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RELATIONSHIP OF AN EARLY PLACEMENT PROGRAM TO THE TRANSITION
FROM SCHOOL TO FULL-TIME EMPLOYMENT

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

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The Ohio State University
1973

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ACKNOWLEDGMENTS

The writer wishes to express deep appreciation to the following individuals whose inspiration and assistance were of immeasurable value throughout the graduate program at The Ohio State University and the conduct of this study:

To Dr. Ralph Bender who the writer respected not only for his assistance offered as major adviser, but for the expressed confidence and encouragement over the years to continue my education through the doctoral program.

To Dr. J. Robert Warmbrod whose expertise in research design and methodology had a definite, unique, and effective way of returning one to the simplicity of the task at hand.

To Dr. Roy Larmee whose effective and timely advice will never be forgotten, but hopefully will be passed on to others with the same sincerity and concern shown to me.

To Dr. Jerry Halterman who gave freely of his time for several discussions with respect to the study, other segments of the graduate program, and discussions of general philosophies.

To John Landis, a friend, when friendship was so important.

To Dr. Ray Manion and Dr. Steve Gyuro who provided assistance in factor analysis, review of the study, and open access to their libraries for whatever was needed.

To Dr. William Hull who was a member of the writers' committee and
whose advice and assistance added immensely to the program.

To Dr. A. J. Miller who played a dual role in my life during the doctoral program, that of a member of my committee and Project Director of CCEM. These contacts have developed a level of admiration which will be long remembered.

To the secretaries in the Career Education program and The Center for Vocational and Technical Education for being so very helpful and friendly.

To those counselors in the schools involved in the study for taking time to assist in follow-up procedures.

To the students and employers who were very cooperative in the study.

To my wife, Mary, and sons, Christopher and Ronnie, and daughter, Cheri, whose encouragement and sacrifices allowed me to complete this program.
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School and Public Administration: Cooperative Efforts, Unpublished paper, The Ohio State University, 1971

The Relationship of an Early Placement Program to the Transition from School to Full-Time Employment, Unpublished Dissertation, The Ohio State University, Columbus, Ohio, 1973

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CHAPTER I
SETTING FOR THE STUDY

From the beginning of the Industrial Revolution in the United States, people have experienced the problems of job adjustment. Increased technology has provided a constant need for transition from one type of employment position to another. These changes have also increased the difficulty of initial job adjustment for the youth of our society. Although only five percent of the American labor force was reported unemployed in 1972, job opportunities were not equally distributed throughout the social structure. The youthful worker 14 to 19 and 20 to 24 age groups have ranked first and second respectively, as having the highest rates of unemployment. Thus, it is not surprising that this problem is receiving national interest from governmental and professional education groups. An important objective of Vocational Education is to assist students to prepare for a job in the field of his or her choice. In recent years the goal has been 100 percent placement of students completing Vocational Programs.

Vocational Education has always emphasized skill development to meet the needs of the growing industrialized and technologically expanding society. Only in the past few years have studies been

conducted to determine more of the other needs for occupational success.

Today more than ever the related Vocational curriculum reflects the importance placed on knowing how to obtain and particularly how to retain a job. Much of the data concerning attitudes, aptitudes and psychological aspects of work acceptance and Vocational maturity have been accumulated over the last ten years.

Dr. A. P. Garbin presented the need for greater understanding of non-technical adjustment when he stated, "The provision for training of youth congruent with the technical requirements of available jobs is not sufficient to guarantee adjustment to the non-technical aspects of the work situation."\(^2\)

Conceptually, two types of organization are present in any organization, the formal and the informal. The youthful worker comes into contact with the formal organization through interaction with the staff or supervisory level and is constantly subjected to the demands of official rules, regulations, and procedures. The informal is established with groups of workers where customs, mores, folkways, social norms and ideals separate one group from another. The novice worker must learn and behaviorally manifest the values, attitudes, goals, life style, sentiments of his informal group.\(^3\)

\(^2\) A. P. Garbin, et. al., Problems of Transition from School to Work as Perceived by Vocational Educators, Center for Vocational and Technical Education, The Ohio State University, October, 1967, pg. 4.

\(^3\) Ibid., pg. 4.
The importance of a smooth transition from school to work is growing in proportion to the increased number of students involved in Vocational Education. Ohio's Division of Vocational Education reports that there were 166,878 Vocational students enrolled in 1972. This total includes 78,099 students from cities, 73,800 from local districts, and 14,880 students enrolled at Joint Vocational Schools. Expectations are that this number will double in the next ten years.

The number of full-time program units for 1971-1972 was 4,761. At present, approximately one-third of the students will have actual work experience as part of the planned school curriculum. These enrollments and unit numbers can be compared with the 621 school districts in Ohio which serve approximately 530,000 Juniors and Seniors each year.

The Ohio Vocational Division in 1969 granted schools with full-time Vocational programs the option of placing senior students in short-time community work experiences. Schools electing the option were authorized to release students from regular laboratory classes and place them in jobs directly related to the occupational training for a period of nine weeks during the last semester. Most schools involved in the program scheduled the release time in February, March, and April. The intent of the placement was not technological skill development but socio-adjustment development. This concept

---


differentiated the placement from the long recognised cooperative-type programs available in Vocational Education.

One of the major difficulties inherent with young people today appears not to be the learning of skills necessary to obtain an entry level job, but one of attitude and the ability to make a successful transition from the climate of school to the world of work. The training of a student may result in a tremendous waste of resources if a socio-adjustment prevents a successful work history.

The finest laboratories constructed and equipped to parallel the world of work cannot fully duplicate the socio-atmosphere of actual Industrial, Business, or Agricultural work situations. Curriculum emphasis for both preparations are necessary to young people beginning employment experience.

**NEED FOR THE STUDY**

Educational leaders such as Commissioner of Education, Sidney P. Marland, have recognized the importance of career preparation and the resulting expansion of vocational education as part of this new educational trend. Dr. Marland stated in a speech presented to the House Education Committee in the spring of 1971, "that Vocational educational methods and strategies must change to meet the new demands of the technological society." Greater understanding of the world of work will require that different methods be defined and implemented into our school systems. Dr. Marland emphasised the problem of student transition from school to the world of work.  

---

The Department of Labor published a report in 1970 entitled "Bridging the Gap From School to Work." It was stated in the report that high rates of youth unemployment provide some indication of why the school-to-work transition commands public attention. The variables considered to affect the process of transition in this study were counseling and placement. There are certain general conclusions that can be reached on the basis of present knowledge which may be stated as steps to narrowing the gap between school and work. These steps are: (1) increasing the students' knowledge about the environment of work while in school, (2) increasing the opportunity for students to gain actual work experience, (3) increasing participation of business and industry in the education world, and (4) providing improved knowledge and performance in specific job training.

Each year fifty million dollars are spent to retrain persons (18-25) for new jobs as a result of career change. Some career changes result from new technology; however, a larger amount stem from job dissatisfaction. The discontinuities inherent in this status change contribute to the "adjustment complex" facing the young worker. The contradictions arising from the situation often result in young workers experiencing what Dansereau termed "culture shock." Gysbers and other guidance specialists associated with the University of Missouri, Columbia, Missouri, are presently studying the characteristics of vocational students to determine those characteristics.

most indicative of vocational stability and probable success. They have indicated a greater understanding of the world of work is necessary for student success in a given field.

Many Ohio school authorities believe that exposure to actual conditions in the world of work is necessary for successful transition from school to work. The reasoning for this argument is that a student's understanding can increase during this exposure period and be useful as an experience base for the training program and a coordinated transition to entry level jobs. Another advantage of the co-op experience is that a student may obtain a better understanding of shop-related practices and procedures within a given occupational area. Teachers also would benefit from the involvement with employers and observe changes which would up-date their knowledge of student transitional needs.

Based on the knowledge of problems which develop for young people during the transition from school to work and the apparent need for more study with respect for these problems, it is anticipated that this "ex post facto" study will provide the following types of information:

1. The effectiveness of twelfth grade exposure to the world of work as an orientation from which various questions and problems can be discussed before or shortly after graduation.

2. Whether actual experience will be of value equal to or greater than the laboratory simulated experiences.

---

Whether one or the other or both experiences are preferred by vocational students and employers.

3. The value of actual prior exposure to the job as determined by students experiencing first job orientation procedures.

The proposed study will hopefully provide more evidence for the value of student exposure to the work world for purposes other than specific skill training. The student will realize the demands of his field of choice and the role he will occupy upon graduation from high school. This exposure is expected to have several effects on the student, both as an individual and as an employee. The presence of these worker attributes will be tested in relationship to those of students not exposed to the nine-week work experience program. It will give evidence on which to base decisions for longer term exposure to the world of work to be useful as a possible and viable procedure to reduce the degree of problems encountered by students in the transition.

The results of the study should provide facts relative to the value of work experience for all vocational students. It will provide an additional basis for decision making and better methods to train vocational students.

Information of this type can be used by vocational teachers to assist in the development of a curriculum or curriculums which will provide greater emphasis on areas concerned with job orientation and transition from school to work. The study will provide the student expressed values and allow administrators to evaluate the program as it is presently conducted in their school systems or, for others, assist in their decision-making process to include or exclude the practice.
STATEMENT OF THE PROBLEM

Two different methods are presently being used to prepare twelfth grade students for the transition from school to work. One method provides classroom and laboratory experiences and no other exposure to the world of work. The students acquire from 10 to 22½ hours of instruction per week, 5 to 15 of which are conducted in the laboratory area.

The second method provides release time from regular laboratory instruction for nine weeks of actual exposure to Agriculture, Business, or Industry according to the student's trade choice. In-school time is spent in orientation for on-the-job experiences and with scheduled class sessions for discussion of transitional questions or problems.

This study attempts to assess the extent to which a short-term work experience program helps alleviate worker adjustment problems in the transition from school to work. The dependent variables to be tested with the treatment and comparison groups are job work habits, ability to adjust to initial employment, self-esteem, and attitudes toward work.

SPECIFIC OBJECTIVES

The need for this study is supported by the lack of data on short-term co-op programs and increased emphasis on different methods of assisting the student in making a transition from school to work. The literature suggests a need for greater emphasis on actual experiences in conjunction with the simulated experiences we find in the laboratory. The literature tends to emphasize several measureable variables
that indicate the effectiveness of work experience in aiding a student's transition from school to work. The objectives used in this study relate to Garbin and Campbell's work on transition from school to work.

The objectives identified as pertinent to the study are as follows:

1. To determine the relationship between students with and without benefit of an Early Placement experience for certain school-based characteristics such as intelligence quotient, grade point average, General Aptitude Test Battery Profiles, and grades in English, Mathematics, Science, and Vocational Education as measured by data recorded prior to/during the senior year in high school.

2. To determine the relationships which exist among attendance, punctuality, adherence to safety and employment regulations as measures of adopted work habits and the ability to adjust to initial employment as measured by employer ratings for both groups.

3. To determine the relationship that exists between desire and potential for advancement and the ability to adjust to initial employment for those students receiving an early placement program and those students in a conventional vocational program as measured by student and employer ratings.

4. To determine the relationship that exists between the length of time to acquire full employment after graduation for students receiving an early placement experience and those students which were enrolled in the conventional vocational program as measured by the mean number of days to attain full employment.
5. To determine the relationships which exist among the specified self-esteem characteristics of self concept, control of environment, achievement on the job and relationship to others for students of the Early Placement Program and students of the conventional vocational programs as measured by scores obtained from the self-esteem inventory.

6. To determine the relationships which exist among the specified characteristics of motivation, self-awareness, employment membership and work orientation and students of the Early Placement and Vocational Programs as measured by scores reported from an attitude inventory scale.

The dependent and independent variables are shown in Table 1.

TABLE 1

INDEPENDENT AND DEPENDENT VARIABLES FOR THE STUDY

<table>
<thead>
<tr>
<th>Independent Variables</th>
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<td>Ability to Adjust</td>
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<td>Attendance</td>
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<td>Punctuality</td>
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<td>Full-Employment</td>
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HYPOTHESES FOR THE STUDY

The following hypotheses were developed for the study:

1. A positive relationship exists between characteristics of students in the early placement program and the conventional laboratory vocational program prior to/during the treatment.

2. A positive relationship exists between the adopted work habits of students experiencing an early placement program as measured by attendance, punctuality, adherence to safety and employment regulations, and the ability to adjust to initial employment as measured by employer ratings.

3. No relationship exists between adopted work habits of students experiencing a conventional vocational program as measured by attendance, punctuality and adherence to safety and employment regulations and the ability to adjust to initial employment as measured by employer ratings.

4. A positive relationship exists between desire and potential for advancement and the ability to adjust to initial employment for students completing an early placement program as measured by student and employer ratings.

5. No relationship exists between the conventional curriculum techniques of developing desire for promotion and the ability to adjust in initial employment as measured by student and employer ratings.

6. A positive relationship exists in the length of time to acquire full employment after graduation between those students completing an Early Placement Program and those students in a conventional vocational program measured by the mean number of days to acquire full employment.
7. A positive relationship exists among specified aggregates of self-esteem, self-concept, control of the environment, achievement on the job, and relationships to others for students of the Early Placement Program as measured by scores obtained from the self-esteem inventory.

8. No relationship exists among specified aggregates of self-esteem, self-concept, control of the environment, achievement on the job, and relationship to others for students enrolled in a conventional program as measured by scores obtained from the self-esteem inventory.

9. A positive relationship exists among the specified characteristics of motivation, self-awareness, employment membership, and work orientation for students enrolled in an early placement program as measured by scores obtained from an attitude inventory scale.

10. No positive relationship exists among the specified characteristics of motivation, self-awareness, employment membership, and work orientation and students of the conventional vocational program as measured by scores obtained from an attitude inventory scale.

LIMITATIONS OF THE STUDY

The "Ex Post Facto" Study involved students that had graduated from a vocational program in 1972 and had experienced approximately six months of employment. The study can be generalized to Ohio students self-selecting vocational education in schools offering ten or more units of vocational instruction in three or more service areas.

The "Ex Post Facto" studies inherently have a validity limitation based on selection. Students self select programs of Vocational Education.
Early placement practices are, however, decided annually by school staffs making it impossible for students to select themselves into the treatment group.

Data were requested relative to occupational experiences outside the vocational curriculum in both the treatment and control groups; however, substantiation as to the completeness of this data is beyond the limits of the study.

Student equivalency between groups was conducted only for intellectual factors and did not include sociological factors.

The focus of this study was upon student and employer response. The setting for the programs, comparison or treatment, was not investigated from the affective domain of administrator, teacher innovative attitudes towards new programs. Refer to recommendations for additional studies for further discussion of this limitation.

The early placement program in Ohio began in 1969, three years prior to the study. Because of the fact that employees and employers were surveyed after six months of employment following a relatively new program, certain "halo" effects may have been present that were not revealed by the study. Follow-up of students was not identified over a long time span.

DEFINITION OF TERMS

The terms listed have been defined to provide a common basis for understanding the conduct of the study.

Ability to Adjust. -- To physically and mentally involve oneself in a particular or new environment with little or no difficulty.

Potential for Advancement. -- Tested or untested ability for
vertical or lateral job mobility as assessed by self or others.

**Self Concept.** -- The understanding an individual has of himself or herself as compared with others in a similar environment.

**Achievement on the Job.** -- Satisfaction derived in performing to the expectations of others in the work environment.

**Control of the Environment.** -- Ability to achieve desired goals within a particular physical or social setting.

**Relationship to Others.** -- Ability to interrelate with other people.

**Motivation.** -- Traits inherited or developed which provide incentive for the completion of self goals.

**Self Awareness.** -- An understanding of one's own abilities and limitations regardless of the setting.

**Work Orientation.** -- Knowledge to complete a specific assignment and the ability to comprehend the mechanics of the various jobs to be completed.

**Employment Membership.** -- Becoming an accepted member of a work group in the performance of specified work.

**METHOD OF INVESTIGATION**

This "Ex Post Facto" Study utilized the non-equivalent control group design as identified by Campbell and Stanley. Pretest data were collected from school records. The post-test data were collected via the instruments described in Chapter II.

Criteria established by state department personnel were used with department records. Classroom units representing five Vocational Areas (Agriculture, Business and Office Education, Health, Home Economics,
and Trades and Industry) in the school systems meeting the criteria were used as the accessible population. Sixteen classroom units were randomly selected from the accessible population; eight from schools with an Early Placement Program representing the treatment group and eight from schools which had not adopted the program representing the comparison group. The sample was stratified by service area on the basis of total numbers of classroom units in particular vocational service areas in Ohio.

Each school involved in the study was visited and data collected from high school records for students enrolled in the Vocational classroom units.

Questionnaires were prepared for students and employers. Attitude instruments were selected and modified with permission of the authors. All instruments were pilot tested. Complete descriptions of these processes are provided in Chapter II.

Data summarized from the instruments were analyzed at the Research Computer Center at The Ohio State University.
CHAPTER II
DESIGN AND CONDUCT OF THE STUDY

This chapter first presents an overall summary of the study. This summary includes a review of those measures developed to accomplish the specific objectives stated in Chapter I.

A second portion of the chapter contains activities that were carried out to obtain the needed data from students, employers, and school systems.

The third portion of the chapter deals with the development and pretesting of the attitude scales for use by students participating in the study. Results of information obtained from the attitude scales are included in Chapter V. These data were analyzed to meet two of the specific objectives stated in Chapter I.

The study was an attempt to determine the relationship of an Early Placement Program to the successful transition from school to work. The time span considered for data collection included the senior year enrollment in vocational programs through the first six months of work experience following high school graduation. One group of students hereafter referred to as the treatment group received an early placement experience as part of the vocational training program. The length of the early placement ranged from six to nine weeks as indicated by the State Department of Education. The second group hereafter referred to as the comparison group did not receive the early placement program
and consequently remained in the in-school laboratory program the entire senior year.

Certain student characteristics such as attitude toward work, work habits, attendance and punctuality, self confidence, aspirations for advancement on the job, placement, and respect for safety and employment regulations were considered as variables in the overall design of the study. The major purpose of the study, therefore, was to determine the relationship of data obtained from students, schools and employers relative to the Early Placement Program as an aid to successful transition.

Prior to the collection and analysis of data, the following activities, listed in chronological sequence, were carried out:

1. Survey of Vocational Supervisors in Ohio to ascertain which schools offered the Early Placement Program as part of the regular Vocational training.

2. Defined the criteria to be used for selection of the accessible population.

3. Reviewed State Department records to obtain the names of schools meeting the criteria. Recorded the total number of vocational programs offered by school classroom (vocational) unit.

4. Selected the sample to be used in the study using random selection methods.

5. Contacted each school selected and arranged access to the records of the students to be involved in the study.

6. Developed various information forms to be used to gather data in the study.
7. Developed and obtained approval of questionnaires to be used in the study.

8. Obtained approval for modification and use of the self esteem instrument prepared by Dr. Coopersmith.

9. Submitted the proposal and instrumentation to the College of Agriculture and Home Economics Human Subjects Committee for approval.

10. Developed a coding system for recording data obtained in the study.

THE DESIGN

The design for this study was "The Non-Equivalent Control Group Design." Classroom (Vocational) units were randomly selected from the accessible population as based on the established criteria. The design for the study is shown diagramatically as:

\[
\begin{array}{c}
0_1 \ x_1 \ 0_3 \\
\hline
0_2 \ x_3 \ 0_4
\end{array}
\]

This design was selected over other designs considered for the ability to equate the groups before further analysis was conducted. The Post Test Only design would not allow this procedure. The time series design would have required a period of time not possible for this study.

POPULATION AND SAMPLE

State Department records indicated a total of 4,774 units of

---

Vocational Education were reported in 1971-72. The following table provides a review by service area:

<table>
<thead>
<tr>
<th>SERVICE AREA</th>
<th>VOCATIONAL UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>489</td>
</tr>
<tr>
<td>Business and Office Education</td>
<td>1039</td>
</tr>
<tr>
<td>Home Economics (Job Related)</td>
<td>230</td>
</tr>
<tr>
<td>Home Economics</td>
<td>839</td>
</tr>
<tr>
<td>Health Education</td>
<td>118</td>
</tr>
<tr>
<td>Trades and Industry</td>
<td>1529</td>
</tr>
<tr>
<td>Distributive Education*</td>
<td>530</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4774</strong></td>
</tr>
</tbody>
</table>

*Distributive Education not included as part of the study because the cooperative experience is an integral part of the program.

A survey conducted in May 1971 with vocational supervisors in Ohio and verified by State Department records indicated 22 schools in Ohio provided an early placement program. Schools reported that all students of a classroom unit were included in the early placement program. The schools and total units of vocational education offered in each school is provided in Table 3.

State Department records for Ohio schools also indicated approximately 55 percent of the Vocational Units were reported in schools with less than ten units with most of the 621 school districts in Ohio providing some Vocational Education.
TABLE 3

VOCATIONAL UNITS OFFERED IN SCHOOLS HAVING AN EARLY PLACEMENT PROGRAM

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>AG</th>
<th>DEE</th>
<th>HEC</th>
<th>NE</th>
<th>TAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashtabula JVS</td>
<td>7</td>
<td>8.6</td>
<td>4</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>-</td>
<td>1.3</td>
<td>-</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Canton</td>
<td>-</td>
<td>7.3</td>
<td>2</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>Cyuahoga Falls</td>
<td>-</td>
<td>2.3</td>
<td>1</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Eastland JVS</td>
<td>3</td>
<td>8.0</td>
<td>-</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Ehove JVS</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Four County JVS</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>31</td>
</tr>
<tr>
<td>Green County JVS</td>
<td>7</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>31</td>
</tr>
<tr>
<td>Knox County JVS</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Montgomery County JVS</td>
<td>7</td>
<td>10</td>
<td>4</td>
<td>7</td>
<td>37</td>
</tr>
<tr>
<td>Muskingham JVS</td>
<td>6</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>Lake County JVS</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Lorain County JVS</td>
<td>2</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Pioneer JVS</td>
<td>4</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Penta County JVS</td>
<td>5</td>
<td>11</td>
<td>8</td>
<td>2</td>
<td>38</td>
</tr>
<tr>
<td>Springfield Clark</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>Tri-County JVS</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Scioto County JVS</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>Vanguard JVS</td>
<td>4</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Warren</td>
<td>1.8</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Wayne County JVS</td>
<td>5</td>
<td>11</td>
<td>5</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Wadsworth</td>
<td>-</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>11</td>
</tr>
</tbody>
</table>

TOTAL UNITS  80.8  142.5  65  36  471
TOTAL STUDENTS 1554  3912  2140  874  8600
Evidence that schools with few vocational units could not provide proper relationships to schools where many units were offered required that some criteria for the accessible population be established. A survey was conducted with Vocational Personnel in the State Department to determine the criteria. This survey resulted in a consensus that ten units offered in three service areas (Distributive Education excluded) be accepted. The same criteria were used for both the treatment and comparison groups. Twenty-six schools not offering an Early Placement Program were identified by use of the criteria as shown in Table 4.
**TABLE 4**

**VOCATIONAL UNITS OFFERED IN SCHOOLS USING A CONVENTIONAL LABORATORY PROGRAM**

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>AG</th>
<th>BOE</th>
<th>HEC</th>
<th>HE</th>
<th>TAI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alliance</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Ashland</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Berea</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>34</td>
<td>5</td>
<td>5</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>Cleveland</td>
<td>10</td>
<td>75</td>
<td>30</td>
<td>20</td>
<td>90</td>
</tr>
<tr>
<td>Dayton</td>
<td>29</td>
<td>8</td>
<td>8</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Findlay</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Gallipolis</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Hamilton</td>
<td>5</td>
<td>12</td>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Lakewood</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Lancaster</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Lorain</td>
<td>13</td>
<td>1</td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Madison</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Madriver</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Maple Heights</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Marietta</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Massillon</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Mentor</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Middletown</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>North Olmstead</td>
<td>5</td>
<td>3</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Plain</td>
<td>1</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Southwestern</td>
<td>4</td>
<td>16</td>
<td>5</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Sylvania</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Toledo</td>
<td>1</td>
<td>27</td>
<td>23</td>
<td>6</td>
<td>66</td>
</tr>
<tr>
<td>Wadsworth</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Wiloughby Eastlake</td>
<td>11</td>
<td></td>
<td>1</td>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>

**TOTAL UNITS**

|            | 38 | 268 | 127 | 58 | 464 |

**TOTAL STUDENTS**

|            | 1224 | 4694 | 2746 | 1180 | 7410 |

* DISTRIBUTIVE EDUCATION NOT INCLUDED
Using the data provided by the survey and State Department records, a ratio of classroom units necessary to provide a representative sample of all service areas in Vocational Education was established. The ratio of 3 to 1 used in the study (Trades and Industry to Agriculture) was based on the survey that revealed only one-half of Trades and Industry classroom units were involved in schools offering the Early Placement Program. A stratified sample by service area was selected using random selection techniques. Classroom units of the school offering the Early Placement Program were placed in a container and mixed. Classroom units numbers were then selected on the basis of Service Area Distribution in Ohio as follows:

- Agriculture -- 1 classroom unit
- Business and Office Education -- 2 classroom units
- Health Education -- 1 classroom unit
- Trades and Industry -- 3 classroom units

Replacement techniques were used with each unit drawn. Procedures were repeated for the comparison group.

The sample size for the treatment group was 107 and 100 for the comparison group. All schools selected were contacted and agreed to cooperate in the study. This cooperation precluded the need to use selected alternate classroom units. The treatment group was reduced by seven students using random selection techniques.

The nature of the study required that employers submit information relative to Early Placement and initial employment following graduation. Information collected from schools and students identified in both treatment and comparison groups provided the sample population of employers.
DETERMINING SCHOOL DATA COLLECTION

The data collected from the school systems had two major uses. One, to verify that all students involved in the study, if plotted according to one or more characteristics, would form an approximate normal curve. The second purpose was to provide data for dependent variable analysis.

The identification of variables to measure the relationships used in the study and test the hypothesis first was accomplished by reviewing high school records for types and availability of data. Secondly, by reviewing other studies conducted in the area of problems related to transition to work. The variables identified were work habits, self confidence based on self concept, Vocational Maturity measured by attitudes, length of time from graduation to initial full-time employment, respect for safety and employment regulations, and desire for advancement on the job. The data collected from schools were (1) test scores; (2) school absence; (3) tardiness; (4) grade point average; (5) graduation dates; (6) all employers while in high school and initial full-time employers; (7) grades in the subject areas of English, Math, Science, and Vocational areas; (8) names and addresses of students. An attempt was made to reach all students by telephone at the time of data collection to verify addresses and ask the student personally to respond to a questionnaire. A script was developed for this purpose and used with each telephone call. (See Appendix I.)

Standardized instruments used as a data base from school systems included the General Aptitude Test Battery, California Mental Maturity Test, official grade and attendance reports from high school
Each instrument was chosen to generate specific data in the areas required for the study.

**DESIGN AND DEVELOPMENT OF STUDENT AND EMPLOYER INSTRUMENTATION**

The dependent variables selected to assess the effectiveness of the Early Placement Program were work habits, self confidence based on self concept, Vocational Maturity (work attitudes), length of time from graduation to initial employment, respect for safety and employment regulations, and mental readiness to advance on the job.

The selection of instrumentation for the study was directly related to the methods necessary to quantify, analyze and determine relationships within dependent variables. Work habits were assessed by records of attendance and punctuality both in school and initial employment. Particular attention was given to pre-placement records compared to those reported by employers. Records of employers included the first six months of student employment after graduation. This time element was selected to allow the employer sufficient time to build a record which would support the study.

Self confidence based on self concept was measured by an attitude instrument. This instrument is discussed in the section entitled Modification and Development of Attitude Instruments. Work attitudes were measured by using selected questions for attitude assessment. Portions of the student and employer questionnaires used in the study were designed to collect data relative to attitudes toward work. Specifically, the instruments provided data with reference to the ability of the youthful employee to work with older persons, take directions and positively respond to job requirements.
The measurement of time in days from graduation to initial employment was used to provide placement relationships between the treatment and comparison groups. Individuals entering the Armed Forces upon graduation were asked to complete questions designed to measure the extent high school Vocational Training assisted them in orientation and to the Armed Service assignment.

Differences relative to placement following high school as a continuation of the Early Placement Program were measured by the frequency students attained full employment immediately after graduation. Questionnaires for both students and employers provided data relative to dates and continuity of employment.

Adherence to safety and other regulations reflected the ability of the student to respond to a different situation than that experienced in the course of the school vocational program. Questions were designed on both the student and employer questionnaires which provided information on acceptance of regulations.

Questionnaires were developed in September, 1972. They were tested for content validity by graduate students at The Center for Vocational and Technical Education and for ease of understanding by high school students from two Columbus high schools.

A coding system was developed for schools and students using alphabetic and numeric designators. Once the data were collected, the coding system was used for analysis and reporting purposes.

SELECTION AND DEVELOPMENT OF ATTITUDE SCALES

Two instruments were used in the study to measure attitudes. One instrument measured self esteem and self concept and the other
attitudes toward work. The first scale was a modification of the self-esteem inventory developed by Stanley Coopersmith.\(^2\) Forty-seven statements regarding self-esteem of the individual relative to family, peers, and significant others (teachers, neighbors, parents) were included in the Inventory. Four factors are identified with the Inventory: control of the environment, self confidence in personal attributes, achievement in school or job, and relating to others. The self-esteem inventory employs the Likert technique. The measure consists of positive and negative statements which suggested one of two possible answers. The inventory was factored to reflect four categories of response. Each statement suggested a response of like me, often like me, seldom like me, unlike me. These categories allowed a greater range of response and also the capability of collapsing the data if necessary in the analysis.

The second instrument was developed to identify attitudes concerning work data. The instrument was developed from a basic format of an attitude instrument which would assess attitudes on the job compared with attitudes for school. The instrument was rewritten to reflect attitudes for work. A jury of five staff members and graduate students in The Center for Vocational and Technical Education reviewed and eliminated items to improve content validity for its intended purpose. Items were reviewed with consideration for age group, work related concepts, and relationship to other items in the instrument. A total of forty attitude statements were accepted. The Inventory was

delineated into four theoretically derived factors: motivation, work orientation, self awareness, and employment membership. A five-point scale was used for responses ranging from completely true to mostly false. A completely true statement received a five, mostly true a four, partly true a three, and mostly false a two, and completely false a one rating. The measure has a positive range from 200 for all completely true responses to 40 for all completely false.

In both instruments the items are judged in terms of the way a positive self-esteem would be indicated.

QUESTIONNAIRE DATA COLLECTION

Questionnaires were mailed to individual students who were members of the classroom (Vocational) units during the period of time these units were a part of the Early Placement Program. Questionnaires were also mailed to members of classroom units in schools representing the comparison group. One week was allowed for responses before follow-up questionnaires were used. Each Counselor or Vocational Director involved in providing school data was asked to call non-respondents. Additional questionnaires and stamped envelopes were provided if the initial questionnaires were disposed of or misplaced by the student. A telephone survey using original questions was conducted to provide additional sample data for non-respondents.

Questionnaires were mailed to early placement employers of the treatment group and employers following graduation for both treatment and comparison groups. Three weeks again was used as a basis for mailing second questionnaires to non-respondents. The telephone
survey method was used to collect non-respondent data from employers. High priority for employer follow-up was focused on a pattern of complete data for a particular student.

COMPILATION OF MATERIALS

Adequate numbers of materials were duplicated for the students and employers involved in the study. Addressed envelopes were provided for the return of the questionnaire. Each envelope for students included the following:

1. A letter of introduction and statement of purpose (Appendix B),
2. A questionnaire requiring fourteen questions or responses (Appendix C),
3. Self-esteem Inventory consisting of 47 items (Appendix D),
4. Work attitudes scale consisting of forty items (Appendix E),
5. Self-addressed, stamped envelope.

Each envelope for the employer included:
1. A letter of introduction and statement of purpose (Appendix F),
2. Questionnaire consisting of four items (Appendix G),

RECORDING OF DATA

As the student and employer information was returned, the pertinent information was recorded on forms developed for key punch operators. Student and employer coding techniques were used for identification purposes. Each questionnaire was checked for additional comments and sorted for the relevance of the comments to the study.
ANALYSIS PROCEDURES

Data for the study were completed and analyzed on the campus of The Ohio State University. Forms were developed for the purpose of recording data for key punch procedures. IBM cards were provided and analysis performed using the data relative to each objective of the study.

The facilities of the Instruction and Research Computer Center were available to perform analysis. Computer time was furnished by The Ohio State University Computer Center. Assistance for the analysis procedures was provided by The Center for Vocational and Technical Education personnel and Research Computer personnel.

P-STAT and NPAR programs were used to compute Pearson, Product-Moment Correlation, Coefficients and Spearman Rank Correlation Coefficients, factor analysis coefficients, and t-tests reported in the study.

SUMMARY

This chapter reported the activities that were implemented to determine the relationships of Early Placement Programs in Ohio to the transition from school to work.

The design for the "Ex Post Facto" study was a non-equivalent control group design, whereby classroom units were randomly selected by service area, in a stratified sample, from an accessible population determined from criteria designed to provide greater accuracy of representation.3

Data collected by school visitation included names, addresses, and telephone numbers of students; attendance and punctuality records; intelligence scores on standardized tests; employer data prior to and following graduation; general aptitude scores; grade point averages for high school and senior year; average high school grades in English, Science, Mathematics, and Vocational courses. These data were analyzed using multi-variate analysis, factor analysis, and correlational techniques.

Questionnaires and attitude instruments were used to gather data necessary to accomplish the objectives of the study. A student questionnaire, together with two attitude inventories, one designed to determine self-esteem and self concept, the second to assess work attitudes, were mailed to students of both the treatment and comparison groups. Employers, representing both in-school and full-time initial employment, were asked to respond to a questionnaire developed to provide a measurement of several dependent variables used in the study.

Two special techniques were used in the collection of data. Students were contacted by telephone at the time of school visitation and asked to respond to the questionnaire. Guidance counselors or Vocational Directors were later asked to call local graduates and encourage that data be returned.

Telephone interviews were used to gather data relative to non-respondents. Results of the study are reported in Chapter V.
CHAPTER III

REVIEW OF LITERATURE

The school to work transition occurs at a time during which most youths are changing from the status of an adolescent to that of an adult. This change from older student in a school society to newest and frequently youngest member of a work group requires various types of adjustment. Youth are entering a work world where semi-skilled jobs are diminishing and educational requirements are increasing. School dropouts are particularly handicapped because jobs are denied them for lack of minimum educational requirements and work experiences. Erikson states that:

In general, youth have an inability to settle on an occupational identity and this most disturbs young people.1

ATTITUDES OF YOUTH TOWARD WORK

Many critical decisions affecting career development are made during the transition from school work. A study conducted by Garbin and Campbell in 1967 revealed some of the problems experienced by youth in making worker adjustments. They asked 69 Vocational Educators to list major problems in this adjustment. One major problem was attitude toward work and Garbin concluded:

Poor attitudes toward work and working, lack of responsibility, maturity, and self-discipline, and lack

---

of knowledge of the real demands of the work, were each reported by more than 40 percent of the sample to be the attitudinal and behavioral manifestations which typify youths who incur difficulty adjusting to the work regime. The specific problem of 'lack of responsibility, maturity, and self-discipline' was also rated the most important and second most important obstacle faced by youth in the transition from school to work.

Many of these attitudes and behavioral patterns exist because youths have not had the opportunity to learn and inculcate the values which are requisites for occupational adjustment. Youths do not immediately become 'adults' upon the assumption in a position of an economic organization. Learning new roles and expectations involves practice and orientation to the new, before replacement of the old can occur. Many educational programs do not permit youths to practice, or to assimilate those expectations that enhance their status in the adult work complex.

Peter Mann stated in a British study of the attitudes of youth:

Three factors which will operate upon the development of a person's attitudes will be his educational experience, his social class experience, and his employment experience. This study shows that all three play their part and that the individual's frame of reference will not be formed by his educational experience alone. It appeared that attitudes were the product of the interaction between the values which boys brought to work and those values generated by the work experience.

VOCATIONAL BEHAVIOR OR WORK HABITS

Another problem cited by Campbell in The Problems in the Transition from High School to Work was Vocational behavior or work habits. Despite the knowledge young people have of the work world, many are still unable to cope with its demands because of poorly

2 A. P. Garbin and Robert E. Campbell, Problems in The Transition from High School to Work, as Perceived by Vocational Educators, Center for Vocational and Technical Education, Columbus, Ohio, 1967, pg. 50.

3 Peter Mann, Young Men and Work, Department of Sociological Studies, University of Sheffield, 1966, pg. 16.
developed work habits and limited skills or personal management.

Campbell states:

Nearly one-third of the educators detailed specific problems in personality, behavior, and socio-cultural problems that hinder a smooth, facile adoption of work ethics. They mentioned youths lack of future orientation, describing a hedonistic type of adolescent who has poorly defined goals. They describe some youths as lacking initiative, motivation and self-confidence. They reported that in a work situation, the youth experiences problems of understanding and adapting to the demands of his job. He has poor work habits and is frequently tardy or absent. According to the respondents, many youths also lack respect for their superiors, and are unwilling and/or unable to follow directions and accept responsibility.

But youths learn; that is their major developmental task. A vast majority of them will learn and adhere to the formal and informal requirements of society. Typically, schools are administrators of the formal education process; community and environmental forces teach the informal, principally through social interaction. Learning involves the ability to change, modify, and integrate new ideas, attitudes and values; it is dependent upon the flexibility of individuals. A willingness to learn must be characteristic of the members of any society, but particularly of contemporary technological societies. Rapidly changing technology necessitates greater worker versatility and flexibility as occupational requirements. Willingness to learn is motivated by needs-satisfaction, desire, teaching procedures and methods, and identification. However, more than 85 percent of the respondents of this study indicated that schools inadequately prepare students for work, possibly creating a lack of motivation and an unwillingness to learn within the students. High school youths should have technical knowledge of jobs and skills, as well as information about the demands of work and the training and opportunities that are available; knowledge of how to communicate effectively; understanding of their status and role in the organizational structure; complete preparation for pre-employment interviews; and guidance while on the initial job.4

Dirk Dansereau in a casebook written on alienated youth places the blame for a portion of the school to work transition problem on the

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4 Robert E. Campbell, Problems in the Transition from School to Work, as Perceived by Vocational Educators, Center for Vocational and Technical Education, Columbus, Ohio, 1967, pg. 51.
shoulders of a disconcerned society when he stated "the lack of motivations, self-confidence and initiative is not a problem to be placed upon the shoulders of youth; it has been fostered and precipitated by the society and educational system of which they are a part."

UNREALISTIC EXPECTATIONS OF YOUTH

Third problem identified by the literature in the transition from school to work was the students' unrealistic aspirations and expectations as to their ability, the salary they should receive, the position they should occupy initially, and the status they should attain with the organization and fellow employees. Garbin reacted to the problem as follows:

Emphasis should not be on long term goals or future oriented programs, but on needs-satisfaction and on immediate and immediate-future benefits that are perceivable to youth. Perception precedes involvement; prior to personal involvement in any new process, idea, or product, youths have certain perceptions of the values, needs and rewards they hope to incur. If perceptions instigate desire and encourage goal-seeking behavior, then involvement will be the result. The alienated school youth is an example of negative perceptions toward the goals of school and society; the reaction is non-involvement.

Peter Mann in Young Men and Work states that:

Boys from homes of social economic status are more concerned with security on the job than the implications of more responsibility. Boys mentioned that promotions and greater responsibility could entail being disliked by other people, harder work, and longer hours. In general as the job level declines, so does the aspiration for promotion in the minds of youth. A further point of interest was

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6 A. P. Garbin and Robert E. Campbell, Problems in the Transition from High School to Work, as Perceived by Vocational Educators, Center for Vocational and Technical Education, Columbus, Ohio, 1967, pg. 50.
that as the level of the job went down, the proportion of boys who did not know 'about the position' rose.?

LACK OF PREPARATION

Finally, the problem of inadequate preparation and orientation to the work world received attention in the literature. The methodology of preparing youth for work becomes paramount to the solution of all other problems discussed.

A study conducted by Max Eninger, Educational Systems Research Institute, Pittsburgh, Pennsylvania, concluded that students receiving vocational training and guidance were able to make choices and maintain positive attitudes for these choices. This study points out that career choices are not usually the problem. The State Department of Education for Pennsylvania completed a study founded on related attitude changes, work values, and changes in vocational effectiveness. The results indicated a need for broad exploratory opportunities coupled with specialized preparation. It was determined that students need some exposure to industry (the world of work) to provide an actual training situation to practice the objective relative to transition. The State Department of Pennsylvania pointed out the need for future research in the area.

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7 Peter Mann, Young Men and Work, Department of Sociological Studies, University of Sheffield, 1966, pg. 16.


Eddy tested the effectiveness of cooperative programs as a method of teaching entry level competences to youth. Indirectly related school staff and employers attested to the general improvement of the treatment groups as compared to non-treatment groups. Henze concluded in a study of cooperative programs that parents of students reported changes in students' habits, neatness, leisure time activities, and social relations. Students were more conversive and continually interested in jobs and work. Parents felt that the school work experience had a positive maturing and satisfying effect on a student's life.

Homer Judge conducted a survey of over 100 major firms in different areas of work. Results showed that nearly one-half of the firms employed high school graduates and 60.3 percent would be willing to cooperate in high school training programs. Most of the employers expressed a need for training program changes and wanted to work more closely with school people. Their point being that education is not using the potential of the community resources. These studies indicate the advantages of the cooperative experience in training students for the entry level positions. The importance of a successful school-to-work transition for both the individual and society seems indisputable. Garbin states the lack of research focusing on youth in transition

10Max Eddy, A Corporation Job Training Program for Retarded Youth, Purdue University, Lafayette, Indiana, 1966, pg. 87.


12Homer P. Judge, Employment Opportunities and Needed Competences Off-Farm Agricultural Occupations, Massachusetts State Department of Education, Boston, Massachusetts, 1965, pg. 47.
and programs designed to help youth points to the need for further understanding of the transition process.\textsuperscript{13}

Hamburger stated in a study of the "Significance of Work Experience in Adolescent Development" that positive relationships do exist among certain variables such as attitudes, abilities, maturation, responsibility, and aspirations when students are exposed to work experience.\textsuperscript{14} Hamburger suggests that work experience programs with meaning will increase school holding power, build character, and develop desirable attitudes.

The same factors connected with successful transition from school to work are repeated from one study to another. These problems may be expressed differently in each study or are given perspective according to the author's findings but in general remain the same in meaning for vocational education. Positive attitudes, competency, aspirations, job satisfaction, (stability) and maturity are the factors attributed to major importance with respect to transition from school to work.

How will a program of work experience contribute to the successful transition to work based on those variables which serve as indicators of success in this direction? Several studies have been conducted in Cooperative Education which tend to suggest a positive relationship exists between actual work experience in school and the fewer orientational problems on the first job.

\textsuperscript{13}Albeno P. Carbin, et. al., Problems in the Transition from School to Work as Perceived by Vocational Educators, Center for Vocational and Technical Education, Columbus, Ohio, pg. 7.

\textsuperscript{14}Martin Hamburger, Significance of Work Experience in Adolescent Behavior, Division of Adult and Vocational Research, Washington, D. C., 1967, pp. 1-18.
Arthur Berkey, New York State Education Department, did a study to evaluate cooperative programs on the basis of relevant training and job satisfaction relating to job stability. Forty-one percent of the graduates involved in the study were quickly employed, 30 percent entered college, 27 percent entered military service, and 1 percent were unemployed. Fifty-three percent worked in the area trained. Job satisfaction and stability related directly to the image they had for their own work.  

Charles Jung, National Training Labs, identified four basic phenomena that relate to cooperative learning experiences. Students learn best through (1) inquiry, (2) development of self-concept, (3) active planning, and (4) a wide use of educational and community resources. These processes were identified with the cooperative program approach to education.

Over the span of one year, only 3,944 were hired from a total of 18,296 applicants interviewed at a major plant studied by William McGowan. The reasons for rejecting so many applicants were their failure to meet educational requirements and the lack of skill competence and/or experience. McGowan points out the need for industrial related experience that will provide knowledge of the real demand of work.


16 Charles Jung, Basic Phenomena of Cooperative Learning Experiences, National Training Laboratory, Washington, D.C., pg. 5.

Harold Cushman compared students enrolled in conventional in-school vocational programs with students enrolled in cooperative programs. He concluded that students in work experience programs rated higher in total technical knowledge, were hired first, held higher aspirations, and accepted advanced training with less hesitancy than students in conventional programs.\textsuperscript{18}

**SUMMARY**

The literature identifies four major areas of problems related to transition from school to work: attitudes of youth toward work, Vocational Behavior or work habits, unrealistic expectations of initial employment with respect to salary and status, and the lack of preparation received in school to cope with these problems.

Garbin's study of transition from school to work serves as one of the best sources of identifying problems in this area. The study essentially reported the responses of Vocational Educators from all parts of the country which had exhibited considerable insight into young workers' adjustment problems. Lack of knowledge and a fear of the unknown were contributors to attitudes and unrealistic expectations for the initial job experience. These Vocational Educators believed that young workers perceive their first job as a means to an end. They want the rewards of a working adult without accepting the responsibilities. They tend to view their first job essentially as a source of income, not the beginning of a career. Many of the respondents said that young

\textsuperscript{18} Harold Cushman, *The Concerns and Expectations of Prospective Participants in Directed Work Experience Programs*, Office of Education, Washington, D.C., pg. 10.
workers had a lack of respect for authority, willingness or ability to follow instructions and the lack of ability to take criticism well. Garbin states this may be lack of self confidence or self concept and proper motivation expressed in behavior or adjustment to a situation.

Peter Mann, a British Educator, stated that three factors are important in attitude adjustment: educational experience, social class experience, and employment experience. He claims that attitudes are the interaction of values brought to work and those values generated by work experience.

Preparation or orientation to the work world is emphasized by several studies, most of which were conducted in the area of cooperative education.

Homer Judge conducted a study which confirmed the desire of employers to become involved in providing orientation experiences by cooperating with local schools. The study revealed the concern that employers have for young workers and the lost potential for education in not using community resources.

Hamburger, Berkley, Jung, and Cushman all proclaim in studies that they conducted that school work experience was significant in later job satisfaction, self concept, self confidence, higher aspirations, and positive attitudes.

The findings reported in the review of related literature provided the rationale for several of the hypotheses stated in Chapter I.
CHAPTER IV

FINDINGS OF THE STUDY

This study was an attempt to determine the relationship of an early placement program provided as a socio-adjustment experience for youth involved in vocational education and successful transition from school to the world of work. The treatment group consisted of students who received an exposure to actual work experience for a period of six to nine weeks during the senior year of high school as part of the vocational program. The comparison group consisted of students in vocational programs who received the conventional laboratory experience characteristic of most vocational programs in Ohio. This "Ex Post Facto" study included students who graduated from vocational programs in 1972. The study traced their initial employment experiences for a period of six months following graduation. Data regarding characteristics of students investigated in this study were obtained from school records and responses of pre and post high school employers to determine the relationship to the dependent variables.

This chapter presents a description of the students and a presentation of the analysis of those records that relate to the purpose of the study.

The second portion of this chapter presents the findings directly related to the specific objectives as stated in Chapter I.
CHARACTERISTICS OF THE STUDENTS AND EMPLOYERS

The sample consisted of 200 students who were enrolled in vocational education classes in five vocational service areas representing thirteen school districts throughout the State of Ohio. The distribution of students by service area and school district is shown in Table 5. The average number of students in each classroom unit was 12.5. The treatment group included 52 female students and 48 male students. The comparison group included 50 female students and 50 male students.

TABLE 5

DISTRIBUTION OF STUDENTS BY CLASSROOM UNIT AND SCHOOL DISTRICT

<table>
<thead>
<tr>
<th>TREATMENT GROUP</th>
<th>COMPARISON GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>Service Area</td>
</tr>
<tr>
<td>Clark Co.</td>
<td>Food Service</td>
</tr>
<tr>
<td>Youngstown</td>
<td>Dental Asst.</td>
</tr>
<tr>
<td>Ehove JVS</td>
<td>Appl. Repair</td>
</tr>
<tr>
<td>Ehove JVS</td>
<td>Auto Body</td>
</tr>
<tr>
<td>Ehove JVS</td>
<td>Clk. Typist</td>
</tr>
<tr>
<td>Cuyahoga Falls</td>
<td>Comm. Art</td>
</tr>
<tr>
<td>Lake Co.</td>
<td>Data Proc.</td>
</tr>
<tr>
<td>Four Co. JVS</td>
<td>Agr. Mech.</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
</tr>
</tbody>
</table>

Seventeen variables were selected from the school-based data for purposes of measuring individual student characteristics. These variables were intelligence as measured by the California Intelligence
Test; General Aptitude Test Battery Profiles; days absent and times tardy during the senior year; grade point averages for the senior year; and finally, high school grade averages for English, Mathematics, Science, and Vocational Education. General Aptitude Test Battery Profiles included nine student aptitude characteristics.

Employers involved in the study were those offering initial employment to students of both the treatment and comparison groups. Several of the employers represented hired students as a result of the Early Placement Program. Seventy-six percent of the employers were engaged in business directly related to the vocational training of the students. All employers involved in the study were equal opportunity employers.

COMPARISON OF TREATMENT AND COMPARISON GROUPS

As mentioned in Chapter I, intact classroom units of vocational education were selected at random from the accessible population. It was decided that a comparison should be made between the treatment and comparison groups on each of the active variables comprising the school-based data. The purpose was to determine if the treatment and comparison groups were equivalent prior to further analysis of the data.

Hypothesis 1

The hypothesis. -- A positive relationship exists between school-based characteristics of students in the Early Placement Program and the conventional laboratory vocational program prior to/during the treatment.

The null hypothesis. -- No relationship exists between school-based characteristics of students in the Early Placement Program and the conventional laboratory vocational program prior to/during the treatment.
The statistical tests and results. — The computer program P-Stat was used to calculate the correlation coefficients among all school-based student variables.¹ The nature of the data allowed the use of the Pearson Product-Moment R method of analysis.

The data in Table 6 show the means of intelligence quotients for students in the treatment and comparison groups to be very similar. The average intelligence quotient for students of the comparison group was 101.56 and 102.35 for students of the treatment group. The upper and lower limits were 82 - 126 for the comparison group and 76 - 123 for students of the treatment group. These intelligence tests were administered in the ninth and tenth grades.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Treatment Group</th>
<th></th>
<th>Comparison Group</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Standard</td>
<td></td>
<td>Mean Standard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deviation</td>
<td></td>
<td>Deviation</td>
<td></td>
</tr>
<tr>
<td>Intelligence Quotient</td>
<td>103.35 8.76</td>
<td></td>
<td>101.56 9.48</td>
<td></td>
</tr>
<tr>
<td>Grade Point Average</td>
<td>2.44 0.53</td>
<td></td>
<td>2.43 0.64</td>
<td></td>
</tr>
<tr>
<td>Grades:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>2.17 0.73</td>
<td></td>
<td>2.00 0.76</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>2.14 0.73</td>
<td></td>
<td>2.18 0.77</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>3.13 0.66</td>
<td></td>
<td>2.25 0.91</td>
<td></td>
</tr>
<tr>
<td>Vocational Education</td>
<td>2.95 0.66</td>
<td></td>
<td>2.91 0.83</td>
<td></td>
</tr>
</tbody>
</table>

Two additional variables used to measure student characteristics were tardiness and absence from school during the senior year. Students of the comparison group averaged 12.03 days absent and 5.21 times tardy. Students of the Early Placement Program averaged 10.59 days absent and 1.69 times tardy. Data used for analysis were obtained from student final grade and attendance reports for 1972.

Grade point averages for the senior year of high school were nearly equal for the two groups. The comparison group averaged 2.43 and the treatment group 2.46 based on a four-point grading scale.

Three subjects required in high school and the students' vocational education grades were also selected for analysis. Those variables were English, Mathematics, and Science. Grades were averaged for those years that students were enrolled in each of these subjects, developing a grade point average for the particular subject area. The mean and standard deviation for the groups appear in Table 6. Students in the comparison group had slightly higher grades in Mathematics and Science, whereas, students in the treatment group had slightly higher grades in English and Vocational Education.

Results of the Pearson Product - Moment R correlations calculated for six of the active variables relating to school-based data are shown in Tables 7 and 8. The correlation matrix for the comparison group indicated a significant relationship (0.38) exists between the grade point averages and intelligence scores at the .05 level of significance. The treatment group reflected a slightly lower relationship (0.36) between the same two variables but still significant at the .05 level of significance. The correlation coefficients indicate that stronger
### TABLE 7
CORRELATIONAL MATRIX INDICATING SCHOOL BASED DATA RELATIONSHIPS (COMPARISON)

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Intelligence</th>
<th>Grade Point Average</th>
<th>English Grade</th>
<th>Mathematics Grade</th>
<th>Science Grade</th>
<th>Vocational Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence</td>
<td>1.00</td>
<td>0.38*</td>
<td>0.26</td>
<td>0.31*</td>
<td>0.11</td>
<td>0.24</td>
</tr>
<tr>
<td>Grade Point Average</td>
<td>1.00</td>
<td>0.61*</td>
<td>0.52*</td>
<td>0.49*</td>
<td>0.58*</td>
<td></td>
</tr>
<tr>
<td>English Grade</td>
<td>1.00</td>
<td>0.34*</td>
<td>0.10</td>
<td>0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics Grade</td>
<td>1.00</td>
<td>0.32*</td>
<td>0.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science Grade</td>
<td>1.00</td>
<td>0.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Grade</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .01 level

### TABLE 8
CORRELATIONAL MATRIX INDICATING SCHOOL BASED DATA RELATIONSHIPS (TREATMENT)

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Intelligence</th>
<th>Grade Point Average</th>
<th>English Grade</th>
<th>Mathematics Grade</th>
<th>Science Grade</th>
<th>Vocational Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence</td>
<td>1.00</td>
<td>0.36*</td>
<td>0.46*</td>
<td>0.31*</td>
<td>0.23</td>
<td>0.34*</td>
</tr>
<tr>
<td>Grade Point Average</td>
<td>1.00</td>
<td>0.68*</td>
<td>0.60*</td>
<td>0.52*</td>
<td>0.65*</td>
<td></td>
</tr>
<tr>
<td>English Grade</td>
<td>1.00</td>
<td>0.42*</td>
<td>0.50*</td>
<td>0.51*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics Grade</td>
<td>1.00</td>
<td>0.32*</td>
<td>0.35*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science Grade</td>
<td>1.00</td>
<td>0.39*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Grade</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level
relationships existed among all subject grades for the treatment group than for the comparison group. The relationship between vocational grades and two subjects, Science and Mathematics, were significant at the .01 level within the treatment group.

The general Aptitude Test Battery measures nine different characteristics of the student. These include aptitude profiles for intelligence, verbal aptitude, numerical aptitude, spatial aptitude, form perception, motor coordination, finger dexterity, and manual dexterity. Schools in Ohio and other states have adopted the GATB test profiles to assist counselors in student vocational program placement. Scores on each phase of the test are represented by stanines. A ranking of 1 indicates lower aptitude for the specific measurement and 9 for high aptitudes. Means and standard deviations for stanines of students of the two groups are shown in Table 9. General Aptitude Test Battery profiles were available in nine schools involved in the study.

The General Aptitude Test Battery is a product of the United States Employment Service. Criterion from statistical procedures involving several worker trait groups are used for predictive purposes. The basis for most criterion are supervisory ratings. A test-retest reliability coefficient of .90 is reported in over 600 jobs.

A significant relationship at the .05 level of significance existed between intelligence and verbal aptitude; intelligence and numerical aptitudes; intelligence, numerical, and spatial aptitudes; among verbal, spatial, form perception and clerical perception. There is also a significant relationship between motor coordination and finger dexterity. Relationships calculated from treatment group data are shown in Table 10.
## Table 9

**Means and Standard Deviations of General Aptitude Test Battery Scores for Treatment and Comparison Groups**  
(Stanines)

<table>
<thead>
<tr>
<th>GATB Measurement</th>
<th>Comparison Group Mean</th>
<th>Standard Deviation</th>
<th>Treatment Group Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence</td>
<td>4.72</td>
<td>1.43</td>
<td>4.85</td>
<td>1.42</td>
</tr>
<tr>
<td>Verbal Aptitude</td>
<td>4.42</td>
<td>1.48</td>
<td>4.60</td>
<td>1.21</td>
</tr>
<tr>
<td>Numerical Aptitude</td>
<td>4.82</td>
<td>1.43</td>
<td>4.87</td>
<td>1.28</td>
</tr>
<tr>
<td>Spatial Aptitude</td>
<td>5.20</td>
<td>1.80</td>
<td>4.97</td>
<td>2.04</td>
</tr>
<tr>
<td>Form Perception</td>
<td>4.92</td>
<td>1.61</td>
<td>5.07</td>
<td>1.70</td>
</tr>
<tr>
<td>Clerical Perception</td>
<td>4.95</td>
<td>1.69</td>
<td>5.08</td>
<td>1.50</td>
</tr>
<tr>
<td>Motor Coordination</td>
<td>4.82</td>
<td>1.43</td>
<td>5.00</td>
<td>1.82</td>
</tr>
<tr>
<td>Finger Dexterity</td>
<td>4.45</td>
<td>1.69</td>
<td>4.42</td>
<td>1.73</td>
</tr>
<tr>
<td>Manual Dexterity</td>
<td>4.45</td>
<td>1.86</td>
<td>4.42</td>
<td>1.63</td>
</tr>
</tbody>
</table>

Grand Mean Comparison \( \overline{X} = 4.74 \)

Grand Mean Treatment \( \overline{X} = 5.34 \)
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Intelligence</td>
<td>1.00</td>
<td>0.55*</td>
<td>0.44*</td>
<td>0.51*</td>
<td>0.23</td>
<td>0.33</td>
<td>0.24</td>
<td>0.28</td>
<td>0.22</td>
</tr>
<tr>
<td>2) Verbal Aptitude</td>
<td>1.00</td>
<td>0.24</td>
<td>0.28</td>
<td>0.15</td>
<td>0.43*</td>
<td>0.24</td>
<td>0.02</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>3) Numerical Aptitude</td>
<td>1.00</td>
<td>0.37*</td>
<td>0.34</td>
<td>0.26</td>
<td>0.32</td>
<td>0.36*</td>
<td>0.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Spatial Aptitude</td>
<td>1.00</td>
<td>0.61*</td>
<td>0.42*</td>
<td>0.26</td>
<td>0.30</td>
<td>0.12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Form Perception</td>
<td>1.00</td>
<td>0.64*</td>
<td>0.23</td>
<td>0.35</td>
<td>0.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Clerical Perception</td>
<td>1.00</td>
<td>0.39</td>
<td>0.30</td>
<td>0.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Motor Coordination</td>
<td>1.00</td>
<td>0.47*</td>
<td>0.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Finger Dexterity</td>
<td>1.00</td>
<td>0.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Manual Dexterity</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level
Significant relationships at the .05 level existed between intelligence and numerical aptitude, intelligence, verbal, spatial aptitude and form perception. There was also a significant relationship between numerical aptitude and motor coordination which existed because of the nature of the test procedures used in this area. Relationships calculated from comparison group data are shown in Table 11.

Even though several significant relationships existed between General Aptitude Test Battery profiles within groups, the correlations between groups were similar.

The computer program MANOVA,\(^2\) for multi-variate analysis, was used to analyze six related variables -- intelligence quotient, grade point average and grades in English, Mathematics, Science and Vocational Education. The results reported in Table 12 reveal that the two groups did not differ significantly (p < .05) for the active variables. It was concluded that students representing the two groups, treatment and comparison, tended to be equivalent based on the school data recorded prior to/during the Early Placement Program. One of the variables, grade for English, was significant at the p < .08 level of significance which was above that level established for the study.

**COMPARISON OF NON-RESPONDENT DATA**

Twelve students were selected at random from 44 non-respondents of the comparison group. The same procedures were used to select

\(^2\) David Poor and Lorne Rosenblood, *Multi-variate Analysis of Variance*, Social Psychology Laboratory, Ohio State University, Columbus, Ohio, 1967.
# TABLE IX

**CORRELATION MATRIX INDICATING GENERAL APTITUDE TEST BATTERY PROFILE SCORES FOR STUDENTS OF THE COMPARISON GROUP**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Intelligence</td>
<td>1.00</td>
<td>0.33</td>
<td>0.55*</td>
<td>0.20</td>
<td>0.43*</td>
<td>0.27</td>
<td>0.30</td>
<td>-0.04</td>
<td>0.34</td>
</tr>
<tr>
<td>2) Verbal Aptitude</td>
<td>1.00</td>
<td>-0.16</td>
<td>0.36</td>
<td>0.37*</td>
<td>0.15</td>
<td>-0.05</td>
<td>-0.32</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>3) Numerical Aptitude</td>
<td>1.00</td>
<td>0.15</td>
<td>0.18</td>
<td>0.31</td>
<td>0.40*</td>
<td>0.13</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Spatial Aptitude</td>
<td>1.00</td>
<td>0.40*</td>
<td>0.35</td>
<td>-0.07</td>
<td>-0.02</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Form Perception</td>
<td>1.00</td>
<td>0.38*</td>
<td>0.01</td>
<td>-0.12</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Clerical Perception</td>
<td>1.00</td>
<td>0.16</td>
<td>0.13</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Motor Coordination</td>
<td>1.00</td>
<td>0.16</td>
<td>0.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Finger Dexterity</td>
<td>1.00</td>
<td>0.23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Manual Dexterity</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level
### TABLE 12

**MULTI-VARIATE ANALYSIS RESULTS FOR SELECTED SCHOOL-BASED VARIABLES**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEAN SQUARE</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence Quotient</td>
<td>31.015</td>
<td>0.372</td>
</tr>
<tr>
<td>Grade Point Average</td>
<td>0.001</td>
<td>0.004</td>
</tr>
<tr>
<td>English Grade</td>
<td>1.452</td>
<td>3.071</td>
</tr>
<tr>
<td>Mathematics Grade</td>
<td>0.073</td>
<td>0.132</td>
</tr>
<tr>
<td>Science Grade</td>
<td>0.694</td>
<td>1.095</td>
</tr>
<tr>
<td>Vocational Grade</td>
<td>0.077</td>
<td>0.138</td>
</tr>
</tbody>
</table>

F = 3.9 \[ p \leq 0.10 \]
twelve students from the 42 non-respondents of the treatment group.

The same analysis procedures using the Pearson Product-Moment R method was completed for this group of students. The results reported in Table 13 reveal that a positive correlation exists between grade point average and intelligence. There was also a positive correlation between English and grade point average. Comparing the data from non-respondents with that of respondents at the .05 level of significance revealed that no differences exist in the population based on the findings of the six variables tested.

**TABLE 13**

**CORRELATION MATRIX INDICATING SCHOOL-BASED DATA RELATIONSHIPS FOR NON-RESPONDENTS**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Intelligence</td>
<td>1.00</td>
<td>0.78*</td>
<td>0.30*</td>
<td>0.27</td>
<td>0.54*</td>
<td>0.39*</td>
</tr>
<tr>
<td>2. Grade point average</td>
<td>1.00</td>
<td>0.75*</td>
<td>0.00</td>
<td>0.23</td>
<td>0.54*</td>
<td></td>
</tr>
<tr>
<td>3. English</td>
<td>1.00</td>
<td>-0.06</td>
<td>-0.12</td>
<td>0.36*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Mathematics</td>
<td>1.00</td>
<td>0.30*</td>
<td>-0.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Science</td>
<td>1.00</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Vocational education</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level

Data collected from non-respondents were analyzed for each Hypothesis in the study. The same procedures for analysis were used in each case. This analysis revealed that the non-respondents were not different from the respondent groups. In the interest of avoiding redundancy in the study, Tables will only be reported for the respondent group; however, the results also apply to the non-respondents of the
treatment and comparison groups.

COMPARISON OF AREA EMPLOYMENT OPPORTUNITIES

One variable not involving school-based data which was used in the study is that of equal opportunities for employment which existed for both the students of the treatment and comparison groups. The reasons for comparison group schools not using the early placement program may have been lack of sufficient employment opportunities creating a possible source of bias which would effect the validity of the study. An attempt to determine if this variable would rival the treatment effects was conducted by means of using the most current Employment Bureau Statistics available. The school districts involved in the study are shown in Table 5. Figure 1 indicates the general geographical location of these school districts as well as the proximity to industrial areas.

The civilian work force in Ohio in 1970 totaled 4,234,000 people. Production industries increased by 273,000 more workers between 1960 and 1970 and service industries increased by 109,000 workers during the same period. Professional and technical occupations increased 55 percent over the last decade. Changes in Ohio employment by occupational area are shown in Table 14.

Calculations for the present unemployed in counties for those school districts involved in this study (0.38) as compared with other counties in Ohio (0.41) indicated (Table 15) that counties involved in the study were not above state averages for unemployment. It appears that students in these school districts had an equal opportunity for employment both during and after graduation from high school.
FIGURE I

GEOGRAPHICAL LOCATIONS FOR SCHOOL DISTRICTS INVOLVED IN THE STUDY

○ SCHOOL DISTRICTS REPRESENTING THE TREATMENT GROUP

□ SCHOOL DISTRICTS REPRESENTING THE COMPARISON GROUP
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming, Farm Workers</td>
<td>153,000</td>
<td>212,000</td>
<td>-59,000</td>
</tr>
<tr>
<td>Laborers</td>
<td>194,000</td>
<td>194,000</td>
<td>000</td>
</tr>
<tr>
<td>Service Workers</td>
<td>528,000</td>
<td>419,000</td>
<td>109,000</td>
</tr>
<tr>
<td>Operatives</td>
<td>906,000</td>
<td>766,000</td>
<td>140,000</td>
</tr>
<tr>
<td>Craftsmen</td>
<td>691,000</td>
<td>558,000</td>
<td>133,000</td>
</tr>
<tr>
<td>Sales Workers</td>
<td>327,000</td>
<td>253,000</td>
<td>74,000</td>
</tr>
<tr>
<td>Clerical</td>
<td>700,000</td>
<td>536,000</td>
<td>164,000</td>
</tr>
<tr>
<td>Managerial</td>
<td>451,000</td>
<td>361,000</td>
<td>90,000</td>
</tr>
<tr>
<td>Professional</td>
<td>593,000</td>
<td>381,000</td>
<td>212,000</td>
</tr>
</tbody>
</table>

TABLE 15

LABOR FORCE BY COUNTY LOCATION OF SCHOOL DISTRICTS INVOLVED IN THE STUDY *

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>TOTAL LABOR FORCE</th>
<th>Unemployed</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>Clark</td>
<td>39,140</td>
<td>21,851</td>
<td>2,388</td>
</tr>
<tr>
<td>Erie</td>
<td>19,303</td>
<td>10,845</td>
<td>1,314</td>
</tr>
<tr>
<td>Franklin</td>
<td>207,054</td>
<td>140,950</td>
<td>11,872</td>
</tr>
<tr>
<td>Geauga</td>
<td>16,429</td>
<td>7,914</td>
<td>536</td>
</tr>
<tr>
<td>Fulton</td>
<td>8,568</td>
<td>4,632</td>
<td>564</td>
</tr>
<tr>
<td>Huron</td>
<td>12,379</td>
<td>6,999</td>
<td>674</td>
</tr>
<tr>
<td>Lorain</td>
<td>58,221</td>
<td>39,478</td>
<td>3,645</td>
</tr>
<tr>
<td>Mahoning</td>
<td>78,266</td>
<td>31,178</td>
<td>6,764</td>
</tr>
<tr>
<td>Morgan</td>
<td>2,859</td>
<td>1,709</td>
<td>322</td>
</tr>
<tr>
<td>Ottawa</td>
<td>9,394</td>
<td>4,554</td>
<td>576</td>
</tr>
<tr>
<td>Washington</td>
<td>13,919</td>
<td>6,705</td>
<td>881</td>
</tr>
<tr>
<td>Williams</td>
<td>8,550</td>
<td>5,064</td>
<td>606</td>
</tr>
</tbody>
</table>

TABLE 16

UNEMPLOYMENT IN COUNTIES REPRESENTED IN THE STUDY AND OTHER COUNTIES IN THE STATE OF OHIO *

<table>
<thead>
<tr>
<th>Categories</th>
<th>Total Labor Force</th>
<th>Unemployed</th>
<th></th>
<th></th>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counties Included in the Study</td>
<td>845,369</td>
<td>32,078</td>
<td>18,049</td>
<td>14,029</td>
<td>0.038</td>
<td></td>
</tr>
<tr>
<td>Counties Not in the Study</td>
<td>3,388,631</td>
<td>138,600</td>
<td>77,355</td>
<td>61,245</td>
<td>0.041</td>
<td></td>
</tr>
<tr>
<td>State of Ohio</td>
<td>4,234,000</td>
<td>170,678</td>
<td>95,404</td>
<td>75,274</td>
<td>0.043</td>
<td></td>
</tr>
</tbody>
</table>


RESPONSES OF STUDENTS AND EMPLOYERS

There were 100 students in the comparison group and 100 students in the treatment group. Fifty-five students or 55 percent of the comparison group responded to the questionnaire. Fifty-eight students or 58 percent of the treatment group responded to the questionnaire. It was necessary that non-respondent data be collected to determine if the remainder of the sample represented the same population. Twelve (12) students were selected at random from the non-respondents for both the comparison and treatment groups. The exact analysis procedures were used for the non-respondent group as for the other groups. Analysis was conducted separately from that of other respondents. The total response rate, including the non-respondents' data, was sixty-eight or 68 percent
for the comparison group and seventy students or 70 percent for the treatment group.

A listing of the number of students by classroom unit appears in Table 5. Since there were 58 initial responses from the treatment group of the study, the calculations for relationships between variables were based on N-1 degrees of freedom (58 - 1 = 57 d. f.). The comparison group calculations were based on N-1 degrees of freedom for 55 students (55 - 1 = 54 d. f.). Calculations for the non-respondents of each group were based on N-1 degrees of freedom for 12 students (12 - 1 = 11 d. f.).

Data requested from employers of both groups provided information to accomplish objectives two, three, and four. Employers of students in the comparison group provided 50 responses including 12 non-respondent interviews. Employers of the treatment group provided 54 responses including the non-respondent telephone interviews.

Unemployment, marriage of female students, college and entry into service accounted for 18 cases of unavailable data for the comparison group and 20 cases of unavailable data for the treatment group. Table 17 shows the distribution of unavailable employer data for each group.

Based on total numbers of possible responses from employers, the 50 responses of the comparison group accounted for 61 percent of the sample. The 54 responses of the treatment group accounted for 68 percent of the sample. Degrees of freedom used in analyzing data for significance at the .05 level were, however, based on numbers of actual initial responses and numbers of employers involved as non-respondents. Responses from all students and employers appear in Table 18.
TABLE 17

DISTRIBUTION OF NON-RESPONDENTS FOR THE TREATMENT AND COMPARISON GROUPS

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>COMPARISON GROUP</th>
<th>TREATMENT GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married and Unemployed</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Unemployed</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>College</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Service, Military or Peace Corp</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>18</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

TABLE 18

RESPONSES OF STUDENTS AND EMPLOYERS

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>Initial Response</th>
<th>Non-Respondent Contacts</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment</td>
<td>Comparison</td>
<td>Treatment</td>
</tr>
<tr>
<td>Student</td>
<td>58</td>
<td>55</td>
<td>12</td>
</tr>
<tr>
<td>Employer</td>
<td>42</td>
<td>38</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
<td>93</td>
<td>24</td>
</tr>
</tbody>
</table>
DETERMINING RELATIONSHIPS BETWEEN VARIABLES

The data pertaining to establishing relationships among students and employers of both the comparison and treatment groups were the result of the attempt to accomplish objectives two, three, and four. Only those variables that were related to the specific dependent variables were to be used in the analysis procedures.

Objective two was "to determine the relationships which exist among attendance, punctuality, adherence to safety and employment regulations as aggregate measures of adopted work habits and the ability to adjust to initial employment as measured by employer ratings."

Objective three, as stated in Chapter I, reads "to determine the relationship that exists between desire and potential for advancement and the ability to adjust to initial employment for those students receiving an early placement program and those students receiving a conventional vocational program as measured by student and employer ratings."

Objective four is "to determine the relationship that exists between the length of time to acquire full employment after graduation for students receiving an early placement experience and those students which were enrolled in the conventional vocational program as measured by the mean number of days to attain full employment."

Several hypotheses were developed to accomplish objectives two through four. Hypotheses two, four, and six were tested in the null form. The alternate hypothesis was stated in the null form for hypotheses three and five; therefore, the null was not repeated in these instances.
HYPOTHESES RELATING TO STUDENTS ABILITY TO ADJUST IN INITIAL EMPLOYMENT AS THE DEPENDENT VARIABLE

Hypothesis 2

The Hypothesis. -- A positive relationship exists between the adopted work habits of students experiencing the early placement program as measured by attendance, punctuality, adherence to safety and employment regulations, and the ability to adjust to initial employment as measured by employer ratings.

The Null Hypothesis. -- There is no relationship between adopted work habits of students experiencing an early placement program as measured by attendance, punctuality, adherence to safety and employment regulations, and the ability to adjust to initial employment as measured by employer ratings.

The Statistical Test and Results. -- Since the ability to adjust was reported by employers as ordinal data (Likert Scale 1 - 5) and student records of attendance, punctuality, safety records and adherence to employment regulations (number of violations) were interval in nature, the Pearson Product-Moment R Correlation Coefficient was deemed appropriate. The P-STAT computer program was used to calculate the resulting correlation coefficients. The resulting correlation coefficients, shown in Table 19 indicated adherence to safety and employment regulations to be significant ($p < .05$), thereby rejecting the null hypothesis. A correlation coefficient of 0.60 indicated a relatively strong relationship existed between ability to adjust during initial employment and the adherence to safety and employment regulations. Means and standard deviations are shown in Table 20.
### TABLE 19

CORRELATIONAL MATRIX INDICATING THE RELATIONSHIP BETWEEN THE VARIABLE (ABILITY TO ADJUST) AND OTHER VARIABLES INVESTIGATED WITHIN THE COMPARISON GROUP

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ability to Adjust&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.00</td>
<td>0.21</td>
<td>0.00</td>
<td>0.60&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>2. Attendance&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td>1.00</td>
<td>0.00</td>
<td>0.22</td>
</tr>
<tr>
<td>3. Punctuality&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4. Safety and Adherence to Employment Regulations&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

<sup>a</sup> Significant at the .01 level
<sup>b</sup> Measures of adopted work habits

### TABLE 20

MATRIX INDICATING THE MEANS AND STANDARD DEVIATIONS BETWEEN THE VARIABLE (ABILITY TO ADJUST) AND OTHER VARIABLES INVESTIGATED BETWEEN GROUPS

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>TREATMENT</th>
<th>COMPARISON</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>S.D.</td>
<td>MEAN</td>
<td>S.D.</td>
</tr>
<tr>
<td>1. Ability to Adjust</td>
<td>3.71</td>
<td>.94</td>
<td>3.52</td>
<td>.80</td>
</tr>
<tr>
<td>2. Student Attendance*</td>
<td>1.02</td>
<td>.15</td>
<td>1.26</td>
<td>.77</td>
</tr>
<tr>
<td>3. Punctuality*</td>
<td>1.00</td>
<td>.00</td>
<td>1.21</td>
<td>.74</td>
</tr>
<tr>
<td>4. Adherence to Safety and Employment Regulations*</td>
<td>3.79</td>
<td>.87</td>
<td>3.96</td>
<td>.97</td>
</tr>
</tbody>
</table>

<sup>*</sup> Measures of adopted work habits
Hypothesis 3

The Hypothesis. -- No relationship exists between adopted work habits of students experiencing a conventional vocational program as measured by attendance, punctuality and adherence to safety and employment regulations and the ability to adjust to initial employment as measured by employer ratings.

The Statistical Test and Results. -- The same method of calculation was used for this hypothesis as for Hypothesis 2. The calculated correlation coefficients in Table 21 show that a positive relationship significant at the .01 level exists between attendance, punctuality (0.97), and safety and adherence to employment regulations (0.51). Means and standard deviations are shown in Table 20. Table 20 reveals that no significant difference at the .05 level existed between groups even though significant relationships existed within groups.

Hypothesis 4

The Hypothesis. -- A positive relationship exists between desire and potential for advancement and the ability to adjust to initial employment for students completing an early placement program as measured by student and employer ratings.

The Null Hypothesis. -- No relationship exists between desire and potential for advancement and the ability to adjust to initial employment for students completing an early placement program as measured by student and employer ratings.

The Statistical Test and Results. -- Since the ability to adjust to initial employment reported by employers, employer-rated potential for advancement, and student desire to advance were all ordinal in
nature, the Spearman Rank-Correlational coefficients was deemed appropriate for the analysis. Table 22 indicates a significant relationship exists at the .01 level between employer opinion of students' potential for advancement and the ability to adjust to initial employment for students completing an early placement program. There is also a significant relationship between opportunities available and the employer's opinion of student advancement potential (.61). All opportunities for advancement offered were accepted by students in the treatment group. It is important to point out that a significant relationship did not exist for students' desire to advance and the ability to adjust in the world of work for students within the treatment group. Means and standard deviations are shown in Table 23.

Hypothesis 5

The Hypothesis. -- No relationship exists between the conventional curriculum techniques of developing desire for promotion and the ability to adjust in initial employment as measured by student and employer ratings.

The Statistical Test and Results. -- The same methods of analysis were used for Hypothesis 5 as were used for Hypothesis 4. This hypothesis was accepted based on the results reported in Table 24. A significant relationship existed at the .01 level between student desire to advance and the ability to adjust in initial employment. Also, a significant relationship existed between employer opinion of student potential to advance, opportunities to advance and the ability to adjust in initial employment. The calculations for employer opinion of advancement potential (.94), student desire for advancement (.70), and opportunities
TABLE 21

CORRELATION MATRIX INDICATING THE RELATIONSHIP BETWEEN (ABILITY TO ADJUST) AND OTHER VARIABLES INVESTIGATED WITHIN THE COMPARISON GROUP

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ability to Adjust</td>
<td>1.00</td>
<td>-0.21</td>
<td>-0.14</td>
<td>0.51&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>2. Attendance&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td>1.00</td>
<td>0.97&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-0.21</td>
</tr>
<tr>
<td>3. Punctuality&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>1.00</td>
<td>-0.14</td>
</tr>
<tr>
<td>4. Adherence to Safety and Employment Regulations&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

<sup>a</sup> Significant at the .01 level

<sup>b</sup> Measures of adopted work habits

TABLE 22

CORRELATION MATRIX INDICATING THE RELATIONSHIP BETWEEN THE VARIABLE (ABILITY TO ADJUST) AND OTHER VARIABLES INVESTIGATED WITHIN THE TREATMENT GROUP

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ability to Adjust</td>
<td>1.00</td>
<td>0.05</td>
<td>-0.15</td>
<td>-0.15</td>
<td>0.84*</td>
</tr>
<tr>
<td>2. Student Desire to Advance</td>
<td></td>
<td>1.00</td>
<td>0.15</td>
<td>0.15</td>
<td>0.05</td>
</tr>
<tr>
<td>3. Opportunities to Advance</td>
<td></td>
<td></td>
<td>1.00</td>
<td>1.00*</td>
<td>0.61*</td>
</tr>
<tr>
<td>4. Opportunities Accepted</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
<td>-0.15</td>
</tr>
<tr>
<td>5. Employer Opinion of Student Potential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

* Significant at the .01 level
### TABLE 23

**MATRIX INDICATING THE MEANS AND STANDARD DEVIATIONS BETWEEN THE VARIABLE (ABILITY TO ADJUST) AND OTHER VARIABLES INVESTIGATED BETWEEN THE TREATMENT AND COMPARISON GROUPS**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>TREATMENT</th>
<th></th>
<th>COMPARISON</th>
<th></th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean S.D.</td>
<td>Mean S.D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Ability to Adjust</td>
<td>3.71 .94</td>
<td>3.52 .80</td>
<td>&lt; .34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Student Desire to Advance</td>
<td>3.76 .98</td>
<td>3.65 1.02</td>
<td>&gt; .50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Opportunities to Advance</td>
<td>2.26 1.98</td>
<td>2.60 1.94</td>
<td>&gt; .50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Opportunities Accepted</td>
<td>2.26 1.98</td>
<td>2.52 1.94</td>
<td>&gt; .50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Employer Opinion of Student Potential</td>
<td>2.26 1.98</td>
<td>2.53 1.94</td>
<td>&lt; .40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 24

**CORRELATION MATRIX INDICATING THE RELATIONSHIP BETWEEN THE VARIABLE (ABILITY TO ADJUST) AND OTHER VARIABLES INVESTIGATED WITHIN THE CONTROL GROUP**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ability to Adjust</td>
<td>1.00</td>
<td>0.70*</td>
<td>-0.03</td>
<td>0.03</td>
<td>0.94*</td>
</tr>
<tr>
<td>2. Student Desire to Advance</td>
<td>1.00</td>
<td>-0.01</td>
<td>-0.17</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>3. Opportunities to Advance</td>
<td>1.00</td>
<td>0.24*</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Opportunities Accepted</td>
<td>1.00</td>
<td>0.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Employers Opinion of Student Potential</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .01 level
offered and accepted (.70) indicate significant relationships do exist between laboratory experiences and the ability to adjust to the world of work. Means and standard deviations are shown in Table 23. Table 23 also reveals that no significant difference at the .05 level existed between groups for the variables investigated even though there were significant relationships within groups. The Mann-Whitney U test was used to test the significance at the .05 level.

HYPOTHESIS RELATING TO LENGTH OF TIME TO ACQUIRE FULL EMPLOYMENT AS THE DEPENDENT VARIABLE

Hypothesis 6

The Hypothesis. -- A significant relationship exists in the length of time to acquire full employment after graduation between those students completing the early placement program and those students in a conventional program measured by the mean number of days to acquire full employment.

The Null Hypothesis. -- No significant difference exists in the length of time to acquire full employment after graduation between those students completing the early placement program and those students in a conventional program as measured by the mean number of days to acquire full employment.

The Statistical Test and Results. -- The P-STAT computer program was used to calculate the mean number of days to full employment for both groups. The comparison group required 33.03 days to acquire full employment. The treatment group required an average of 15.79 days to acquire full employment. The calculation of the mean days to full employment substantiates a difference does not exist between the treatment
and the conventional program on this variable. The null hypothesis was rejected. Twenty-three students of the treatment group required zero days to acquire full employment, whereby only nine students of the comparison group were able to achieve placement immediately following graduation. Nine of the twenty-three treatment group students remained with early placement employers.

SUMMARY

The primary purpose of this chapter was to accomplish the first four objectives of the study. The results of testing the hypotheses show that few significant differences exist between the treatment and comparison groups.

The analysis of student data recorded prior to the treatment indicated no significant differences existed between groups of students for the active variables investigated. This finding precluded the need for weighting of other statistical methods to achieve equivalency between groups.

Investigation of the relationships between independent variables and dependent variables which might have rivaled the treatment effect of the early placement program revealed only one variable which was statistically significant in favor of the comparison group. The variable was the desire to advance on the job, as it relates to ability to adjust in the world of work.

Another significant relationship indicated by the data allows one to conclude that employer opinion of employee advancement potential does have an effect on the ability to employees to adjust on the job.
There was also a strong relationship between adherence to safety and employment regulations and the ability to adjust to the world of work.

A significant difference existed between the treatment and comparison group relative to length of time from graduation to attain full employment. The students participating in the early placement program acquired employment an average of 18 days earlier than those students enrolled in the conventional vocational program. Twenty-three students of the treatment group were employed directly after the early placement program. Fourteen of the 23 students changed employers upon graduation. Only 9 students from the comparison group attained full employment immediately upon graduation.
CHAPTER V
FINDINGS ON SELF-ESTEEM AND ATTITUDE SCALES

This chapter presents a discussion of the findings relative to employee self-esteem based on the factors of self confidence, achievement on the job, control of the environment and relationship to others. A second part of the chapter relates the findings of the attitudes toward work based on motivation, employment membership, self awareness, and task orientation. The findings presented relate to two of the six major objectives of the study.

Objective five, as stated in Chapter I, reads "to determine the relationships which exist among the specified self-esteem characteristics of self concept, control of the environment, achievement of the job, and relationship to others for students of an early placement program and students of the conventional vocational program as measured by scores obtained from the self-esteem inventory."

Objective six was "to determine the relationships that exist among the specified characteristics of motivation, self-awareness, employment membership, and work orientation for students of the early placement and conventional vocational programs as measured by scores reported from an attitude inventory scale."

DEVELOPMENT AND ANALYSIS OF THE SELF-ESTEEM INVENTORY

The self-esteem inventory was developed with permission from Stanley Coopersmith who originally developed the self-esteem instrument
used in this study. Major modification was made to achieve orientation to the world of work rather than the school environment. The length of the inventory was reduced by eleven items to provide greater relevance to an older group. Item elimination decisions were based on an instrument review by a panel of graduate students at The Ohio State University.

The self-esteem inventory was subjected to the Human Subjects Committee at The Ohio State University and approved. Inventories which were sent to all students of both the treatment and comparison groups consisted of 47 items. Responses of "Like Me," "Sometimes Like Me," Sometimes Unlike Me," and "Unlike Me" were based on a four-point scale. "Like Me" was assigned a value of four. "Unlike Me" was assigned a value of one.

A factor analysis was calculated for all items of the self-esteem inventory. The P-STAT computer program for factor analysis was used to produce correlation coefficients as a result of factor loading. The "rotate" method of factor analysis provided the best means of interpretation of the results. Factor coefficients were analyzed to group the factors. Sixteen factors accounted for 70 percent of the variance. The computer program was programmed to group all factors into four newly formed variables. The four new factors accounted for 40 percent of the variance. The items were analyzed for significant correlation coefficients based on methods formulated by Fred Kerlinger. Questions which met the criteria for acceptance, reality, and unitary measurement were grouped and assigned a factor name according to their factor validity. The factor

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names assigned were: self concept, control of environment, achievement on the job, and relationship to others. Table 25 shows the question groupings by factor assignment. Factor coefficients are shown in Appendix J.

**COMPARISON OF SELF-ESTEEM FOR STUDENTS**

In general, the self-esteem of students in the treatment group did not differ from the students in the comparison group. Measurements of self-esteem were based on self confidence, achievement on the job, control of the environment, and relationship to others. The data in Table 26 indicate that both groups were similar for all variables.

A t-test was calculated to determine if significant differences existed between groups at the .05 level of significance. The t-values of .60, 0.57, 0.88, and 0.40 indicate that no significant advantages existed between groups for all four variables. The early placement programs showed no significant differences for students enrolled in the program relative to self-confidence, achievement on the job, control of the environment, or relationship to others over the students enrolled in the conventional vocational program.

The means for the two groups indicate a slight difference in favor of the treatment group for the variables of self confidence and control of the environment.

**DEVELOPMENT AND ANALYSIS OF THE ATTITUDE SCALE**

The attitudes-toward-work scale consisted of forty items which focused upon those problems identified by Garbin and Campbell's study.
TABLE 25

QUESTION GROUPINGS FOR CREATED VARIABLES TO MEASURE SELF ESTEEM

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Total Number</th>
<th>Questions (Items) N = 47 Groupings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Confidence</td>
<td>11</td>
<td>(3, 6, 10, 17, 21, 24, 26, 34, 36, 38, 43)</td>
</tr>
<tr>
<td>Control of Environment</td>
<td>12</td>
<td>(2, 8, 18, 19, 20, 23, 25, 28, 40, 41, 42, 44)</td>
</tr>
<tr>
<td>Achievement on the Job</td>
<td>12</td>
<td>(9, 11, 15, 16, 22, 27, 31, 33, 35, 37, 45, 46)</td>
</tr>
<tr>
<td>Relationships to Others</td>
<td>10</td>
<td>(1, 4, 7, 5, 12, 13, 14, 30, 32, 39)</td>
</tr>
</tbody>
</table>

(Questions 29 and 47 were not acceptable to the criteria of "reality" and "unitary measurement.")

TABLE 26

MEANS AND T-TEST RESULTS FOR THE VARIABLES OF SELF ESTEEM

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Means</th>
<th>T-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment</td>
<td>Comparison</td>
</tr>
<tr>
<td>Self Confidence</td>
<td>25.20</td>
<td>24.41</td>
</tr>
<tr>
<td>Achievement on the Job</td>
<td>29.55</td>
<td>30.04</td>
</tr>
<tr>
<td>Control of Environment</td>
<td>40.35</td>
<td>39.57</td>
</tr>
<tr>
<td>Relationship to Others</td>
<td>21.53</td>
<td>21.87</td>
</tr>
</tbody>
</table>
The instrument was reviewed for content validity by a panel of graduate students at The Ohio State University. The attitude scale was subjected to a Human Subjects Committee at The Ohio State University for approval.

Attitude scales were sent to all students of the treatment and comparison groups. Responses were rated on a scale from "Strongly Agree" to "Strongly Disagree." A factor analysis was used to calculate the relationship of items on the attitude scale. The computer program P-STAT for factor analysis was used to obtain the correlation coefficients for all factors. The computer was programmed to provide four factors. These four factors accounted for 50 percent of the variance. Results of the calculations were analyzed and questions grouped using the criteria of reality and unitary measures as suggested by Kerlinger for factor validity. Four factor names were assigned to the new variables. These were motivation, work orientation, self awareness, and employment membership. The data were assigned to the new variables. These were motivation, work orientation, self awareness, and employment membership. The data in Table 27 show the questions which related to each of the variables.

COMPARISON OF ATTITUDES FOR STUDENTS

The attitudes toward work for the students of the treatment group did not differ from the attitudes of students in the comparison group.

A. F. Garbin and Robert E. Campbell, Problems in the Transition from School to Work, As Perceived by Vocational Educators, The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio, 1967, pg. 50.
**TABLE 27**

QUESTION GROUPINGS FOR CREATED VARIABLES TO MEASURE WORK ATTITUDES *

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Total Number</th>
<th>GROUPINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Orientation</td>
<td>12</td>
<td>(4, 6, 12, 15, 19, 20, 21, 22, 26, 39, 40)</td>
</tr>
<tr>
<td>Motivation</td>
<td>9</td>
<td>(1, 2, 14, 16, 18, 23, 27, 29, 38)</td>
</tr>
<tr>
<td>Self Awareness</td>
<td>7</td>
<td>(8, 9, 17, 24, 25, 30, 37)</td>
</tr>
<tr>
<td>Employment Membership</td>
<td>12</td>
<td>(3, 5, 8, 10, 11, 13, 31, 33, 34, 35, 36, 32)</td>
</tr>
</tbody>
</table>

* All questions are shown in Appendix J.

**TABLE 28**

MEANS AND T-TESTS FOR VARIABLES OF ATTITUDES TOWARD WORK

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Means</th>
<th>T-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment</td>
<td>Comparison</td>
</tr>
<tr>
<td>Work Orientation</td>
<td>26.70</td>
<td>27.02</td>
</tr>
<tr>
<td>Motivation</td>
<td>32.93</td>
<td>33.25</td>
</tr>
<tr>
<td>Self Awareness</td>
<td>23.30</td>
<td>22.85</td>
</tr>
<tr>
<td>Employment Membership</td>
<td>48.85</td>
<td>48.77</td>
</tr>
</tbody>
</table>
Measurements of attitudes toward work were based on four factors: self awareness, work orientation, employment membership, and motivation. The table for the two groups indicate a slight difference in favor of the treatment group for the variable of self awareness, along with employment membership. Means for the comparison group were slightly higher for the variables of task orientation and motivation on the job.

The data in Table 28 indicate the similarity which existed between groups. The t-values of 0.27, 0.40, 0.76, and 0.10 show no significant differences existed between groups for all the variables. The early placement program had no significant effect on students relative to motivation, work orientation, self awareness, or employment membership over the students enrolled in a conventional vocational program.

STUDENT AND EMPLOYER RESPONSES

One question was provided on each of the questionnaires completed by students and employers in both groups which allowed them to reflect upon improvements needed for Vocational Programs. Table 29 summarizes the responses received together with frequency and percentages. Generally, students and employers involved in the early placement program felt the time presently authorized should be extended. Curriculum for vocational programs should be revised to provide an understanding of employment membership with particular emphasis on the relationship to others on the job, preparation for work should include safety and employment regulations, and the importance of attendance and punctuality. Students emphasized the importance of placement stations where employers were interested and attitudes of other employees were positive to the program. Employers related the importance of teacher training in supervision of early placement students.
<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student</td>
<td>Employer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Extend the Early Placement Program</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2. Revise Curriculum to Provide Emphasis on Employment Membership</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>3. Safety and Employment Regulations, Attendance, Punctuality</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>4. Placement Stations</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>5. Teacher Preparation in Student Supervision</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>
CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Vocational Education Act of 1963 opened many avenues for the improvement of Vocational Education. The amendments of 1968 added more emphasis for special programs and greater community involvement. Education in 1973 is on the threshold of many more major changes which will directly effect Vocational Education. The most recent label placed on an attempt to revolutionize our school system is Career Education. Many of the concepts related to career education involve a realization that schools must truly become a more active part of the community. Preparation for employment and transition from school to work requires open communication and commitments from both school personnel and employers. The potential for this association has been proven by many programs both regular and special in design.

At the time of this study many school systems are experimenting with the infusion of an early placement program into Agriculture, Business, and Industry to provide a linkage between the skills learned in school and the skills necessary for socio-adjustment on the job.

The majority of the laboratories providing for skill training in Vocational schools equalled or surpassed the physical setting found in the world of work. It is somewhat more difficult to provide the student with those skills of socio-adjustment needed to succeed within the actual work conditions.

A program to provide student exposure to actual work experience
prior to high school graduation was initiated in 1969. Initially, the program intent was to assist students in placement; however, many teachers recognized other attributes of the program. Students returned to class each day with questions and problems of adjustment which were of equal importance to employment successes as was additional skill needs.

The early placement program, as conducted in Ohio, provided for six to nine weeks of exposure to the world of work during the last semester of the senior year in high school. This study was an attempt to explore the relationships of the early placement program to student success in full-time employment. Another purpose of the study was to explore the relationships of self confidence and work attitudes between students completing the early placement program and students completing the conventional laboratory-based programs.

SPECIFIC OBJECTIVES

The following specific objectives were identified as pertinent to the development of the study:

1. To determine the relationship between students with and without benefit of an Early Placement experience for certain school-based characteristics such as intelligence quotient, grade point average, General Aptitude Test Battery Profiles, and grades in English, Mathematics, Science, and Vocational Education as measured by data recorded prior to/during the senior year in high school.

2. To determine the relationships that exist among attendance, punctuality, adherence to safety and employment regulations as aggregates of measured adopted work habits and the ability to adjust to initial
employment as measured by employer ratings for both groups.

3. To determine the relationship that exists between desire and potential for advancement and the ability to adjust to initial employment for those students receiving an early placement program and those students in a conventional vocational program as measured by student and employer ratings.

4. To determine the relationship that exists between the length of time to acquire full employment after graduation for students receiving an early placement experience and those students which were enrolled in the conventional vocational program as measured by the mean number of days to attain full employment.

5. To determine the relationships which exist among the specified self-esteem characteristics of self concept, control of the environment, achievement on the job, and relationship to others for students of the early placement program and students of the conventional vocational programs as measured by scores obtained from the self-esteem inventory.

6. To determine the relationships which exist among the specified characteristics of motivation, self-awareness, employment membership and work orientation and students of the early placement and conventional vocational programs as measured by scores reported from an attitude inventory scale.

PROCEDURE

Vocational students enrolled in Ohio schools offering Vocational Programs with more than 10 units in three service areas comprised the population for the study. The sample consisted of students in sixteen classroom units representing thirteen school districts in Ohio. State
Department of Education records were used to arrive at the accessible population based on criteria established to insure equal vocational opportunity and a more representative sample. Stratification techniques for service areas were also used for the same purpose. The sample was selected by random selection techniques. All schools agreed to participate in the study. Each school was visited and school-based data collected for students within the classroom units. These data included: intelligence quotients; General Aptitude Test Battery profile scores; grade point averages; and grades in English, Mathematics, Science, and Vocational Education. As many students as possible were contacted by telephone and asked to complete the questionnaire which would be sent to them. Employer data were collected for both the treatment and comparison groups.

Questionnaires were developed for both students and employers to obtain data relative to work habits, vocational program data, opportunities for promotion, and the length of time to achieve full-time employment after graduation from high school. A self-esteem inventory and attitude toward work instrument were developed as part of the study. Stanley Coopersmith's self-esteem inventory was modified for use with older youth and the work environment to measure self concept, control of the environment, relationship to others, and achievement on the job. The attitude inventory was developed to access motivation, self awareness, work orientation, and employment membership. Instrumentation for this part of the study was presented to a Human Subjects Committee.

1Stanley Coopersmith, The Antecedents of Self-Esteem, University of California, Los Angeles, California, 1970.
of The Ohio State University for approval.

Questionnaires were sent to 200 students in the treatment and comparison groups. Follow-up procedures were implemented one week later. Guidance counselors were provided with copies of questionnaires and mailing materials. They were asked to contact students that did not respond to the first mailing. Non-respondent data collection was obtained by telephone interviews with twelve students selected at random from the treatment and comparison groups.

Questionnaires were also sent to employers of both the treatment and comparison groups. Follow-up procedures were implemented after two weeks. Twelve employers were selected at random from each group of non-respondents. These employers were interviewed by telephone. Thirty-eight students were unemployed or married and not employed. The total response rate for the comparison group was 67 percent for students and 61 percent for the employers of these students. The total response rate for the treatment group was 70 percent for students and 68 percent for employers of the treatment group.

THE DESIGN

The design for this "ex post facto" study was the Non-equivalent Control Group Design. Classroom units of vocational education were randomly selected from the accessible population. Mean scores of student characteristics, student ratings, and employer ratings were used as the unit of data analysis.

HYPOTHESES FOR THE STUDY

Ten hypotheses were developed to accomplish six specific objectives.
Hypothesis One provided a determination of equality among students' characteristics as measured from recorded information prior to/during the early placement program implementation in high school. Two computational methods were used to test the hypotheses. Pearson Product-Moment R correlation coefficients were calculated on all school-based variables for both the comparison and treatment groups. Comparison of these correlation coefficients were based on significance at the .05 level. A multi-variate analysis of variance was also calculated on six continuous variables: intelligence quotient, grade point average, and grades in English, Mathematics, Science, and Vocational Education.

Hypotheses 2 and 3. -- The dependent variable used in these tests was the ability to adjust on the job. The independent variables were attendance, punctuality, and adherence to safety and employment regulations. Adherence to safety and employment regulations was measured by the number of accidents or safety violations experienced during the first six months of initial employment. The Pearson Product-Moment R correlation coefficient was used to test the hypotheses. The Null Hypothesis was tested in Hypothesis 2 whereby Hypothesis 3 was written in such a way that the alternate and null were combined and the alternate was actually tested.

Hypotheses 4 and 5. -- Data relative to desire for advancement, advancement potential, and the ability to adjust in initial employment were obtained from student and employer ratings. These data were used in testing Hypotheses 4 and 5. The Spearman Rank correlation coefficient was deemed appropriate for these hypotheses. The same method of testing was used as described in hypotheses 2 and 3.
Hypothesis 6. -- The purpose of this hypothesis was to test for significant differences between the treatment and comparison groups relative to the time required to achieve full-time employment. The mean number of days from the date of graduation from high school to the date entering full employment as reported by employers were used as the measures of differences.

**DEVELOPMENT AND USE OF THE SELF-ESTEEM INSTRUMENT**

A forty-seven item self-esteem inventory was formulated regarding various aspects of self-esteem. The objective inventory used in the study was modified by the writer to adjust to older youth and work atmospheres. Content validity was reviewed by a panel of graduate students. The factor analysis process using the computer program (P-STAT) was conducted. The "rotate" method of factor analysis was selected for its ease of interpretation and method of factor loading. Four factors accounting for 50 percent of the variance resulted from the factor analysis of the items. These factors were labeled self concept, achievement on the job, control of the environment, and relationship with others. Frequency distribution and t-tests were calculated between variables for the treatment and comparison groups for tests of significance. Refer to the definitions in Chapter I for the meanings of these four factors as used in the study.

**DEVELOPMENT AND USE OF ATTITUDE INVENTORIES**

The attitude scales developed for this study were concerned with the measurement of attitudes toward work as indicated in objective six. Forty statements regarding various aspects of attitudes toward
work were formulated using a modified Likert Scale. Factor analysis using the computer program "rotate" provided four factors accounting for 50 percent of the variance. Using methods recommended by Kerlinger, the statements were grouped and the new variables were labeled motivation, self awareness, work orientation, and employment membership. Significance of these factors was calculated by means of the t-test at the .05 level of significance. Refer to the definitions offered in Chapter I for the meaning of these terms as used in the study.

SUMMARY OF THE FINDINGS

The results of testing hypothesis one shows that there was no significant difference between the treatment and comparison groups for school-based characteristics of intelligence quotients, grade point average or grades in four basic subject areas. These data were obtained from records accumulated prior to/during the early placement program.

Investigation of the relationship between independent and dependent variables related to the ability to adjust in initial employment revealed that two variables were significant. Adherence to safety and employment regulations is related to the ability to adjust on the job. A significant relationship for attendance and punctuality existed for the comparison group.

The second significant relationship between variables revealed that a positive relationship existed between advancement potential expressed by employers and the ability to adjust in initial employment. It is important to point out that a significant relationship did not

exist for students' desire for advancement and the ability to adjust to initial employment for students of the treatment group. Students of the treatment group, however, were offered and accepted advances on the job more often than students of the comparison group.

A significant difference existed between the number of days required for full employment following graduation. Students of the early placement program attained full employment an average of 18 days prior to students in the conventional vocational program.

FINDINGS OF THE SELF-ESTEEM INVENTORIES

The findings pertaining to objectives one through four presented relationships based on performance records of students enrolled in high school and during initial employment. Objective five related to student appraisal of self-esteem. In general, the mean scores for both groups of students were similar for these areas investigated. Measurements of self-esteem were based on self concept, achievement on the job, control of the environment, and relationship to others.

A factor analysis of items on the self-esteem inventory was conducted to identify four group variables to be investigated. A student t-test revealed no significant difference existed between groups. The means for the two groups indicated a slight difference in favor of the treatment group for the variables of self concept and control of the environment. Means for the comparison group were slightly higher for the variables of achievement on the job and relationship to others.

FINDINGS ON THE ATTITUDE INVENTORIES

Findings on objective six, attitudes toward work, resulted in
no significant difference between groups. Measurements for attitude towards work were based on four factors: motivation, work orientation, employment membership, and self awareness. A factor analysis was completed to create new variables to be investigated. A student t-test revealed no significant difference; however, the means for motivation and work orientation were slightly higher for the comparison group. The means for self awareness and employment membership were higher for the treatment group.

CONCLUSIONS

The following conclusions are based on the findings of the "ex post facto" study and apply to Vocational students enrolled in Ohio school districts offering ten or more units of Vocational Education in three or more service areas.

1. The early placement program provided students the opportunity to attain full-time employment in less time following high school graduation. Twenty-three students obtained full employment immediately after graduation.

2. Students involved in the early placement program were offered and accepted more opportunities for advancement from new employers during initial employment than did students of the conventional vocational program.

3. Adherence to safety and employment regulations have a significant relationship to the ability to adjust in initial employment as perceived by employers.

4. Students of a conventional laboratory-oriented vocational program appear to have a greater desire to advance in initial employment.
Students in both the early placement program and the conventional laboratory program were similar in school achievement, attendance, punctuality, and General Aptitude Test Battery scores as measured prior to/during the senior year in high school. The conclusions indicated that strong relationships also existed between intelligence, attendance, General Aptitude Test Battery scores, and grade point averages for the subjects of English, Mathematics, Science, and Vocational Education of students within both groups.

The conclusions indicate that an early placement program has the potential of providing earlier placement in new employment for students graduating from Vocational Education. There is also a relationship between adherence to safety and employment regulations and the ability to adjust in initial employment for students experiencing early placement.

Variables investigated as related to attitudes toward work and self-esteem revealed that all students involved in the study appear to be similar and therefore the Early Placement Program has no effect on these two areas relative to transition from school to work.

**IMPLICATIONS**

There are several findings within the study where results of statistical analysis did not allow the investigator to state them in the conclusions. The importance of these findings even though not found statistically significant relative to this study may be valuable in further research. These findings are presented only as implications and are based on means and student/employer responses.

1. Students involved in an early placement program appear
to have more self confidence and control of the work environment in initial employment.

2. Students completing the early placement program appear to have better attitudes toward employment membership in initial employment.

3. Students completing a conventional laboratory program appear to have better attitudes for motivation and work orientation in initial employment.

4. A significant relationship existed between safety and employment regulations and the ability to adjust. The implication being that employers tend to rate a new employee's ability to adjust on a basis of how well he or she follows directions.

5. The techniques of personalized phone calls and local guidance counselor contacts was partially responsible for the 68.5 percent response rate for students involved in the study.

RECOMMENDATIONS

Based on the findings of this study, the comments of students and employers, experiences of the writer as a Director of Vocational Education, the following recommendations are presented:

1. Schools offering a Vocational Education Program should explore the development of an Early Placement Program to assist students in the transition from school to work.

2. Vocational teachers and administrative personnel should develop working relationships with employers, not just on the basis of advisory committees, but more important active involvement with training programs both at school and in the actual work situations.
Comments of students and employers as summarized from questionnaires indicated that:

3. Early Placement Programs should be expanded in time involved. Early placement should relate directly to the occupational choice of the students to closely parallel the socio-adjustment environment the students presumably enter upon graduation.

4. Student preparation for the placement experience should be initiated as an integral part of the Vocational curriculum. This preparation should include safety and employment regulations and stress the importance of conscientiousness, attendance, and punctuality.

5. Employers of students for early placement should be selected for their interest in the program as a socio-adjustment experience, as well as skill development. (Employer attitude of student potential)

6. All available school records or copies of records for students enrolled in Vocational Education should be readily accessible for staff and guidance use as an information system for placement.

7. Teachers of Vocational Programs should be provided in-service programs to prepare them for coordination of Early Placement Programs.

8. Teachers of Vocational Programs offering an Early Placement Program should be given sufficient time to properly supervise students.

9. A panel of students, guidance counselors, employers, teachers, and administration should be formed to develop procedures, policies, and standards for implementing and operating the Early Placement Program. The results would be forwarded to the Board of Education for approval.
RECOMMENDATIONS FOR FURTHER STUDY

Due to the limitations to any "ex post facto" type study and the inconclusive results obtained from this study, the following recommendations for further study are presented:

1. Studies be conducted using a repeated measurements design whereby classroom units of the comparison and treatment groups could be studies over longer periods of time. A second control group design would also be a viable alternative including programs such as Distributive Education. The purpose of these studies would be focused upon the affective domain of teachers, employers, and parents as they effect the students' transition from school to work. These designs would more effectively control for extraneous variables which existed.

2. Studies be conducted to identify classroom techniques which were successful in preparing students for actual work experiences, early placement and/or initial employment. Several resources and time elements would be used to present the materials.

3. Studies to determine the effect of significant others, relative to student decisions to enroll in a Vocational program, occupational choice, and full-time employment after graduation from high school. What continuity exists among these decisions on the part of students and what effect have the attitudes of parents, relatives, teachers, peers, and employers on these decisions? Also is the selection process for students in Joint Vocational Schools different from the selection process as in similar programs in "comprehensive" high schools?

4. Studies to determine the relationship that exists between school systems' (Boards of Education) decisions to adopt new programs and the innovative attitudes of the administration, teachers, and the community.
1. The school where I am employed presently provides an early placement program. Yes ___ No ___

2. The program areas involved in the early placement program are:

   Agriculture
   ___ agr. mechanics
   ___ horticulture
   ___ diesel mechanics
   ___ other ________

   Home Economics
   ___ food service
   ___ other ________

   Business and Office
   ___ clerk typist
   ___ account clerk
   ___ secretary
   ___ other ________

   Trades and Industry
   ___ machine trades
   ___ graphic arts (painting)
   ___ commercial art
   ___ auto body
   ___ auto mechanics
   ___ electronics
   ___ electricity
   ___ welding
   ___ carpentry
   ___ appliance repair
   ___ dental assistant
   ___ drafting
   ___ other ________

   Health Services
   ___ nurse's aide
   ___ LPN
   ___ other ________

3. The school has been involved in an early placement program during the following years
   ___ 1968-70
   ___ 1969-70
   ___ 1970-71

   Follow-up information is available for participating students. Yes ___ No ___

4. The early placement program is conducted during the ____________
   ____________ months of the school year.

5. To the best of my knowledge, records and information concerning participants could and would be provided on request. Yes ___ No ___
APPENDIX B
November 24, 1972

Dear

Your class which graduated in 1972 from Joint Vocational School is being asked to provide some information relative to the Vocational Program just completed. I have discussed the need for these answers with Mr., of the school.

Many times we have heard of the economic emphasis placed on total employment. We have also heard there are very important reasons why the majority of people unemployed are in the 18-24 age group. The lack of help during the transition from school to work being one. The questionnaire and inventories attached are designed to assist with the understanding of problems associated with the transition from school to work. It is this investigator’s hope that some methodology can be discovered to assist youth in this transition. One such method may be the early placement program initiated in Ohio in 1969. To date no measure of effectiveness has been made for this program. The data you supply, whether your class was involved in early placement or not, will help to develop Vocational Education practices in the future.

All responses will be treated as confidential; in fact, names will be coded and discarded. We ask that you complete the questions and drop the answers in the mail within the next few days.

We thank you for your cooperation and please feel assured that your interests and participation will help in their transition from school to work.

"Happy Holidays"

Sincerely,

Ron Foreman
The Center for Vocational and Technical Education
QUESTIONNAIRE FOR FORMER STUDENTS
OF VOCATIONAL PROGRAMS

1. Name_______________________________________
2. Sex: Male___Female___
3. Present Address________________________________
4. Tel. No._______
5. The Senior Vocational Program provided an early placement experience whereby part of your school day was spent on the job?

__________Yes; Dates of Experience __________

__________No

6. Please list the names of employers after high school graduation to date. Identify them in order beginning with your present employer.

1. Name_______________________________________Date Employed_______
   Address_________________________________________

2. Name_______________________________________Date Employed_______
   Address_________________________________________

3. Name_______________________________________Date Employed_______
   Address_________________________________________

7. Please rate your Vocational Program in school on the extent it prepared you for changing from school to work. Check one box.

Very High | High | Average | Low | Very Low

8. Please rate your present desire to advance on the present job.

Check one box.

Very High | High | Average | Low | Very Low
9. Please identify any adjustments you recognize which were related to the first or succeeding jobs and state how the high school Vocational Program could have been improved to better prepare you for the job.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

10. In general most of my close friends in high school:
   ___ (A) Went to a vocational-technical school.
   ___ (B) Did not go to a vocational-technical school.
DIRECTIONS. Please mark each statement in the following way: if the statement describes how you usually feel, place an X in the parenthesis next to the statement "Like Me." If the statement often describes how you usually feel, indicate by marking "Often Like Me." If the statement seldom describes how you feel, place an X in the "Seldom Like Me" column. If the statement does not describe how you usually feel, place an X in the parenthesis next to the statement "Unlike Me." There are no right or wrong answers. Please answer the questions as rapidly and completely as possible.

EXAMPLE: I'm a hard worker.................................( ) ( ) ( ) ( )
1. I spend a lot of time daydreaming.................................( ) ( ) ( ) ( )
2. I'm pretty sure of myself.............................................( ) ( ) ( ) ( )
3. I often wish I were someone else...............................( ) ( ) ( ) ( )
4. Every time I plan to do something (make a plan), something goes wrong..............................................( ) ( ) ( ) ( )
5. I'm easy to like..............................................................( ) ( ) ( ) ( )
6. I wish I were younger.......................................................( ) ( ) ( ) ( )
7. There are lots of things about myself I'd change if I could...........................................................( ) ( ) ( ) ( )
8. I can make up my mind without too much trouble......( ) ( ) ( ) ( )
9. People enjoy being with me.............................................( ) ( ) ( ) ( )
10. I get upset easily at work.............................................( ) ( ) ( ) ( )
11. Luck decides most things that happen to me............( ) ( ) ( ) ( )
12. Someone has to tell me what to do............................( ) ( ) ( ) ( )
13. It takes a long time to get used to anything new.....( ) ( ) ( ) ( )

The basis for the inventory was established from Coppersmith's Self-Esteem Inventory. Minor modifications have been made to this instrument by the investigator to better satisfy the data needs.
14. I'm often sorry for the things I do
15. I'm popular with people my own age
16. My parents usually consider my feelings
17. I don't stick up for myself very much
18. I can usually take care of myself
19. I'm pretty happy
20. If I work hard, I can be what I want to be
21. My employers expect too much of me
22. I would rather work with people my own age
23. I understand myself
24. Things are all mixed up in my life
25. If I stick to something long enough, I can make it work
26. No one pays much attention to me at work
27. If I work hard, I can get a better job
28. I can make up my mind and stick to it
29. I have a low opinion of myself
30. I don't like to be with other people
31. There are many times when I'd like to leave my present job
32. I'm not as nice looking as most people
33. If I have something to say, I usually say it
34. Fellow workers pick on me very often
35. My parents understand me
<p>| | | | | |</p>
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</thead>
<tbody>
<tr>
<td>36.</td>
<td>There isn't much of a chance for a person like me to succeed in life.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>I get upset easily when I'm scolded.</td>
<td></td>
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<td>38.</td>
<td>I don't care what happens to me.</td>
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<td>39.</td>
<td>I usually feel as though my parents are pushing me.</td>
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<tr>
<td>40.</td>
<td>If I work hard, I'll be able to advance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.</td>
<td>If I work at something long enough, I will succeed.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>42.</td>
<td>I'm proud of my work.</td>
<td></td>
<td></td>
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<tr>
<td>43.</td>
<td>I'm doing the best work I can.</td>
<td></td>
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<tr>
<td>44.</td>
<td>I like to be recognized for good work.</td>
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<tr>
<td>45.</td>
<td>I often feel upset at work.</td>
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<tr>
<td>46.</td>
<td>My employer makes me feel I'm not good enough.</td>
<td></td>
<td></td>
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<tr>
<td>47.</td>
<td>I often get discouraged.</td>
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</tbody>
</table>
INSTRUCTIONS: These statements are to help you describe yourself. Please answer them as if you were describing yourself. Do not omit any item! Read each statement carefully; then select one of the following answers, and next record the number that represents that particular answer in the blank space at the end of that statement.

RESPONSES: Completely True Mostly True Partly True Mostly False Completely False

Number 5 4 3 2 1

1. I am usually eager to go to work. 
2. I never ask the boss to explain something again. 
3. I try to change when I know I'm doing things wrong. 
4. I get the required work done, but I don't do extra work. 
5. I would rather do well than poorly at work. 
6. Once in a while I put off until tomorrow what I should do today. 
7. I become discouraged easily at work. 
8. I do things without being told several times. 
9. I am satisfied to be just what I am. 
10. I like jobs which give me responsibility. 
11. I like to start work on new things. 
12. I cannot remember directions for doing things. 
13. I do well when I work alone. 
14. I am able to get my work done on time. 
15. I have difficulties deciding priorities. 
16. I do my share of work. 
17. I give up if I don't understand something. 
18. I try to be careful about my work. 
19. I get tense when I'm called on by the boss.
| Number | 20. I do things without thinking. | 21. I have trouble deciding what is right. | 22. I find it hard to remember things. | 23. I think clearly about my work. | 24. I can tell the differences between important and unimportant things. | 25. I do poorly when the boss is watching me work. | 26. I change my mind a lot. | 27. I feel good about my work. | 28. I do not understand what is going on at work. | 29. I solve problems quite easily. | 30. I can figure out problems for myself. | 31. I know the answer before a complete explanation is given. | 32. I can usually see the sense in others' suggestions. | 33. I find it easy to get along with fellow workers. | 34. I enjoy being part of the group without taking the lead. | 35. I take an active part in group projects and activities. | 36. I try to understand the other fellow's point of view. | 37. I am an important person to my fellow workers. | 38. I am not interested in what my fellow workers do. | 39. I find it hard to talk with my fellow workers. | 40. I feel out of things at work. |
APPENDIX F
December 26, 1972

Dear Mr. Employer,

The records from Hayes Technical school indicate that two students have worked or are presently working for your company.

I am presently conducting a research study of students' problems involving the transition from school to work. The attached questions will provide assistance in hopefully solving some of these problems by improving vocational programs. A very limited number of employers over the state have been asked to provide information making your answers very important to any decisions.

We thank you in advance for your cooperation and hope to hear from you very soon. A self-addressed envelope is provided for your convenience.

Sincerely,

Ron Foreman
The Center for Vocational and Technical Education
QUESTIONNAIRES FOR EMPLOYERS OF FORMER
STUDENTS OF VOCATIONAL PROGRAMS

1. Name ____________________________________________
   Last   First   Middle

2. Business Name ____________________________________________

3. Business Address _________________________________________ Zip _____

4. Telephone Number ____________________________________________

5. Name of High School Graduate Employed (Full-Time)

6. Date Employed ______ Sex of Employee: Male ____ Female ____

7. Was the student(s) identified above employed on a part-time basis
   prior to his or her graduation from High School?
   Yes ____ Period of time ____________________ Date From/Date To
   No ____

8. The employee has been absent from work during the period of full-
   employment:
   _____ 0-5 Times
   _____ 6-10 Times
   _____ 11-15 Times
   _____ Over 15 Times

9. The employee has been tardy from work during the period of full-
   employment:
   _____ 0-5 Times
   _____ 6-10 Times
   _____ 11-15 Times
   _____ Over 15 Times
10. Please rate the new employee on adherence to safety and other special regulations through your management considering the number of accidents recorded. Check one box.

| Very High | High | Average | Low | Very Low |

11. The new employee has been extended opportunities to earn more money (overtime or promotion)

- 0 Times
- 1 Time
- 2 Times
- 3 Times
- 4 Times
- Specify number if more

and accepted the opportunity:

- 0 Times
- 1 Time
- 2 Times
- 3 Times
- 4 Times
- Specify number if more

12. Please rank the new employee on his or her desire to advance on the job. Check one box.

| Very High | High | Average | Low | Very Low |

13. Please rate the new employee on his or her ability to adjust to new work experience. Check one box.

| Very High | High | Average | Low | Very Low |

14. Briefly describe ways whereby the school may be of greater assistance in preparing a new employee for job adjustment and transition from school to the job.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
January 4, 1973

Dear Mr. Ducas,

Last November I visited your school to collect data for a study of transition from school to work for students in Vocational Programs. From this data questionnaires were mailed to the students representing the Vocational Unit selected in your school. The goal I have set for response rate is 80 percent. The present response in your school is 0 percent; consequently, I am asking for some help.

Following is a list of students and telephone numbers which have not responded:

Darl Hann 962-3513
Alan Childs 962-4089
Victor Hart 984-2931
Ed Haines 962-4464

Would you or a member of the staff call these students and ask if they would return the questionnaire to me. I have enclosed a supply of questionnaires and return envelopes for those students that misplaced the initial ones. I feel their response may be better if the request came from the school.

I wish to thank you for this cooperation and hope I may return the favor.

Sincerely,

Ron Foreman
January 4, 1973

Dear Mr. Eckler,

Last November I visited your school to collect data for a study of transition from school to work for students in Vocational Programs. From this data questionnaires were mailed to the students representing the Vocational Unit selected in your school. The goal I have set for response rate is 80 percent. The present response in your school is 38 percent; consequently, I am asking for some help.

Following is a list of students and telephone numbers which have not responded:

Julie Dubbert
Doris Grabbe
Marla Collins
Margaret Frank
Richard Doney
Richard Martin
John Loftz
Harold Sommers
Lorene Musick
Martha Keller
Patri Jansen
Jo Ann Harris
Dianna Hale
Mary Selner
Sheila Wilkins
Robert German

Would you or a member of the staff call these students and ask if they would return the questionnaire to me. I have enclosed a supply of questionnaires and return envelopes for those students that misplaced the initial ones. I feel their response may be better if the request came from the school.

I wish to thank you for this cooperation and hope I may return the favor.

Sincerely,

Ron Foreman
January 4, 1973

Dear Mr. Rose,

Last November I visited your school to collect data for a study of transition from school to work for students in Vocational Programs. From this data questionnaires were mailed to the students representing the Vocational Unit selected in your school. The goal I have set for response rate is 80 percent. The present response in your school is 37 percent; consequently, I am asking for some help.

Following is a list of students and telephone numbers which have not responded:

- David Arnold 374-7227
- Mike Brown 373-0270
- Danny Duffy 373-9825
- Dael Maxon 373-9609
- Ronald Price 373-2804
- Clyde Weekly 373-4829

Would you or a member of the staff call these students and ask if they would return the questionnaire to me. I have enclosed a supply of questionnaires and return envelopes for those students that misplaced the initial ones. I feel their response may be better if the request came from the school.

I wish to thank you for this cooperation and hope I may return the favor.

Sincerely,

Ron Foreman
January 4, 1973

Dear Mr. Bailey,

Last November I visited your school to collect data for a study of transition from school to work for students in Vocational Programs. From this data questionnaires were mailed to the students representing the Vocational Unit selected in your school. The goal I have set for response rate is 80 percent. The present response in your school is 50 percent; consequently, I am asking for some help.

Following is a list of students and telephone numbers which have not responded:

Dwight Glover 399-1394
JoAnn Guisinger 399-2152
Celia Hileman 325-2974
Wayne Martin 390-0398
Steve Page 322-7920
Randy Sharp 864-7468
D. Shipley 399-2901
Nina Wood 323-3096

Would you or a member of the staff call these students and ask if they would return the questionnaire to me. I have enclosed a supply of questionnaires and return envelopes for those students that misplaced the initial ones. I feel their response may be better if the request came from the school.

I wish to thank you for this cooperation and hope I may return the favor.

Sincerely,

Ron Foreman
January 4, 1973

Dear Mr. Cornett,

Last November I visited your school to collect data for a study of transition from school to work for students in Vocational Programs. From this data questionnaires were mailed to the students representing the Vocational Unit selected in your school. The goal I have set for response rate is 80 percent. The present response in your school is 47 percent; consequently, I am asking for some help.

Following is a list of students which have not responded.

Kenneth Moser
Thomas Montz
Tim Rhoades
Mark Robinson
Dick Sintobin
Wayne Sowers
Michael Stark

Would you or a member of the staff call these students and ask if they would return the questionnaire to me. I have enclosed a supply of questionnaires and return envelopes for those students that misplaced the initial ones. I feel their response may be better if the request came from the school.

I wish to thank you for this cooperation and hope I may return the favor.

Sincerely,

Ron Foreman
TELEPHONE SCRIPT

Introduction: Name and status as a graduate student.

John, I am presently conducting a study with respect to the
problems Vocational students experience when entering initial job
placement. A random sample of classroom units was taken from the
State of Ohio and your class was selected. I will be sending you
a questionnaire in the next few days so that your responses can
be added to others in the State. The questionnaire is in three
parts. We ask that you complete all three parts. Your responses
may help other students in the future. Will you complete the
questionnaire when it arrives?

Complimentary Closing.
### Factor Loadings for Attitude Scale

**Verimax Factors of B**

<table>
<thead>
<tr>
<th>POSITION</th>
<th>LABEL</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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