td>5.444</td>
<td>6.500</td>
<td>+ 1.056</td>
</tr>
<tr>
<td>Group 5</td>
<td>4.480</td>
<td>5.240</td>
<td>+ .760</td>
</tr>
</tbody>
</table>

Analysis of Covariance: \( f = 2.059** \)

Group 1 compared to Group 5 \( .53 \)
Group 2 compared to Group 5 \( 2.13 \)
Group 3 compared to Group 5 \( .53 \)
Group 4 compared to Group 5 \( 7.10** \)

** significant \( .05 \)

Evaluators' Comments on Questionnaire

Most comments indicated a high regard for work on the part of the student. A few indicated that the stu-
dent tried to avoid work, or looked for the easy way out. Several of the posttest comments indicated improvement.

Analysis of Table 11

Students in the four work-study programs showed an improvement in their attitude toward work. The control group students, however, showed almost as much of a change as the students of the two School to Employment Programs did. The comparison of work-study programs to the control group showed only the Industrial Cooperative Program students have changed significantly as compared to the students of the control group.

Profile Characteristic 12

Supervisor's Observation of Student-Worker's Work

Table 12. Analysis of changes in worth of students' work, as evaluated by work-supervisor, by group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>5.364</td>
<td>5.773</td>
<td>+ .409</td>
</tr>
<tr>
<td>Group 2</td>
<td>4.353</td>
<td>6.000</td>
<td>+ 1.647</td>
</tr>
<tr>
<td>Group 3</td>
<td>4.220</td>
<td>5.220</td>
<td>+ 1.000</td>
</tr>
<tr>
<td>Group 4</td>
<td>5.611</td>
<td>6.167</td>
<td>+ .556</td>
</tr>
</tbody>
</table>

There was no analysis of covariance made on this characteristic, as there was no control group with which to compare.
Evaluators' Comments on Questionnaire

Comments very much agreed with numerical evaluation. Supervisors' comments ranged from excellent to extremely poor.

Analysis of Table 12

Between the initial evaluation by a supervisor and the evaluation after six months in a work-study program, there was a great deal of change in the opinion of the supervisor about the student's work. Students in the Robert Moses Jr. High S.T.E.P. program and the Distributive Education Program showed the greatest amount of improvement on this characteristic in their supervisors' opinion.

SUMMARY

Four groups of students in work-study programs and a control group of students were evaluated on pretest and posttest questionnaires, using the characteristics derived as those of a potential drop-out as well as three occupational items.

All groups of students were compared with themselves, pretest to posttest, showing the difference. This was accomplished by means of computer program U-6601 on the Rax program (Statistical Behavior for Social Scientists). U-6601 is a general statistical program.

In order to compare the groups to each other, or more specifically to the control group, and because
each of the groups was believed to be different in make-up, Rax program U-6604, analysis of covariance was used, as it adjusts for pretest differences.

The following characteristics were found changed for the students in the work-study programs, and changed significantly compared to the students in the control group:

#2 Attitude Toward School
#5 Participation in Extra Curricular Activities
#7 Participation in Class Activities
#9 Attendance

The following characteristics were found changed for the students in the work-study programs, but not significantly as compared with the changes for the control group students:

#1 Self-Acceptance
#2 Discipline
#4 Ability to Get Along With Peers
#6 Students' Value of Diploma
#8 Parents' Attitude Toward School

The three occupational characteristics were all shown to be improved for those students in the work-study program.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

PURPOSE

There have been many recent studies to try to determine why students drop out. The Federal Government has shown an interest in drop-outs through the efforts of the President's Council on Education, as well as through Congressional funding of programs to prevent student drop-outs. While the percentage of drop-outs seems statistically to be decreasing, the actual numbers of drop-outs has been increasing. Federal, State and locally sponsored exemplary programs have been tried. Private industry, through the Ford, Carnegie and other foundations, has sponsored its own programs.

One of the methods of trying to help the potential drop-out is the work-study program. This study was an attempt to learn if a work-study program can change the characteristics of a potential drop-out that were used to label him a potential drop-out. The null hypothesis was that work-study programs have no affect on the characteristics of the potential drop-out which were used to label him a potential drop-out.

DESIGN

From the literature, nine drop-out characteristics were precipitated to be tested for change in
student behavior through participation in a work-study program. They were: student's self-image, attitude toward school, discipline, ability to get along with peer group, participation in extra curricular activities, importance of high school diploma, parents' attitude toward school, and attendance. In addition to the drop-out characteristics, three occupational characteristics were added. These were: student's occupational goals, student's attitude toward work, and supervisor's observation of student's work.

From the North Babylon, New York, Public Schools, four work-study programs were tested. These were the School to Employment Program, Belmont Lake Jr. High School, School to Employment Program, Robert Moses Jr. High School, Distributive Education Program and Industrial Cooperative Program, both of North Babylon High School. In addition, a control group was selected from ninth grade students, who, though eligible for the School to Employment Program, elected not to enter such a program.

A questionnaire was sent for each of the students to be marked jointly by the program coordinator and guidance counselor. The pretest questionnaire was to be marked as of the time the student was selected for the program. At the end of a period of six months, a second questionnaire was sent. This was identical
to the first questionnaire with the exception of a few wording modifications to make it more relevant. (See appendix) A total of 124 questionnaires were sent out, all being completed and returned.

The educators evaluating the characteristics were instructed to give a value of one to seven on a Likert-type scale. The lower number indicated a negative attitude, or a rating showing more potential for dropping out. A higher value meant that the characteristic would not be one indicating drop-out potential for that student.

STATISTICAL TREATMENT

All pretests and posttests, by groups, were analyzed through Rax computer program U-6604, analysis of covariance. As three types of programs and a control group were being compared, each having different requirements for entry, an analysis of covariance was required. This is a statistical tool which takes initial differences between groups into consideration when comparing the groups. For the characteristics where the analysis of covariance proved to be significant, a comparison was made between each of the work-study groups and the control group.

For each of the characteristics, whether significant on the analysis of covariance or not, a comparison was made between the pretest and posttest, and the change indicated, showing whether there had been a
gain or loss of value.

FINDINGS AND CONCLUSIONS

Profile Characteristic #1
Students' Degree of Self-Acceptance

For the characteristic, students in all four work-study programs made a more positive gain than students in the control group. Though the improvements of the four work-study groups were + .334 to + 1.222 compared to the gain of the students in the control group of only + .280, the analysis of covariance showed no significant difference between the groups. The null hypothesis had to be accepted. In this study the students in the work-study programs showed no significant change on this characteristic.

Profile Characteristic #2
Students' Attitude Toward School

The students of the Robert Moses Jr. High School S.T.E.P. program (+ 1.051) and the Industrial Cooperative Program (+ 1.500) showed the largest changes, while the students of the control group showed a negative change (- .200). The analysis of covariance indicated a significant change at the .01 level of confidence when comparing each of the work-study groups to the control group. The conclusion is drawn that the students' attitude toward school have changed for the students in the work-study programs, and for this
characteristic, the null hypothesis is rejected.

Profile Characteristic #3

Discipline of the Student in School

For the characteristic, the students of only two groups showed large changes of score. These two groups are the Robert Moses Jr. High S.T.E.P. program and the Distributive Education Program. Students in the other two work-study programs showed an improved change of score, but similar to the change shown by the control group students. In spite of the fact that the students of all four work-study programs showed greater changes of score than the control group students, the analysis of covariance showed no significant differences. The null hypothesis had to be accepted as in this study because of the lack of significant differences.

Profile Characteristic #4

Ability to Get Along With Peer Group

The students of the Industrial Cooperative Program and Distributive Education Program (representing 11th and 12th graders) made much greater changes than the students of the two School to Employment Programs (representing 9th graders). The control group students also showed a positive change in this characteristic, but small as compared with the changes of work-study program students. However, the analysis of covariance showed the difference was not significant at .05 level
of confidence between the five groups. The null hypothesis had to be accepted as in this study there was no significant change in the characteristic of ability to get along with peer group on the part of students in the work-study programs.

Profile Characteristic #5

Students' Participation in Extra Curricular Activities

Students in the Robert Moses Jr. High School S.T.E.P. program and the Distributive Education Program showed the largest changes of score (+ 1.444 and + 1.439). Students in the other two work-study programs showed a fairly large change of score while the control group students showed a decrease of score (- .856).

The analysis of covariance proved significant at the .01 level, and the null hypothesis was rejected for the characteristic of students' participation in extra curricular activities.

Profile Characteristic #6

Students' Value of High School Diploma

The group in the Distributive Education Program showed a small change in score on this characteristic, even smaller than the change shown by the students of the control group. Students in the other three work-study groups showed fairly large changes in score (+ .889 to + 1.091). The analysis of covariance showed no significance in the difference between groups at the .05 level. The null hypothesis had to be accepted as in
this study there was no significant change in the characteristic on the part of students in the work-study programs.

**Profile Characteristic #7**

**Students' Participation in Class Projects**

Students in the Industrial Cooperative Program showed a small change in score on this characteristic, while students in the other three work-study programs made large changes of score (+ .995 to + 2.112). At the same time, the control group students showed a small negative change of score (- .080). The analysis of covariance showed that the students of the work-study programs, with the exception of those in the Industrial Cooperative Program, made significant gains as compared with the students in the control group.

Because the analysis of covariance was significant and because three of the work-study groups made very large changes in the characteristic on the parts of the students, and the fourth made a small positive change on the part of its students, the null hypothesis was rejected. The characteristic was changed for the students in the work-study programs in this study.

**Profile Characteristic #8**

**Parents' Attitude Toward School**

The evaluators' comments indicated more interest toward school on the part of the parents on the posttest
than on the pretest. The actual numerical differences on the chart proved to be very small. Only the parents' of the Distributive Education Program students showed a sizable change in score (+ .780).

The analysis of covariance showed no significant difference between the groups. The null hypothesis had to be accepted as in this study there was no significant change in the characteristic of parents' attitude toward school.

Profile Characteristic #9

Attendance

On the characteristic of attendance, students in all four work-study programs showed large positive changes in score (+ 1.390 to + 1.833). Students in the control group showed a large decrease in score (- .880) emphasizing the increase in score of the students in the work-study programs.

Attendance is one of the greatest predictors of school drop-outs, especially when the student reaches the age of legal withdrawal. The students in the two School to Employment Programs were reaching or have just reached this age. The students in the control group were of the same age group.

The analysis of covariance was significant at the .01 level of confidence when the adjusted postscores of the students in the four work-study programs were compared with the adjusted postscores of the control
group students. Viewing these changes, the characteristic of attendance was considered changed for the students of the work-study programs in this study, and the null hypothesis was rejected.

Summary of Characteristics 1 through 9

In this study, the characteristics of students' attitude toward school, participation in extra curricular activities, participation in class projects and attendance all improved to a significant degree for the students of the work-study programs. The null hypothesis, as far as these four characteristics were concerned, was rejected.

It appears that when the student's attitude toward school is improved, he would be more likely to participate in extra curricular activities, even though he has a part time job and his time is more limited. It also appears that he is more likely to participate in class, especially when he finds his classwork more relevant to his interests. As the student was expected to report to work every working day, this trait carries over into school attendance.

A fifth characteristic that appears to be closely related to these four is discipline. The questionnaires indicated that discipline did improve, but not significantly. The four remaining characteristics also improved, but not to a significant degree.

A comparison was also made, grouping the two 9th
grade School to Employment Programs and the two 11th and 12th grade cooperative programs. By grouping them, and comparing them, advantages of both types of programs were found.

The two School to Employment Programs showed a change on the part of the students to a greater degree than the change of the Distributive Education Program and Industrial Cooperative Program:

Self-acceptance

Students' value of diploma

The Industrial Cooperative Program and Distributive Education Program, when combined, showed a greater change on the part of the students than the change shown by the students of the School to Employment Programs:

Acceptance by peer group

Attendance

Since the study showed four characteristics have changed positively, with a significance of the .01 level of confidence, and since the other five characteristics have also changed positively but not to a significant degree, the null hypothesis was rejected.

Characteristic #10

Occupational Goals

The students of the Distributive Education Program showed the largest change in score on this characteristic, followed closely by the changes of the students
of the other three work-study programs. The students of the control group also showed a small positive change in score. The analysis of covariance showed no significance in the difference between the groups.

The study of occupations is one phase of a work-study program, and it was expected that the students would show more insight into occupations than they did previously. This proved to be the case.

Characteristic #11
Students' Attitude Toward Work

The largest improvement in score on this characteristic was made by the students of the Industrial Cooperative Program (+ 1.056). The students of the control group showed a change in score, but less than that of the work-study program students. The analysis of covariance showed the groups to be different at a significance of the .05 level of confidence.

Though the analysis of covariance was significant, the fact that students in two work-study programs showed changes only slightly greater than the changes of the control group students lessens its importance. It was felt that the students of work-study programs in this study showed some change in this characteristic.

Profile Characteristic #12
Supervisor's Observation of Student-Worker's Work

Comparison was made of the four work-study groups,
as the control group students were not provided work experience. The work supervisors felt that the students of the Robert Moses Jr. High School S.T.E.P. program and the Distributive Education Program showed the greatest improvement in their work ability. Analysis of covariance was not used for comparison, but the numerical improvement showed enough change from the pretest to posttest to indicate this as one of the advantages of the work-study program.

**Summary of Characteristics 10, 11, 12**

The work-study program places students on the job for part of the school day. Between the experience of working on the job, and the school activities related to work and occupations in general, the work-study program was expected to improve the students' knowledge about occupations and attitude toward work.

The three characteristics being tested showed that the students had a change in score after a period of six months in the work-study program. Occupational goals showed a greater change in score for the students of the work-study program than for the student of the control group. The characteristic of student attitude toward work showed a still larger change on the part of the work-study program students and a somewhat smaller gain on the part of the control group students. The last characteristic, observation of
student-workers' work, showed large positive changes on the part of students in the four work-study programs in this study.

Evaluators' Comments on Questionnaire

The following is a tabulated summary of comments made, by program, and whether on pretest or posttest.

Table 13. Comments on questionnaires.

<table>
<thead>
<tr>
<th>COMMENTS</th>
<th>Pre</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Acceptance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of confidence</td>
<td>Pre</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Worry about looks</td>
<td>Pre</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Overconfidence</td>
<td>Pre</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student's Attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toward School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School necessary</td>
<td>Pre</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>School necessary</td>
<td>Post</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Will drop-out</td>
<td>Pre</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Waste of time</td>
<td>Pre</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Necessary evil</td>
<td>Pre</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Discipline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less problem</td>
<td>Post</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Potential problem</td>
<td>Pre</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>No problem</td>
<td>Pre</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Depends on teacher</td>
<td>Post</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Peer Group Relations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hate everybody</td>
<td>Pre</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Disliked</td>
<td>Pre</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gets along well</td>
<td>Pre</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>No problems</td>
<td>Pre</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Extra Curr. Activit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No time</td>
<td>Pre</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>No time</td>
<td>Post</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Lack of interest</td>
<td>Pre</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Participate in sports</td>
<td>Pre</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>No interest</td>
<td>Post</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Value of Diploma</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefer marriage</td>
<td>Pre</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Too long a wait</td>
<td>Pre</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Comments</td>
<td>Pre</td>
<td>Group 1</td>
<td>Group 2</td>
<td>Group 3</td>
<td>Group 4</td>
<td>Group 5</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Desires diploma</td>
<td>Pre</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Desires diploma</td>
<td>Post</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Participation in</td>
<td>Pre</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Class projects</td>
<td>Pre</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Participates when</td>
<td>Pre</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>no alternative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents' Attitude</td>
<td>Post</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Improved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance</td>
<td>Pre</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Arrives late</td>
<td>Post</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Improved attendance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational Goal</td>
<td>Pre</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No real choice</td>
<td>Pre</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Any easy job</td>
<td>Pre</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Student has made a choice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude Toward Work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student has good attitude</td>
<td>Pre</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Seeks easy way</td>
<td>Pre</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Improvement</td>
<td>Post</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Evaluation of Students' Work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive remarks</td>
<td>Post</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>n.a.</td>
</tr>
<tr>
<td>Negative remarks</td>
<td>Post</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Evaluators were encouraged to comment, but not required to do so. The lack of comment is no indication of strengths or weaknesses on any characteristic. No statistical comparisons were made concerning the comments. They are presented in tabular form to present a picture of comments the evaluators felt important to state.

RECOMMENDATIONS

1. Data from this study indicates a relationship
between attitude toward school and participation in extra curricular activities. School officials should examine any local policies calling for removal of students from extra curricular activities as a punishment for low grades or lack of discipline.

2. Comments on the characteristic of parents' attitude indicate more interest on the part of the parents after the child has been in a work-study program. This should be explored as a possible public relations measure being neglected.

3. The study found that an improvement in student's attitude did not coincide with an improvement in discipline. The counselors and teachers might examine their behavioral expectations to see if they are reasonable.

4. Students who elected to enter a work-study program made many gains over students who decided not to enter the program. If the potential and possibilities of the work-study program were explained, not only to the potential drop-out but to all students, and the word drop-out not alluded to in the description, more students might enter and benefit from the program.

5. In the review of the literature, I.W. Willett stated that the many types of occupations as well as many levels within these occupations could best be met through cooperative programs. This, in addition to the benefits
found in this study are good reasons for expanding cooperative programs such as the Industrial Vocational Cooperative Programs.

5. The fact that the students in all of the work-study programs in this study showed an increase in attendance may be explored in terms of encouraging students with attendance problems to enter such a program.

6. The general work-study programs explored in this study showed a change on the parts of the students in self-acceptance and value of the diploma greater than the change that took place among the students of the other programs. The concept of work-study, or S.T.E.P. as it is used in this study, should be considered for use in the upper grades.

7. Again considering the relationship between attitude toward school and participation in extra curricular activities, class related activities such as the Vocation- al Industrial Clubs of America (VICA) and the Distributive Education Clubs of America (DECA) should be encouraged.

AREAS FOR FURTHER STUDY

1. A study is needed of work-study programs over a long period of time to find if characteristics such as I.Q. score and reading level score could be improved.

2. A statistical comparison would be useful between various types of work-study programs for retention rates.
3. A second year follow up study is needed of work-study students to find if gains are short term.
4. A comparison and evaluation of techniques used in teaching various work-study programs with resultant changes in drop-out characteristics would be useful.
5. A comparison of students' self evaluation and teacher evaluation to see if attitudes could be changed by a work-study program should be considered.
6. With many new programs being organized for the disadvantaged, a study would be useful for determining how these programs affect student attitudes.
APPENDIX
STUDENT PROFILE

Student's Name ___________________ Prepared by ______________
Student's School ______________ Grade ___ Prog. ___

Please evaluate the student, to the best of your judgment, using the following criteria on a 7 point scale. These evaluations will later be compared to other evaluations on the same student, after a period of 6 months in the co-op program. Feel free to comment.

1. What is the student's degree of acceptance of himself?

   1  2  3  4  5  6  7  COMMENT
   weak  strong

2. What is the student's attitude toward school?

   1  2  3  4  5  6  7  COMMENT
   unfavorable  favorable

3. Is the student a discipline problem in school?

   1  2  3  4  5  6  7  COMMENT
   problem  no problem

4. Does the student get along well with other students of his own age? (Peer group)

   1  2  3  4  5  6  7  COMMENT
   poorly  well

5. Does the student participate in extra-curricular activities?

   1  2  3  4  5  6  7  COMMENT
   no participation  participates
6. Does the student feel that a high school diploma is important?

1 2 3 4 5 6 7 COMMENT
unimportant very important

7. Does the student participate in class projects?

1 2 3 4 5 6 7 COMMENT
none much

8. What are the parents' attitudes toward school?

1 2 3 4 5 6 7 COMMENT
negative cooperative

9. What is the student's attendance record? (Last year's)

1 2 3 4 5 6 7 COMMENT
23+ 19-22 16-18 13-15 10-12 7-9 0-6 days absent

10. Does the student have any occupational goals?

1 2 3 4 5 6 7 COMMENT
none definite idea

11. What is the student's attitude toward work?

1 2 3 4 5 6 7 COMMENT
poor good

12. What was the work supervisor's initial observation of quality of the student's work?

1 2 3 4 5 6 7 COMMENT
negative positive

(2)
STUDENT PROFILE

Prepared by

Student's School

Grade

Prog.

Please evaluate the student, to the best of your judgment, using the following criteria on a 7 point scale. Feel free to comment.

1. What is the student's degree of acceptance of himself?

1 2 3 4 5 6 7

weak strong

COMMENT

2. What is the student’s attitude toward school?

1 2 3 4 5 6 7

unfavorable favorable

COMMENT

3. Is the student a discipline problem in school?

1 2 3 4 5 6 7

problem no problem

COMMENT

4. Does the student get along well with other students of his own age? (Peer group)

1 2 3 4 5 6 7

poorly well

COMMENT

5. Does the student participate in extra-curricular activities?

1 2 3 4 5 6 7

no participation participates

COMMENT
6. Does the student feel that a high school diploma is important?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>unimportant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>very important</td>
<td></td>
</tr>
</tbody>
</table>

7. Does the student participate in class projects?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>much</td>
<td></td>
</tr>
</tbody>
</table>

8. What are the parents' attitudes toward school?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>cooperative</td>
<td></td>
</tr>
</tbody>
</table>

9. What is the student's attendance record? (This Year)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 +</td>
<td>11-13</td>
<td>9-10</td>
<td>7-8</td>
<td>5-6</td>
<td>3-4</td>
<td>0-2</td>
</tr>
<tr>
<td>days</td>
<td>absent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Does the student have any occupational goals?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>definite idea</td>
<td></td>
</tr>
</tbody>
</table>

11. What is the student's attitude toward work?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>poor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>good</td>
<td></td>
</tr>
</tbody>
</table>

12. What was the work supervisor's latest observation of quality of the student's work?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>positive</td>
<td></td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY

1. Application of the Extended School Year to a B.O.C.E.S. Occupational Training Program, New York State Dept. of Education, Albany, 1964

2. Apprenticeship Training, Chicago Public Schools, 1953


4. Cooperative Industrial Education, Director of Vocational Education, Trenton, N.J., no date


7. Dropouts: A Challenge to Society, Occupational Research and Development Coordinating Unit, Knoxville, Tenn., 1967

8. Education for Life Adjustment, Jefferson City Schools, Missouri, 1951


12. Hemp, Barbara, The Youth We Haven't Served, United States Office of Education, 1966


17. Planning a Cooperative Program in Distributive Occupations, the Bulletin, NASP, NEA, March, 1945

18. Randall, Charles, A Study of Early School Leavers and Significant Causes, Bloomington Public Schools, Minn., 1966


22. Vocational Core Program in the Hobbs Municipal School, New Mexico State Education Dept., 1967

23. Work-Study Program Where the Classroom is Los Angeles, Los Angeles State College, no date
CURRICULUM VITAE

Stanley Schneider was born in the Bronx, New York on February 29, 1932. He attended the New York City Public Schools, graduating from the Bronx High School of Science. After a year at New York University, he spent four years in the U.S. Navy.

He graduated from New York University in 1957 with a major in Industrial Arts, and spent one year teaching at Elmont, New York. In 1958, after receiving an M.A. in Supervision of Industrial Arts from New York University, he began teaching at North Babylon, New York.

He then majored in Safety Education at New York University, and took summer courses at Millersville, Pennsylvania, and Buffalo State, which was an N.D.E.A. institute.

He has since been involved in Industrial Arts programs and Work-Study programs at the North Babylon Schools. He is past president of the Suffolk County Industrial Arts Association.

He is married to the former Claire Reiss and they are the parents of three children.