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THIS DISSERTATION HAS BEEN MICROFILMED EXACTLY AS RECEIVED
AN INVESTIGATION OF FACTORS ESSENTIAL TO SELECTING
AND PREPARING ON-THE-JOB TRAINERS FOR A POST
SECONDARY COOPERATIVE VOCATIONAL-TECHNICAL
EDUCATION PROGRAM

DISSERTATION

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

By

Roger John Wilson, B.S., M.S.

The Ohio State University
1970

Approved by

[Signature]
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CHAPTER I

INTRODUCTION

As a technique for preparing people for the world of work, the cooperative part-time program has perhaps been the most successful model ever developed in vocational-technical education [p. 47].

Mary P. Allen (1968)
Director of Public Information
American Vocational Association

The concept of cooperative education in vocational and technical education is certainly not new. However, recent trends in the world of work and in education provide compelling reasons for "sharpening" our concepts and broadening our perspective and application of this methodology to more occupational training areas and to different levels of preparation [p. iii].

Robert E. Taylor (1967), Director
The Center for Vocational and Technical Education

Business and industry are enthusiastic about cooperative education. Employers of cooperative students observe that the plan provides an economical and successful means of recruiting able students as permanent employees. They further observe that the cooperative employment experience contributes to the students understanding and appreciation of the nature of the working world, and to the demands and expectations of employers. The opinion of these employers (and also cooperative faculties) is that cooperative work experience contributes substantially to the students development of mature judgment. Employers recommend a wider adoption of the cooperative system by institutions of higher learning [p. 156].

James W. Wilson
Executive Director and
Edward H. Lyons (1961)
Associate Director
Committee of the Study
of Cooperative Education
The part-time cooperative plan is undoubtedly the best program we have in vocational education. It consistently yields high placement records, high employment stability, and high job satisfaction [p. 41].

Vocational Education: The Bridge Between Man and His Work

For many years cooperative education has existed as an exciting educational force. However, it has been one which seemingly was never fully understood, was never well-known, and which until lately exhibited a slow rate of growth. The past five years has been a period in which the growth has greatly accelerated as the number of collegiate institutions offering cooperative programs has grown...[p. 3].

S. B. Collins (1968)
Executive Secretary
Drexel Institute of Technology

The value of cooperative education in occupational preparation and personal development is rapidly being adopted as an integral part of the curricula in colleges, universities, junior colleges, and high schools. Yet cooperative education is available to a very small percentage of the students who want and need this type of training.

According to the National Advisory Council on Vocational Education, "Cooperative education had the best record of all vocational education programs in terms of the preparation of students placed in occupations for which they were trained [p. 41]."

Roman C. Pucinski (1969)
Congressional Representative
State of Illinois

These timely statements, and the needs they underscore, are reflected in the Vocational Education Amendments of 1968 (P.L. 90-576, p. 23). The Congress of the United States, in finding that cooperative education programs offer many advantages in preparing young people for employment, has included "Part G - Cooperative Vocational Education Programs" as a part of that Act.
The Act, as it was signed into law by President Lyndon B. Johnson on October 16, 1968, provides for Part G alone; an authorization of 20 million dollars for the first fiscal year ending June 30, 1969, with increased authorization each year until 75 million is reached in 1972.

The mere fact provisions were made for cooperative vocational education as a separate part of the Act, with non-commingling funds, is evidence Congress expects educators to develop new programs which will extend, expand, and improve this unique type of vocational education. This intent is further strengthened by the knowledge that general funds can also be used as an additional source of revenue for supporting cooperative vocational education programs. Representative Pucinski (1969), speaking at the National Conference on Cooperative Vocational Education, stated

Congress earmarked these Federal funds as an inducement to school districts to initiate or expand vocational cooperative programs, especially in the new and emerging job fields.

But before I describe the principal provisions of this section, let me emphasize that in creating a separate authorization Congress did not intend to preclude funding of such programs under the general authorization of funds.

In other words, under the Amendments school districts may use both these earmarked funds and the general Federal funds for cooperative programs [p. 8].

If new cooperative education programs are developed, and the law of the land certainly intends that they shall be developed; how can the vocational-technical education leaders ensure the quality of these new and enlarged programs? Since students enrolled in a post secondary cooperative education program are usually scheduled away
from the school in business or industry on alternate quarters; how can
the public be assured of the vocational integrity of this phase of
practical instruction?

Who will assign the on-the-job instructors? What qualifications and characteristics will the on-the-job instructor need? What training will be given on-the-job trainers to prepare them for their new tasks as teachers?

In 1967, Mary V. Marks, Program Specialist, U.S. Office of Education, gave the following account of the general practice of selecting and preparing the on-the-job trainer:

Usually employers name experienced employees as training sponsors [on-the-job trainer]—those who have demonstrated their ability to give leadership to other workers. However, in some cases, the person designated feels inadequate in his new assignment. This is a serious impediment to desired standards for cooperative education. Experience has shown us that training sponsors will be effective as "downtown teachers" to the degree that they have the ability to train and supervise.

There is in operation in some states what has been called the "Sponsor Development Program." It ties in with the regular adult education offerings. Employers refer their training sponsors to a series of classes conducted by teacher-coordinators. The principles and techniques of what many of us know as JIT (Job Instructor Training) and JRT (Job Relations Training) are explored in terms of the purposes of cooperative education. In addition, monthly breakfast meetings are sometimes scheduled so that successes and problems may be aired and sponsor skill recognized and strengthened. This planned program for training sponsors seems to be a technique deserving of further study and evaluation [p. 188]. (Italics added)

Problem Statement

After more than sixty years of dedicated trial and error operation the values of cooperative education are becoming well documented. As a result, this technique of vocational-technical
education is emerging on a period of rapid growth. However, little has been done to solve the problems cited which relate to student practical instruction away from the classroom in school.

This study, therefore, was concerned with the important problem of selecting and preparing on-the-job trainers who will be responsible for the on-the-job training of student learners while they are employed with a cooperating employer.

The research in this investigation concentrated primarily on two questions:

1. What are the criteria for selecting the on-the-job trainer?
2. What type of training or preparation is given to selected on-the-job trainers before they are assigned to student-learners?

Limits of the Study

Since cooperative vocational-technical education is not limited to any single service area, there was no attempt to delimit the study in this regard. The study included as many programs as possible in the various service areas so as to present a comprehensive survey. However, to keep the study manageable the programs surveyed were limited to a sample representation of the two-year post secondary educational institutions.

Steps in the Study

In order to gain a solid foundation for determining the factors essential to selecting and preparing the on-the-job trainers for a post
secondary cooperative vocational-technical education program, it was necessary to search for those techniques and philosophies which have proven successful in the past. In addition, it was necessary to uncover some of the problems which have hindered the full development of these programs.

The study included a review of related literature along with several personal interviews in the field. It sought information from persons involved with a selected sample of cooperative vocational-technical education programs. Interviews were held with teacher-coordinators and representatives of cooperating employers which provide training stations for student learners.

The steps of the study were as follows:

1. The first step of the research study was a review of the related literature to determine the historical background and progress made in cooperative vocational-technical education during the past sixty years. Special attention was given to writings related to on-the-job training aspects of a cooperative education program.

2. The review of literature was used to select nine two-year college level institutions offering cooperative vocational-technical education programs to be used as the study sample.

3. Visitations were made to each of the sample institutions for the purpose of making personal contact with the teacher-coordinators and representatives of employers cooperating with the schools' educational program.

Interviews with teacher-coordinators were aided by a guide intended to focus attention on the problems of the study. The guided
interviews permitted comparisons of data collected from teacher-coordinators in the sample.

Similar interviews were held with cooperating employer representatives. This technique provided a validation of the successes and problem areas encountered at each of the sample institutions.

4. The final step of the study was the sorting and examining of the data collected during the visitations to the sample institutions. After an evaluation of the findings, conclusions were prepared which provide suggestions for further study which are needed to improve the method of selection and preparation of the on-the-job trainer and the employment period of the student-learner.

Need for the Study

Congress acted swiftly and positively on the recommendations of the Advisory Council on Vocational Education (1968). The report was transmitted by Dr. Martin W. Essex to John W. Gardner, Secretary of Health, Education and Welfare, on December 11, 1967. In less than one year, on October 16, 1968, the Vocational Education Amendments of 1968 were signed into law by the President of the United States.

The urgency of the Council’s recommendations and the quickness with which the Congress reacted can be considered a National mandate to vocational-technical educators to move swiftly into high gear in an effort to expand and improve vocational-technical education programs; to correct the National student drop-out problem; and to break down the devastating welfare and unemployment syndrome that our industrial society has brought about.
In addition, in its effort to keep in closer contact with developments in vocational-technical education, Congress has stipulated (P.L. 90-576, p. 3) that the National Advisory Council on Vocational Education shall be enlarged from twelve members to twenty-one members and shall make annual reports of its findings and recommendations rather than reporting each five-year period.

It now becomes apparent that vocational-technical educators must not only respond with equal haste in developing and expanding new programs, but they must also provide assurances that these programs are dynamic and above reproach regarding their quality and objectives.

The significance of cooperative vocational education as a technique for accomplishing our National educational goals can be judged from the size of the authorization of earmarked funds for "Part G" of the 1968 Amendments.

Further importance for developing cooperative vocational education was summed up by Huffman (1969) when he stated:

Cooperative education is perhaps our most promising hope for a substantial increase in vocational education at the secondary level—education in which meaningful work experience and classroom instruction are combined to develop well-adjusted, competent adults that can take their places in the community [p. 18].

There is an implication in Huffman's statement which must not go unnoticed and bears repeating. He stated, "... education in which meaningful work experience and classroom instruction are combined..." This is the basic foundation of cooperative education and the success or failure of a program can often be attributed to the on-the-job training portion of the program. The mere fact that the student is away from the school building and is in a position of gainful
Swenson (1969) describes the situation as follows:

In a sense, since they are directly involved in the education of students, cooperating employers and on-the-job instructors become a part of the school faculty. To function properly in this role, they must have a professional attitude. It might in fact be a good idea for the teacher-coordinator to offer special classes for the on-the-job instructor. Specific topics could be covered--such as objectives of the program, how to work with students, methods of giving demonstrations, etc. . . . These classes would also be one more way of bringing the school and cooperating firm into a closer relationship [p. 22].

Instruction being given to the on-the-job trainer is more than just a "good idea", it should be a prime responsibility of the coordinator. When an institution entrusts one of its students to an individual for a period of two or three academic quarters out of the program, there must be some assurance that this person has been properly selected and prepared to give instruction. If the coordinator fails in these tasks, the student is subject to exploitation and the integrity of the program is in jeopardy.

Vocational educators appear to be confronted with the paradox of realizing that the strength of a cooperative vocational education program is dependent upon good work stations and good instruction in industry, while at the same time understanding they have done relatively little in preparation for working with industry to develop good work stations and good on-the-job trainers.

When one realizes that it may require one work station and one on-the-job trainer for each student, it is easy to understand the scope of the problem--the task is difficult and time consuming.
By making a thorough study of the problems encountered by teacher-coordinators and cooperating employers in selecting and preparing on-the-job trainers in the past, this dissertation will make recommendations for improving school-industrial relations for the purpose of strengthening the on-the-job portion of the cooperative education program.

Definition of Terms

Terms that will be frequently used and have considerable bearing on the research and findings of this dissertation are defined. Deviations—synonyms and colloquialisms—found in the literature and interviews will be properly noted within the text of the study.

Cooperating Employer - (Cooperating Firm)

—an industrial plant, business office, service facility, medical or dental laboratory, or care center that has entered into an agreement with an educational institution to provide on-the-job training for one or more student-learners enrolled in a cooperative vocational education program.

Cooperative Education

—a program for persons who are enrolled in a school and who, through a cooperative arrangement between the school and employers, receive part-time vocational instruction in the school and on-the-job training through part-time employment. It provides for alternation of study in school with a job in industry or business, the two experiences being planned and supervised by school and employer so that each contributes definitely to the student's development in his chosen occupation. Work periods and school attendance may be on alternate days, weeks, or other periods of time, but the hours at work
are during the school day and equal or exceed the hours spent in school during the regular school year. This plan of training is used extensively in various phases of vocational education [AVA Definitions, p. 6].

Coordinator (cooperative education)

--a member of the school staff responsible for administering the school program and resolving all problems that arise between the school regulations and the on-the-job activities of the employed student. The coordinator acts as liaison between the school and employers in programs of cooperative education or other part-time job training [AVA Definitions, p. 6].

On-the-job Trainer

--an experienced, full-time employee of the cooperating firm who has been selected and prepared for the responsibility of providing on-the-job training to a student learner.

On-the-job Training

--the orientation, job instruction, and work supervision furnished to a student-learner while employed part-time by a cooperating firm.

Student Learner (student worker)

--a member of a high school cooperative education program legally employed as a part-time worker and so classified by the Wage and Hour and Public Contracts Division of the U.S. Department of Labor for wage and hour regulation purposes [AVA Definitions, p. 18].

Vocational-Technical Education

--a post-high school program aimed at the preparation of students for entry into career positions as para-professionals where success is dependent upon technical skills and knowledge as they apply to design, production, distribution, and/or service in the areas of
agriculture, business, distribution, health, trades and industry, and wage-earning home economics. The program does not lead to a bacca-
laureate degree.

Work Experience

—a general education term used to identify the part-time employment of a student in which the objective is to establish work attitudes rather than acquire job skills.

Work Study

—a term used to identify a student's part-time employment which has the objective of providing funds so that he can remain in school. The skills learned are not necessarily related to the student's vocational objectives.

Plan of the Report

Background of the problem being investigated for the disserta-
tion is presented in Chapter I. It provides an introduction to the need for investigating the factors essential to selecting and preparing on-the-job trainers for a post secondary cooperative vocational-technical education program. The problem of the study is clearly stated. Also, the limits of the study and the steps to be followed are identified. The need for the study and a definition of terms unique to cooperative vocational-technical education conclude the chapter.

The second chapter provides a review of the literature and research related to the problem. It traces the history of cooperative
education including the theory, philosophy, and practices of cooperative vocational-technical education as viewed by teacher educators and practicing teacher-coordinators for the past sixty years. Content of this chapter provides the guidelines for pre-planning the interviews used to gather data related to the present day practices of on-the-job trainer selection and preparation used by the study sample institutions.

The methodology of the study is outlined in Chapter III. It provides the details on the selection of the sample schools and the visitations to the teacher-coordinators and the cooperating employers.

Chapter IV presents the results of the survey. The data collected in the thirty interviews conducted in the field are sorted into six sections for facilitating the analysis. Because of the nature of the data collected the details of the interviews are reported in narrative form.

The final chapter provides a summary of the report with conclusions and recommendations for assisting teacher-coordinators overcome some of the problems that seem to be prevalent in the field. In addition, there will be suggestions for further study and exploration which appear necessary to improve the selection and preparation of on-the-job trainers.
CHAPTER II

REVIEW OF RELATED LITERATURE

Before any attempt can be made in the investigation of factors essential to selecting and preparing on-the-job trainers for a post secondary cooperative vocational-technical education program, it is necessary to understand the concept and objectives of Cooperative Education. Therefore, it becomes the purpose of the "Review of Related Literature" to trace the theory, philosophy, and practices of cooperative vocational-technical education during the past sixty years, and to identify the educational needs of the student which can be best served by on-the-job training experiences.

Origin and Growth of Cooperative Education

The former President of the University of Cincinnati, Raymond Walters (Schneider, 1935), referred to Herman Schneider as "the man who is the fons et origo [source and origin] of the cooperative system, the man who not only created but has for thirty years administered it" [p. 7].

On February 28, 1956, during the 50th Anniversary of the Cincinnati Co-operative System, the University of Cincinnati (1956) was honored by a telegram from the President of the United States, Dwight D. Eisenhower, which read in part:

To all associated with the University of Cincinnati I extend congratulations on its commemoration of the establishment
fifty years ago of the nation's first program of co-operative education in technological and related fields [p. vi].

Today, as one visits the campus of the University of Cincinnati and passes through the Herman Schneider Quadrangle, it is possible to pause and reflect upon the impact this one man has had on technical education. On the memorial structure dedicated to this educational pioneer is inscribed the following words:

IN TRIBUTE TO THE ORIGINATOR OF CO-OPERATIVE EDUCATION
1906

Joining Theory and Practice
Linking Education and Industry
Through Knowledge and Experience

THE HERMAN SCHNEIDER FOUNDATION
1956

Creation of Cooperative Education

In order to understand the true concept of cooperative education and the energy which one man devoted to developing this unique educational technique, it is necessary to review the documented writings of Clyde William Park, English Professor and colleague of Herman Schneider at the University of Cincinnati.

Dr. Walter C. Langsam (University of Cincinnati, 1956), President of the University of Cincinnati, gave credit to Professor Park for the documentation of Schneider's contribution to education during the dedication of the Quadrangle and celebration of the 50th Anniversary of Cooperative Education.

First, a word of thanks to Professor Park who was a beloved member of our faculty from 1907 to 1945, at which time he became Professor Emeritus of English. It is to him that we owe most of our documented knowledge of the career and
contributions of the late and revered Herman Schneider. Among his many publications, Professor Park, I am sure, values most highly his interesting, thoughtful, and useful volume entitled Ambassador to Industry—The Idea and Life of Herman Schneider [p. 51].

Park's Ambassador to Industry (1943), is a biography of the man who dedicated himself to teaching and the revolutionary idea of cooperative education which he felt would prepare his students to bridge the gap between school and employment. Park states, "Schneider believed in this doctrine so firmly that he spent the greater part of his lifetime in establishing it [p. 13]."

The "Forward" of Park's book is written by Charles F. Kettering; a great inventor and industrial leader. Kettering writes:

In the long years of technical education and the development of industry which it was designed to serve, we had reached a point where there was a great difference between the viewpoints of the young man graduating from a university and his employers who expected something constructive of him in promoting the interest of the business.

Dean Schneider, so far as I know, was the first man who considered that fact seriously and did something about it. In other words, he said, "If that is the case, why not have the young man divide his time between his schoolwork and a job in industry? Such a program will allow him to blend his point of view gained in school with that of his employer in industry [p. 11]."

According to Park (1943, p. 37), the unique idea of cooperative education was conceived by Schneider in 1899, shortly after he left his work as a bridge construction engineer with the Oregon Short Line Railroad to assume the position of Instructor of Bridge Construction at Lehigh University. However, he failed to convince his conservative colleagues at Lehigh on the merits of his idea, "... and his inspired notions of a working partnership between college and industry classified him as a rather visionary young man [p. 45]."
For an institution as orthodox as Lehigh University to be associated with the names of three widely known "radicals" in educational thinking is perhaps a bit remarkable. The names of Herman Schneider, William S. Franklin and more recently, Max McConn all stand for a challenge to tradition and for a fundamental reconsideration of educational aims and methods [Park, 1943, p. 41].

Schneider was undoubtedly disappointed and sensitive to ridicule, and resented a patronizing attitude from either his colleagues or his industrial contacts. However, being intelligent he realized that a radical departure in education could not be brought about overnight. Constructive criticism, he felt, was important, because many kinks still had to be ironed out before a workable scheme was produced.

Park (1943) tells us:

During the fall of 1901 and much of the following winter, the young instructor gave his spare time to the detailed planning of a special kind of engineering training that he believed should be adopted. By this time he was thinking in terms of a new kind of institution, organized from the start to operate on his plan. He no longer made any serious effort to get his scheme adopted at Lehigh, and he questioned whether any other college would be likely to engraft it upon a department that was already settled and well established [p. 51].

S. B. Collins (1968), Executive Secretary of Drexel Institute of Technology, further describes Schneider's concept of cooperative education:

In Dean Schneider's concept of cooperative education, it seemed very important to him to weld theory and practice. A student could learn about a piece of equipment from a textbook. He could inspect and observe its operation in a school shop. But the tool he operated in an industrial plant was not an isolated piece of shop equipment or a working model. It was a unit of manufacturing equipment and its operation was a phase of production. The machine in industrial use suggested to an inquiring mind many technical and operating questions, which the student brought back to college as part of his "work report [p. 7]."
Henry H. Armsby (1954) adds the following description of the human aspects of cooperative education:

There were also human interest aspects to the co-op's outside contacts which could not be reduced so readily to questions and answers, but which had no less appeal to his curiosity than the more strictly technical problems. To meet and work with men under varied and unpredictable conditions, to get along with them, learn from them, and to command their respect, these were more than incidental phases of the co-op training, even though they may have been considered by-products of his practical work [p. 14].

When Schneider was given the opportunity of becoming Associate Professor of Civil Engineering at the University of Cincinnati in 1903, he accepted. He was excited about the city because it was radical enough to build its own railroad and university, and it had more than thirty machine tool factories (Park, 1943, p. 62).

Park (1916), in an earlier writing about the cooperative system, describes the delay encountered during the first few years at the University of Cincinnati in getting the program started:

During the first year (1903-4), the retirement of the president precluded the submission of plans for the new course. The plan was presented to President Dobney soon after his appointment (in 1904), but because of the pressure of regular business he was unable for some time to consider any changes. In the fall of 1905, President Dobney approved the plan and presented it to the board of directors. After considerable discussion, the board authorized the introduction of the cooperative course on a small scale, to begin with the school year 1906-7 [p. 9].

Armsby (1954) gives the following details of the start of the first cooperative education program:

The first students under the cooperative system, in September 1906, started work on the basis of a simple agreement by which they were admitted to the plants of the companies concerned for practical instruction and to the classes of the University of Cincinnati for theoretical instruction. The student agreed to abide by the rules of
both the industry and university, and the student's father agreed to be responsible for the faithful fulfillment of the agreement [p. 5].

It must be noted that even in its conception cooperative education utilized an "agreement" for the coordination of the student's practical instruction with a cooperating employer and the theoretical instruction in the classroom. This technique has become standard practice for the coordination of cooperative education programs and is discussed in detail on page 42. The "agreement" also gives some insight into the detail with which the first program was planned and adds to the confusion of the researcher as to why Schneider apparently did not present, as a part of his plan, the details for involving the university in the selection of the man in industry who was to act as the on-the-job trainer. The lack of this detail is discussed later.

Growth of Cooperative Education in Colleges and Universities

Since 1906, when the University of Cincinnati started their first small scale program, the growth of cooperative education in the degree granting institutions has been steady, but not phenomenal. Its growth rate is probably due to the fact that cooperative education programs are difficult to start. Not only must they have the full support of the administration and the academic departments, but they must also have the cooperation of other offices within the institution.

Although some institutions are apparently skeptical with regard to a cooperative education program's academic respectability, those that have developed these programs support them fully. Raymond Walters
(Schneider, 1935), a former President of the University of Cincinnati, expressed this opinion:

There is one point I wish to stress: the cooperative system as devised by Dean Schneider and as put into practice by the Engineering and Commerce Faculty is in full accord with the ideal of a true university. Theory comes first, both as to emphasis, and as to time order. The cooperative student learns his theory in class; he obtains the demonstration of it in the laboratory—which is his alternating job in industry or business [p. 7].

Kettering (Park, 1943) adds to this by saying, "It seems to me that cooperative education is such a logical thing, once we view it from a distance, that we can hardly imagine its being a difficult movement to start [p. 12]."

The second baccalaureate institution to develop a cooperative education program, according to Roy L. Wooldridge (1964, p. 7), was Boston's Northeastern University, in 1909. Armsby (1950, p. 7) identifies the next group of four-year institutions to initiate cooperative education as, University of Pittsburgh (1910); University of Detroit (1911); Georgia Institute of Technology (1912); University of Akron (1914); Drexel Institute of Technology (1919); Massachusetts Institute of Technology (1919); and Antioch College (1921). The first colleges to develop the cooperative programs were naturally concerned with engineering; there was a leader to follow. The first school to develop a program not related to engineering was another Ohio institution—Antioch College (Wooldridge, 1964).

Nationally, the largest number of cooperative students is in engineering (about one-fifth of the engineers graduating each year in the U.S. have participated in such a program), and the second largest group of cooperative students is in business administration. The first use of cooperative education in the liberal arts was at Antioch College in Yellow Springs, Ohio starting in 1921 [p. 7].
Institutional growth is described by Collins (1968) as occurring in three phases.

- 1906 - 1942: 20 institutions in 36 years
- 1943 - 1962: 50 institutions in 20 years
- 1963 - 1968: 50 institutions in 6 years [p. 5].

"Twenty-one of the colleges have extended the program into the level of the master's degree and two are even extended to the doctorate [p. 12]." The two doctorate programs are at the University of California and the University of Texas.

The original number of twenty-seven students in 1906, has grown to over 37,694 in 1966-67, as shown in the latest summary by the Cooperative Education Association (CEA) and reported by Collins (1968).

"This is by no means the number of identified students, as these figures do not include a large number of freshmen committed to cooperative programs, but who have not yet reached the 'co-oping' state [p. 14]."

In addition, an examination of the school questionnaires received by the CEA reveals ninety-eight fields involved with cooperative education.

The 1961 publication of Wilson and Lyons, Work-Study College Programs (which is an appraisal and report of the study of cooperative education), and the 1963 Increase in collegiate institutions offering cooperative education programs is probably more than just a coincidence when one considers the summary of the report. "In conclusion, the committee's judgment can be summarized as follows: Cooperative education has important values for colleges and universities, for students and employers. These values should be given wide publicity and cooperative programs in American higher education should be greatly extended [p. 14]."
Growth of Cooperative Education in High Schools

There is a general misconception that high school cooperative education started in the south almost twenty-five years after the first cooperative program was established at the University of Cincinnati.

It is possible that there has been a misinterpretation of the "Preface" to Training High-School Youth for Employment by C. E. Rakestraw (1948). In writing the "Preface" C. A. Prosser, former Director of Dunwoody Industrial Institute, states:

The author has been a pioneer and leader in the establishment and development of diversified occupations training. Twelve years ago, as regional agent for vocational education in the southern states, he called together a meeting at Biloxi, Mississippi, July, 1933, for the purpose of developing such a program as described within the pages of this book [p. vii].

The State Department of Education, Tallahassee, Florida, however, has perpetuated the misunderstanding with the following contribution:

The actual origin of the idea of Diversified Cooperative Training is contradictory. Some say the idea originated from the Rakestraw meeting in Mississippi, and others say the idea originated on the return trip from Mississippi to Jacksonville, Florida. Regardless of the actual place of conception of the idea of DCT, Florida instituted the program in Jacksonville and the idea spread to almost every state in the Union. It now has many different titles such as: DO (Diversified Occupations); DCT (Diversified Cooperative Training); DE (Distributive Education); CVE (Cooperative Vocational Education); and CBE (Cooperative Business Education). Regardless of the title, it still is a basic cooperative plan between the school and community to train high school boys and girls on the job (C. L. Lowman, 1963, p. 7).

As can be seen by the numerous titles given to cooperative education in the high school, there is some justification as to why
there is confusion. It is possible that the title "Diversified Cooperative Training" was used for the first time in the south, because prior to this date the literature simply refers to "cooperative education" or the "cooperative system". In addition, due credit must be given to Rakestraw as a leader in high school cooperative education and to the influence of his book in stimulating the growth of this type of vocational education programs.

As early as 1922, however, the Federal Board of Vocational Education, had issued Bulletin No. 78, Part-time Cooperative Courses, written by C. F. Klinefelter. On the cover is written, "Suggestions for the information of administrators and teachers interested in the organization of cooperative courses, the duties and responsibilities of the coordinators, and the organization of a curriculum." J. C. Wright, Director of the Executive Staff, prepared the "Forward" in which he wrote:

This bulletin, prepared under the direction of Mr. Frank Cushman, Chief, Industrial Education, by Mr. C. F. Klinefelter, regional agent for industrial education for the Central States, is based upon the experience of Mr. Klinefelter in part-time cooperative work in Ohio, where he assisted in pioneering work, both as a coordinator and in state supervision.

As the cooperative part-time plan represents a special phase of vocational education in which considerable interest has been manifested, and has a wide application throughout the country, it has been deemed advisable to publish this bulletin to satisfy a constant demand for information on the organization and problems of such courses [p. 5].

While there is no mention of the Ohio school district in which Klinefelter was employed as coordinator, it is known that Schneider, in cooperation with Dr. Frank B. Dyer, Superintendent of Schools, and Mr. B. B. Quillen who represented the manufacturers in Cincinnati,
developed a program in which employed boys continued their education during half of each day on company time (Park, 1943, p. 134).

Schnoider also gave assistance to high schools in other states. "He felt that the public schools, especially the vocational ones needed some advice which he was in a position to give. He had first become convinced of this need in his conferences with manufacturers preliminary to the organization of the co-operative course in engineering (Park, 1943, p. 134).

Even earlier, another of Park's publications, *The Cooperative System of Education*, issued as Bulletin No. 37, by the Department of the Interior in 1916, makes the following references to high school programs:

In a number of high schools the cooperative plan has been adopted and courses have been operated successfully under widely varying conditions. At Fitchburg, Massachusetts, for example, an arrangement exists whereby high-school students, after spending one year wholly in school, work during alternate weeks as apprentice machinists, pattern makers, saw makers, draftsmen, molders, tinsmiths, printers, or textile workers. The instruction which they receive at school is coordinated with their practical work. The cooperative principle is similarly applied in the York (Pennsylvania) High School, where the students work in machine shops, foundries, automobile and carriage works, and in the cabinet-making department of a piano factory. Recently cooperative courses have been introduced into several high schools in New York City [p. 32].

*Guidelines in Cooperative Education* (Huffman, 1967) gives the following dates for the first three high schools offering cooperative education programs:

1909 - High school program of work experience education established at Fitchburg, Massachusetts, in cooperation with the General Electric Company
1910 - High school cooperative courses established in the Cincinnati, Ohio public schools.

1911 - Experimental high school cooperative program established at York, Pennsylvania [p. 10].

Schneider, according to Park (1943), had offered assistance to these schools and had established a reputation which eventually led to his employment as a consultant with the New York City schools in 1911, to conduct a survey of the possibilities of initiating cooperative education. Three years later the program was started.

In 1914 he signed with the New York City schools to spend one week each month in the establishment of a co-op program. Ten schools with 336 co-op students, 206 boys and 130 girls initiated the program. It was the first time commercial firms and girls were involved in cooperative education. Within fifteen years, R. H. Macy employed 400 cooperative students during a single academic year [p. 149].

The growth of cooperative education in the high school can be gauged from an undated study (U.S.O.E. Project 6-2851 Report) for the United States Office of Education, by Dr. William Schill:

According to the data collected from state offices, there were 3,333 individual institutions with reimbursed cooperative vocational education programs during the school year 1965-1966 [p. 42].

Since some of the schools offered more than one cooperative education programs, Schill adds:

There were a total of 4,800 cooperative work-education programs among the various states during 1965-1966 school year. This does not mean that there were 4,800 individual schools with cooperative programs, because that is not the case. However, the 4,800 figure is more representative of the opportunity for cooperative work-education experience offered to United States high school students than are the figures reported to USOE [p. 31].

Rupert Evans (1969), Dean of the College of Education, University of Illinois, elaborates on these figures by stating
that, "they involve more than 160,000 students in some 4,800 different programs [p. 19]."

Growth of Cooperative Education in Post Secondary Schools

Cooperative education programs have not developed as rapidly in the post secondary schools (community and junior colleges or technical schools) as they have in the high school or baccalaureate college. Dr. Evans (1969) gives his comments on this fact:

What of cooperative programs in the junior college? No one knows why CWE [Cooperative Work Education] is much more prevalent in secondary schools and in four-year colleges. Perhaps the "ghetto syndrome" is at work, with junior colleges feeling that they must be more academically pure in their educational programs than other, long-established schools. Yet there are many valid reasons why CWE should be more successful in junior colleges than in secondary schools or universities [p. 21].

It is indeed a mystery as to why these schools have not developed cooperative programs. The history of cooperative education in the post secondary schools which do not offer the baccalaureate degree is almost as old as cooperative education itself. In fact, after Schneider's cooperative plan was rejected by Lehigh he felt that no established engineering college would consider modifying their program, and, therefore, his early efforts were spent on planning a new type of school which he had envisioned as the United States Institute of Technology (Park, 1943, p. 58).

The first non-degree school on record to offer cooperative education is identified by Armsby (1954):

The plan has also been found useful in technical institutes, which conduct non-degree courses preparing students for the more technical phases of engineering and other professions. The first offering of this type of institution
was a course in mechanical trades, established in 1909 at the Illinois Institute of Technology. During the academic year 1953-54, non-degree co-op programs were conducted in eight institutions [p. 54].

On February 26, 1969, the Congressional Representative from the State of Illinois, Roman C. Pucinski was quoted as saying, "less than fifteen per cent of the nation's ... junior colleges offer such programs [p. 9]." A similar statement is given by Evans (1969), he wrote, "The net effect is that only fifteen per cent of the nation's ... 500 junior colleges now have CME programs [p. 19]." These figures would give the United States an estimated seventy-five post secondary institutions offering cooperative education. However, the Cooperative Education Association has identified only thirty-one schools of this type in their 1968 Directory.

The thirty-one non-degree schools so identified, represent the institutions from which the sample was drawn for the survey in this study.

Attainable Objectives of On-the-job Training

Dean Schneider spent most of his free time from 1899, when he conceived the idea of cooperative education, until 1906, when the plan was put into operation, preparing the details for this unique method of instruction. And, once the program started, he became fully occupied with the details of operation and coordination.

However, as a dedicated teacher he realized that the new program would have to be evaluated. "About 1912, Dean Schneider and his colleagues made an attempt to appraise the results of their
revolutionary idea in the light of its hoped-for educational values. They concluded that their goals were being met, and, as a result, the cooperative experience was extended to other areas of the college [Collins, 1968, p. 8]."

In appraising the results obtained from the "outside" work of the co-operative course, Dean Schneider and his colleagues had a more difficult problem than they had encountered in dealing with the program of studies. The variables were much more numerous. It had been evident from the start that the mere adaption of the course was not a guarantee of success. Administration of the system made heavy demands upon the initiative, the vigilance and the resourcefulness of those in charge. Assuming, however, that the operation of the scheme was moderately efficient, there were a number of advantages that might be classed as "attainable objectives". These might be summed up in terms of their relation to the student, the employing firm, and the college.

Of the advantages to the student, those which had proved most important were the following:

1. A natural method of arriving at a suitable type of work through:
   (a) Contact with actual industry;
   (b) Practical tests of his own inclination and adaptability;
   (c) Intelligent participation in the shaping of his own preliminary training (it should be noted that this kind of academic self-determination is very different from a free elective system, since the wisdom or un-wisdom of the student's preference is varied experimentally).

2. The opportunity of gaining a maximum of educational content from his industrial environment, and hence:
   (a) A vitalizing of his theoretical studies through acquaintance with their practical applications;
   (b) A stimulus toward original investigation.
3. An understanding of the human factor in industry, made possible by:

(a) Direct labor experience on equal terms with other employees;
(b) Firsthand contact with problems of labor and management.

4. Acquisition of certain disciplinary values as a result of his shop experience, including chiefly:

(a) The habit of industry;
(b) A sense of responsibility;
(c) A feeling of self-reliance.

5. Acquisition of certain economic values, such as:

(a) An opportunity for partial, or even total, self-support;
(b) Enhanced earning capacity and bargaining power at graduation in preparation to his outside experience and his consequent advancement beyond the apprentice stage of employment [Park, 1943, p. 95].

Charles F. Kettering was a close friend of Schneider's and a staunch supporter of his program. He prepared the "Preface" or "Introduction" to many of the earlier publications pertaining to cooperative education. In his later years he "suggested and arranged for the Thomas Alva Edison Foundation to sponsor a conference on 'Cooperative Education and the Impending Educational Crisis' in May 1957, in Dayton, Ohio [Wilson and Lyons, 1961, p. 3]." This first national conference on cooperative education was attended by representatives of over eighty colleges and universities and by representatives of nearly 100 firms employing cooperative students.

The conference found:

There has been a glaring lack of basic research properly documenting the philosophic advantages and disadvantages of this part of the educational process. In addition, there is a remarkable paucity of information regarding specific
As a result of the conference and other follow-up meetings, the Board of Trustees of the Fund for the Advancement of Education authorized a grant of $95,000 to be used for a study of cooperative education (Wilson and Lyons, 1961, p. 4).

The study was initiated on July 1, 1958, directed by Dr. Ralph W. Tyler, Director, Center for Advanced Study in the Behavioral Sciences, Palo Alto, California. The committee selected James H. Wilson as executive director of the study, and Edward H. Lyons as associate director, and they began work immediately.

The results of this comprehensive research were published in the form of a book entitled "Work-Study College Programs" authored by Wilson and Lyons 1961, Harper and Brothers. Its voluminous detail verified the values claimed for cooperative education (Collins, 1968, p. 8).

The values of cooperative education identified by the research committee are presented:

**Educational Advantages to the Student**

From the experiences of students and from testimony of faculty members and graduates, we conclude that cooperative education provides these important educational values.

1. By coordinating work experience with the campus educational program, theory and practice are more closely related and students find greater meaning in their studies.

2. This coordination of work and study increases student motivation. As students see connections between the job they hold and the things they are learning on the campus, greater interest in academic work develops.

3. For many students work experience contributes to a greater sense of responsibility for their own efforts, greater dependence upon their own judgments and a corresponding development of maturity.
4. Because the work experience involves the students in relations with co-workers who come from a variety of backgrounds, and because success in these jobs requires constructive relationships with colleagues, most students in cooperative education develop greater understanding of other people and greater skills in human relations. Particularly important in this connection is the value obtained from the contacts made with adults in a variety of situations, thus helping to break down the segregation of college students into a wholly adolescent community.

5. Cooperative education helps markedly to orient college students to the world of work. Most college students are greatly concerned about their future life work. They want to know more about the range of occupations available to them and the potentials and limitations of those fields. They want to know about the qualifications demanded and their own fitness for them. Cooperative education furnishes students with opportunities for exploring their own abilities in connection with real jobs and they find a direct means of gaining vocational information and vocational guidance not only in the occupations in which they are employed but in a number of related fields as well. They have a chance to test their own aptitudes more fully than is normally possible on the campus. Furthermore, in many programs of cooperative education, students are enabled to understand and appreciate more fully the meaning of work to the individual and the function of occupation in providing the wide range of goods and services characteristic of our economy.

Other assumed advantages to the student:

1. The student's earnings contribute to financing his own education, leading to self-dependence and independence, and contributing to his self-esteem and confidence.

2. Since the student is carried as a productive employee with an attendant rating his performance, he usually develops good work habits.

3. His role as a team member in a real and productive working environment inculcates a seriousness of life and purpose which is often denied the traditional college graduate.

4. As a result of his alternation between the college and the cooperative position, the student tends to appreciate better the role of each environment.
5. A smoother transition into full-time employment awaits the graduate of the cooperative program because of his undergraduate experience. Often the length of apprenticeships and training programs upon graduation are reduced or even eliminated for him because of his cooperative experience [Collins, 1968, pp. 8-9; Wilson and Lyons, 1961, p. 6].

The remarkable similarity between the "Educational Advantages to the Student" identified by Tyler's 1958 research study, and the "Attainable Objectives" discovered by Schneider and his colleagues in 1912, gives additional insight into the thoroughness with which the first program was planned and evaluated.

It is this type of detailed thoroughness, associated with Schneider, that again raises the question, "Why was there so little, if any, consideration to preparing the man in industry, chosen as an on-the-job trainer, to teach his skills to others?"

Apparent Weakness of On-the-job Training

The unique feature of cooperative education is the placement of students with cooperating employers for periods of part-time employment, in areas closely related to their vocational goals; on-the-job training. While this feature, which is supported by research, provides educational values for the student, it may also be the most vulnerable with regard to good pedagogical practice. Efforts have been made to insure the public that the student-learner is protected against exploitation by instituting the "training agreement" and the periodic visits by the teacher-coordinator. However, relatively little has been done regarding the assurance that the person assigned as an
on-the-job trainer can effectively transfer his technical knowledge and skills to the student-learner.

This weakness of the program was brought before the National Education Association during its annual meeting in Boston in 1910, when Arthur Dean, Chief of Division of Trade Schools, New York State, stated:

It is claimed that educational waste will be avoided in the cooperative system by using foremen in the shops as teachers of shopwork rather than teachers specially trained. Who can guarantee that they will make good teachers? The practical mechanic without pedagogical training may be able to impart to the student the mechanical manipulations of his trade, but if he cannot make the proper connection with the pedagogic end of his work he will be deficient to that extent. . . . Undoubtedly there is much value in the cooperative scheme, but before it can have general endorsement, the public must be assured that the plan is so worked out that it results in all-around training and that the half-time idea does not become a half-way scheme [p. 613].

Almost sixty years later, Dr. Rupert Evans (1969) tells us, "Cooperative programs have been hampered by a shortage of adequate instructional . . . material which is suitable for developing on-the-job trainers [p. 22]."

Other educators are also becoming concerned over the lack of training provided the on-the-job trainer. Marguerite Crumly (1969) writes:

The lack of continuing education programs for the downtown supervisors [on-the-job trainers] of cooperative students is another weakness of cooperative education. While many distributive education programs have incorporated within their adult programs training for downtown supervisors, this has not been as widespread as it should be and has not been adopted by office education to any significant extent [p. 211].
Along this same line of thought, Ralph E. Mason and Peter G. Halinos (1965) add:

There are many times when the job sponsor [on-the-job trainer] is too busy to give attention to a potential learning situation. At other times, however, learning does not take place because the person under whom the student-learner is working does not have a knowledge of learning and teaching. Too little is being done by teacher-coordinators to assist job sponsors or supervisors to know how to aid the training of student-learners [p. 195].

In a Great Britain study of sandwich courses (cooperative education) by Venables and Williams (1961) it was found in their survey of training responsibility in sixty-one small engineering industry firms that "only in twenty-four firms was the person directly responsible deliberately selected, and in only two of these firms was any special training given for the job. Similarly for the building industry . . . only in seventeen firms was the person selected for the job—but in no case was special training given [p. 143]." The second set of figures were the result of surveying seventy-one building industry firms.

Because of the detail given to other segments of the development of the cooperative program, it is difficult to determine if the lack of consideration given to preparing the on-the-job trainer was an oversight or whether Schneider was showing his disdain of pedagogical practices as they existed at that time. It must be remembered that he had not had the benefits of a teacher education; he had been prepared as an architectural engineer. This fact was brought forth shortly after Schneider had been selected by Dr. Paul H. Hanus of
Harvard, to take charge of a New York public schools survey. Park (1943) tells us:

One of Dean Schneider's best friends, however, brought forward an objection which Professor Manus apparently had overlooked. In a letter to Dean Schneider the friend said that he could not understand why a man who was not a professional educator should have been chosen to make the survey. Here he touched upon a rather sensitive point. Dean Schneider's deep-seated, and some would say excessive distrust of the academic point of view, was most conspicuous in his attitude toward schools of education. For the work of many individual teachers in such schools, and for the teachers themselves, he had the highest possible respect, but for colleges of education as such, he cared little [p. 135].

Park (1916) also indicates that Schneider was always quick to point out:

The cooperative course of the University of Cincinnati was not the product of an academic laboratory of pedagogical research; its origin was rather in an investigation of the actual working conditions of commercial engineering practice [p. 136].

Schneider's attitude toward teaching is again reflected in the following statement by Park (1943):

Herman Schneider often acknowledged indebtedness to his college teacher Dr. Mansfield Merriman, whose influence upon him recalls the dictum, "We teach as we are taught [p. 27].

With this philosophy and being relatively successful himself as a teacher without the benefit of teacher training, it can only be assumed that he thought the men in industry would also be successful. He was aware of the fact that the men in the local industries had learned their skills as apprentices in Europe and probably expected that they too would "teach as they were taught."
Skilled mechanics like the valve maker, many of them immigrants from Germany and north European countries were available . . . and largely responsible for the growth of the city's [Cincinnati] machine-tool industry [p. 65].

It is also known that Schneider's cooperative students were expected to put a great deal of effort of their own in adjusting to industry. He tells in one of his own writings (1935), "It is a good thing for a man to sweat his way toward the truth [p. 16]."

There is only one passage in Park's (1943) writing which relates, in any way, to the type of on-the-job training received by Cincinnati's first students in cooperative education:

They were getting a knowledge of practical work and were learning the meaning of strange new terms, such as "drag" or "cope", "jig" or "mandrel". To be sure, the acquisition of a shop vocabulary had some alarming aspects, but Dean Schneider found at least one foreman who had anticipated this danger.

The first thing I do, Doan, is to teach the boys the names of their tools. It saves time and makes 'em more akret, and they use less profanity.

"How's that?" inquired the Dean.

Well, you see, if a boy knows a tool by name, he won't have to ask for "that blankety-blank crooked thing that Bill was us' in a while ago," and he'll be more apt to get what he wants [p. 80].

School-Industry Cooperation Needed to Improve On-the-job Training

The value of cooperative education has been proven by several studies and Congressional hearings. During a speaking engagement, Congressman Pucinski (1969) stated:

As Chairman of the General Subcommittee on Education, I conducted twenty-six days of hearings on vocational education last year. And during those extensive hearings my belief in the need for cooperative programs in occupational education was reinforced [p. 8].
This does not mean, however, that cooperative education cannot be improved. Edwin L. Nelson (1969) stated in his "Opening Remarks" at the National Conference on Cooperative Vocational Education:

This is our [sic] challenge at this conference—to find new ways to interpret and implement cooperative education so that more of the nation's youth can benefit from what has been called by the National Advisory Council on Vocational Education the best program we have in vocational education [p. 7].

Improvement of our cooperative education programs will come about only when our coordinators establish genuine communications with the cooperating firms and they are able to impress upon these companies the need to further involve the school in the selection and preparation of the person assigned to the on-the-job training. Too often, perhaps, cooperation between school and industry has been taken for granted.

Malcolm Moos (1969), President of the University of Minnesota also speaking before the National Conference on Cooperative Vocational Education said, "Much of the thrust of recent federal legislation has been aimed at the development of cooperation itself among the many agencies involved in education; at the same time cooperation is an item already taken for granted in vocational education [p. 1]."

It is indeed strange that so much has been written on the need for cooperation between school and industry and countless vocational education meetings have taken place to encourage communications between these two agencies, and yet, research studies indicate a glaring gap exists.

Dr. Trudy Banta (1969) verifies the lack of cooperation between industry and the schools in a recent study she undertook for the U.S.
Office of Education on July 1, 1968. Her findings are the result of 12,000 inquiries into locating 64 exemplary programs in 22 states:

In many communities there is a significant gap in communications between industry and the school. ... Listing advantages for industry-school cooperation becomes an easy matter once cooperative relations are established. But too few good working relationships exist and means must be found to correct this situation. ... In this study the first steps toward cooperation were taken by the schools in only 25 per cent of the cases. Of course industry certainly should not be discouraged from taking the lead, but in view of the evidence of positive contributions which schools can make to industry, educators have no excuse for lagging behind. School personnel should acquire the confidence to approach private industry with new ideas for cooperative education [p. 92].

The problem of communications can probably be improved by following the suggestion of Robert V. Guolich (1969), Vice President of Public Relations for Montgomery Ward, Incorporated, he has suggested:

Every conference between educators and businessmen faces the same question: How can we work together better than in the past?

First, you decide you want to work together better; then do it. ...

A cooperative vocational education program means cooperation between educator and businessman to build the career of a young person. Let us remember we are cooperating. It is more than a student-teacher or employee-employer relationship. It is a commitment to cooperation between school and businessman.

This can be promoted by teachers doing a better job of educating businessmen in their own communities to understand what you are doing and what you have to offer. We need more knowledge about the programs you take for granted; ... we need a road map as to how we and you, cooperatively, can work together with a step-by-step training plan that will benefit all [p. 44].
Efforts to enforce better communications between the school and industry, regarding on-the-job training, have been made through the requirement of a "training agreement". The Vocational Education Amendments of 1968 (P.L. 90-576) specifies that there shall be a "cooperative agreement". This fact is spelled out in the Definition, Sec. 175. "For the purpose of this part, the term 'cooperative work study program' means a program of vocational education for persons who, through a cooperative arrangement between the school and employers, receive instruction [p. 24]."

There is evidence that all fifty states require a "training agreement" of one type or another between the school, employer and the student-learner. William Schill (U.S.O.E. Project 6-2851 Report) relates:

There is over-all agreement among the fifty-state plans upon the agreements that cooperative programs must meet in order to be eligible for reimbursement. . . . All of the states require (quite naturally since a program could not exist without it) an agreement between the school, the student, and the employer. The only difference that exists is that some of the states require that this agreement be in writing and others do not stipulate that it be in writing [p. 29].

Schill's report was based on the 1965-1966 school year and related to state plans governed by Public Law 88-210. A review of a sample of the new state plans based on the most recent Act of Congress, Public Law 90-576, reveals the provisions covering training agreements for cooperative education in the different states is almost identical. For instance:

New York (State Plan, 1969)

9.22 On-the-Job Training Standards

Each cooperative vocational education program shall provide on-the-job training that (1) is related to
existing career opportunities susceptible to promotion and advancement, (2) does not displace other workers who perform such work, and (3) employs student learners in conformity with Federal, State and local laws and regulations and in a manner not resulting in exploitation of the student learner for private gain, and (4) is conducted in accordance with written training agreements between local educational agencies and employers [p. 1-53].

Indiana (State Plan, 1969)

9.22 On-the-job Training Standards
All cooperative vocational education programs will provide on-the-job training that (1) is related to existing career opportunities acceptable for promotion and advancement, (2) does not displace other workers who perform such work, and (3) employs student learners in conformity with Federal, State and local laws and regulations and in a manner not resulting in exploitation of the student learner for private gain. A written training agreement will be in accordance with local and state regulations and shall be kept on file in the local school and made available to the State Board if requested [p. 65].

Idaho (State Plan, 1969)

9.22 On-the-job Training Standards
Each cooperative vocational education program shall provide on-the-job training that:

(a) is related to existing career opportunities susceptible of promotion and advancement;

(b) does not displace other workers who perform such work;

(c) employs and compensates student-learners in conformity with Federal, State and local laws and regulations and in a manner not resulting in exploitation of student-learner for private gain; and

(d) is conducted in accordance with written training agreements between local educational agencies and employers, copies of which shall be submitted to the State for filing with the local application [p. 70].
The "training agreement" now required by public law is not new; the original concept was designed by Schneider for his first twenty-seven students in 1906. In the past, according to Rakestraw (1948), "training agreements" usually included, "a schedule of processes to be learned on the job, related instruction to be given in school, wages and length of training period, type and degree of responsibilities of parties concerned, provisions for school credit, hours of work and related instruction, provisions for job progression, probationary period and termination of agreement [p. 171]."

Exactly what effect the written "training agreement" will have on cooperative education and establishing better communications between schools and cooperating employers is not known. Most schools have had an agreement in the past, but not always in writing. It may be assumed that the more detailed the agreement the better the communications have been.

Although Guelick (1969) did not mention a "training agreement", his remarks may well reflect industry's attitude toward such an agreement:

At this point, I would like to inject a reminder that it is easier to get to our destination when we know where we are going--and when we have a road map--than when both destination and pathways are unknown. This is a trite way of restating that employers and teacher-coordinators must continually re-emphasize the objectives of the program. It must be more than a part-time job. It is a career training program that must be constantly monitored and adapted to each student. It isn't a contract you can sign in September and accept payment for in June. . . . Make certain that your students are treated as trainees, not part-time job fill-ins [p. 43].
The success of some cooperative education programs are judged largely by the number of training stations in industry and business available to the student-learner. Consequently, it appears that all too often the coordinator, in his eagerness to place students, fails to insist upon the need for the cooperating employer to provide a truly instructional environment. There is an apparent fear that the training station may be lost if the school demands too much of the employer.

Schneider (Park, 1943), the first coordinator, was aware of this very problem. He believed, "It would be well to avoid asking firms to experiment with young men who were not reasonably certain to succeed. If this were not done, there might cease to be any employing firms [p. 81]."

The Federal Board for Vocational Education may have been too timid when it prepared Bulletin No. 78, in 1922, and stated, "The coordinator must be a man of considerable tact, inasmuch as he has no direct control over the boys while at work in their respective positions and only a suggesting or recommending responsibility in dealing with the foreman [p. 26]." This statement implies that the school must maintain the goodwill of the cooperating firm and not be too demanding.

However, if the coordinator fails to communicate to the cooperating firm that they also have some responsibility in the program, it can result in the type of situation described by Gold. Dr. Milton J. Gold, in his book Working to Learn (1951), writes very candidly about the diversified occupations program, which is one type of cooperative education. He wrote, "In the case of the diversified program, the
school does not provide the trade instructor, but, for better or worse, uses the local tradesmen and artisans in this capacity [p. 117]."

The assumed lack of control of the training station in the field is a problem in England as well as in the United States. Dr. Marie Jahoda (1951), distinguished psychologist on the staff of Brunel College in England, has completed an evaluation of "sandwich education" in Britain. "All Diploma in Technology courses must incorporate industrial training periods, a form of education known as 'sandwich education' in Britain, as 'cooperative education' in the United States [p. 5]."

Since the program and problems in both countries are similar, Jahoda's findings relating to the responsibility of the employer and the school in providing sandwich education are included:

The responsibilities of either side are defined by the council [Central Advisory Council for Education] which has the authority to impose them only on one side, the college, where the ultimate sanction consists in the council's power of withdrawal for a course after its periodic re-examination of a college's educational facilities. Even if the council made it explicit that it reserved the authority to exclude a firm from collaboration in a Diploma in Technology course, which it has not done, administrative action could be applied only to a college which proposed such collaboration. Withdrawal would be a most serious matter for a college; exclusion of a firm would hardly affect its over-all function.

In light of this one-sided authority structure, of which joint collaboration during the students' industrial period is part, the council has refrained from prescribing the manner of cooperation in too much detail. The implementation of the policy is thus left to the initiative of every college, its sound functioning to goodwill on both sides rather than to rules and regulations [p. 109].

And, so it is in the United States. The school must assume the total responsibility of the program. Each State Department of Education provides guidelines which a coordinator may follow in selecting
his training stations, but other than those areas, such as, wages and hours, hazardous occupations, and child labor laws, which are controlled by Federal or State laws, the coordinator must depend on his own resources to work out a satisfactory arrangement with the cooperating firm in providing the on-the-job training. If, however, a state supervisor, upon making a visit to a cooperating firm, feels that the student's experience is not of the quality expected, a warning or withdrawal of supporting funds for the program will hurt only the school and not the industry involved.

Typical guidelines supplied to program coordinators for selecting training stations are identified as follows:

NEW YORK (Bureau of Trade and Technical Education, 1960)

The following list of items may be considered in making a final analysis of the training establishment:

- The training period is of satisfactory length
- Steady employment is likely
- Training will open opportunities for advancement
- Skills learned can be carried over to other occupations
- Student-learners are paid prevailing rates
- Adequate training equipment and facilities exist
- Qualified skilled workers or trainers are available
- The employer is interested in the welfare of the student
- Employment is approved by affiliated labor organization [p. 21].

MISSISSIPPI (State Department of Vocational Education, 1964)

Training Station: Characteristics

1. The employer's attitude toward his employees
2. The employer's attitude toward the cooperative training plan
3. The variety of equipment
4. The condition of equipment
5. Wages and salaries of full-time employees
6. The adequacy of personnel for training purposes
7. Reputation of the business
8. Employer's attitude toward the public
9. Working conditions in the business

FLORIDA (Lowman, C. L., 1963)

Standards Used in Selecting Training Agencies

To obtain the maximum benefits from a DCT [Diversified Cooperative Training] program, training agencies must measure up to many standards. Specifically, they must conform to the following provisions:

1. The employer must understand the intent and purpose of the DCT program.
2. The employer should assign one person to be specifically responsible for the training of the DCT student.
3. The training agency must offer a reasonable probability of continuous employment for the pupil during the work experience period for which he is enrolled.
4. The employer must have adequate equipment, materials, and facilities to provide an appropriate learning opportunity.
5. Over-all working conditions must prevail which will not endanger the health, safety, welfare, or morals of the pupil.
6. The pupil must provide adequate supervision to insure a program of pupil-job activities in order that the pupil may receive maximum educational benefit.
7. The employer should maintain accurate records concerning the pupil in regard to attendance and performance [p. 38].

Although the previous sets of guidelines for selecting a training station make reference to "Qualified skilled workers or trainers are available;" "The adequacy of personnel for training purposes;" and "The employer should assign one person to be specifically responsible for the training of the DCT student;" there is no reference to the fact that those assigned "must" or even "should" be trained in the fundamental concepts or principles of student learning or teaching. It would appear that today's guidelines have followed Schneider's philosophy that depended on skilled craftsmen for on-the-job trainers and expected them to "teach as they were taught."
Needs to be Served by On-the-job Training

The task of selecting and preparing the on-the-job trainer requires some insight into the student-learners' occupational needs that best be served by on-the-job training. There must be some thought given to the types of skills, knowledge, and attitudes that a student-learner is expected to achieve on the job if he is going to be properly prepared for his chosen career. More specifically, what is there about the job that can not be taught in the school and can be achieved only by involving the student in a genuine work situation? These are the things that must be known before trying to select a successful on-the-job trainer.

Stokes (1966) gives his opinion regarding the immediate goal of on-the-job training:

The immediate goal of on-the-job training is to develop skill. It has to do with teaching things that are so automatic that they appear to be easy. The skilled man doesn't have to rethink each problem situation as it arises.

Practice is the factor which leads to this smooth work pattern and the method by which learners develop skill. There is no need to think out each step after it has become a habit.

Actually performing the work is the only way a trainee can get the necessary practice. He must use the prescribed tools, material, equipment, and methods for performing the operation. And the only place to get this practice is on the job itself [p. 54].

The goal stated by Stokes is similar to the original concept envisioned by Schneider when he developed cooperative education. Schneider's (1935) reason for the on-the-job training portion of cooperative education is stated a little more succinctly:

Under the cooperative system, teaching the theory only (plus certain cultural courses) is the function of the school;
teaching the practice of engineering [any technical content] is the function of industry. Practice can be learned only where the thing is practiced [p. 16].

Too often, perhaps, vocational-technical educators become overly concerned with the skills aspects of the on-the-job training because it is so closely related to their own function in the school laboratory. Psychologists, however, tend to believe that the job skills are not the only function of on-the-job training and that educators should be equally concerned about work ethos, and the adjustment of the student to a work environment and his image in that position.

Dr. Henry Borow (1969), Professor, University of Minnesota, speaking before the National Conference on Cooperative Education, presents a psychologist's point of view with regard to on-the-job training:

Broadly speaking, three goals of vocational education are pursued in the work experience aspect of cooperative education programs. First, the student learns the characteristic skills, duties, and practical understandings associated with the occupation to which he is assigned through a training station. These are cognitive learnings. Secondly, he acquires what we may call a work ethos, a set of attitudes, rules of etiquette, and interpersonal skills involving relations with fellow workers, supervisors, and clients. In short, he learns how society, and especially his place of work, expects him to "play the game." It is astonishing to what degree the school and the community assume that any student who is making the transition from school to employment has somehow mastered work protocol and the repertoire of unwritten and informal, yet highly critical, situational skills. It may be noted, parenthetically, that among culturally disadvantaged youth it is the utter lack of an acceptable work ethos quite as fully as inadequate training in the formal duties of the job that makes the work situation seem so bewildering and terrifying and which so frequently predisposes such novices to almost certain failure. Thirdly, the school youth enrolled in a cooperative education program may come to know better what manner of person he is--what strengths, limitations, aspirations, and
personal values characterize him. These personal attributes are, as a matter of fact, frequently shaped and fortified by the work experience itself. If the student is the fortunate beneficiary of wise and sensitive supervision, he will learn to see himself psychologically mirrored in the work situation. Thus, his experience on the training station will serve to build his self-identity as a worker-to-be. While all three goals of cooperative education named above are of undeniable value, many counseling psychologists would surely rank them in ascending order of importance, attaching greatest significance to the reality testing and self-exploration function of the supervised work experience. Counselors respond in this manner because they assume that the central vocational development tasks of adolescence deal less with the acquisition of highly specific and formal work skills and somewhat more with the clarification of productive work as a social responsibility, and with the sharpening of one's occupational motives, aspirations, and plans. And yet, of course, vocational education programs typically assign the three priorities in the reverse order. Perhaps, then, the chief weakness of otherwise dedicated and highly trained work coordinators is insufficient appreciation of the enormous potential which exploratory experience makes to the vocational maturity of cooperative education students [p. 10].

The student-learner in a cooperative program may be experiencing his first period of employment and will need more understanding and attention than the older, new employee.

Ruchti (1966a), in discussing the orientation of new employees, expresses the need for being doubly certain that young workers are started right by giving them more time than usual and devoting more attention to specific details. He states, "Young workers tend to react strongly to new surroundings and new experiences. The novice may be so overawed by his first job that his mind is literally not free to learn [p. 92]."

George Strauss, Professor and Associate Director, Institute of Industrial Relations, University of California, Berkeley; and Leonard R. Sayles, Professor, Graduate School, Columbia University
(1967) also discuss the needs for a strong orientation period for new employees. They feel that there is less misunderstanding and less need for correcting methods and procedures that have "just been picked-up" when there is a good orientation program. They say:

Progressive companies have long realized the need for properly introducing a new employee to his job. Not only do they familiarize him with the tasks he will be expected to perform, but they also provide him with information about company rules and personnel policies, introduce him to his fellow workers, and give him an idea of where his job fits into the total operation. A carefully planned orientation-induction program helps the new employee to identify with the organization and its procedures and gives him some feeling for the significance of the work he will be doing and this helps him overcome the fears and anxieties that are bound to arise on a new job [p. 513].

Both the school and cooperating employer have a moral and legal responsibility to insure the student-learners' health and well-being while on the job. Safety training for student-learners is extremely important. According to Ruchti (1966a), "people between 15 and 24 have the highest accident rate of any age group. Since they tend to take chances they require more guidance on safety measures. They need to know what guards on machinery are for and what hazards the machines present [p. 96]."

Stokes (1966) states, "The introduction to the hazards of the job and the safety rules in effect is normally presented before the trainee is shown the actual job site. Naturally this training cannot be done completely away from the job, but is is started off the job [p. 6]."

William E. Hardman, Director of Training for the Underwood Corporation and President of the American Society of Training Directors (1965), reminds us that, "A successful safety training program is a
continuing affair. As equipment is modified, or production methods or people change, additional safety training is needed [p. 60]."

Ruchti, writing in a second article (1966b), touches on another important aspect—work ethos—and the importance for the young newcomer to understand the "rules that aren't in the book."

Help newcomers to adopt manners and ways that are accepted by the work team. Some crews never borrow tools. Others may sanction only certain work clothes or discuss problems among themselves before asking help. In some groups, people express personal feelings freely; in others, not at all [p. 177].

One study of 500 social and work groups showed that 75 per cent had rigid customs that they strictly enforced, making it difficult for a newcomer to gain entry. Rejected, the newcomer may become the victim of jokes, pranks, gossip, isolation.

Frank A. Busse (1966), Director of Management Services Division, Quality Bakers of America Cooperative, presents this warning regarding training: "Training should not be cut off abruptly at the end of a specific job-instruction program. Too many employees, after the indoctrination period, are left to die on the vine without further help or attention from the supervisor [p. 120]."

It is important to understand that the young student-learner in a cooperative education program has not yet graduated from school and is usually filled with enthusiasm for learning all that he can about his chosen career. Bernard M. Bass and James A. Vaughan of the University of Pittsburg (1966) state, "Typically, he is ready and eager to learn about his new environment—perhaps more so than he will ever be again—and the initial impression he gets may be a lasting one [p. 88]."
Bass and Vaughan (1966) also provide a logical conclusion to this section of the review with this information:

Although it is impractical to specify all the background information a new employee should receive, the following procedures can serve as guidelines:

1. The new employee should be "sponsored" or directed by an experienced worker or supervisor in his immediate environment who can respond to questions and keep in close touch with him during the early induction period.

2. Orientation should begin with the most relevant and immediate kinds of information and then proceed to more general company policies.

3. The new employees should be gradually introduced to the people with whom he will work, rather than be given a superficial introduction to all of them on the first day. The object should be to help him in every way to get to know them.

4. The new employee should be allowed sufficient time to "get his feet on the ground" before the demands on him are increased [p. 80].

Criteria for Selecting the On-the-Job Trainer

Specific literature pertaining to the selection of the on-the-job trainer assigned to the student-learner enrolled in a cooperative education program is almost non-existent. On the other hand, however, there are many excellent publications relating to industrial in-plant training of new employees. Therefore, this section of the review of literature has depended upon these types of publications.

David King's study of company policy and procedures for the systematic training of operators and supervisors entitled Training Within the Organization (1964) tells us that the plant manager is responsible for the performance of his subordinates. Although this
responsibility may be delegated to his immediate subordinates and so on down the organization structure, the final responsibility for every person lies with the manager. "Thus a manager is responsible for ensuring that his subordinates are sufficiently trained to carry out their task [p. 136]."

Busso (1966) relates this information on delegating the training task:

The supervisor is usually the best person to do the training. If he must delegate this important job, he should ask himself these questions about the person to whom he delegates:

- Does this person have the ability to teach? That is, does he know the basic steps of instruction; can he express himself clearly; does he have the friendliness and patience needed?
- Does he know the job well enough to teach it?
- Is he interested in teaching the job [p. 117]?

Paul M. Stokes (1966, p. 28) elaborates on these attributes of an on-the-job trainer. He feels that the first requirement of the trainer is to be completely and thoroughly familiar with the tasks that must be taught. The trainer must not only be able to do the tasks in order and according to specifications, but be able to explain "why" for each step. In addition, he must have a knowledge of some of the pitfalls and problems which the trainee might encounter. And, he must have a knowledge and willingness to answer questions.

He also believes that there must be a willingness on the trainer's part to learn the proper techniques of instruction and to apply them to a training situation.
The interest and attitude of the trainer, according to Stokes, can mean the success or failure of a program. "The trainer who displays a sincere interest in the progress of the learner and is willing to help him in every way has an excellent chance for success [p. 28]."

Samuel B. Magill, Director of Training and Safety for the City of Philadelphia and member of the original Training within Industry group during World War II, and John E. Monaghan, Training Consultant for Bemis Company, suggest in their writing (1967, p. 127) additional qualities that lead to success when selecting an on-the-job trainer. They believe that such things as being able to avoid personality conflicts, power to express himself without being over talkative, knowledge about the standards of quality, quantity and safety, and the ability to describe what happens to the product both before and after it appears in the department. Also, they say, "Good instructors must have judgment and must be fair in their rating of trainees. Before giving up on an unpromising individual, they must try to save him in every way they can. Their reports to higher management [and teacher-coordinators] must be timely and objectively worded."

Ruchti (1966a) expresses this point on selecting the on-the-job trainer:

If possible, put the worker under the wing of a sponsor, a senior employee with a proven work record. Shy workers will ask more questions (and find out more about their duties) if they can do so confidentially. This system also discourages senior employees from bullying or playing jokes on novices [p. 89].

In contrast, Strauss and Sayles (1967) warn against the assignment of the old timer "to show this fellow what he should do." While
the results are good occasionally, more often than not the training is inadequate. "Sometimes the failure reflects the old timer's indifference or even hostility to 'breaking in a new employee', a job he feels he isn't being paid to do or that may create a competitor for his own job [p. 512]."

Jahoda (1963) makes a similar comment:

Unfortunately, a lot of firms put people in charge of a training school [on-the-job instruction] just before they retire. Naturally the youngsters make them nervous. Their lectures [instruction] are often quite primitive and this is a shock for the students [p. 116].

Another warning on selecting the on-the-job trainer is given by Magill and Monaghan (1967), they state, "One pitfall to avoid is automatically to select the best operator as an instructor. The individual may be too fast for learners and may not have the patience required to work with new employees [p. 127]."

King (1964), using Norwegian sources, presents this point of view regarding trainer selection:

The appointment of unsuitable instructors has been another cause of difficulty. Sometimes the appointment is made too hastily, out of enthusiasm to establish training as quickly as possible. In some firms a highly skilled operator is arbitrarily chosen on the assumption (often incorrect) that a person who can do a job well can also teach it. Occasionally the position of instructor is given to somebody for whom no other job can be found, usually with disastrous results to the training scheme. No firm can be absolutely sure that the appointment of an instructor will be successful [p. 66].

Until now, the foregoing authors have based their philosophies on the traditional assumption that management is responsible for the training of employees. However, Bernard J. Bienvenu of the University of Southwestern Louisiana, in his book New Priorities in Training
(1969, p. 118), raises the point that training may not be the responsibility of management, but the unions. He suggests that unions, in order to maintain pace with technological advancements, will have to be more like the professional associations and offer the same type of services as those associations. One of their functions would be to provide on their own or through collective bargaining the training needed for their members to adopt to change. He quotes from Neil W. Chamberlain's essay "What's Ahead for Labor?" to support his philosophy. "The desperate search for ways of retaining market outlets for job abilities which are less and less wanted and needed will give way to a more rewarding examination of ways in which on-the-job training coupled with off-the-job educational opportunities can give their members qualifications which are continuously in demand."

Arthur N. Turner and Paul R. Lawrence, professors at Harvard University, have written a book *Industrial Jobs and the Worker* (1965), which is an investigation of response to task attributes. In this study they discovered a similar concern about the union's responsibility for training. They quote Paul Jacobs in an informal discussion with the union leaders from the United Auto Workers Union:

If unions are going to survive and grow in this coming period, they have to break with their old patterns. First of all, they have to break with their pattern of not thinking about work, the nature of work, their relationship to work and what they can do about work. . . . It would be a lot wiser for the UAW Research Department to exercise some of its ingenuity and use some of its money to study new ways . . . of dealing with the problems of work at the work place, with the union playing the role of the catalytic force [p. 116].
Regardless of who is going to be responsible for the on-the-job training of the student-learner, it may well be a good idea for the teacher-coordinator to "touch base" with both labor and management when it comes time to consider candidates for the on-the-job trainer. Failure to consider the union's responsibility in working with student-learners may well aggravate the situation described by SchiI (undated, but after 1966). "In some states, notably Louisiana, labor pressures have forced the discontinuation of cooperative programs that involve the industrial occupations [p. 1]."

Another point worthy of consideration is, "How many on-the-job trainers should a student-learner be exposed to on the job?" While this may depend upon the complexity of the occupation to be learned and the availability of knowledgeable persons within the plant, there should be an awareness of the findings of the Marie Jahoda study (1963). Her summary of an investigation of this factor is given:

Students who had two or three different industrial supervisors [on-the-job trainers] have most often a good industrial experience; but under this condition they also have the highest proportion of bad experiences. Students who had only one supervisor have a large proportion of good and a small proportion of bad experiences. Students with four or more supervisors during the industrial period have the highest proportion of mixed experiences [p. 187].

Preparing the On-the-job Trainer

The person selected as the on-the-job trainer, whether he be the manager, supervisor or someone delegated by them, should have a knowledge of a systematic method of instruction. In the section pertaining to the selection of the on-the-job trainer it was pointed out that all persons are not necessarily good trainers simply because
they are skilled in the tasks that are to be taught. This might be interpreted to mean that they would not be good trainers without some knowledge of instruction methods.

An ideal goal in cooperative education would be to select the most knowledgeable person available and then prepare him to teach his skills to the young student-learner.

Hardman (1965) presents four human limitations that hinder good on-the-job training and establishes the need for instruction in training techniques:

Instruction in training techniques is necessary for four reasons; these are the human limitations that present themselves in all job instruction. Let's call them:

Habit. Because so many people know their jobs so well, the details can become second nature to them. When these people try to explain their jobs to a new man, they confuse him.

Poor communication. Knowing how to do something isn't equal to knowing how to teach it. Many people can't bring out thoughts as complicated as those involved in job instruction in their logical sequence. Thus, the employee learns the wrong method of doing the job, or is left confused.

Limited absorption rate. Most line workers can grasp only one fact at a time. In violation of this principle, many supervisors, without sufficient training background or procedures to follow, try to communicate all their years of experience on the job in 10 or 15 minutes.

Individual differences. Where people are given any latitude in choosing work methods, they tend to differ. No matter what way a job is taught, the employee may adopt his own "simpler" method, so follow-up on training is essential [p. 56].

It therefore becomes important to decide upon a proven method of preparing people to train others. The method should be reasonably
simple to understand and not require an exceptionally long period to master.

Edwin B. Flippo, Professor at the University of Arizona, states in his book (1966):

One of the better personnel programs to come out of World War II was the Training within Industry Program of the War Manpower Commission. This was basically a supervisory training program to make up for the shortage of civilian supervisory skills during the war. One of the parts of this program was the job instruction training course, which was concerned with how to teach. If on-the-job training is to be the basic approach used in industry, it is essential that each training supervisor possess teaching skills [p. 210].

Strauss and Sayles (1967) add to this with, "Job Instruction (JIT) represents . . . a simple, quick training method that could be easily applied by new supervisors [on-the-job trainer] . . . [p. 525]."

Magill and Monaghan (1967) also agree with this approach to on-the-job instruction. They write, "The process of instruction has been developed and refined during the years so that its principles are universally accepted. It is generally agreed that instruction consists of four parts: preparation, presentation, test [tryout], and follow-up [p. 113]."

Entire philosophies have been constructed around the instruction process for on-the-job training of employees in industry; however, when they are analyzed they are basically variations of the "Four-step Method."

Cloyd S. Steinmetz (1967, p. 9) gives credit for the development of the "Four-step Method" to Charles R. Allen. Allen had become aware of the need for better industrial instruction in industry as early as 1910, while a vocational instructor under the Massachusetts
State Board of Education. But it was not until World War I that he was able to demonstrate his philosophy:

The Emergency Fleet Corporation of the United States Shipping Board set up an education and training section. It was found that 61 shipyards with 50,000 workers had an urgent need for ten times as many workers, but none were available. The only answer was to train them. Charles Allen, as head of the program, had an opportunity to demonstrate the practicality of his philosophy. He ordered that all the training was to be done at the shipyards, and the instructors were to be the supervisors of these organizations.

Four-step Method

Adopting the Herbartian steps of show—tell—do—and check, Skipper Allen and Mike Kane launched a four-step method of instruction training which helped to solve this World War I training problem. This was the fertile ground in which the seeds were planted twenty years later, just preceding and during World War II, for the War Manpower Commission's Training within Industries activities (p. 9).

Allen's four steps were first printed in card form at Dunwoody Institute in the 1920's by Allen and Dr. Charles Prosser.

During the 1920's and 1930's the "Four-step Method" was used as a vital part of the Industrial Leadership Development Services offered to industry by the Division of Vocational Education in many states; notably Indiana and Ohio.

Steinmetz (1967, pp. 11-12) relates how the Training within Industry group started refining the "Four-step Method" when the emergency again arose for trained workers in the war production plants during World War II. "Starting with the reformulation of an on-the-job training approach, the Job Instruction Training program was developed—quickly shortened to JIT." The "J" programs followed. Originally JIT was all inclusive and eventually developed into a forty-five hour instructor training program. Later, the initial JIT program was subdivided and three additional programs
emerged; Job Relations Training (JRT), Job Methods (JMT), and Job Safety Training (JST). Each of the four courses was now a 10-hour program.

In 1967, the Bureau of Business Practice presented the following information in their loose-leaf portfolio:

How to Give Job Instruction

The basic techniques of teaching can be boiled down almost to a formula. Its purpose is not to tell you how to teach a specific job, but to give you a simple and understandable system you can use for any type on-the-job training. This training formula consists of four main steps, each step being divided into two segments:

1. Preparation
   (a) Analyzing the job
   (b) Preparing the trainee

2. Presentation
   (a) Explaining
   (b) Demonstrating

3. Tryout
   (a) Participation
   (b) Practice

4. Follow-up
   (a) Inspection
   (b) Correction [Lesson #5, Supervisory Training]

Similar programs for instruction are available in Britain and are referred to as TWI courses (Training Within Industry). King (1964) comments on TWI courses in Britain:

Apart from the TWI Job Instruction Courses, sponsored by the Ministry of Labour, very little training is available for managers wishing to know how to instruct. The TWI courses in Job instruction are excellent for the purpose for which they were intended. They teach how to break down a job into easy steps so that the learner can assimilate one thing at a time [p. 173].
The "J" courses have also been introduced to Japan and have proven successful. Dr. Leonard Nadler (1965), Professor, George Washington University, tells about these courses in Japan:

The American tendency to utilize initials to designate government agencies has found its place in designating training programs. Some of the lexicon has become quite popular in Japan to the extent that the initials have almost become Japanese words. Some of the more familiar ones are:

MTP - Management Training Program
JIT - Job Instructor Training
JMT - Job Methods Training
JRT - Job Relations Training

The latter three sets of initials, JIT, JMT, JRT make up the very popular "Training Within Industry" program. In Japan it has met with resounding success since its introduction which occurred between 1948 and 1950. There is general agreement that well over 7,000 Japanese were trained as trainers and themselves provided courses for over half-a-million Japanese since that time [p. 34].

Bienvenu (1969), however, raises the question as to whether or not the four-step method, often regarded as the gospel of training, is suitable for the type of instruction needed by technicians. He asks, "How would you apply these four steps to an instruments man, a laboratory technician, an electronics specialist, a maintenance engineer, or the operator of the controls in an automated industry when each day may bring about an entirely different work problem [p. 82]."

The new positions available to today's students are certainly different from the more repetitive type associated with industry many years ago. However, almost every job is made up of more than one task. Today's new positions may simply require a more sophisticated task analysis before the on-the-job trainer applies the four-step method of instruction.
Dr. Trudy Bonta (1969) comments:

Companies and schools that have established cooperative job-oriented programs have certainly taken a giant step forward, but room for improvement still exists with regard to certain aspects of these programs. For instance, the evidence suggests that a person learns a task more efficiently when the job is broken down into parts and the individual is allowed to master each part at his own speed before moving on to the next part. More structuring of this type is needed in the job-training components of cooperative programs [p. 93].

The late Milton Hall (1966), former assistant director of personnel, Department of Health, Education, and Welfare uses a simile in getting across the need for the job to be broken down into smaller units which can be easily mastered by the student-learner. He writes:

No one would think of eating enough at one sitting to last for a week. Yet, in training people, we sometimes seem to expect them to do just that. Too often we over estimate the amount that people can master or grasp at one time. Mental indigestion sets in, and as a result they cannot assimilate anything at all.

The employee usually is not in a position himself to break down the mass of what is to be learned into appropriate sized "meals". This is primarily the supervisor's job, and it requires advanced planning. Often he can break the job down into its various parts, listing the duties and operations. Those details can then be presented to the trainee in a logical learning order, directing attention to the easiest and most necessary ones first. A man can eat a steer—one steak at a time [p. 132].

A review of the four-step method presented earlier will reveal that a job analysis is a part of step one—"Preparation".

Preparing the on-the-job trainer to teach by using the "Four-step Method" can be achieved by three methods according to King (1964):

Instructing Techniques

A new appointed instructor should have an interest in instruction but may have had no experience. To acquire the necessary skills, he can attend training in any one of the following major channels:

Channel A: Instruction from his immediate manager
Channel B: Instruction from another instructor; or on a TWI course, etc.
Channel C: Instruction on an outside course [p. 180].

Outside courses can be attained from two sources; private schools or associations, and the public school system. Private sources can be expensive. Hardman (1965, p. 5) gives the following information on private sources, "The American Society of Training Directors sponsors such seminars, and provides top experts in the field as instructors. The cost of such training? Usually in the neighborhood of $1,000 [p. 5]."

Elizabeth Moos has prepared an interesting booklet entitled, The New Work-Study Program in Soviet Education (1965). The material was gained from several Soviet references. She quotes Dr. L. B. Itelson, author of Osnovy Metodiki Professionalnogo Obuchenia Shkolnikov [Basic Methods for Professional Training in Schools], State Publishing House of the Ministry of Education, RSFSR, 1963:

"In order to achieve a truly cooperative relationship between the worker-instructors [on-the-job trainers] and the school, seminars lectures and short courses in pedagogy should be set up by the staff of the school for the workers who are assigned to the teaching jobs [p. 29]."

"The Soviet schools have been developing work-study programs [cooperative education programs] since the 1958 reforms and have been pronounced successful in their 1964 evaluations [Moos, 1965, p. 4]."

The suggestion of Dr. Itelson appears to follow the ideas presented earlier in this review of literature by Marguerite Crumly and Ralph Mason who believe that teacher-coordinators should be responsible for the training of the on-the-job trainer. Such training to be a
part of the job extension program or the adult education program of
the cooperating school.

However the training is achieved, it may be wise to remember
the words of King (1964), "The training of instructors obviously does
not consist of just a course or two, to be taken when starting to
instruct. A continuous series of learning opportunities needs to be
provided [p. 181]."
CHAPTER II

METHODOLOGY

There were two major reasons for the research study in cooperative education. First, to discover criteria for selecting the on-the-job trainer responsible for the employed student-learner. And, second, to determine the type of training or preparation most often provided the on-the-job trainer to increase his effectiveness as an on-the-job instructor.

The review of literature revealed little information concerning these two problems; however, it did support the effectiveness of cooperative education and the educational benefits achieved by students from having a planned and supervised employment period. Therefore, it was assumed by the researcher that on-the-job trainers are undergoing a process of selection and preparation which accounts for their success, but this information is apparently not reaching the literature.

In order to find the answers, an approach was needed wherein the information could be obtained directly from both the teacher-coordinator of a cooperative education program and the employer of the student-learner. It would be necessary to determine their roles in selecting and preparing the on-the-job trainer assigned to the student.

George J. Mouly, the author of *The Science of Educational Research* (1963), tells us, "Educational surveys are particularly
versatile and practical, especially for the administrator, in that they identify present conditions and point to present needs [p. 233]."

Having decided upon the survey method it thus became necessary to select the most suitable vehicle to carry out the fact gathering task. Should it be the questionnaire or the interview? Morley (1963), again helped solve the question. He writes, "The primary advantage of the interview over the questionnaire is its greater flexibility which permits the investigator to pursue leads that appear fruitful, to ask for elaboration of points which the respondent has not made clear or has partially avoided, and to clarify questions which the respondent has apparently misunderstood [p. 265]."

Since the problems involved with the study were concerned with post high school cooperative education programs, the decision was made to conduct a survey by interviewing coordinators and cooperating employers from a sample group of two-year collegiate institutions.

Selection of Sample Two-Year Collegiate Institutions

The major source for identifying community colleges and other two-year institutions from which the sample would be selected was the Cooperative Education Association's publication, *The Philosophy and Operation of Cooperative Education: A Directory of Participating Colleges in the United States and Canada* (1968). The directory lists thirty-one two-year institutions. This was not the total number of schools offering post high school cooperative education, but it represented a good comprehensive list with which to start the sample selection.
In order to select a representative sample it was necessary to investigate each school. This was done with the aid of short questionnaire (see Appendix A) and a letter stating the problem which was under study (see Appendix B). The questionnaire, letter, and a business reply envelop were sent to 30 of the 31 schools identified in the directory. One school was deleted on the basis of its program being limited to the liberal arts area.

The questionnaire packet was addressed to the person listed as the Director of Cooperative Education in the directory (pp. 139-169).

The purpose of the questionnaire was to determine whether or not the program was indeed "cooperative" as defined in the "Glossary", Chapter I. In addition, the questionnaire sought answers to the coordinator's experience in selecting and preparing on-the-job trainers; the number of students in the program; the number of cooperating employers; the various service areas in which programs were offered; and the possibility of making an appointment for an interview session.

Nineteen questionnaires, one letter stating that the questionnaire had been given to another person for completion, and one packet returned marked "return to sender" were received in ten days. After an additional thirty days without further returns, the questionnaire was sent for the second time to the eleven schools not answering. This time the letter was modified by simply addressing it to the "Coordinator of Cooperative Program" and adding a postscript explaining that the first letter had been addressed to an individual, but as no reply had been received it was assumed that there had been a change of
personnel in the area (see Appendix C). Five questionnaires were returned from the second mailing, bringing the total returns to 24 out of 30. The special problems which developed from these last five respondents will be discussed in Chapter IV.

Of the 24 returns, 21 indicated the primary objective for placing the student with a cooperating employer was "to integrate practical experience with classroom theory." These schools then became the base for the sample selection. Their answer fit the description of cooperative education. The other two answers on the questionnaire are considered objectives of work-study programs and work experience programs which are entirely different from cooperative education programs.

Upon reviewing the twenty-one eligible returns, it was decided that seven of the institutions clustered in three states; Michigan (2), New York (3), and Ohio (2), would provide a comprehensive sampling with the stratified offerings desired for the study.

In order to broaden the sample and even the number of schools visited in each state, two additional institutions were selected from secondary sources. A Michigan school was selected from the March 1, 1970 issue of "Occupational Education Bulletin", published by the American Association of Junior Colleges. An Ohio school was selected upon the recommendation of the Ohio State Board of Vocational Education. The sampling now included nine institutions with three schools in each of the three states chosen for the study.

After selecting the nine two-year collegiate institutions to be studied (Table I), a telephone contact was made with the director of
TABLE I
TWO-YEAR COLLEGIATE INSTITUTIONS INCLUDED IN THE SAMPLE

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Program Started</th>
<th>Program Areas</th>
<th>Coordinator Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broome County Technical College</td>
<td>Binghamton, New York</td>
<td>1948</td>
<td>Electrical Technology, Mechanical Technology</td>
<td>L. J. Sitterlee</td>
</tr>
<tr>
<td>Delta College</td>
<td>University Center,</td>
<td>1961</td>
<td>Distributive Education, Electronics Technology, Instrumentation</td>
<td>J. Cristensen, F. Feusse, D. Keyser, T. Limberg</td>
</tr>
<tr>
<td></td>
<td>Michigan</td>
<td></td>
<td>Technology, Mechanical Technology, Office Education</td>
<td></td>
</tr>
<tr>
<td>Lorain County Community College</td>
<td>Lorain, Ohio</td>
<td>1965</td>
<td>Mid-Management Retailing</td>
<td>D. E. Helwick, B. Summa</td>
</tr>
<tr>
<td>Macomb County Community College</td>
<td>Warren, Michigan</td>
<td>1964</td>
<td>Industrial Technology</td>
<td>P. Gould</td>
</tr>
<tr>
<td>Mohawk Valley Community College</td>
<td>Utica, New York</td>
<td>1949</td>
<td>Advertising, Design and Production, Banking, Insurance and Real</td>
<td>F. M. Spaugh</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Estate, Civil Technology, Electrical Technology, Mechanical</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Technology, Retail Business Management</td>
<td></td>
</tr>
<tr>
<td>Northwood Institute</td>
<td>Midland, Michigan</td>
<td>1962</td>
<td>Banking and Finance, Business Management, Executive Secretarial,</td>
<td>J. R. Bromley, Dr. P. Chein, A. Lindberg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Retail and Marketing</td>
<td></td>
</tr>
<tr>
<td>Institution</td>
<td>Location</td>
<td>Program Started</td>
<td>Program Areas</td>
<td>Coordinator</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
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<td>---------------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Northwood Institute (continued)</td>
<td>Midland, Michigan</td>
<td>1962</td>
<td>Hotel and Restaurant</td>
<td>E. M. Wray</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hospital Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Automotive Marketing</td>
<td></td>
</tr>
<tr>
<td>Ohio College of Applied Science</td>
<td>Cincinnati, Ohio</td>
<td>1934</td>
<td>Architectural Technology</td>
<td>E. M. Wray</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chemical Technology</td>
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<td></td>
<td></td>
<td></td>
<td>Civil Technology</td>
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<td></td>
<td>Construction Technology</td>
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<td></td>
<td></td>
<td></td>
<td>Electrical Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Electronics Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mechanical Technology</td>
<td></td>
</tr>
<tr>
<td>Sinclair Community College</td>
<td>Dayton, Ohio</td>
<td>1954</td>
<td>Accountancy</td>
<td>R. P. Custis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Electronic Data Processing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Electrical Engineering Technology</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Executive Secretarial</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>General Business Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mechanical Engineering Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Traffic Management</td>
<td></td>
</tr>
<tr>
<td>SUNY Agricultural and Technical College</td>
<td>Cobleskill, New York</td>
<td>1930</td>
<td>Nursery Education</td>
<td>Mrs. J. Emerson</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Food Service</td>
<td>Mrs. M. Hilbert</td>
</tr>
</tbody>
</table>
the cooperative program at each school. This permitted a personal introduction with the coordinator and a greater opportunity for further explanation of the purpose of the subsequent visit. It also allowed for a selection of suitable dates which could be scheduled into a tentative visitation itinerary. The institutions with the more liberal schedules were fitted around those with more limited days for a visit.

Once the itinerary was set, a follow-up letter was sent to each school to confirm date, time, and purpose of the visitation (see Appendix D). The interviews were planned so that one day would be available for interviews at each institution.

Selection of Sample Managers of Cooperating Firms

In addition to interviewing the coordinators at the selected schools, interviews were also conducted with the managers of firms cooperating with each institution (Table 2). The schools selected for the study had been asked to nominate the names of five or six of their cooperating employers so that two could be selected by the investigator, as a sample group of managers, to be interviewed with regard to the study.

The criteria for selecting the managers included in the sample were based on building a stratified representation of cooperating employers. An effort was made to include the smaller firms and the privately-owned businesses as well as the large corporations; even non-profit organizations. Also, the desire was to include as many of the
<table>
<thead>
<tr>
<th>Cooperating Employer</th>
<th>Location</th>
<th>Title of Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cincinnati Milacron</td>
<td>Cincinnati, Ohio</td>
<td>Educational Specialist</td>
</tr>
<tr>
<td>Delco Moraine Division General Motors</td>
<td>Dayton, Ohio</td>
<td>Employment Supervisor</td>
</tr>
<tr>
<td>Detroit Edison</td>
<td>Detroit, Michigan</td>
<td>Technical Personnel Recruiter</td>
</tr>
<tr>
<td>Dow Chemical Co., The</td>
<td>Midland, Michigan</td>
<td>Director of Placement</td>
</tr>
<tr>
<td>Foxwood Casuals</td>
<td>Midway Mall</td>
<td>Store Manager</td>
</tr>
<tr>
<td></td>
<td>Lorainne, Ohio</td>
<td></td>
</tr>
<tr>
<td>J. C. Penney Company</td>
<td>Midway Mall</td>
<td>Department Manager (Hardware)</td>
</tr>
<tr>
<td></td>
<td>Lorainne, Ohio</td>
<td></td>
</tr>
<tr>
<td>J. C. Penney Company</td>
<td>Saginaw, Michigan</td>
<td>Store Manager</td>
</tr>
<tr>
<td>K Mart Department Store</td>
<td>Saginaw, Michigan</td>
<td>Store Manager</td>
</tr>
<tr>
<td>Midland Hospital</td>
<td>Midland, Michigan</td>
<td>Assistant Manager of Administration</td>
</tr>
<tr>
<td>National Cash Register</td>
<td>Dayton, Ohio</td>
<td>Supervisor, Cooperative Training</td>
</tr>
<tr>
<td>New York State Electric and Gas</td>
<td>Binghamton, New York</td>
<td>Technical Personnel Recruiter</td>
</tr>
<tr>
<td>Photographic Division General Motors</td>
<td>Warren, Michigan</td>
<td>Administrative Supervisor of Personnel</td>
</tr>
<tr>
<td>Proctor and Gamble</td>
<td>Ivorydale Technical Center, Cincinnati, Ohio</td>
<td>Section Leader (Engineering Division)</td>
</tr>
<tr>
<td>St. John Associates Consulting Engineers</td>
<td>Binghamton, New York</td>
<td>Partner</td>
</tr>
</tbody>
</table>
service areas as possible; health related, sales and distribution, food service, office management, and engineering technology. In addition, it was considered desirable to select at least two managers from branches of a national organization, located in widely separated areas to compare their procedure for selecting and preparing on-the-job trainers.

Developing the Data Collection Process

The review of literature did not reveal any positive criteria which a teacher-coordinator could utilize when faced with the problem of selecting and preparing the on-the-job trainer. Schneider (Park, 1943) depended on his philosophy of "we teach as we are taught [p. 27]." Gold (1951) simply stated that the school accepted the on-the-job trainer "for better or worse [p. 117]." And, Jahoda (1963) left the problem "to the initiative of every college, its sound functioning to good will on both sides rather than to rules and regulations [p. 5]."

An apparent lack of effective training for the on-the-job trainer is supported by Evans (1969) when he stated, "Cooperative programs have been hampered by a shortage of adequate instructional ... material which is suitable for developing on-the-job trainers [p. 22]." Added to this, is Crumly's statement (1968), "The lack of continuing education for the downtown supervisors[on-the-job trainers] of cooperative students is another weakness of cooperative education [p. 211]."

On the other hand, the literature supports the fact that cooperative education is effective and that cooperative education students are achieving their educational objectives while employed
part-time with cooperating employers. Collins (1968, p. 8) and Armsby (1954, p. 19), revealed that the first evaluation study by the University of Cincinnati's faculty, proved the University's program was effective. "They concluded that their goals were being met, and, as a result, the cooperative experience was extended to other areas of the college." A later study by Wilson and Lyons (1961) concluded that, "Cooperative education has important values for colleges and universities, for students and employers. These values should be given wide publicity and cooperative programs in American higher education should be greatly expanded [p. 14]."

Even Congressional hearings support the success achieved by cooperative programs. Senator Pucinski (1968) stated at a National conference, "As Chairman of the General Subcommittee on Education, I conducted twenty-six days of extensive hearings on vocational education last year. And during those extensive hearings my belief in the need for cooperative programs in occupational education was reinforced [p. 10]."

With this knowledge, it was impossible to tightly structure the interview with the coordinators and managers that were to be visited. There was no way to anticipate what methods were being employed by the coordinators and managers to select and prepare the on-the-job trainers that were making their programs so successful. It would, therefore, be necessary to depend on an unstructured interview.

The flexibility of the unstructured interview is probably its greatest strength. Not only does it enable the investigator to pursue a given lead in order to gain insight into the problem, but, more important, it frequently leads to significant insights in unexpected directions. He may, for instance, find the problem shifting as he pursues various leads and have it
become an entirely different problem than the one he anticipated. Such flexibility can also lead to by-products which were not anticipated in the original plan of the study, but which often have greater significance than the basic outcomes originally expected (Mouly, 1963, p. 266).

Although the interview of the coordinators from the selected schools (Table I) was basically unstructured, an interview guide was developed so that the same pertinent questions would be asked as well as to keep control of the interview (see Appendix E).

The "Teacher-Coordinator Interview Guide" was designed to gain an insight into the actual practices that existed in each teacher-coordinators experience. Its purpose was to discover if an on-the-job trainer was actually assigned to the student-learner during his part-time employment experience in industry or business. If an on-the-job trainer was assigned, then it was necessary to discover who made the selection; whether or not the method was considered satisfactory by the teacher-coordinator; and how the system of selection could be improved.

The interview guide was also designed to probe the personal qualities considered desirable in a potential candidate when selecting an on-the-job trainer; has the person chosen for the training task received any assistance in developing a systematic method of instruction; and, does the school make any attempt to improve the instructional ability of the individual chosen to provide the on-the-job training.

In addition, the guide was designed to discover if reimbursement to the employer would have any effect on his willingness to become more involved with on-the-job training of cooperative education students.

Finally, the investigator wanted to know what recommendations the
experienced teacher-coordinator would have for the beginning teacher-coordinator regarding the selection and preparation of the on-the-job trainer.

Since employer representatives responsible for the final assignment of the on-the-job trainer (Table 2) were also going to be interviewed it was necessary to prepare a similar guide for their interview. This guide was designed to gather data which could be used as an external check of the data collected from the teacher-coordinator (see Appendix F).

The primary purpose of the "Cooperative Employer Interview Guide" was to verify whether or not an on-the-job trainer was assigned to the student-learner; how this person was selected; and, what part the school played in this selection.

Additional questions were included which were designed to discover what assistance, if any, the selected on-the-job trainer had received in developing a systematic method of instruction; the company's attitude toward reimbursement for its cost of being involved with a structured school program and the effect it might have on the part-time employment of student-learners.

The final question was used to seek suggestions for improving the on-the-job training portion of cooperative education students.

As previously mentioned, the second set of interviews, those with the employer, was to achieve reliability or an external check on the data collected from the coordinators. This technique has been suggested by Herbert Hyman (1955). He wrote, An "... external check ... involves the collection of data from a second respondent to check
the quality or meaning of the report of the first respondent, under conditions where there is some complimentarity between the two respondents [p. 165]." Any discrepancies in the two interviews would be an indication of invalid data.

Refining the Data Collection Procedure

The original drafts of the two interview guides were first reviewed by three research associates at The Research Center for Vocational and Technical Education, The Ohio State University. The consensus of this trio was that the interviews as designed were too lengthy and that some of the questions, while pertaining to cooperative education, were not relevant to the study. The investigator was reminded that unless the question had a direct bearing on the objective of the study there was no valid reason for its being included in the interview. This advice is supported by Mouly (1963), he cautions, "A questionnaire cannot be of infinite length. The investigator must realize that there is a limit to the demands he can make of a respondent, and that, consequently, he must limit his investigation to the point where he is not expecting too much and yet is able to get a reasonable answer to his problem [p. 243]."

The interview guides were refined limiting the teacher-coordinator guide to nine questions and the employer interview guide to eight. These were duplicated and tested a second time in a pilot run. The first two schools visited from the study sample were used for pilot testing the data collecting procedure.
During the visitations to the two pilot schools the interviewing procedure was completed as planned. The first school provided interviews with four teacher-coordinators and the second school provided three teacher-coordinator interviews. It soon became evident that the advice received from the three research associates regarding the length of the interview guide was worth heeding. Each interview guide with only nine questions approached one hour in length.

Although a clear-cut phenomenon concerning the selection and preparation of the on-the-job trainer was developing which was somewhat different from that anticipated by the investigator, the interview guide was considered valid. If the interview revealed a definite pattern and technique for selecting and preparing the on-the-job trainer at the two pilot schools there was no reason to believe that it would not be as effective at the remaining seven schools. Therefore, no further change was made in the interview guide for the teacher-coordinators.

Each of the two pilot schools provided the names of five cooperating employers as requested. Two names were selected which appeared to fulfill the criteria of the sample to be interviewed and telephone contact was made early in the morning for an afternoon appointment.

The interviews with the cooperating employers proved just as successful as those with the teacher-coordinators. In fact, the employers were so knowledgeable about the philosophy of cooperative education and they had such a positive attitude toward the program that the investigator was worried that he had erred in allowing the
school to nominate five employers for the study sample. It was feared that the coordinators had "stacked" the sample with only its best employers.

It was decided that the interview guide was valid and would be used, unchanged, for the remaining interviews with cooperating employers. However, instead of depending upon the pre-selected group of employers from which to draw the sample two for interviews, it was decided that during future visits the investigator would ask permission to select, at random, from the total group of employers cooperating with the school. This change in the selection of cooperating employers would permit a better opportunity for selecting a stratified sample and prevent the possibility of interviewing only the better employers.

The pilot testing of the interviews alerted the investigator to the fact that he would have to sharpen his techniques for controlling the interviews and keeping them within a reasonable time schedule. It also proved the value of the unstructured interview when researching a topic that is exploratory in nature.

Collecting the Data

The general procedure used in collecting the data was to spend one entire day with each of the sample institutions and its cooperating employers. Morning interviews were conducted with the teacher-coordinators and afternoon interviews were reserved for the cooperating employers.

The visitation with the cooperating employer was planned with much lead time. The selection of the cooperating employers was done
shortly after the arrival of the investigator at each institution. A phone call to the individual to be interviewed was made by the teacher-coordinator to introduce the investigator. The investigator then presented his purpose for a meeting and planned an appointment for later in the afternoon.

The short-term notice for arranging the cooperating employer interview was successful in this instance because of the close working relationship between the teacher-coordinator and the person to be interviewed. Also, most of the persons interviewed were associated with the personnel department and maintained fairly flexible work schedules.

Although some institutions provided the opportunity to interview more than one teacher-coordinator, the data collection was accomplished by individual interviews.

Each teacher-coordinator was given the opportunity to describe his cooperative education program briefly. This interval allowed the respondent and the interviewer to adjust to one another. It also provided the interviewer the opportunity to pick up key points which could be referred to as the interview progressed.

The interview guide was used to chart the progress of the interview. Occasionally it was desirable to deviate from the sequence of the guide in order to maintain a continuity of the teacher-coordinator's program description, but all questions were explored.

The investigator tried to follow Houly's (1963) recommendation for taking notes. He has suggested:

Whatever notes are taken should not interfere with the interview. Taking longhand notes, for instance, generally is inadvisable since it slows down the interview and is
likely to encourage the respondent to become progressively more laconic. A common solution to this problem is to devise a brief interview schedule on which to check the main points of the interview according to a pre-arranged system of notation. This can be done as the interview progresses or, if any form of note-taking might be disturbing to the respondent, immediately after the interview [p. 272].

Therefore, during the interview only brief notes or key words were jotted on the guide. There was no attempt to fully record the meeting or capture complete sentences which might interrupt the interview. After the interview the investigator used the guide as a reference to record the discussion.

When more than one interview was planned in a school, allowance was made for a fifteen minute break between meetings so that notes could be recorded while still fresh in the investigator's memory.

The interview with the cooperating employers followed a similar pattern with the exception that note-taking was kept to an absolute minimum. This was done for three reasons: (1) It was felt that the managers might be more hesitant to being quoted than the teacher-coordinators; (2) To keep the interview moving at a fast business-like pace consistent with the routine schedule of a busy manager; and (3) More time was available between the interviews of the employers which permitted intensive notes to be recorded at the conclusion of the interview.

Finally, the investigator reconstructed each interview of the day in his mind as he traveled to the next institution on his itinerary. After stopping for the night, all notes were reviewed and refined with the details that were recalled to memory during the interval of travel and relaxation.
CHAPTER IV

RESULTS OF THE SURVEY

The purpose for surveying a study sample of two-year collegiate institutions offering cooperative education programs was to gain an insight into existing practices for selecting and preparing the on-the-job trainer of part-time student-learners.

The results of visiting the nine institutions in three states are presented in this chapter. The data were obtained by interviewing sixteen teacher-coordinators associated with the sample schools and fourteen cooperating employer representatives responsible for the student-learner's assignment during his part-time employment.

Although nine institutions were visited, it must be noted that the entire interview procedure was not completed at two of the schools. One of the two institutions provided a two-hour interview, but it was somewhat unfriendly and there was no opportunity to interview employers cooperating with this school. The two-hour interview did, however, provide some interesting data which has been included in this chapter. The second institution was more gracious and the interviews with the two "teacher-coordinators" were cordial and provided a great deal of information on their program operation. The problem which developed here was the fact that the program, although an excellent one, did not fit the investigator's description of cooperative education. The program did assign students to cooperating employers, but it was for
only a two-week period. During this time the students were not paid and although they did become involved with the function of the firm, their major objective was to observe operational procedures. On-the-job instruction was provided in the institution's campus school and in the institution's food service facilities. Again, there was no pay involved and the students were under the supervision of the college's instructional staff.

Telephone contact with the first school was brief and hurried although there was no indication the school would not welcome the interview opportunity. The investigator had originally thought it was peculiar that the telephone call was routed through the Placement Office rather than the Office of Cooperative Education as the other institutions had done. At the interview it was discovered the man was the Placement Officer with coordination being a part of his duties.

The telephone contact at the second institution was made with the Dean of the school who had been given the preliminary questionnaire for completion. There was no indication in our conversation that the program was atypical, and the Dean was interested in the investigator visiting the college to learn about their program.

Problems of this nature are certainly disappointing to a researcher, but they do provide a learning experience and contribute to future projects of a similar nature. It is interesting to note that the two institutions which contributed the least to the survey were selected from the late returns of the preliminary questionnaire. They were a part of the five returns received from the second mailing. Two other late returns had marked their questionnaire "No Program
Exists" although their programs were listed in the "Directory". The fifth return had a small program with only twelve students.

Since the preliminary questionnaire was short (only eight questions) and could be completed in less than five minutes and returned in a business reply envelope with very little effort, it can only be assumed that those not responding immediately either did not wish to participate or had little to contribute. The poor results of the returns from the second mailing would tend to support this assumption.

Organizing the Interview Data

In order to focus the interview data toward the problem of selecting and preparing the on-the-job trainers it seemed best to organize the data extracted from the interviews under five sections. The five sections were:

1. Verification that on-the-job trainers are assigned to student-learners.

2. Selection of the on-the-job trainer.

3. Preparation of the on-the-job trainer for the training task.

4. Potential effect of training cost reimbursement for cooperating employers on the improvement of on-the-job training for cooperative education students.

5. Recommendations from the field for improving the on-the-job portion of a cooperative education program.

The data were organized by extracting appropriate responses given to interview questions by teacher-coordinators and cooperating employers participating in the survey. Organizing the data under five sections permitted the investigator to take a broad look at the collective
findings from the thirty respondents. This technique allowed the data to be analyzed for consensus or disagreement among the participating respondents and to determine its validity.

The nature of data collected during the unstructured interview did not lend itself to tabulation, therefore, the data were presented in a verbal fashion.

Analysis of the organized data provided the basis and validity for the conclusions reported in Chapter V. The analyzed data were directed toward the important problem of selecting and preparing the individuals who are responsible for the on-the-job training of student-learners while they were employed. Also, the analyzed data were used to recognize the limitations of the study and to suggest further investigations.

I. VERIFICATION THAT ON-THE-JOB TRAINERS ARE ASSIGNED TO STUDENT-LEARNERS

Before any attempt could be made to identify present practices of selecting and preparing the on-the-job trainers, it was necessary to establish the fact that on-the-job trainers were assigned to these students.

The opening interview question with the teacher-coordinator was used to establish this fact. In response to, is the student-learner assigned to an on-the-job trainer while he is employed part-time with a cooperating firm? Fifteen of the respondents were emphatic in replying "yes". They explained that this point was a great factor in the successful operation of a cooperative program.
One respondent simply said, "Co-op students are treated just like any new employee on the job." When the investigator tried to get the respondent to enlarge on this statement by describing the advantages a cooperative education student would have under such conditions, he was rebuked for not having a better knowledge of employment practices in industry.

In order to validate the responses of the teacher-coordinators to their first question, a similar question was asked the cooperating employers. They were asked, is the student-learner assigned to any particular person for on-the-job training while he is employed part-time with your firm? All fourteen employers responded "yes" to the question.

Nine respondents indicated a single person was responsible for the entire training period the student was employed as a part of his cooperative education program.

Five respondents indicated that the student-learner would be assigned to four or more individuals for on-the-job training, depending upon the number of areas or departments the student was rotated through during his employment period. A new on-the-job trainer being assigned each time the student was rotated. All five respondents were associated with programs involving engineering technology. Four of these were located in the same general area of one state.

The number of on-the-job trainers assigned to a student-learner is not an indicator of the number of training areas or departments that the student is rotated through during his employment period.
Typical of the nine respondents replying that only one person provided the on-the-job training for the student learners during their entire employment period was an Assistant Manager of Administration, in a hospital. His general remarks indicated that he provided the on-the-job training for the cooperative education students from the local community college enrolled in the Hospital Management program and working part-time at a hospital. He felt that he was best suited because of his experience and because he had provided the leadership for the curriculum's development.

Another respondent in this group, a partner in an engineering consultant firm, indicated that the student-learner working with his firm was assigned to the Job Captain responsible for one of the firm's projects. The Job Captain was responsible for helping the student research the project, work with vendor representatives and their catalogs, design the system, and prepare the necessary working drawings.

Representative of the cooperating employer providing a different on-the-job trainer for each phase of the students on-the-job training was a Mid-western division plant of a large automotive corporation. As a student passes through one of their many departments such as, development, production, quality control and labor relations, he is assigned to a different on-the-job trainer in each department; usually the department head.

Persons assigned to the on-the-job training task of student-learners in a two-year collegiate program were found to be department heads, department managers, or supervisors.
II. SELECTION OF THE ON-THE-JOB TRAINER

Once it was determined that an on-the-job trainer was definitely assigned to the student-learners, the next problem facing the investigator was to determine who made the selection; by asking the teacher-coordinators, who selects the on-the-job trainer assigned to the student-learner?

It became quite evident from the unanimous replies of all sixteen respondents that the responsibility for the actual selection of the on-the-job trainer was that of the employer. As one respondent stated, "These employers are not running a classroom for your institution. They are in business to make money and they will make all the decisions effecting their operations."

The teacher-coordinators were usually quick to point out, however, that they still controlled the selection process of the on-the-job trainer through their choice of the cooperating employer. Whenever they felt a potential employer would not be cooperative in providing the type of training desired or when a previously selected training station proved to be undesirable, the station would be dropped.

Teacher-coordinators of the programs related to production, admitted that they were finding the selection of good cooperating employers more difficult during the 1969-1970 school year because of the slow down in the economy. This was especially true of the teacher-coordinators in Michigan who were dependent largely on the automotive industry for training stations. The older coordinators remembered the same problems were faced in 1958, but their programs survived.
"Normally," they stated, "when production is high, there are more desirable firms than we can use and we can become very selective."

Teacher-coordinators of banking and finance, and distributive programs stated in general, "We have not been effected, as yet, by any slow down of the economy." Their feelings on this subject related to the fact that they believed their service area was subject to a high turnover rate in personnel and employers were always looking for good potential managers. These coordinators felt their selection of good cooperating employers was still high.

Persons directly responsible for the selection of the on-the-job trainer assigned to the student-learners held positions with titles such as:

- Manager of Retail Division
- Administrator of Personnel
- Director of Technical Placement
- Director of Management Development
- Manager of Education and Training
- Supervisor, Cooperative Training
- Training Specialist
- Training Coordinator
- Personnel Director
- Industrial Relations Manager
- Manpower and Organization Development Manager
- Personnel Placement Supervisor
- Store Manager
- Owner or Partner

The final responsibility for the selection of the on-the-job trainer, once the student was employed, was regarded by the fourteen cooperating employers as their's and their's alone; thus verifying the previous statements of the teacher-coordinators on the subject.

Since both the teacher-coordinators and the cooperating employers were quite emphatic regarding the fact that the on-the-job trainer was selected by the firm in which the student-learner would be
working, it then became necessary to "zero in" on the method which was used by business and industry to select the person assigned to the student-learner. This was accomplished by opening the topic with the cooperating employer by asking, How is this person selected? The first fact established by this question was further verification that the selection of the on-the-job trainer was the sole responsibility of the cooperating employer.

The second fact established was students are employed only when there is a job opening available. All fourteen respondents agreed that they understood the student was in a training position and that his effectiveness as an employee might be less than that of a regular full-time person during the early part of his employment. Nevertheless, cooperative education students were employed only when there was a definite need for their services. In the larger companies the need was justified by a Manpower Requisition stating that a position was open and budget funds were available for a new employee. In the smaller firms the need was based on the judgment of the manager or owner as to whether or not a new employee was to be hired.

The study sample represented 435 cooperating employers and neither the teacher-coordinators nor the cooperating employers interviewed were aware of any instance in which a cooperative education student would be employed unless his services were needed to fulfill a function of the company.

This fact is important in this study because it was the primary means of selecting the person responsible for instructing the student-learner. The department head or person directly responsible for the
position to which the student was assigned, usually was required to accept the training responsibility.

One cooperating employer indicated that they provided a procedure permitting department heads to specify on their requisitions to the personnel department whether they wanted a full-time employee, part-time employee, or a cooperative education student. In the other instances, the department head was contacted by the personnel officer or manager to see if he would be agreeable to having a cooperative education student added to his manpower needs. Students were never forced upon a department head or group leader according to the employers interviewed.

Most of those interviewed agreed that the first time a person assumed the responsibility for a cooperative education student was the most critical with respect to whether or not the training station would prove successful.

One director of technical placement with a large midwest employer was the first representative of a cooperating employer interviewed and consequently a part of the pilot study. His comments were important because they provided the background for the inquiry with all of the remaining employers. He realized that the first time a person was assigned to a student-learner for training that there was a risk; both for the student and the company. He mentioned quite frankly that the company had a selfish motive in employing cooperative students from the two-year collegiate institutions. "These students," he said, "are a wonderful source for our future technical manpower and we need all we can get. If the student does not receive a good on-the-job training experience with us, we chance to lose a good technician;
either he isn't properly prepared or his association with us is such
that he doesn't wish to continue as an employee after graduation."

This interviewer went on to explain how he worked with teacher-
coordinators to receive feedback from the students during his training
period. He thought reports, both written and verbal, from the student
to the coordinator should reveal progress and problems that the
employer should be made aware of so that future training procedures
could be modified. He also used casual discussions with the on-the-job
trainer who usually revealed either enthusiasm or the lack of it when
the student-learner was mentioned. He also discussed the extensive
exit interview which each student had when he terminated his job to
return to school. The interview explored the student's attitude toward
his job, department, company, supervisors and peers. Copies were
distributed to industrial relations, company counselors, and the
personnel department.

He realized these practices were of little help to the first
student assigned to an on-the-job trainer, but they were invaluable
for assigning later students.

The first cooperating employer interviewed after the pilot
study fully agreed with the critical aspects of the first training
period experienced by a department head. He felt, however, that his
company's experience of 30 or 40 years of providing cooperative educa-
tion opportunities for the students from baccalaureate colleges had
helped in choosing good on-the-job trainers for assignment to the
associate degree students.
He also mentioned that persons assigned to the training task were also encouraged to visit the community college in which the student was enrolled to meet the instructors and to become familiar with the instructional program. Also, the company encouraged teacher-coordinators to assign the on-the-job trainer to advisory committees and/or program planning and development projects in the school.

These respondents suggested that perhaps the problem was not really a matter of selecting the on-the-job trainer, but the proper selection of the student. In effect, they said, "Co-op students from the two-year technical schools are employed part-time as a part of the company's management development program. We will select only students who appear to have the potential for fulfilling our projected organizational growth. The students' employment with us will verify whether or not we have chosen wisely and will offer them full-time employment upon their graduation. Therefore, their selection as a student-learner with the company is as rigid as the selection of any of our salaried employees.

In all but one interview the on-the-job trainer was also responsible for the functioning and the output of the station or stations to which the student-learner was assigned. He, therefore, became critical of the type of individual he wanted in this position and expected to make his selection from several applicants.

As the interviews progressed through the study sample of nine schools, it became evident that student selection was indeed the practice. In fact, only one company interviewed revealed that they would accept a "problem" student.
A technical personnel recruiter for a utilities company in an Eastern state revealed that his company had worked with the local technical institute and its coordinator for twenty-three years. During this time they had developed a fine working relationship in which the company had established a ratio of two and one-half paraprofessionals for each professional in the organization. In addition, several graduates now held positions in the corporate office.

He stated, "If a student cannot find employment during the normal interview period or runs into a problem after being employed at another location and is released, we will accept the student after a frank discussion of the student's problem with the coordinator. Sometimes the student is placed in a lesser position than normally given a coop student, but as he shows promise he is moved to a more responsible position."

The normal practice at one educational institution is to have an interview day. During this time the cooperating employers establish their interviewing stations and the students interview with the employers of his choice. This situation simulates a common recruiting practice and the employers and students compete for each other's services.

In the other schools visited the teacher-coordinator suggests which students interview with the selected employers. It is the student's responsibility to visit the potential employer. This practice performs a type of pre-selection of the students which is expected by the employers, and is based on the teacher-coordinator's knowledge of the demands of the cooperating employer.
The Cincinnati-Dayton area provides an even greater challenge to the students and coordinators. In this area the students are not only competing with their classmates, but are competing with students from other schools in other states, such as: New York, Indiana, Illinois, Georgia, Pennsylvania, etc.

However, it must be remembered that this area is the birthplace of cooperative education. Business and industry is prepared, after sixty years, to accept their function in providing employment for large numbers of cooperative education students. Cooperative education is considered to be a normal part of the educational process.

Part of the selection process at one large corporation in Ohio was found to consist of a sophisticated battery of tests which over the years has established "norms" that are useful in the selection and placement of students in the areas best suited to their aptitudes and education.

Another company depends on an extensive series of interviews and performance tests to select and place the coop students in one of their pre-structured programs which is designed for 2,000 clock-hours. These are not trade apprenticeship programs, but programs designed to prepare two-year collegiate program students for high level technical positions.

In investigating the school's responsibility in selecting the on-the-job instructor, the cooperating employer was asked, Has the school been consulted or taken part in the selection of the person assigned to the on-the-job training of the student? No doubt was left
In the investigator's mind that the selection was a responsibility of management and they are not about to share it with anyone.

The consensus of fourteen employers answering this question can be summed up in one respondent's reply; he stated, "No, this is the sole responsibility of the company. We believe we can do the job best because we are aware of the action called for due to our daily contact with the trainer and the student."

One respondent mentioned that his company had cooperated with approximately twenty-four institutions at one time or another over the years and only one institution had insisted on a written agreement with the company stating, "the school had the right to approve or disapprove the trainer selected." He went on to describe how this was the prerogative of any school whether it was in writing or not.

The respondent was quick to state, however, "If a school rejects our selection of the trainer, it would create a very delicate situation. We would have to carefully review our continued association with the school and weigh their justification for rejection. This action would have serious implications on our Industrial relations and we must protect our own internal organization at all times."

The smaller firms and those which had been cooperating with a school for less than three years, revealed that they expected the teacher-coordinator to explain the type of person they wanted for an on-the-job trainer and the type of experience they expected their students to receive; after that the final selection of the person assigned to the training task was their responsibility. As one manager said, "the school can then take it or leave it."
During this part of the interview the investigator also inquired as to whether or not the unions were involved in any manner with the selection of the trainer or with the content of the instruction given within the plant. This question was not a part of the interview guide, but Shill had indicated in the literature that, "In some states, notably Louisiana, labor pressures have forced the discontinuation of cooperative programs that involve the industrial occupations." Also, Harvard Professors Turner and Lawrence (1965, p. 116) and Professor Bienvenu of Southwestern Louisiana (1969, p. 118) had indicated in their writings that the training responsibility might better fit the union's function than management's.

The managers were unanimous in indicating that the cooperative education programs for the associate degree involved salaried positions and were not a part of any negotiated union contract.

In only two instances did the investigator find students in training stations which involved non-salaried activities which could possibly be affected by union activity. One coordinator of an engineering technology program indicated that all of their programs were designed so that each student spent the first seven weeks of his coop experience on a production line related to his technological area. This experience was to be a foundation for getting to know production workers and the production methods and processes which may be affected later by his function in a paraprofessional position. There had been no union reaction to this process for indoctrinating cooperative education students.
One coordinator of a long established program and one of his cooperating employers both agreed that occasionally students are assigned to hourly-wage positions until various deficiencies in a student's attitude or aptitude are corrected so that he can be placed in a salaried position. They felt the union was sympathetic to the procedure because so many of them had relatives or neighbors in the program and understood the objectives of this infrequent action.

No teacher-coordinator or cooperating employer could recall an incident in which the union had become concerned with the on-the-job training of a student enrolled in a two-year collegiate program.

The third question within this section was designed to obtain the teacher-coordinator's reaction to the effectiveness of the selection method of the on-the-job trainer assigned to the students. They were asked, Do you consider the selection method satisfactory? The sixteen teacher-coordinators responding felt that the selection method of the on-the-job trainer was satisfactory since the school made the final decision by accepting or rejecting the training station. Fourteen of the respondents had teaching or other responsibilities and felt they really did not have time to become any more involved with the selection. Some even seemed pleased that they did not have to spend more of their time with the selection process.

Two respondents were full-time coordinators with eight or more years in their present positions and had established a fairly strong core of cooperating employers. They felt the economy greatly effected the quality of the new employers needed to take care of their expanding programs. During the high peaks of employment when manpower was in
short supply, they felt they were in a better position to be more selective and more demanding on the employers chosen. Periods of recession, such as 1958 and 1970, presented some problems in maintaining the high quality of the other years.

The two "teacher-coordinators" from the atypical work experience programs, where the student spent only two weeks with cooperating employers, felt that the quality of the training station made little difference in their programs. They felt their students gained from poor experiences as well as from the better ones.

Two industrial employers gave basically the same comment. They stated in general, "Shielding the student from the weaker situations in industry is not realistic. They must learn that different department heads have different characteristics and capabilities."

The question, Do you have any suggestions for improving the selection method?, was definitely a weak question in the interview with the teacher-coordinators. The teacher-coordinators simply answered, "No, the system seems to be working well." Any further probing on this topic seemed to make the respondents withdraw and become hesitant to expand on the original "no". Most of the respondents seemed content and pleased they did not become further involved with the selection of the on-the-job trainer.

Teacher-coordinators were then asked, What qualities or characteristics do you find in the more successful on-the-job trainers? It appeared to the investigator that most of the teacher-coordinators had never given much thought to the qualities they found desirable in the on-the-job trainers working with their students. Usually they
started listing such items as friendly, knowledgeable about the job to be taught, congenial, pleasant, etc. By further probing the following composite list was developed:

- Ability to communicate
- Desire to teach
- Experience working with Little League teams or Junior Achievement
- Have grown children of their own
- Possess pride in their work
- Willingness to impart their knowledge to others
- People oriented vs. production oriented
- Graduate of a cooperative education program
- Shows enthusiasm about the cooperative education program
- Age (this item varied widely)

The characteristic most often mentioned, without further probing, was the need for the on-the-job trainer to be "people oriented." The respondents felt the student-learner was doomed if he had the misfortune to be assigned to a department head that thought only in terms of production and output. "People oriented" was also noted by many of the managers as a trait they looked for in their assignment of a department head to the training task. In fact, this was a trait they almost always looked for in selecting department heads. "Too often," they said, "an entire department suffers when production becomes over-emphasized at the sacrifice of the employee."

"Graduate from a cooperative education program" was the second characteristic most often mentioned. The first thirteen teacher-coordinators had only occasionally encountered people in the field with a cooperative education background. These were more often found in the distributive education programs. Experience with these few was unique enough to make the coordinators wish they had more people with this background to work with. The last three coordinators interviewed
were in situations in which the majority of their on-the-job trainers were cooperative education graduates. In one situation many of the on-the-job trainers had graduated from the local program sometime during the past twenty-three years. The other two coordinators worked with people who had graduated from cooperative programs at many different schools. The majority, however, having been graduated from a baccalaureate program at a university. One respondent felt these coop graduates were potentially good on-the-job trainers, but he said, "I sometimes feel sorry for the students assigned to these people; they are so rigorous and demanding in their training."

"Age" was another factor mentioned by each of the respondents, but there was no pattern or agreement on what age range seemed most desirable.

One respondent felt that male students should always be assigned to male instructors and female students to female instructors. This suggestion may have been due to the respondent's oriental background. No one else considered it a factor. The investigator had the experience of witnessing a young lady cooperative student in a drafting and design program, setting-up and operating machine tool equipment on the job. Both she and her male instructor were delighted with her experience on the job.

Another factor suggested in selecting an on-the-job trainer was "an awareness of youthful vogues and modern trends." The respondent presenting this suggestion went on to describe a case in point. One of his bright executive secretarial students was exceptionally attractive and dressed smartly in the latest fashions. After being
placed with one of the large corporations in Michigan, she encountered problems in not being able to communicate with her lady supervisor responsible for her on-the-job training. It became necessary to transfer the student-learner to another supervisor in the same company and she went on to successfully complete her training and was offered a fine position with the company. Only later, did it become apparent that the first supervisor, being a more reserved person and modest dresser, was upset by the student's appearance. Although the student had not violated any dress code of the company, the contrast between the student and supervisor had created a "block" which apparently prevented their working together effectively. The coordinator went on to describe how he made sure in the future to recommend the more modest students to this particular supervisor. The training station turned out to be one of his better situations.

This episode may have some significance on selecting the on-the-job trainer. However, the investigator feels that it adds more evidence to the fact that in reality it is the student who is selected for the on-the-job trainer rather than the on-the-job trainer selected for the student.

Five respondents indicated that they considered interest and cooperation in the program from the top management of the cooperating firm to be more important than any particular characteristic in the individual on-the-job trainer. They thought pressures from the top made the on-the-job trainer perform best. When top management seemed indifferent to the program, the training station was usually ineffective for preparing student-learners.
The data analyzed under this section was gained from thirty interviews with persons associated with the nine selected institutions. Sixteen interviews were conducted with teacher-coordinators and fourteen with cooperating employers. The purpose of these interviews was to discover what type of preparation the on-the-job trainer received to prepare him for the instruction task.

The question, Does the on-the-job trainer receive any assistance in developing a systematic method of instruction?, was first put to the teacher-coordinators.

Only three teacher-coordinators indicated that they made any attempt to work with the on-the-job trainers assigned to the student-learners in their cooperative education program.

A coordinator for mid-management retailing at the county community college had prepared a six-page manual entitled, Now That I Am A Training Sponsor: A Manual for Supervisors of Mid-Management Retailing Student-Trainees.

The manual described the cooperative education program and the part the cooperating employer plays in helping the student achieve his educational and career goals. One part in the manual offers the Four-step Method of Instruction as a good formula for the on-the-job training task. Each step is described. The on-the-job trainer is also reminded that his enterprise has a training department that can offer assistance with the training task, or if the need arises he may call the teacher-coordinator any time that assistance is needed.
Two teacher-coordinators used the workshop technique. Each of these coordinators planned an eight-hour conference and invited the cooperating employers to the campus. The meeting was used to describe the purpose and philosophy of the program, techniques for working with students, evaluation reports of student achievement, and the reports the students would write concerning their experiences.

In an attempt to determine the role of the educational institution in preparing the on-the-job trainer, the teacher-coordinators were asked, Does the school offer any type of extension course or adult education course that would prepare on-the-job trainers for their additional tasks as an instructor?

From the sixteen teacher-coordinators interviewed, it was discovered no one was making any attempt to provide special classroom instruction that would assist the on-the-job trainer to establish a systematic method of instruction.

One respondent mentioned he had tried to do so several years ago, but all the on-the-job trainers cancelled before the class started. He said, "These people are too busy for such a course."

Another respondent related that his responsibility during World War II was visiting war production plants throughout the United States to set-up and teach the "J" courses; but he had not given any consideration to applying similar courses to the preparation of on-the-job trainers working with his students.

Two institutions offered suitable courses for preparing on-the-job trainers in their evening programs in foremanship and industrial management. One community college offered Industrial Foremanship
Technology: A Compact Career Course. The other two-year college offered a program in Industrial Management Quality Control Technology in their evening division. However, there was no attempt by either school to suggest the on-the-job trainers assigned to cooperative education students enroll in any of these courses.

Similar questions were asked of the cooperating employers. The first was, Has the person assigned as on-the-job trainer received any assistance in developing a systematic method of instruction—such as Instructor Training?

Eight cooperating employers indicated that their company had a management training program which included an instruction methods type of course. None of the eight, however, could verify that the people assigned to work with cooperative education student-learners had taken the course. These people were eligible and would probably receive the training sooner or later, but without a search of the files there was no way to tell which ones had or had not taken the course. The course was not a prerequisite for being assigned as an on-the-job trainer. One of the eight respondents indicated the program was voluntary and the company charged a three-dollar enrollment fee.

A ninth respondent indicated their people assigned to student-learners from an associate degree program would have had such training. In addition, they would have received courses relating to T-Groups and sensitivity training. It was explained that members of their educational and training department periodically attend Harvard to take the various management training programs they offer. These people return
to the company and prepared similar courses appropriate for the different management levels within the company.

Another company was found to use a modified type of vestibule training to accommodate their associate degree student-learners. They had elaborate training facilities set aside which included library, classrooms, drafting room, and a machine tool laboratory. The classrooms are equipped with study carrels and include audio visual equipment and some programmed instruction. Their staff included a retired public school administrator and three industrial education graduates along with several instructional staff who have come from several production areas.

To accommodate the instructional staff who are not graduates from a teacher education program, a required 64 clock-hour course has been prepared to give these people a background in methods, philosophy, psychology and counselling as it relates to teaching.

Four of the smaller cooperating firms indicated that their people had no training whatsoever regarding instruction methods.

One respondent indicated in effect that, "The Job Captains, to which student-learners are assigned, were originally chosen for their jobs because they had the ability to communicate and get ideas across. Giving instruction on how to develop a concept or design a system is their full-time responsibility." Although he was not aware if they had received any instruction on how to do this, he felt they were doing a "dog gone" good job.

Another admitted that he had not received training in "How to Teach". Then he stated, "My mother and dad were teachers, my
sisters were teachers, my oldest daughter is a teacher, and I think I 

have an innate ability to teach." He laughed as he said, "I believe 
good teachers are born and not made."

The second question asked of the cooperating employers was,

Would you encourage your employees assigned to on-the-job training 
tasks to attend a "How to Instruct" or similar course if it was offered 
by the school?

The fourteen cooperating employers were unanimous in stating 
they would not encourage their employees assigned to the task of 
working with cooperative education students to attend a "How to 
Instruct" course offered by the school. They would, however, announce 
to their employees when such a course was offered, but whether or not 
they took the course would be entirely voluntary.

Six respondents stated that their employees would be reimbursed 
through the Education Refund Plan if they completed such a course and 
had paid a tuition fee.

Two respondents from the smaller cooperating firms indicated 
that they would be interested in taking a course of this nature. They 
were not aware that such a course was available.

In general, the ten cooperating employers which provided a 
management training program felt their employees would be more apt to 
take the course at the plant rather than at the cooperating school.
IV. POTENTIAL EFFECT OF TRAINING COST REIMBURSEMENT FOR COOPERATING EMPLOYEES ON THE IMPROVEMENT OF ON-THE-JOB TRAINING FOR COOPERATIVE EDUCATION STUDENTS

Over the years there has been some concern that employers have been reluctant to become involved with cooperative education programs because the task of training a student-learner has been considered a financial burden.

The 90th Congress (Public Law 90-576) in an effort to encourage the further development of cooperative education programs has authorized funds in Part G of the Act "to reimburse employers when necessary for certain added costs incurred in providing on-the-job training through work experience [p. 23]."

Therefore, the thirty interviews in the study included a question pertaining to the effect that reimbursement might have on the improvement of the on-the-job training of student-learners in a cooperative education program. The question was, Do you believe that the cooperating employer would be willing to spend more time preparing the on-the-job trainers if he were reimbursed for the extra costs?

The investigator was unable to find a single respondent, out of the sixteen teacher-coordinators interviewed, that had any knowledge of Part G of the "Vocational Education Amendments of 1968." In fact, none of the respondents gave any indication that they were familiar with any Congressional action referring to vocational education.

One of the sixteen respondents felt justified in his failure to recognize any of the Vocational Education Acts. He stated, "My responsibility is with post high school programs. My concern is only with those acts pertaining to higher education."
Representatives from four of the study sample institutions thought their school did have a working relationship with their State Department of Vocational Education and received "some" financial assistance for "some" programs, but they did not know which ones. Representatives from four institutions did not believe their school had a working relationship with their State Department of Vocational Education. Respondents from the ninth institution, which was a private school, assumed that they were not receiving any type of assistance from their State Department of Vocational Education.

Three respondents indicated that they believed the possibility of reimbursement of the extra costs incurred in accepting a student-learner would be especially helpful to them in gaining cooperation from the smaller employers. These respondents were responsible for distributive education programs and had the newer programs in the study sample.

Thirteen respondents could not say for sure what the effects of training cost reimbursement would have on their programs. They assumed the additional "red tape" would not be acceptable to their cooperating employers.

Basically the same question was asked the cooperating employers. Four cooperating employers were aware of the provisions of the "Vocational Education Amendments of 1968"; ten were not.

Two cooperating employers indicated that they were interested in receiving reimbursement for their programs. Eleven indicated that they were not interested in receiving reimbursement for their programs.
One indicated that there was no interest at this time, but they were trying to remain abreast of developments in this area.

One of the two cooperating employers indicating an interest in reimbursement was a hospital. They had not been aware of any possibility for reimbursement, but considered the idea to be very important in the preparation of health related technicians. They believed the second responsibility of a hospital was to serve as an educational institution. They indicated that most hospitals were already training interns and nurses, but very few were involved with the preparation of badly needed technicians. However, they felt that hospitals had to be careful not to become involved with programs that might create a financial burden which would be reflected on their primary objective; the health and welfare of their patients.

The second employer interested in reimbursement was aware of the "Vocational Education Amendments of 1968" and had already made inquiries into the possibilities of their receiving reimbursement. The company indicated that their program was serving their own needs, but their special training facilities were not operating at capacity. A reimbursed program would allow an increased enrollment in cooperative education students with the company knowing full well that the increase in students would be benefiting other companies rather than itself.

Two divisions of the same corporation were asked the question; each one in a different state. One was not aware of Public Law 90-576, but assumed the corporate policy would not approve such an arrangement. The other division was aware of the act and had made an inquiry at the
corporate level as to what the policy was on this subject. The answer was, "There is no corporate policy on this subject. Each division is to make its own decision as it reflects the best interest of the division and the community in which it is located.

During this part of the interview the cooperating employers restated their position with regard to the cooperative education students from the two-year collegiate programs which they hired as a part of these programs. First, they hired student-learners only when there was an open position. Second, they expected the student to remain with them after graduation. They were aware that all students did not remain. And, third, since students at this academic level are expected to enter supervisory or mid-management positions with the company, they are given the best training the company can offer. The respondents did not believe that additional money would effect the efficiency of their training program.

All fourteen respondents felt the cost of training student-learners was insignificant when compared with the benefits received by the company.

The hospital felt that their cost of training eighteen student-learners over a three-year period had not created a severe burden, and if they had been successful in retaining one or two of the students after their graduation that it would have offset the costs of training. Their major concern was that, so far, they had not retained any students as full-time employees. Their students were enrolled in a private institution and came from other states and foreign countries. As a result the students tended to return to their home areas after graduation.
A larger company indicated that student-learners only created a burden during their first training period (academic quarter) of employment. During their second period of employment the company benefits offset the cost of the first training period. The respondent went on, "If the student stays with us after graduation we really hit the jackpot."

A respondent, representing a corporate office, indicated that if any department showed a deficit as the result of the employment of a student-learner, this deficit is transferred to the "Recruitment Budget". "So far", he said, "this was, by far, the smallest item in the budget."

V. RECOMMENDATIONS FROM THE FIELD FOR IMPROVING THE ON-THE-JOB PORTION OF A COOPERATIVE EDUCATION PROGRAM

The final portion of the interview was designed to solicit recommendations from the respondents which would contribute to the improvement of the selection and preparation of the on-the-job trainer and the over-all improvement of the on-the-job portion of the cooperative education program. There was an expectation that teacher-coordinators and cooperating employers would have a number of ideas which they felt would improve the program and could be passed on to their older colleagues and new teacher-coordinators entering the educational field.

When it became evident during the interview that the teacher-coordinator did not become involved with the selection of the on-the-job trainer assigned to his student-learners the original question was modified to ask, What recommendation do you have for a new
teacher-coordinator regarding the selection of a cooperating employer and for improving the on-the-job training portion of a cooperative education program?

The sixteen teacher-coordinators responding to this part of the interview were in general agreement that there was no substitute for getting out in the field and making personal contact with employers that could provide potential training stations. These respondents considered this task as one of the most time consuming and essential parts of the function if their programs were to survive. However, eleven respondents called attention to the fact that the time allotted to this task was indeed limited and sometimes inconvenient when their other duties required in teaching were scheduled by the administration of the school.

Their unanimous recommendation to a new teacher-coordinator was, "Convince the administration of a new cooperative education program that coordination of the classroom instruction and the on-the-job training was more than a part-time responsibility." They indicated that this had to be done at the time the program was started or the new teacher-coordinator would be faced with the same problem that many of them had encountered. Sooner or later they would have to start limiting the program by restricting the number of students or allow the program to grow and hope for the best when it came time to place and supervise the student on the job.

Two respondents admitted that they had some employers that they had not visited personally in three to five years. They knew that this was an undesirable situation, but their teaching responsibilities and
the time that it took to visit the various employers made it impossible to do more.

Four respondents confided that the only time they visited an employer was during times of emergency when a problem arose.

Five teacher-coordinators stated that there were some employers that they had never visited due to the fact that their students had selected their own training stations in their home towns many miles from the Institution.

One institution provided a cooperative education program brochure which stated, "Students may arrange their own jobs with advice and approval of the college."

This attitude was shared by other respondents. They were proud their program had attracted students from various parts of the state and nearby states. Also, they considered it reasonable for students to be allowed to work in their home towns so that the cost of room and board would be reduced. Some inferred that they welcomed the relief of not having to find positions for those who had taken it upon themselves to locate their own training stations.

However, full-time coordination without classroom responsibilities also shared the problem of not enough time. One of the two respondents who were full-time coordinators indicated that his problem was not one of being confined to the classroom. He thought that he had established a good routine for frequent visits to the cooperating employers. His biggest problem was getting to know the new students personally before he placed them with a cooperating employer. His remarks indicated that he was responsible for the placement of 200 new
students with cooperating employers each year. This was additional to
the approximate 200 students already in positions and needing super-
vision.

"Each of the 200 new students" he said, "required at least four
hours of counselling to discover his personality, his career goal and
type of employer desired. These figures add up to 800 hours or 100
days of effort before the students are even placed. In addition, it
is necessary to find employers, supervise the 200 students already on
the job and collect the necessary information to arrive at an evalu-
ation for the student's quarter of experience with his employer."

This information was not solicited by the interviewer, but was
volunteered by the teacher-coordinators as they tried to make an
impression on the need for new teacher-coordinators to demand more
coordination time and fewer students.

The teacher-coordinators, in general, were cognizant of the
fact that they were depending more and more on telephone contact and
written reports from both the students and cooperating employers for
making their evaluations.

The lack of frequent visits to the training stations by
teacher-coordinators is supported later under this section by comments
from the cooperating employer.

Although it was not a part of the study to determine the amount
of time a coordinator spent in the field nor to visit the institutions'
administration regarding the teacher-coordinators' responsibilities.
Nevertheless, one experience by the investigator may help to shed
light on the problem faced by the teacher-coordinators.
During one visit the investigator had the opportunity to take a coffee break with the Dean of the Institution. At this time the Dean was asked, "Is there a possibility for providing more coordination time for teacher-coordinators?" He remarked, "No, the two weeks or so that a teacher-coordinator is away from school is not considered enough for special consideration in the budget. This time is absorbed in the teacher's regular routine. However, if the time should be increased it would have to be entered as a separate budget item and we don't have an item in our budget for that type of activity. Even if we did, I don't know how I would justify it."

Six respondents suggested that new teacher-coordinators join the various community groups and service area associations so that they can meet potential cooperating employers or persons who can introduce them to perspective employers. These respondents thought that this method could save considerable time in locating good training stations.

Some of the organizations mentioned by these respondents were:

- Membership in service organizations
  - Lions International
  - Kiwanis International
  - Rotary International

- Membership in professional organizations
  - National Retail Merchants Association
  - The American Hotel and Motel Association
  - American Hospital Association

- Membership in scientific and technical societies
  - American Society of Mechanical Engineers
  - American Society of Heating, Refrigeration and Air Conditioning Engineers
  - American Society of Tool and Manufacturing Engineers
  - American Institute of Architects
One respondent was trying a new idea in distributive education which he thought might be helpful to a new teacher-coordinator. He was working with the Association of Members at a new shopping mall that had recently been completed near his school. He was trying to get members to agree to the employment rotation of his students through several of the stores so that they gained experience in both large and small retail store operations in department stores and specialty shops.

The teacher-coordinator felt that this method would improve the student's retailing experience and save considerable coordination time. It was his feeling that he could spend his time working with the Association as a group rather than each one individually.

The interviews with the cooperating employers were concluded by asking, *Do you have any suggestions for improving the on-the-job training portion of cooperative education students?*

Almost without exception, the suggestions offered by the cooperating employers for improving the on-the-job portion of cooperative education students related to better communications between the employer and the school. Some respondents simply stated, "Better communications."

One respondent elaborated on his statement, he said, "The greatest need is for the coordinator to become familiar with the company, its product, its personnel and its methods. The coordinator must spend more time visiting our facilities so that he knows this plant as well as I do. We expect the coordinator to recommend students that will fill our needs and can work productively with our personnel."
Another respondent said, "We must maintain open-doors at both ends of our communications system so that we can make immediate contact whenever necessary. Problems must be solved either at the school or here in the plant when we become aware of them; they cannot be delayed. In addition, our people need to serve on the schools' advisory committees and we need frequent conferences to keep abreast of what each other is thinking and doing."

This respondent also mentioned that they have had to make the initial contact with each two-year institution that they cooperate with. They also sponsor teacher-coordinators so that they can attend cooperative education meetings, both within and outside the State. He said, "We do this because we believe in cooperative education and we need the students we are able to recruit from these programs. However, a successful coop program requires effort at both ends and sometimes we wonder if the school is accepting their full share of the responsibility."

Another respondent said, with regard to communications, "We need to communicate with more than just the coordinator. We need to have contact with the instructors. The instructors should visit the plant with the coordinator, or better yet, they should visit the plant by themselves and get to know our people out on the floor to see what problems our people are faced with. They must understand that we do not use community college students in production work, but as problem solvers."

One respondent felt that his company was blessed with a very fine relationship with the local technical college. He said, "Our
relationship has developed over a long period and we have been able to 'iron out' many of our problems during this time. If there is one thing that has made our relationship successful, I would have to say that it is HONESTY. Any cooperative education program that is going to be successful must have honest communications between the school and employer. If a student has problems or weaknesses the company should be alerted so that they can work with them. No one is perfect. We have problems in the plant from time to time that affect the students, but we alert the coordinator and we work out these problems together. As soon as one side tries to hide details or 'flim-flam' the other side, you create a situation that will destroy the program."

One young respondent who had held his position as Cooperative Education Supervisor for less than one year, related a technique his company had used when he began his new duties and he thought it would be helpful if other companies used the same practice. He described how his manager sent him to visit all the two-year institutions with which his company was cooperating to provide on-the-job training. During this time he visited the teacher-coordinators, the instructors, the students, and the schools' administration. He attended classroom sessions, participated in laboratory demonstrations and watched the students at work in their various activities. He was under no time limits. The company wanted him to stay as long as he felt it was necessary to gain a background that would help him understand the schools' operation and students' experiences which would be helpful in placing the student in appropriate work situations when they arrived for their on-the-job training.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The problem with which this study was concerned was the apparent lack of descriptive information relative to the selection and preparation of the on-the-job trainer responsible for the student-learner enrolled in a post secondary cooperative vocational-technical education program. This chapter includes a summary of the study, conclusions, and recommendations.

Summary

There were two major reasons for this research study in post secondary cooperative vocational-technical education. First, to discover the criteria for selecting the on-the-job trainer responsible for the student-learner. And, second, to determine the type of training or preparation most often provided the on-the-job trainer so that he may effectively undertake the additional task of on-the-job instruction.

Since there is an apparent lack of literature on the topic and the study was exploratory in nature, it was determined that the data had to be collected from the field. It was decided that the most effective method for identifying present conditions in the field and the problems of those involved with the topic was to employ the non-structured interview technique.
Nine post secondary schools in three states (Michigan, New
York, and Ohio), offering two-year vocational-technical education
cooperative programs were selected for the study sample. Seven
institutions were selected with the aid of a short questionnaire sent to
thirty schools identified in The Philosophy and Operation of Cooperative
Education: A Directory of Participating Colleges in the United States
and Canada (1968). Two additional schools were identified from second­
ary sources. One Michigan school was selected from the March 1, 1970
issue of "Occu-Education Bulletin" published by the American Associa­
tion of Junior Colleges. An Ohio school was selected upon the
recommendation of the Ohio State Board of Vocational Education.

Personal interviews were conducted with sixteen coordinators
associated with the study sample. An additional fourteen interviews
were conducted with representatives of employers providing the on-the-
job training portion of the cooperative education program.

The two different interview groups were coordinated by means of
an interview guide prepared for each group. The interview guides
provided a few key questions which the investigator was able to use
to direct the discussion and keep the two different type interviews
going along parallel lines. The interview guides were not structured.

During the thirty interviews, only key words or essential notes
were jotted down. The investigator tried to keep the interviews moving
without interruptions which might have inhibited those being inter­
viewed.

The collected data were organized into six sections as
described in Chapter III and recorded in Chapter IV. Because of
the nature of the data collected there was no attempt to tabulate the findings. Instead, the data were presented in a narrative fashion.

Findings

Part One: Criteria for Selecting the On-the-job Trainer

1. Student-learners enrolled in a post secondary cooperative vocational-technical education program were assigned to an on-the-job trainer during their employment period.

2. The process of selecting the on-the-job trainer was usually initiated by the teacher-coordinator when he contacted a potential employer.

3. The teacher-coordinator, through his choice of the cooperating employer, had final control of the selection process of the on-the-job trainer.

4. An employer's decision to cooperate with a two-year collegiate institution by providing employment for an enrolled student was based on the fact that the company had a position available.

5. Cooperating employers accepted student-learners from a post secondary program as a part of their management develop program and expected the student to remain with the company after graduation.

6. Cooperating employers expected teacher-coordinators to pre-select students and refer only those most likely to succeed in the available position.
7. The final selection of the student-learner and his assignment to an on-the-job trainer was the sole responsibility of the employer.

8. Employers concerned with employee relations want to be in full command of the assignment or re-assignment of the on-the-job trainer.

9. It was common practice for the cooperating employer to assign the student-learner to the department head or manager responsible for the position the student was to fill.

10. Students were most likely to be assigned to a single on-the-job trainer if they were employed with a smaller firm or a firm in which management leadership responsibilities were diversified.

11. Student employed by a large corporation were more likely to be assigned four or more on-the-job trainers as they were rotated through the various departments for their experience.

12. The number of persons assigned the responsibility for the on-the-job training of a student-learner was not an indication of the number of work stations or assignments the student received during his employment period.

13. A high risk situation appeared to develop when an employer accepted his first student-learner or when a repeat employer assigned an on-the-job trainer to his first student-learner.

14. The study disclosed that successful on-the-job trainers had several of the following characteristics:

- Ability to communicate
- Desire to teach
- Experience working with Little League teams or Junior Achievement
- Had grown children
- Willingness to impart their knowledge to others
- Possessed pride in their work
- People oriented versus production oriented
- Graduate of a cooperative education program
- Showed enthusiasm about the cooperative education program

15. Teacher-coordinators were aware of the fact that programs tended to be more successful when top management was enthusiastic about the cooperative education program and let his feelings be known to the on-the-job trainer.

16. The teacher-coordinator's task of selecting a satisfactory cooperating employer appeared to be easier during times of prosperity because of the larger number of employers willing to accept student-learners.

17. Teacher-coordinators were satisfied with the method used by business and industry to select and assign the on-the-job trainer to a student-learner.

Part Two: Preparation of the On-the-Job Trainer

1. Persons assigned the responsibility for the on-the-job training of a collegiate student-learner were given no special preparation for this particular task.

2. There was a high probability, but no assurance, that the on-the-job trainer with a large employer had received a methods of instruction course as a part of the company's supervisory management training program.

3. There was a low probability that the on-the-job trainer with a smaller employer had received any type of instruction regarding supervisory responsibilities including instructional techniques.
4. Two-year collegiate institutions offering cooperative vocational-technical education programs did not provide special courses in methods of instruction for the on-the-job trainers assigned to their students.

5. One teacher-coordinator of a cooperative distributive education program prepared and distributed a six-page manual, which included the four-step method of instruction, to each on-the-job trainer assigned to his students.

6. Two institutions offered suitable courses in methods of instruction as a part of their evening program, but they had not considered encouraging on-the-job trainers to enroll in the courses.

7. Cooperating employers would not encourage persons assigned to on-the-job training task to enroll in a methods of instruction course if it was offered by the institution.

8. Cooperating employers, under present normal operating conditions, were not interested in receiving any type of Federal reimbursement for the cost of their on-the-job training of cooperative education students.

Part Three: Recommendations from the Field for Improving On-the-Job Training

1. Teacher-coordinators, in general, were satisfied with the on-the-job training received by their students.

2. Cooperating employers felt that teacher-coordinators should spend more time within the training station getting to know the on-the-job trainer and the methods or techniques of operations so that
they were better prepared to recommend only those students who were most likely to succeed on the job.

3. Cooperating employers indicated that teachers providing the related instruction should visit the training station to gain a better knowledge of the practical problems faced by the student-learner.

4. Cooperating employers felt there was a need for more and better communication between their office and the teacher-coordinator.

5. Although some of the employers felt the school and the teacher-coordinator were doing a good job, there were some that felt the company was showing more interest in cooperative education than the school.

Conclusions

Based on the previous findings of the study it can be concluded:

1. That student-learners enrolled in a post secondary cooperative vocational-technical education program were assigned to an on-the-job trainer during their period of employment.

2. That the selection of the on-the-job trainer by the cooperating employer was simplified to the point where the task was automatically assigned to the department head or manager responsible for the position filled by the student-learner.

3. That characteristics identified with good on-the-job trainers by cooperating employers were not utilized in the selection of the person to whom the on-the-job training task was assigned.
4. That little if any planned preparation was given to an on-the-job trainer before he undertook his teaching task.

5. That the on-the-job training portion of two-year collegiate cooperative education programs were not planned to operate at their potential efficiency.

6. That cooperating employers were placing the burden for improvement of the program on the educational institution.

7. That the cooperating employer had a tendency for exploitation; not of the student, but of the cooperative program.

8. That apparently the employer looked toward the school as a recruiting agency to supply well qualified candidates that could be groomed for mid-management or paraprofessional positions.

9. Teacher-coordinators appeared to be content with the selection method and preparation of the on-the-job trainers.

Recommendations for Action Based on the Findings

1. Teacher-coordinators must take advantage of their responsibility and position to control the selection and preparation of the on-the-job trainers. During their interview of a potential cooperating employer they must make it clear that a dynamic program results only when the employer and school cooperate; they must work together for the common purpose of educating the student as stated in the objectives of the program.

2. Teacher-coordinators must start planning short training programs with courses in "Instruction Techniques for On-the-job Training."
3. Teacher-coordinators must be alert to the situation that most cooperating employers select student-learners to fill positions in management training programs. With this knowledge they should constantly stress to the employer the need for the selected on-the-job trainer to be especially prepared for this important training task.

4. Teacher-coordinators must start working with school administrators to impress them with the need for more coordination time. As the name "cooperative education" implies, there must be a close and continuous relationship between the school and the employer. Time must be allotted for the coordinator to (1) find an employer that can provide practical work for a student that is related as closely as possible to his field of study and individual interest, (2) organize the working experience in an approved plan which will provide the student with a challenging sequence of job tasks and responsibilities which will parallel the classroom instruction, and (3) work with the assigned on-the-job trainer to assure the fact that the planned sequence and standards of performance required for the associate degree are being achieved.

Suggestions for Further Research

This study was exploratory in nature, its basic objective was to discover factors essential to selecting and preparing on-the-job trainers for a post secondary cooperative vocational-technical education program. Since the study has revealed that teacher-coordinators do not become directly involved with the selection of the on-the-job trainer, control the process through the selection of
the cooperating employer it would appear there are implications for further study. Also, the study has verified the fact that there is relatively little organized effort being directed toward the problem of preparing persons for the specific task of on-the-job training of student-learners. This fact also indicates a need for additional study.

1. A study is needed to determine the unique problems encountered by on-the-job trainers working with college level student-learners so that a series of special training manuals can be prepared for use by teacher-coordinators.

2. A study is needed to justify a realistic student to teacher-coordinator ratio so that teacher-coordinators can provide the necessary time for developing the student individual training plan and supervision of the student's training station.

3. A feasibility study is needed to explore the possibilities for placing a full-time coordinator in several large corporations that have the desire and facilities for providing on-the-job training for fifty or more student-learners. The sole purpose of these coordinators to be the preparation of the on-the-job trainers and the coordination of student-learners employment activities with that company.

4. A study of successful case histories describing the company benefits attained from cooperation with an educational institution in providing properly prepared on-the-job trainers and employment for student-learners.

5. A factual cost study is needed to identify the economy of cooperative education to support teacher-coordinators in their efforts
to convince new employers that cooperation with an educational institution in those programs does not present a financial burden.

6. A study is needed to determine how much and what type of supervision is required for mature students with a background typical of the two-year college.
Appendix A

AN INVESTIGATION OF FACTORS ESSENTIAL TO SELECTING AND PREPARING
ON-THE-JOB TRAINEES FOR A POST SECONDARY COOPERATIVE
VOCATIONAL-TECHNICAL EDUCATION PROGRAM

Name of College

Director of Cooperative Program

Phone Number of Director Date

1. Which objective listed is the primary reason for your students
   being placed with a cooperating employer (1)? Which would you
   list second (2)?
   a. To provide the student with financial assistance.
   b. To integrate practical experience with classroom
      theory.
   c. To provide general education about the world of work.

2. Do you or the institution become involved with the selection
   of the on-the-job trainer assigned to the student-learner
   while he is on the job? Yes ___ No ___

3. Do you or the institution provide any training or prepara-
   tion for the on-the-job trainer of the student-learner? Yes ___ No ___

4. Do you believe there is a need for material which will
   assist program coordinators in the selection and training
   of on-the-job trainers of student-learners? Yes ___ No ___

5. How many students are presently enrolled in your program(s)?

6. How many employers are presently cooperating with your
   institution?

7. List the major areas in which cooperative education is offered.
   (1) __________________________ (6) __________________________
   (2) __________________________ (7) __________________________
   (3) __________________________ (8) __________________________
   (4) __________________________ (9) __________________________
   (5) __________________________ (10) ________________________

8. Would it be possible for me to make an appointment at a
   later date so that we might discuss your philosophy and
   administrative practices regarding cooperative education? Yes ___ No ___
The Vocational Education Amendments of 1968 provide a sizeable authorization for Cooperative Education which is expected to double or triple these types of programs within the next few years.

Successful expansion of this magnitude will require many new program coordinators capable of working with local firms to establish on-the-job training stations necessary to fulfill the objectives of the program.

As a doctoral candidate at The Ohio State University and a prospective community college administrator, I am concerned about the need program coordinators will have for material which is suitable for developing on-the-job trainers of the students while they are away from the classroom. I feel that the degree of success a student achieves during the period he is with a cooperating employer will depend on the on-the-job trainer who is assigned the responsibility for his orientation and training. Therefore, I have selected a research study entitled, "An Investigation of Factors Essential to Selecting and Preparing On-the-job Trainers for a Post Secondary Cooperative Vocational-Technical Education Program," for my dissertation.

In order to complete the study I will need the assistance of program coordinators, such as yourself, who have had experience in placing students with cooperating employers.

Inasmuch as I would like to visit all thirty-one two-year institutions identified in the Cooperative Education Association's 1968 Directory, this task is beyond my means. It, therefore, becomes necessary to select a sample group which I can personally visit to collect the necessary data. The institutions selected will be chosen on the basis of the enclosed preliminary survey.

Would you please take a few minutes to complete the enclosed form and return it to me. Your philosophy and experience is needed to guide new coordinators as they are rapidly placed into service.

I will be looking forward to your early return of the questionnaire.

Sincerely,

Roger J. Wilson
APPENDIX C

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I will be looking forward to your early return of the questionnaire.

Sincerely,

Roger J. Wilson

P.S. An earlier questionnaire was addressed to however, it has not yet been returned. If there has been a change in responsibility, or for some other reason the first questionnaire was not delivered, would you please help me with my data by completing the yellow form and returning it in the enclosed postage paid envelope.
Dear :

This will confirm my telephone call of Monday, May 4, at which time I made an appointment to visit your institution at 9:30 a.m. on Thursday, May 14.

My purpose, as I stated on the telephone, is to collect data for my doctoral dissertation at The Ohio State University. The object of this research study is to gain knowledge of present practices and philosophy of the community colleges in selecting and preparing the on-the-job trainer responsible for the student-learner employed part-time with a cooperating employer.

Since the Congress of the United States has found that cooperative education programs offer many advantages in preparing young people for employment, and has included "Part G - Cooperative Vocational Education" as a part of the Vocational Education Amendments of 1968, there is a general feeling that many institutions will be encouraged to initiate this unique technique of vocational education. Therefore, it will be a great help to new teacher-coordinators if they are aware of some of the methods developed by experienced coordinators in working with industry to provide the on-the-job training portion of the program.

During my visit I would like to spend about one-half hour with you and each of the other coordinators, that are available, to gather information on the topic as it relates to the coordinator.

Although you mentioned your cooperating firms are widely distributed throughout Michigan, I would appreciate the names of five or six so that I might contact two or three of them to gather their reaction toward the selection method of the on-the-job trainer.

As a former community college administrator I appreciate what an interruption of this type means to your daily responsibilities and I will make my visit as brief as possible.

Thank you for the opportunity to visit with you. I will be looking forward to our meeting Thursday morning.

Sincerely,

Roger J. Wilson
APPENDIX E

TEACHER-COORDINATOR INTERVIEW GUIDE

Name of School ______________________________________

Name of Teacher-Coordinator _____________________________

Total Student Enrollment _____ Total Cooperating Employers _________

1. Is the student-learner assigned to an on-the-job trainer while he is
   employed part-time with a cooperating firm?

2. Who selects the on-the-job trainer assigned to the student-learner?

3. Do you consider the selection method satisfactory?

4. Do you have any suggestions for improving the selection method?

5. What qualities or characteristics do you find in the more
   successful on-the-job trainers?

6. Does the on-the-job trainer receive any assistance in developing
   a systematic method of instruction?

7. Does the school offer any type of extension course or adult educa-
   tion course that would prepare on-the-job trainers for their
   additional tasks as an instructor?

   What type of course is offered by the school?
   When is it offered?
   Who teaches the course?

8. Do you believe that the cooperating employer would be willing to
   spend more time preparing the on-the-job trainers if they were
   reimbursed for the extra costs?

9. What recommendations do you have for a new teacher-coordinator
   regarding the selection of a cooperating employer and for improving
   the on-the-job training portion of a cooperative education program?
APPENDIX F

Name of Cooperating Firm ________________________________

Name of Person Interviewed ________________________________

Position of Person Interviewed ________________________________

1. Is the student-learner assigned to any particular person for on-the-job training while he is employed part-time with your firm?

2. How is this person selected?

3. Has the school been consulted or taken part in the selection of the person assigned to the on-the-job training of the student?

4. Has the person assigned as on-the-job trainer received any assistance in developing a systematic method of instruction—such as Instructor Training?

5. Would your company be willing to spend more time preparing persons as on-the-job trainers if it was reimbursed for the extra cost?

6. Would you encourage your employees assigned to on-the-job training tasks to attend a "How to Instruct" or similar course if it was offered by the school?

7. Do you have any suggestions for improving the on-the-job training portion of cooperative education students?
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