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AN ANALYTICAL STUDY OF THE 1971-72 COOPERATIVE  
VOCATIONAL PROGRAM IN UTAH WITH COMPARISON  
TO A GUIDELINE FOR COOPERATIVE VOCATIONAL  
PROGRAMS

by

George C. Ku

A dissertation submitted in partial fulfillment  
of the requirements for the degree

of

DOCTOR OF EDUCATION

in

Industrial and Technical Education

Approved:

UTAH STATE UNIVERSITY  
Logan, Utah

1972

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George C. Ku

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## ABSTRACT

An Analytical Study of the 1971-72 Cooperative Vocational Program in Utah  
with Comparison to a Guideline for Cooperative Vocational Programs

by

George C. Ku, Doctor of Education

Utah State University, 1972

Major Professor: Neill C. Slack  
Department: Industrial and Technical Education

The purpose of this study was (1) to develop a guideline for cooperative education; (2) to determine the current status of cooperative vocational education in Utah; and (3) to compare current practices with the established guideline.

This study was completed in two parts. The first part involved the construction and verification of a guideline for cooperative education in Utah; the second, a survey of the current status of cooperative education. A descriptive survey technique was employed to gather data required for determination of the guideline's validity and relevance, and the current status of cooperative education in Utah.

All 13 key administrators in the state office, 75 coordinators representing 84 percent of the initial mailings and 112 cooperating employers or 74 percent of the selected sample participated in this study.

Opinions from the 13 key administrators in the Utah State Division of Vocational and Technical Education were largely in agreement with the tentative

guideline derived from the two nationally accepted guides in cooperative education.

Due to the lack of an official guide for cooperative education in Utah, many of the coordinators' interpretations of federal legislation and state regulations were based on their own convenience. Inconsistencies in programs, standards and requirements were frequently found among cooperative programs in Utah.

There appear to be some discrepancies existing between the current practices and the established guideline mainly because in a majority of the programs: (1) students spend insufficient numbers of hours in attending school or receiving on-the-job training; (2) schools provide inadequate in-school instruction; and (3) students receive substandard on-the-job supervision.

(121 pages)

CHAPTER I  
INTRODUCTION TO THE PROBLEM

Background

Once the basic theory and practice have been learned from the classroom, there is not one major occupation or career which does not require on-the-job training. It is desirable for persons to enter the world or work with a minimum adjustment in terms of occupational skill and human relationship. As a result, vocational education responding to these needs has developed a variety of programs based on experience in the actual work situation, one of which is the cooperative vocational program.

The cooperative vocational program is a joint effort by schools, business and industry to provide part-time, supervised on-the-job training together with in-school instruction for students in occupational areas of their choice. The concept of cooperative education is certainly not new. However, since its inception by Herman Schneider in 1906 in the College of Engineering at the University of Cincinnati, this unique method of education has grown significantly. First it was implemented in the baccalaureate engineering colleges; next it was introduced to vocational schools; and finally it was widely adapted by most public schools (Wilson, 1970).

The primary purpose of the cooperative vocational program is the increase of students' employability through their involvement in the real world of

work. Other objectives of the program include the prevention of school drop-outs, service as an exploratory experience, the provision of up-to-date instruction and the motivation of students through offers of monetary rewards (Mason, 1965, p. 5).

The cooperative vocational program has proven efficient and successful since its inception; and as is evidenced by the following statement, the demand for such a program has become increasingly prevalent: "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." (H. E. W., 1968, p. 41)

To meet the growing demand, the Congress of the United States revised the 1963 Vocational Education Act in 1968 and included cooperative education among the amendments. The amendments authorized 20 million dollars for this program for the first fiscal year ending June 30, 1969, with increasing authorizations each year to a maximum of 75 million dollars in 1972. Consequently, due to the availability of funds, many schools throughout the country have initiated cooperative programs in an attempt to make education more relevant to the growing needs of contemporary society.

A study of the 1971-72 proposals for cooperative education in the State of Utah reveals that there is a lack of uniformity among the approximately 60 cooperative vocational programs in the public schools. The recent increase in the number of cooperative vocational programs and their support in the Utah communities makes necessary a research study of the current practices of the

program so that cooperative education can become as valuable a learning process as it purports to be.

#### Statement of the Problem

As a result of the impact of the 1968 Vocational Education Amendments, there has been a great increase in the number of participants in the Program and in the amount of support granted to cooperative vocational programs in Utah. However, many school administrators, teachers and cooperative students as well as cooperating employers have been unaware of many important aspects of the program which help make it a vital, viable part of vocational education. Although the legal definition specifies minimal requirements for reimbursement for this type of education, the standards and requirements of the program may still be variously interpreted and instituted by different schools at different levels. Currently, there appears to be an inconsistency in the program's implementation and operation in Utah as compared with the intent of the federal legislation. If this condition continues, the program's implementation could be seriously impeded. Unless a study of the program's status with comparisons to the intent of the federal legislation is made, the gap between actual practices and federal legislation could remain. The problem is that the over-all lack of information and data about the existing programs together with the absence of uniform interpretation of the federal legislation in Utah make it virtually impossible to ascertain the discrepancies between the actual programs and the intent of the federal legislation.

Purpose of this Study

The primary purpose of this study is the collection of data and information relating to the present status of the cooperative programs in Utah and the comparison of their present status with a guideline derived from interpretation of the intent of the federal legislation by the staff members in the Utah Division of Vocational and Technical Education. More specifically, the purposes of this study include:

1. The evaluation (according to the commonly accepted guidelines) of the duties and responsibilities to the program's standards and requirements in order to identify a commonly accepted guideline of cooperative education for Utah including the following elements:
  - a. The duties and responsibilities of the program coordinator.
  - b. The qualifications of the program coordinator.
  - c. The criteria for selecting cooperative students.
  - d. The legal responsibilities regarding student employment.
  - e. The criteria for selecting work stations.
  - f. The duties and responsibilities of the cooperating employer.
2. The study of the current status of the cooperative vocational programs in Utah.
3. The comparison of the cooperative vocational program's present status to the accepted guidelines for cooperative programs. (See objective # 1.)

*What to do?*

### Constraints

1. This study is confined to the cooperative vocational programs of the 1971-72 existing within the secondary schools in the Utah public school system.
2. It is further confined to the cooperative programs founded under Part B or Part G of the 1968 Vocational Education Amendments.
3. The survey population in this study will be limited to:
  - a. The area specialists or experts in cooperative education in the Utah Division of Vocational and Technical Education or state office personnel who are currently involved with cooperative education.
  - b. The district vocational directors who will be asked to identify their cooperative programs and the names of the coordinators.
  - c. The cooperative program coordinators who will be identified from the list returned by district vocational directors and from a partial list of Utah cooperative programs obtained from the Utah Division of Vocational and Technical Education.
  - d. The two participating employers in each program who will be randomly selected from the list furnished by the program coordinators.

### Definition of Terms

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. (Wilson, 1970, p. 10)



**Cooperative Vocational Education Program:** A program of vocational education for persons who, through a cooperative arrangement between the school and the employers, receive instruction (including required academic courses and related vocational instruction) by the alternation of study in school with a job in any occupational field. These two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and to his employability. Work periods and school attendance may be on alternate half-days, full-days, weeks, or other periods of time. (AVA Definitions, p. 15)

**Coordinator:** A member of the school staff responsible for administering the school program and resolving all problems that arise concerning school regulations as related to on-the-job activities of the employed student. The coordinator acts as a liaison between the school and employers in programs of cooperative education or other part-time job training. (AVA Definitions, p. 16).

**Preparatory Class:** Instruction and practice in the skills and principles of an occupation or payroll job, given to persons before their placement on a job. The instruction may be given as a formal course or curriculum, or it may be a short intensive program of orientation and instruction immediately prior to employment. (AVA Definitions, p. 53)

**On-the-Job Training:** Instruction in the performance of a sequentially-planned job given to an employed worker by the employer during the usual working hours of the occupations. Usually the minimum or beginning wage is paid. (AVA Definitions, p. 50)

**Student-Learner:** A member of the cooperative education program, legally employed as a part-time worker and so classified by the Wage and Hour and Public Contracts Divisions of the U. S. Department of Labor for wage of hour regulation. (AVA Definitions, p. 63)

The terms, student-learner and cooperative student, are used synonymously in this study.

**Training Agreement:** An agreement, prepared by the teacher-coordinator, indicating the period, hours of work, salary, and other pertinent information necessary to assure basic understanding of the student's position as a student learner in the cooperative education program. (AVA Definitions, p. 70)

Training Plan: Indicates what is to be learned by a specific student-learner and whether it is to be taught in the classroom, shop or laboratory (on-the-job or project). The plan is derived from a realistic analysis of the tasks, duties, responsibilities, and occupational objectives of the student learner. (AVA Definitions, p. 70)

### Research Method

This study was completed in two parts. The first part involved the construction and verification of a guideline for cooperative education in Utah; the second, a survey of the current status of cooperative education. A descriptive survey technique was employed to gather data required for determination of the guideline's validity and relevance, and the current status of cooperative education in Utah.

#### The development of a guideline

A tentative guideline was developed based on two recent national guides in cooperative education. They were: The Guidelines in Cooperative Education, developed in 1966 during a national seminar in cooperative education at the Ohio State University and The Guide for Cooperative Vocational Education, prepared in 1969 by the University of Minnesota under contract with the U. S. Office of Education. The guideline focused on the roles of the coordinator, the student and the employer in relation to the program standards and requirements specified by the federal legislation. Concisely stated, the pertinent features, core activities and special suggestions of both guides which are specifically descriptive of the elements of this study composed the foundations of the tentative guideline. Subsequently, the tentative guideline was modified into a questionnaire enabling

the specialist to express his opinions regarding each item. The tentative guideline included the following elements:

1. Legal definition of the cooperative program.
  - a. In-school instruction.
  - b. On-the-job supervision.
  - c. Alternative work-period and school attendance.
2. The essential elements regarding the program's standards and requirements.
  - a. The qualifications of the program coordinator.
  - b. The duties and responsibilities of the coordinator.
  - c. The criteria for selecting students.
  - d. The legal responsibilities regarding student employment.
  - e. The criteria for selecting work stations.
  - f. The duties and responsibilities of the participating employer.

#### Questionnaire design

In an attempt to discover from coordinators and selected participating employers the current practices in cooperative education in Utah, two types of questionnaires employing two-way closed choices, multiple selection and open form techniques were derived from the verified guideline. The coordinator questionnaire included all elements in the guideline except the performed duties of the employers. The employer questionnaire encompassed four of the nine headings in the guideline including training standards, on-the-job training duration, legal responsibilities of student employment and duties of participating employers.

### Survey population

All cooperative vocational programs existing within the Utah public schools were included in this study. More specifically, the survey population encompassed the people who were most directly involved with cooperative education in Utah, among them:

1. The staff members in the Utah Division of Vocational and Technical Education.
2. Vocational directors of the 40 school districts in Utah who were asked to identify their cooperative programs and the names of the coordinators.
3. The cooperative program coordinators who were identified from the list returned by district vocational directors from a partial list of Utah cooperative programs obtained from the Division of Vocational and Technical Education and from the Utah State Vocational Personnel Directory, 1971-72.
4. Two participating employers in each program who were randomly selected from the list furnished by the program coordinators.

### Tabulation and analysis of data

Data and information obtained from this study were interpreted as follows:

1. The Tentative Guideline items' frequency of occurrence was calculated and entered into tables for discussion. Items receiving 68% approval were accepted as the essential elements in the guideline.
2. Items included in both questionnaires were treated in tabular and descriptive form using frequencies, percentage and ranks; they were then entered in tables for discussion.
3. Comparisons were made between the current practices and the guideline. The degree of achievement of each essential item by both coordinators and employers was determined and compared with guideline specifications. Simultaneously, charts were made for comparison and discussion.

#### Review of Related Studies

State-wide cooperative education studies similar in nature and scope to this one appear to be few. Most state-wide studies have been concerned with program status, objectives, problems and operation procedures.

In 1966, a state-wide study of the operation procedures in cooperative work experience programs in California was conducted by Norman Eisen. From the 131 California school districts which offered state-approved work experience programs, 30 were selected for intensive review. An interview technique was chosen as the means of securing data and information. The major purpose of Eisen's study was to identify the methods and procedures then being used in the

operation of work experience education programs. Eisen concluded that the degree of involvement by the total community in terms of training and advising was less than expected. On the other hand, he found that work experience education was conducted in close collaboration with the school guidance staffs and that determination of objectives preceded initiation of the programs. From his findings he concluded that the pre-determined objectives of work experience education had been adequately met. He recommended that school districts do everything possible to include work experience education as part of their total education programs.

In 1971, Hayes investigated work experience education programs in California which was intended to determine the current status of the work experience education programs and also to try to evaluate the programs' effectiveness in order to improve the ongoing programs. The questionnaire employed to gather data from the selected 659 key administrators of high schools and post high school institutions was developed from the state guideline for work experience education, pertinent literature and opinions from experts. Duties and qualifications of coordinators, criteria for work station selection, and the function and structure of advisory committees were among the major items in the questionnaire. The general conclusions and recommendations were:

1. On the whole, the objective of work experience education had been achieved.
2. There were approximately twice as many schools which offered work experience programs in urban communities as in rural communities.

3. Office occupations, distributive education and industrial-trade occupations composed the largest portion of work experience programs in California.
4. Insufficient funding and lack of suitable work stations were among the major problem in the implementation of work experience programs.

There have been two state-wide studies concerning the status of cooperative office education in the state of New Jersey. The first study was conducted by Martin in 1958 and the second by Kingston in 1969. The nature and purposes of the studies were similar; both studies were concerned with the current practices and problems of cooperative office education. However, the main difference between the two studies was that Martin did not attempt to evaluate the effectiveness of the graduates of the programs.

A questionnaire survey technique was employed by both studies. Reply cards, checklists and questionnaires were utilized to gather data from high school principals, coordinators, participating employers and students enrolled in the program.

Martin reported that office work experience programs were not extensively used in public schools in New Jersey mainly because of the lack of qualified personnel and financial support. He also indicated that reportedly cooperative office education programs were generally favored by participating business firms as well as being beneficial to students. He concluded that the coordinators were generally qualified in terms of work experience and

academic preparation. Nevertheless, some of the coordinators failed to take advantages of cooperative training. Finally, Martin recommended that those schools that did not have a program should study the advisability of adopting one.

In addition to the study of the status of cooperative office education in New Jersey, Kingston made a comparison between beginning office workers and cooperative students. Results indicated that there were no significant differences between these two groups. However, job supervisors gave higher ratings to cooperative office education graduates in every area of job performance measured. Her study also indicated the recent increase in enrollment and support of cooperative education in New Jersey.

Two research studies involved with the development and evaluation of a guideline in cooperative office work experience programs at the college level have been completed by Jantze in 1967 and Davenport in 1970 at the University of Nebraska.

Using a widely distributed postal questionnaire technique, Jantze studied 290 office work experience programs at the college level. From the 290 colleges Jantze further selected six institutions with apparently adequate programs for in-depth study by personal visitations and interview. From a literature review, thirty-four basic principles of work experience in office occupations were initially formulated. Questions were then rated by a jury of 26 prominent business educators and curriculum specialists. In consideration of the jury's rating, a seven-part questionnaire composed of 25 evaluative



principles was then developed. Questionnaires were mailed to the 290 college and university members of the NABTE. Results of the study were used to support principles and guidelines for developing the collegiate work experience program.

Techniques used by Davenport in his study were similar to Jantze's. Questionnaire items were initially prepared through a literature review and then submitted for evaluation to a jury of specialists including 12 state supervisors of office occupations education. Ninety-four office education teachers from 28 higher education institutions which offered work experience programs participated in this study. A questionnaire survey technique was utilized in an effort to obtain data and information concerning the current practices in cooperative office education programs at the college level.

### Basic Concepts and Terminology

#### Cooperative Education

Since differences of opinion frequently resolve themselves into differences of interpretation, it is of paramount importance that all vocational education programs be administered according to a uniform interpretation of law and regulation. This has proven to be especially true with regard to cooperative education since a review of the literature indicates that there is much variation in the interpretations of the definitions concerned with cooperative education.

Cooperative Vocational Education (see p. 5, Definition of Terms)

is the term used in the Vocational Education Amendments of 1968 to identify the vocational education plan using the cooperative method. Based on this interpretation, the cooperative vocational education under Part G of the 1968 Vocational Education Amendments, three criteria indicating the standards and requirements of the program have been clearly outlined in the Minnesota Guide (Ashmum, 1969, p. 9). They are:

1. Students must receive instruction, including required academic courses and related vocational instruction by alternation of the student in school with a job in any occupational field;
2. These two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and employability;
3. Work period and school attendance may be on alternate half-days, full days, weeks and other periods of time.

In the Handbook for Teacher-Coordinator, G. F. Law lists the common elements of cooperative vocational programs (Law, 1970, p. 1).

1. The systematic progression of skills and techniques through a definite pattern of learning experiences on the job;
2. Occupational orientation and job counseling, together with related technical instruction in school;
3. Coordination of school and work activities through job visitations by school personnel;
4. Cooperative school and employer development of appropriate classroom work and job experiences;
5. School credit for combined employed training and related work.

In addition to the three criteria outlined by the Minnesota Guide, Law stresses the necessity of:

1. adequate counselling in student selection.
2. compulsory wage earning for students.
3. school credit for participating students.

Despite the fact that the federal definition clearly outlined the criteria for the cooperative vocational programs, some educators and laymen have experienced confusion concerning the differences between cooperative education programs, work-study programs, and work experience programs.

The National Vocational Education Act of 1963 prescribes a program called "Work-Study" which is, in reality, general work experience because the work situation is not intended to provide true vocational instruction, but to provide a means of earning money for disadvantaged youth. According to the federal legislation, the main purpose of the work study program is "to provide financial assistance to students who are in need of earnings for employment to commence or continue their vocational education program." (Ashmum, 1969, p. 10)

In Cooperative Occupational Education, Mason drew distinction between work-study programs and cooperative vocational programs in the following manner:

Although work-study programs and cooperative education programs have some common goals and similar characteristics, there is a basic difference between them. The major difference is in the basic purpose and, therefore, in the provision of related instruction. In work-study programs the purpose is general occupational education, and the instruction in school is only generally related to the work of the training station. There is no effort to teach topics in the order that they are needed on the student's job. Individual learning needs stemming from the job are not usually a focus of instruction. In addition, the instruction in school is often given before the job experience rather than concurrently with it. Lastly, the occupational experience may be only generally related to the student's career goal rather than contributing directly to it. In contrast, in cooperative education programs, the goal is both general and specific occupational education. The instruction is said to be corrected, that is, there is a

direct relationship between the study in school and the activities of the training job, both of which are based on a career objective. (Mason, 1965, p. 52)

The third type of program "work experience program" has been shown to be one that is now used generically to describe varying educational programs that utilize the work situation as a teaching-learning device. The work experience program can be classified into three categories--exploratory, general, and vocational. The purpose of the exploratory and general work experience programs is general education; the vocational work experience relates to individual occupational objectives. According to Huffman (1967), work experience education has a number of general objectives, and the objectives of the various work experience programs are individually defined according to the nature, purpose and procedures of each program.

On the other hand, the cooperative vocational program contains the elements of work experience with the over-riding purpose of developing occupational competence through classroom work carefully coordinated with on-the-job experience (Huffman, 1967, p. 9). Wallace uses the appropriate term "partnership" to describe the distinctive characteristic of the cooperative vocational program. In his recent book, Review and Synthesis of Research on Cooperative Vocational Education, he states:

One of the partners sponsors the educational component of the program, and the other sponsors the productive employment component. Both partners are actively and knowingly committed to contribute to the educational development of the student. (Wallace, 1970, p. 4)

After reviewing the above discussions relative to this study, there appears to be an inconsistency in the terminology in the Vocational Education Amendments of 1968. Part G of the Amendments is titled "Cooperative Education Programs" and the definition in Section 175 refers to "Cooperative Work-Study Programs."

The terms "Cooperative Vocational Program," "Work-Study Program," and "Work Experience Program" frequently have been misused because of:

1. Mis-interpretation of the terminology.
2. Unfamiliarity with the programs.
3. Various inadequacies of the cooperative vocational programs:
  - a. Inadequate on-the-job supervision.
  - b. Lack of correlated classroom instruction.
  - c. The enrollment of unqualified students.

Because of these interpretive problems, some leading vocational educators and key administrators in the United States Office of Education decided that the term "Work-Study" should be dropped from Part G, substituting with the term "Cooperative Vocational Education" in order to avoid confusion between the programs described in Part G and Part H, which alleviates the problem of mis-interpretation (Ashmum, 1969, p. 9).

The conclusion of this analysis is that the term "Cooperative Vocational Education" is a more descriptive identification of the type of program under study.

## CHAPTER II

## DEVELOPMENT AND VERIFICATION OF THE GUIDELINE

Introduction

The purpose of this chapter is to describe the development of the guideline for the implementation and operation of the cooperative education program in Utah, and to establish a theoretical framework for the present study.

In an explanation of the importance of development procedures and the purpose for a guideline in vocational education, Wallace said:

The process of development of a scientific discipline may be viewed as consisting of several stages. First, basic concepts are formulated, communicated, and accepted informally as guidelines for practice; but no well articulated theory has emerged. The second stage is one in which selected postulates are tested as a means of validating or verifying some of the basic concepts and the beginnings of theory building occur. During the third stage the basic concepts appear, cloaked with academic respectability in the form of a logically structured theoretical (or philosophical) system. Research and development reaches a peak in the fourth stage as theorists coordinate their efforts to transform the soft theoretical structure, part by part, into a solid set of scientific principles or laws. (Wallace, 1970, p. 89)

A review of literature on cooperative education indicated that no single guideline for cooperative education was appropriate to every condition and program. Some of the guides were oriented toward a specific student group, others were intended for a particular occupational field. However, there were some basic principles and commonalities generated toward core activities for a cooperative education program. Therefore, a new relevant guideline is needed for the cooperative program in Utah.

### Development of the Tentative Guideline

Although several ideas concerning guideline format originated in the literature review, a single instrument suitable for developing a guideline to accomplish this study's purpose was not found. As a result, two commonly accepted national guides in cooperative education were selected and synthesized as the basis for developing a tentative guideline. These were the Guidelines in Cooperative Education, developed during a national seminar in cooperative education at Ohio State University in 1966, and the Guide for Cooperative Education, prepared by the University of Minnesota under contract to the U. S. Office of Education in 1969. These guides were selected for the following reasons:

1. They were developed under the contract and sponsorship of U. S. Office of Education.
2. Both guides were formulated by synthesizing the viewpoints of a national cross section of leading vocational educators and other concerned parties in government, business and industry.
3. They were broadly oriented toward vocational education in general rather than designed for a particular occupational field.
4. They were more comprehensive and explicit than other available guidelines.

The rationale for utilizing local administrative personnel in verification of the guideline was suggested by Venn (1964) and Law (1970). Venn indicated that the local vocational administrator played an important role in developing vocational programs to meet immediate manpower needs:

Vexing problems arise in attempts to gear vocational and technical programs to the present and future world of work. On the one hand, the choice among occupational offerings is in the hands of local boards and administrators who are under pressure to tailor the program to the more immediate manpower needs of local (tax-paying) industry. On the other hand, the industrial complex of the nation is being made and remade so swiftly, and plant and worker mobility are so high that narrow, local training may have short relevance for the new worker. This again points to the importance of a more broadly based vocational-technical education, one consonant with long-term regional and national manpower demands. (Venn, 1964, p. 33)

Law (1970, p. 9) pointed out that a prime ingredient for success in cooperative education was knowledge of the community. Since the present guideline was designed to be used in the State of Utah, it was necessary to meet the local needs as well as the federal standards. After considering the above fact, a panel of 13 experts, one director, two coordinators and nine specialists in the Utah State Division of Vocational and Technical Education (see Appendix A) were chosen as the panel of experts to verify and evaluate the tentative guideline.

Pertinent features, commonalities and core activities of both the chosen guides were synthesized into more precise terms as the essential elements in the tentative guideline. Additional items related to this study from both guides were also included in the tentative guideline which contained two sections subdivided into nine headings yielding 75 elements describing those roles of the coordinator, the employer and the student in relation to the program standards.

Because all of the literature reviewed, especially the two national guides mentioned above, emphasized the importance of the coordinator's student's and employer's roles in any cooperative vocational program, it



seemed wise to direct the development of a guideline instrument to emphasize the gathering of information about the roles of the coordinator, student and employer in relation to the program standards and requirements.

#### Selection of the Panel of Experts

The use of a panel of experts for evaluating guidelines has occurred in various studies. Jantze selected a jury of 26 prominent business educators and curriculum specialists in evaluating the principles of the collegiate office education work experience program. Davenport validated his survey instrument in cooperative office education by the use of 12 state supervisors of office education.

The 13 experts from the state office were:

1. Directly involved with cooperative education on the state level,
2. Knowledgeable about the immediate manpower need in Utah,
3. Involved with federal vocational legislation, and
4. Representative of broad fields of vocational education.

#### Questionnaire Design

In order to facilitate the identification of essential elements in the guideline, it was necessary to design a questionnaire based on the initial guideline. Subsequently, the tentative guideline was converted to a questionnaire form containing 63 two-way closed choice items, 10 multiple choice items and 6 open-form items (see Appendix B). The two-way closed choice items served as a check-list designed so that the respondents could verify the value of each

item. The multiple choice items were intended to elicit opinions and comments regarding the program standards and requirements. The open-form items were devised to elicit any additional comments which had not been included in the closed choice items and which the respondent might wish to include. A minimum of 68 percent acceptance was the requirement for any item to be included in the final guideline.

#### Questionnaire Verification and Administration

A semi-structured interview was conducted by the writer with each of the 13 staff members in the Utah State Division of Vocational Technical Education (see Appendix A). Simultaneously, questionnaires were completed by the staff members. One hundred percent return was recorded.

Based on opinions from the 13 staff members, each of the elements under the nine headings in the questionnaire (see Appendix B) was examined and analyzed as follows.

##### 1. The appropriate number of hours for on-the-job training

The 1968 Vocational Education Amendment did not specify the number of hours per week a cooperative student ought to work. However, according to the definition of the cooperative vocational program in the 1968 legislation, work periods and school attendance should be on alternate half-days, full days, weeks and other periods of time.

Five selections ranging from 0 to more than 30 hours per week were presented to the 13 staff members for verification. Table 1 shows that 10

specialists indicated 15 to 20 hours per week would be the appropriate length of time for on-the-job training.

Table 1. Frequency and percentage of panel members responding to length of student work period

No. of hours per week	Frequency	Percentage
0-15	2	15.5
15-20	10	77
21-25	1	7.5
More than 30	0	0

## 2. In-school instruction standards

Two parts were included in the in-school instruction. The first part was related to the basic requirements of in-school instruction including the availability of preparatory classes, the provision of individual study guides, the availability of memberships vocational youth organization for cooperative students, and the granting of an appropriate number of credits for completion of one year cooperative education. The second part which included 8 elements was mainly concerned with the content of classroom instruction.

During the interview, 9 staff members agreed that the preparatory class should be made available to tenth grade students; 10 specialists felt that the individual study guide was a "must" for second year cooperative students. All 13 respondents indicated that the vocational youth organization should be a

vital part of cooperative education and that membership in such an organization should be recommended to every cooperative student. However, opinions were divergent regarding the number of credits to be given for completion of one year's cooperative education. Table 2 shows that no single category received 68 percent approval from the specialists. Nevertheless, 6 respondents agreed upon 2 credits and 3 favored 3 credits. These two categories (2 and 3 credits) constituted 9 votes or 69 percent of the total sample, therefore, 2 to 3 credits was adapted as the standard in the guideline.

Table 2. Frequency and percentage of approval by panel of suggested number of credits to be granted for units of cooperative education

Unit(s) of H. S. credit	Frequency	Percentage
One	0	0
Two	6	46
Three	3	23.5
More than three	1	7
No response	3	23.5

All 8 elements suggested for inclusion in classroom instruction were approved by the 13 staff members. Six of the 8 elements received 100 percent approval. In addition, one respondent suggested "perhaps included in above but training in employer-employee relations and customer relations needed to be included." Table 3 shows the numbers and percentages of staff members who favored each recommended element for classroom instruction.

Table 3. Frequency and percentage of panel members favoring elements for classroom instruction

Elements for classroom instruction	Frequency	Percentage
Job application procedures	13	85
Employee's responsibilities	13	100
Work habits and attitudes	13	100
Labor laws and regulations	13	100
Physical appearance	13	100
Communication skills	13	100
Basic information	12	92
Basic skills	11	85
Others	1	7.5

### 3. On-the-job training criteria

Five criteria concerning on-the-job training standards were utilized from both guides and presented to the 13 panel members for verification. The members were asked to approve the inclusion of three criteria: the preparation of training plans, the provision of training contracts and the requirement of student daily reports. As a result, the first two of the three criteria were accepted by more than 92 percent of the staff members. The third criterion, requiring a student daily report, received only 54 percent approval and was, therefore, deleted from the guideline.

The 13 staff members were also requested to identify the desirable on-the-job visitation frequency. Table 4 shows that 6 among the staff members voted for once a week, four chose once every two weeks, and three thought the frequency should be once each month. There was not a single category which

received sufficient approval to be considered valid as a guideline element. However, the first two categories did receive 10 votes, representing 77 percent of the total response. Therefore, it was concluded that the desirable visitation frequency should be at least once every two weeks.

Table 4. Number and percentage of panel member's responses to suggested visitation frequencies

On-the-job visitation frequency	Case	Percentage
Once a week	6	46
Once two weeks	4	31
Once per month	3	23
Once per grading period	0	0

Responses from staff members regarding the evaluation frequency predominantly favored more than 3 ratings per year (see Table 5). Ten specialists, or 77 percent of the total respondents, indicated that more than three ratings per year was most desirable.

Table 5. Number and percentage of staff member's responses to suggested evaluation frequencies

Evaluation frequency	Case	Percentage
One rating per year	0	0
Two ratings per year	1	8
Three ratings per year	2	15
More than three ratings per year	10	77

#### 4. Qualifications of the coordinator

A profile of the coordinator's credentials including the requirement of a bachelor's degree, teaching experience, occupational experience and 8 professional courses in vocational education, was listed in the tentative guideline for evaluation. Table 6 represents responses from the 13 staff members regarding the number of years teaching and work experience required for the coordinator. Seven respondents or 54 percent of this case indicated one year's occupational experience was essential for the coordinator. This number (55 percent) according to the pre-established standards, was insufficient to verify the item's inclusion in the guideline. However, two of the remaining respondents indicated that two years occupational experience was desirable and one felt that more than three years was necessary. Therefore, since 10 respondents agreed that the coordinator should have some occupational experience, it was thought safe to assume that the coordinator should have at least one year of occupational experience. Also, nine specialists believed that the coordinator should have between one and three years of teaching experience. So a minimum of one year of teaching experience was deemed desirable for a coordinator.

Nine staff members, or 69 percent of the total panel members, did not agree that a bachelor's degree should be one of the essential qualifications of the coordinators. Therefore, the requirement of a bachelor's degree for the coordinator was deleted from the guideline.

Of the eight professional courses, seven were approved by 69 percent or more of the specialists (see Table 7). The course, "methods of teaching the technical subjects" received eight votes, less than the pre-established

68 percent criterion for inclusion and was, therefore, deleted from the guideline.

Table 6. Frequency and percentage of panel members responding to length of teaching and work experiences required for coordinators

Number of years	Teaching experience		Work experience	
	Frequency	Percentage	Frequency	Percentage
None	4	31	1	7
One year	4	31	7	55
Two years	4	31	2	15
Three years	1	7	0	0
More than three years	0	0	1	7
No response	0	0	2	15

Table 7. Frequency and percentage of panel members approving recommended professional courses for coordinators

Professional courses	Frequency	Percentage
Curriculum Development	13	100
Philosophy of Vocational Educ.	12	93
Organization of Vocational Educ.	12	93
Vocational guidance	12	93
Public Relations	12	93
Cooperative education	12	93
Occupational Analysis	9	69
Methods of Teaching Technical Subjects	8	62



5. Duties and responsibilities of the coordinator

The essential duties and responsibilities were verified by the 13 panel members through a combined list of the functions performed as suggested by both guides. Table 8 shows that all 9 duties and responsibilities presented to the staff members were accepted by 85 percent or more. Three functions (student selection, work station selection, and on-the-job supervision), received support from all 13 panel members. In addition, one panel member suggested that coordinators "maintain an up-to-date list of training experience available to students." As a result, all proposed duties and responsibilities were adapted in the guideline.

Table 8. Frequency and percentage of approval by panel members of suggested coordinator duties and responsibilities

Duties and responsibilities	Frequency	Percentage
Student selection	13	100
Work station selection	13	100
Supervision	13	100
Organizing advisory committees	12	93
Classroom instruction	12	93
Public relation	12	93
Placement and follow-up	12	93
Coordinating and counseling	11	85
Directing vocational club activities	11	85
Others	1	7.5

### 6. Criteria for student selection

Half of the 10 proposed criteria in student selection received less than 68 percent of approval from the panel members and, therefore, were removed from the guideline (see Table 9). The deleted criteria were: intelligence test score, previous work experience, disciplinary records, educational background and socioeconomic needs. Among the 5 criteria approved, student interests and physical suitability received full support from all 13 staff members. An examination of the staff members responses regarding student selection criteria revealed that the staff members attempt to make the cooperative education program more flexible and practical so more students can be benefited by such a program.

Table 9. Frequency and percentage of approval by panel members regarding student selection criteria

Student selection criteria	Frequency	Percentage
Student interests	13	100
Physical suitable	13	100
Aptitude test scores	12	93
Parental support	12	93
Emotional stability	11	85
Disciplinary records	8	62
Educational background	7	54
Socioeconomic needs	7	54
IQ test scores	2	15

7. Legal responsibilities regarding student employment

Seven elements regarding the legal responsibilities of student employment were listed in an attempt to seek the panel's approval or disapproval as well as to solicit their opinions on the student wage standards. Table 10 shows that 5 of the 6 presented elements were approved by 68 percent of the total staff members. The proposed criteria "no student should be allowed to participate in hazardous operations" received 46 percent support from the panel members and was, therefore, removed from the guideline.

Table 10. Frequency and percentage of approval by panel members concerning legal responsibilities of student employment

Legal responsibilities	Frequency	Percentage
Work permit	13	100
Relocation employment by coordinators	13	100
School attendance regulation	11	85
Minimum age of 16 for employment	10	77
Minimum age of 18 for hazardous operations	9	69
No hazardous operations for students	6	46

Regarding the student wage level there was not a single wage category which received more than 68 percent of approval (see Table 11). However, the majority of the responses centered on two wage categories. Six favored 3/4 wage and five supported minimum wage. Consequently, the minimum wage was adopted as the basic standard for student wage in the guideline. If 3/4 wage

were to be paid, it would be necessary to obtain a student-learner certificate or permit from the Wage and Hour Public Contracts Division of the United States Department of Labor (Ashmum, 1969, p. 62).

Table 11. Frequency and percentage from panel members regarding the student wage level

Student wage levels	Frequency	Percentage
No pay	0	0
1/2 pay	1	7
3/4 pay	6	46
Minimum wage	5	39
Same wage as beginning workers	1	7

#### 8. Work station selection criteria

Ten proposed criteria in the work station selection were presented to the panel members for verification. Seven of the first eight criteria were accepted by 85 percent or more of the total staff members (see Table 12). Three of the 8 approved criteria (employers' interests, adequate supervision and accessibility) received support from all 13 staff members. The criterion "continuous employment," was disapproved by 54 percent of the total respondents and was then deleted from the guideline.

The last two criteria presented to the panel members included the identification of the elements which constituted desirable working conditions and the determination of suitable working hours in work station selection. All

Table 12. Frequency and percentage of approval by panel members regarding proposed criteria in work station selection

Criteria	Frequency	Percentage
Employers' interests	13	100
Adequate supervision	13	100
Accessibility	13	100
Identifiable learning content	12	92
Student employment should not displace regular workers	12	92
Reputation of the business	11	85
Future advancement	10	77
Continuous employment	6	46

four elements (wages, facilities and equipment, safety and insurance) were approved by the panel members as the crucial elements in the identification of desirable working conditions (see Table 13). The majority of the staff members (69 percent) believed that the working hours should be flexible; that students should be allowed to work any hours and, therefore, no restrictions should be imposed on working hours in the work station selection process.

Table 13. Frequency and percentage of panel members responding to essential elements in determining desirable work conditions

Elements	Frequency	Percentage
Facilities and equipment	12	92
Safety	12	92
Wages	11	85
Insurance and compensation	9	69

### 9. Employer's duties and responsibilities

The employer's cooperation and support is vital to the success of any cooperative program. Seven employer's duties and responsibilities were utilized from both guides and presented to the 13 staff members for verification. Consequently, 6 of the 7 listed duties and responsibilities were approved by 69 percent or more of the respondents. The criterion "assignment of student grades," was rejected by 69 percent of the panel members and was then excluded from the guideline. Among the accepted 6 duties and responsibilities, the items "assignment of on-the-job trainer or supervisor," and "supply information for in-school instruction," received unanimous support from all 13 panel members. Table 14 shows the number and percentage of the 13 panel members approving the proposed duties and responsibilities of the participating employers.

Table 14. Frequency and percentage of panel members approving proposed duties of the employer

Duties and responsibilities	Frequency	Percentage
Assignment of trainer or supervisor	13	100
Supply information for in-school instruction	13	100
Implementation of training plan	11	85
Determination of student progress	10	77
Maintenance of student records	9	69
Provision of insurance and other benefits	9	70
Determination of student grade	4	31

### Summary

This chapter presented the process of development and verification of the guideline for cooperative education in Utah. Two commonly accepted national guidelines in cooperative education were utilized as the basis for the tentative guideline. Subsequently, the tentative guideline was modified into a questionnaire form so that the selected 13 staff members in the Utah State Division of Vocational and Technical Education might estimate its value in terms of the needs for Utah. Consequently, of the 72 elements (excluding open-form items), 61 were approved by 68 percent or more of the total sample. Table 15 shows the number of elements which have been removed from each of the headings in the tentative guideline. An examination of the 11 deleted elements revealed that the staff members tended to aid in the development of the cooperative education program and attempted to make the program more practical and flexible toward the students' needs.

Table 15. Number of elements removed from tentative guideline

Headings	No. of items on tentative guide	No. of items on final guide	No. of items deleted
Student work period	1	1	0
In-school instruction	12	12	0
On-the-job supervision	5	4	1
Coordinators' qualifications	11	9	2
Coordinators' duties	9	9	0
Student selection criteria	10	5	5
Legal responsibilities	7	6	1
Work station selection criteria	10	9	1
Employers' duties	7	6	1
Total	*72	61	11

\*Excluding open-form items.



CHAPTER III  
CURRENT PRACTICES IN COOPERATIVE EDUCATION  
IN UTAH WITH COMPARISON TO THE GUIDELINE

A descriptive survey technique was employed in order to gather data required for determination of the current practices in cooperative education in Utah. Data were assembled from two sources: coordinators of programs in operation and participating employers.

Questionnaire Design

All questions included in the questionnaires were derived from the established guideline. The purpose of the coordinator questionnaire was to ascertain current practices regarding in-school instruction standards, on-the-job training requirements, legal aspects of the student employment, student and work station selection, and the duties and qualifications of the coordinator (see Appendix E). The major objective of the employer questionnaire was to discover the prevalent practices in the training aspect of the program including the duration of on-the-job training, on-the-job training standards, legal responsibilities of student employment, and the duties and responsibilities of participating employers (see Appendix G). Respondents were not asked to identify themselves on the returned questionnaires.

A pilot study for the questionnaires was conducted with several program coordinators in Logan and Salt Lake City which resulted in some minor

revisions. A pre-addressed, stamped envelope was provided to each of the respondents for returning the completed questionnaires.

#### Selection of Sample

To prepare for the survey, it was necessary to compile a list of school districts which offered cooperative education programs. The vocational directors of the 40 school districts in Utah were each written a letter by Dr. Wadsen, coordinator of district programs, Division of Vocational and Technical Education, Office of State Superintendent of Public Instruction. The letter authorized the study, explained its purpose and requested the release of names and addresses of the program coordinators. Along with this letter a form designed to identify cooperative programs and a transmittal letter (see Appendix C) were first mailed to each of the 40 district vocational directors requesting that they identify the existing cooperative vocational programs and their coordinators. Additional coordinator's names were identified from the cooperative program applications in the State Office and from the Utah State Vocational Education Personnel Directory, 1970-71.

Letters were then mailed to all program coordinators requesting the names and addresses of their participating employers (see Appendix D). Two participating employers from each program were randomly selected for this study and a total of 89 program coordinators and 152 participating employers were contacted.

### Administration of the Questionnaires

The coordinator questionnaire, accompanied by a transmittal letter (see Appendix E), was mailed to the identified coordinators. Of the 89 coordinators, 75 supplied a list of participating employers, 8 indicated that there was no employer participating in their programs at that time, and 6 refused to identify their participating employers. After follow-up letters (see Appendix F) 77 of the 89 coordinators completed and returned their questionnaires. However, two questionnaires were not usable because the coordinators indicated that they did not have any students working at that time. These 75 usable questionnaires represent 84 percent of the initial mailings and 92 percent of the existing programs. Among the 152 employers, 124 questionnaires or 80 percent of the total sample group were returned. However, 12 employers indicated that did not have student-learners working at that time. The usable questionnaires constituted 74 percent of the initial mailings.

### Tabulation of the Returned Questionnaires

In this section, the findings that relate to each part of the questionnaire are discussed. The data were analyzed on the basis of the number of usable returned questionnaires (75 coordinator questionnaires and 112 employer questionnaires). Since the respondents' anonymity was guaranteed, the analysis reporting of the data contains no references which might identify individuals.

A relatively large number of unusable responses was received in the questionnaires. In order to minimize the distortion of the data and to depict the actual responses to the questionnaire items, frequencies and percentages were calculated based on the total usable responses.

Student hours per week in school and  
on-the-job training

A multiple-answers open-form question was employed in order to identify the proportion of students spending specified numbers of hours attending classes and at work stations. Five blanks on each questionnaire were designed for coordinators and participating employers to insert the numbers of students participating in their programs. Opposite those blanks on the questionnaire were the five categories bearing numbers of hours to be matched with the numbers of students attending classes and receiving on-the-job training. Information regarding class attendance periods was supplied by the coordinators, and data concerning on-the-job training duration was indicated by the selected participating employers.

A total of 1004 cooperative students were identified by 58 coordinators. A relatively large portion of students (402 students or 36.5 percent of the total case) fell within the "0-15 hours" category and only a small portion of students (49 students or 4.5 percent of the total case) were identified in the "more than 30 hours" category (see Table 16).

A total of 239 cooperative students were identified by the 101 participating employers. Among the 239 cooperative students, 95 or 40 percent of the

total cases were identified within the "0-15" hours range and 8 or 3.5 percent of the total respondents fell into the "more than 30" bracket.

Table 16. Comparison of student class attendance and on-the-job training complying with guideline standards

No. of hours	Responses from coordinators on % of students attending classes	Responses from employers on % of students receiving training	Standards based on guideline
0-15	36.5	39.5	0
15-20	29	36	100
21-25	24	12.5	0
26-30	15	8.5	0
30 or more	4.5	3.5	0

A comparison between current practice and those specified by the guideline (see Table 16) shows that 36 percent of the students were reported by the employers to have met the requirements for the duration of on-the-job training and 20 percent of the students as indicated by the coordinators were within the limitation for the number of hours spent in in-school instruction. On the other hand, 39.5 percent of the students reported by the employers spent fewer than the guideline prescribed number of hours for on-the-job training; 24 percent of the same group of students worked longer than the required duration of on-the-job training. Coordinators indicated that 36 percent of the students had undergone fewer hours of classroom instruction than demanded by

the pre-determined standards of the guideline; 24 percent exceeded that 15-20 hour guideline standard.

#### General criteria for in-school instruction

In order to discover the prevalent in-school instruction practices among cooperative programs, four items concerning in-school instruction standard were presented to coordinators in a question form. The first two items were designed in a check-list form to determine the availability of the preparatory classes and the individual study guides. The third was a three-way selection item which attempted to ascertain the availability of the vocational youth organization and means of initiating its membership. The fourth, an open-form, was intended to learn the amount of school credit given for completion for one year of cooperative education.

Availability of preparatory classes for tenth grade students. Among the 75 respondents, 30 coordinators or 40 percent of the cases indicated that preparatory classes were available for the tenth grade student (see Table 17). Forty-two coordinators or 56 percent of the total respondents gave negative indications, and three questionnaires were not useful in this case.

Provision of individual guide for second year cooperative student. The individual study guide was not made available in the majority of programs. Of the 75 returned questionnaires, 52 or 59 percent of the coordinators reported that the individual guide was not provided for second year cooperative students and 23 coordinators or 31 percent indicated that it was (see Table 17).

Table 17. Percentages of programs meeting general in-school instruction criteria

Standards	No. of programs	Percentage of programs complying
Preparatory classes	30	40
Individual study guides	23	31
The availability of vocational youth organization	43	58
2-3 credits for one year cooperative education	34	45

Availability of membership in vocational youth organization. Three alternative responses (not available, recommended, and mandatory) were provided for this question. Twenty-six coordinators or 42 percent of the cases reported local unavailability of the vocational youth organization. Forty-seven percent or 35 coordinators indicated that the membership was recommended and 11 percent or 8 coordinators revealed the membership was mandatory.

Number of high school unit(s) for one year cooperative education. Most of the responses ranged between 1 to 4 credits as 64 coordinators provided useful data for this question. In 28 percent of the cases, one credit was given to students for their participation in a one year cooperative vocational program. In 45 percent of the cases, 2 to 3 credits were given; in 12 percent, 4 credits were given. The 64 respondents granted an average of 1.8 units for their courses of instruction.

A comparison between current practices concerning in-school instruction standards and those of guideline specifications (see Table 17) reveals:

1. Of the total programs, 40 percent complied with the guideline standards in providing the preparatory classes for tenth grade students while 56 percent did not achieve the requirements concerning the provision of preparatory classes.
2. The guideline prescribed criterion, the provision of individual study guides for second year cooperative students, was met by 31 percent of the programs in this study. The remaining 69 percent did not comply with the guideline standards in this respect.
3. Fifty-eight percent of the total programs provided the vocational youth organization activities for cooperative students as specified by the guideline. Among the programs in which the vocational youth organization activities were available, 81 percent made the membership optional for the students. The other 36 percent or more of the total programs did not meet the guideline specification.
4. In 45 percent of the programs, the 2 to 3 credits specified by the guideline were given students for their participation in one year of cooperative education.

#### Elements for in-school instruction

The coordinators were asked to rate the extent to which they included the eight essential elements in their in-school instruction by a four-point scale. For purpose of tabulation, three points were given for each high rating, two points for medium, one point for low and zero for none. Table 18 shows that



work habits and attitude received the highest attention in in-school instruction and ranked first among the eight items. "Law and regulations affecting workers" was the most neglected item for in-school instruction receiving only 120 points as compared to 195 points for the work habits and attitudes.

Table 18. Percentage of coordinators' implementation of guideline elements for in-school instruction

Elements	Scores	Rank	Percentage
Work habits and attitudes	195	1	65
Physical appearance	185	2	61
Employee's responsibilities	178	3	60
Basic information	176	4	59
Job application procedures	174	5	58
Basic skills	166	6	55
Communication skills	138	7	46
Laws and regulations	120	8	40

The maximum possible score for each item was 300 which would indicate complete compliance by each program with the specifications of the guideline. Table 18 shows that the highest score among the eight items was 195 which constituted 65 percent of the optimum score and the lowest score was 120 which equaled 40 percent of the possible score. Six of the 8 elements were above 50 percent and 2 were below the half-way mark.

#### On-the-job training requirement

Both coordinators and employers were asked to indicate on a checklist form the availability of the training plan and training agreement, and also

to reveal on a multiple selection form their prevalent practice regarding visitation and evaluation frequency. The coefficient of correlations between their responses was calculated.

Training plans. Responses from the 75 coordinators indicated that training plans were made available in 40 programs or 53 percent of the cases. Twenty-three coordinators or 30 percent of the total respondents reported that the training plan was not available in their programs (see Table 21).

Among the 112 participating employers, 45 or 40 percent were provided with training plans by the school. Training plans were not available in 62 work stations or 55 percent of the total respondents and 4.5 percent of the case were not usable.

Training agreement. Forty-two coordinators or 55.5 percent of this case reported having training agreements. In 29 percent of the cases, training agreements were not made available between the individual school and the participating employers prior to the employment of students. The other 11 coordinators, who represented 14.5 percent of the total respondents, did not provide usable data to this question (see Table 21).

Fifty-nine percent of the participating employers indicated that a training agreement was secured before the commencement of students' employment. In 35 percent of the cases, the training plan was not available in their programs.

Visitation frequency. Table 19 shows that 36 percent of the 75 coordinators indicated that on-the-job visitation frequency of one time per month was utilized in their programs. This was the broadest consensus in this category.

However, among participating employers the largest percentage (35 percent) reported one visitation per grading period was prevalent in their programs. About 5 percent of the coordinators and 10 percent of employers indicated that on-the-job visitation was not available in their programs.

An analysis by the Rho formula of the rank orders among the items between the coordinators and employers resulted in a coefficient of correlation of 0.7 indicating a significant difference. A coefficient of correlation of 1 would be necessary for the relationship to be significant at the 5 percent level.

Table 19. Number, percentage and ranking of visitation frequency as reported by coordinators and employers

Visitation frequencies	Coordinators			Employers			Variation between ranks
	F	%	Rank	F	%	Rank	
Not available	4	5		11	10		
Once a week	8	11	4	11	10	4	0
Once every two weeks	22	29	2	15	13	3	1
Once per month	27	36	1	36	32	2	1
Once per grading period	14	19	3	39	35	1	2

$$\text{Rho} = 1 - \frac{6\sum D^2}{N(N^2 - 1)}$$

$$\text{Rho} = 0.7$$

Evaluation frequency. Of the coordinators who reported, 37 responses or 49 percent of the cases evaluated their student-learners more than three times yearly, placing that category in the highest rank. Fourteen coordinators

or 19 percent of the cases indicated that the evaluation frequency varied the second highest rank.

Results from employers revealed their first two ranks were reverse of the order of the coordinators. In 42 percent of the cases, the evaluation frequency was variable which constituted the highest number in one category. The second highest rank rated by employers was "more than three ratings per year." Twenty-seven percent of employers in the cases fell into this bracket.

A coefficient of correlation of 0.9 shows a significant relationship between the responses of the coordinators and employers. Table 20 reveals the number, percentage and ranks as reported by the coordinators and employers in terms of the evaluation frequency.

Table 20. Number, percentage and ranking of evaluation frequency as reported by coordinators and employees

Evaluation frequencies	Coordinators			Employers			Variation between rank
	F	%	Rank	F	%	Rank	
Variable frequency of ratings	14	19	2	47	42	1	1
One rating per year	2	2.5	5	4	3.5	5	0
Two ratings per year	12	16	3	11	10	3	0
Three ratings per year	6	8	4	5	4.5	4	0
More than three ratings	37	49	1	30	27	2	1
No responses	4	5.5	0	15	13	0	0

$$\text{Rho} = 1 - \frac{6\sum D^2}{N(N^2 - 1)}$$

$$\text{Rho} = 0.9$$

Table 21 reveals the percentage of programs found from coordinator and employer reports to meet on-the-job training standards which include the provision of a training plan, variability of the training agreement, a visitation frequency of at least once bi-weekly, and an evaluation frequency of at least three times annually.

Table 21. Percentage of programs complying with on-the-job training standards as reported by coordinators and employers

	Training plan	Training agreement	Visitation frequency once every two weeks	Evaluation frequency more than 3 ratings per year
Coordinator	53%	55.5%	39%	49%
Employer	40%	59%	23%	27%

In three of the four categories, the percentage of coordinators indicating the achievement of the standards was substantially higher than that of employers. The percentage of employers having the training agreement slightly exceeded that of the coordinators. Coordinators and employers average percentages of meeting the guideline requirements exceeded 50 percent in three instances and fell short of 50 percent in five instances.

Comparison of the current practice regarding the on-the-job training standards with those specified by guideline indicates:

1. The use of a training plan, an essential criterion in the guideline, was reportedly complied with by 53 percent of the coordinators and

40 percent of the employers. Among the remaining 30 percent of the coordinators and 55 percent of the employers, the training plan was not available.

2. The guideline specification of provision of a training agreement was met by 55 percent of the coordinators and 59 percent of the employers; 29 percent of the coordinators and 35 percent of the employers reportedly had not complied with the guideline requirements.
3. The compliance with the visitation schedule prescribed in the guideline (at least once every two weeks) was met by 39 percent of the coordinators reporting. Twenty-three percent of the employers verified this statement. The remaining coordinators and employers indicated that the visitation schedule was less frequent than the guideline specification.
4. The guideline specified evaluation frequency was reportedly met by 49 percent of the coordinators and verified by 27 percent of the employers. The other 55 percent of the coordinators and 60 percent of the employers revealed their under-achievement of the evaluation frequency.

#### Qualifications of coordinators

The coordinators were requested to indicate their teaching, related work experience and formal instruction in the seven courses recommended by the guideline in cooperative vocational education.

Teaching experience. When asked to indicate the number of years teaching experience they had had, 74 coordinators reported having more than one year. One respondent revealed that he did not have any teaching experience. Ten years was the average amount of teaching experience among the 75 coordinators.

Related work experience. Four coordinators or 5.5 percent of the cases had no related work experience. The remaining 94.5 percent of the coordinators had one year or more of related occupational experience with one coordinator indicating that he had had 30 years related work experience. The average work experience among the 75 coordinators was 6 years.

Table 22. Number and percentage of coordinators meeting teaching and work experience specifications of guideline

Criteria	Frequency	Percentage
A minimum of one year teaching experience	74	98.5
A minimum of one year work experience	71	94.5

Professional courses related to cooperative education. Fewer than half of the coordinators had received formal instruction in 6 of the 7 recommended professional courses in vocational education. Curriculum development was the most popular course among 69 percent of the coordinators while occupational analysis had not been taken by 69 percent of the coordinators. The remaining 5 courses had been taken by more than 32 percent of the respondents (see Table 23).

Table 23. Number and percentage of coordinators possessing formal instruction in required professional courses

Professional courses	Frequency	Percentage
Curriculum development	52	69
Cooperative education	37	49
Philosophy of vocational education	34	45
Vocational guidance	31	41
Public relations	29	39
Organization and administration	24	32
Occupational analysis	23	31

A comparison between the actual qualifications of the in-service coordinators and those required by the guideline indicates that the minimum of one year teaching and one year occupational experience, was met by 94 percent or more of all coordinators in this study. Courses in curriculum development had been taken by 69 percent, the remaining criteria had been met by 49 percent or less of the coordinators.

#### Duties and responsibilities of coordinators

Coordinators were asked to supply information regarding their performance or non-performance of each of the nine listed duties and responsibilities by a check-list. Eight of the nine functions were performed by a great majority of coordinators (see Table 24). Sixty-seven coordinators or 89 percent of the total respondents revealed that "work station selection" was one of their performed duties and responsibilities, the highest positive responses to any



single item. On the other hand, only 25 coordinators or 33 percent of the cases reported that "directing vocational youth organization" was included among their duties and responsibilities, relegating this function to the lowest rank.

Table 24. Number, percentage and ranking of performed duties and responsibilities as reported by coordinators

Duties and responsibilities	Frequency	Percentage	Rank
Work station selection	67	89	1
Student selection	66	88	2
Supervision	65	87	3
Placement and follow-up	65	87	3
Public relations	65	87	3
Counseling	64	85	4
In-school instruction	63	84	5
Organizing advisory committee	46	61	6
Directing club activities	25	33	7

#### Student selection criteria

Five criteria for student selection found in the guideline were presented to the coordinators in an attempt to discover their current practices in student selection for cooperative programs. The first item, vocational interests of the student, was included by 73 coordinators or 97 percent of the total respondents as one of the criteria in student selection. The other three items, including health or physical suitability, emotional stability and parental

support were also utilized by more than 60 percent of the coordinators in their selection. In 39 percent of the cases, aptitude test scores were used as a criterion in student selection. An analysis of the responses to criteria presented in this question can be found in Table 25.

Table 25. Number, percentage and ranking of criteria in student selection as reported by coordinators

Criteria	Frequency	Percentage	Rank
Vocational interests of the student	73	97	1
Parental support	64	85.5	2
Emotional stability	55	73	3
Health or physical suitability	49	65	4
Aptitude test scores	29	39	5

#### Legal responsibilities regarding student employment

Six items regarding the legal responsibilities of student employment were presented to both coordinators and employers. The first five were three-way closed choice items whose selections included yes, no and NA (not applicable). The last item relating to the student wages was a multiple selection item listing five choices. With the exception of Item No. 5 (which concerned the relocation of employment for students who have involuntarily lost their work stations) the items presented were identical in both questionnaires.

Work permit. Sixty-five coordinators or 75 percent of the total respondents indicated that the work permit was required for students under 18 prior to their acceptance of employment. Eight coordinators or 11 percent of the

cases responded negatively to this question; the other 11 percent marked the NA column.

Seventy employers or 62 percent of the total respondents revealed that the work permit was a requirement for all students under 18 before their employment, while ten percent of the employers reported that the work permit was not compulsory for students under 18. A relatively large portion of employers did not express opinions on this matter.

Minimum age of 16 for employment. When asked whether 16 was the minimum age for cooperative student employment, 65 coordinators or 87 percent of the total respondents answered "yes." In 9 percent of the cases, 16-years was not the minimum age for employment; and in 4 percent of the cases, this question was not applicable to their situations.

The responses from employers were similar to the coordinators'. Among the 112 employers, 96 or 86 percent reported that 16-years was the minimum age for employment; 3 or 2.5 percent of these cases answered negatively, and the other 11.5 percent answered "NA."

Minimum age of 18 for participating in hazardous operations. In 60 percent of the cases, or 45 programs, the coordinators indicated the age restriction (minimum age = 18) was imposed for students participating in hazardous operations. This restriction was not established in 9 percent of the cases, and the other 26 percent responded "NA."

The majority of employers, 58 percent, indicated this question did not apply to their situations. In 37.5 percent of these cases, the age restriction was

imposed by the employers for students engaging in hazardous operations. No age restriction was imposed in 17 percent of the work stations.

Since a large portion of employers were in occupational areas which involved no hazardous operation, many responses were not applicable to this situation.

Termination of cooperative arrangements following students' failure to attend classes regularly. Fifty-one coordinators or 68 percent of the reported cases indicated that cooperative arrangements would be terminated when students failed to attend classes regularly. Twelve coordinators or 16 percent of the total respondents answered "no" to this question, and the remaining 6 percent felt this question was not applicable to their situation.

When the same question was posed to employers, 53 percent of the cases agreed that the student-learner should not be allowed to work when he failed to attend school regularly. In 17 percent of the cases, the employers indicated that such a policy was not implemented in their training programs, and 21 percent of the cases thought this question did not apply to their situations.

Student wages. "Minimum wage" as the prevalent level for student wages was indicated by 44 percent of coordinators and was ranked before the other four choices presented to the coordinators. However, "same wage as the beginning workers" was the answer of 35.5 percent of the participating employers and was ranked first in the employer questionnaire. "Half of the regular wage" was reported used by 6.5 percent of the coordinators and 3.5 percent of the employers, the lowest rank among all wage levels. Eight percent of the coordinators and 10 percent of the employers indicated that their

students worked without pay. This divergence of opinions between coordinators and employers (a difference of one rank) regarding student wages can be seen in Table 26. An analysis by the Rho formula of the rank orders among the items between the coordinators and employers resulted in a coefficient of correlation of 0.8, indicating no significant relationship between the ranks rated by the coordinators and employers.

There was a relatively large portion of unusable responses in this question, mainly because some respondents did not mark the appropriate space and others wrote down the amount of money paid hourly to student learners.

Table 26. Number, percentage and ranking of wage level practices reported by coordinator and employers

Wage level	Coordinators			Employers			Variation between ranks
	F	%	Rank	F	%	Rank	
No pay	6	8	4	11	10	3	1
1/2 of regular wage	5	6.5	5	4	3.5	5	0
3/4 of regular wage	8	11	3	10	9	4	1
Minimum wage	33	44	1	39	34.5	2	1
Same wage as beginning workers	19	25	2	40	35.5	1	1
No response	4	5	0	8	7	0	0

$$\text{Rho} = 1 - \frac{6\sum D^2}{N(N^2 - 1)}$$

$$\text{Rho} = 0.8$$

A comparison between the prevalent conditions concerning the legal responsibilities in cooperative programs and the specifications in the guideline (see Table 27) indicates:

1. The work permit, one of the most important legal responsibilities in student employment, was reportedly required by 75 percent of the coordinators and 62 percent of the employers. The remaining 25 percent of the coordinators and 38 percent of the employers had not met the guideline specification by securing a work permit for the under age students prior to their acceptance of employment.
2. The guideline specified criterion of a minimum age of 16 for employment was observed by 87 percent of the coordinators and 86 percent of employers. This regulation had not been imposed by more than 9 percent of coordinators and 2.5 percent of the employers.
3. The minimum age of 18 for participating in hazardous operations, one of the guideline specified criteria, was met by 45 percent of the coordinators and 37.5 percent of the employers. This rule was not complied with by 9 percent of the coordinators and 26 percent of the employers. The remaining cases had no hazardous operations in their situations.
4. The guideline criterion regarding school attendance was complied with by 68 percent of the coordinators and 53 percent of the employers. On the other hand, more than 16 percent of the coordinators

and 17 percent of the employers had not enforced this school attendance regulation.

5. The guideline criterion, relocating employment for students who have lost their work involuntarily, was reportedly met by 66 percent of the coordinators. More than 9 percent of the coordinators did not observe the above regulation. No such question was directed to the employers.
6. The minimum wage level or 3/4 of the regular wage level, the guideline basic student wage requirement, was reported as complied with by 54 percent of the coordinators and 44 percent of the employers. In 14.5 percent of the cases reported by coordinators and 13.5 percent indicated by employers, students were either under paid or not paid at all.

Table 27. Percentages of coordinators and employers enforcing rules regarding legal responsibilities of student employment

	Work permits	Minimum age for employment	Hazardous operations	School attendance regulations	Wages
Coordinator	75%	87%	60%	68%	54%
Employer	62%	86%	37%	53%	44%

#### Criteria for work station selection

Coordinators were requested to indicate in a check-list form whether the listed seven criteria were utilized in their work station selection process.

They were also asked to verify in a multiple selection form, prevalent criteria for determining desirable working conditions and appropriate working hours. More than 84 percent of the coordinators utilized seven of the nine criteria in their work station selection practices. "Interest of the employers in training" was used by more than 96 percent of the programs, the highest rate of acceptance among the criteria (see Table 28).

Table 28. Number, percentage and ranking in work station selection as reported by coordinators

Criteria	Frequency	Percentage	Rank
Interest of the employer in training	72	96	1
On-the-job supervision	65	86.5	2
Reputation of business	64	85	3
Learning content	56	74.5	4
Accessibility	55	73.5	5
Advancement	47	62.5	6
Student employment will not displace other workers	46	61	7

The coordinators, when asked to identify their standards for evaluating working conditions, ranked "facilities and equipment" highest; safety, wage, and insurance and compensation were ranked second, third and fourth, respectively. Facilities and equipment received 83 percent approval; insurance and compensation were approved by 22 percent of the coordinators (see Table 29). This question was a multiple selection item, and the respondents were



encouraged to select as many responses as they thought applied; therefore, percentages in the four categories exceeded 100 percent.

Offered three choices regarding appropriate working hours, 45 percent of the coordinators reported that students could work any hours. Twenty-eight percent indicated that students were only allowed to work between 7 a. m. and 7 p. m. Answers from the other 27 percent included "students can only work sixth and seventh periods but anytime after school," "school hours;" "afternoon only;" "1 p. m. - 5 p. m.;" and "depends on boy and job circumstances."

Table 29. Number and percentage of coordinators' responses to elements in determining desirable working conditions

Elements	Frequency	Percentage
Facilities and equipment	62	83
Safety	42	56
Wage	35	47
Insurance and compensation	22	29

A comparison between the current practices in work station selection and those of the guideline revealed that 96 percent of the coordinators observed the guideline specified criterion "interest of the employer in training" in their work station selecting process; 61 percent considered "student employment will not displace other workers" when they selected training station; and the degrees of achievement of the other 5 criteria fell between 62 and 86 percent.

Four elements concerning the standards for evaluating working conditions were recommended in the guideline. The first element, "facilities and equipment" was considered by 83 percent of the coordinators. The remaining elements, safety, wage, insurance and compensation, were employed by 56, 47 and 29 percent of the coordinators respectively (see Table 29).

In 45 percent of the programs, students were allowed to work any hours which were in accord with the specifications of the guideline.

Duties and responsibilities of the participating employers

Six duties or responsibilities were listed in this question, all in the closed two-way choice form. Responses from employers indicated that five of the six items had been performed by the majority of employers. However, in 42 percent of the cases, the employers provided insurance, compensation, and other fringe benefits for cooperative students. An analysis of duties and responsibilities of participating employers with frequency and percentage of use and relative ranking can be seen in Table 30.

Table 30. Duties and responsibilities of participating employers with frequency and percentage of use and relative ranking

Duties and responsibilities of employers	Frequency	Percentage	Rank
Assign trainer	86	77	1
Evaluate student's progress	85	76	2
Maintain records and work permits	70	62.5	3
Implement training plans	66	59	4
Supply information for school	61	54	5
Provide insurance	47	52	6

Comparison of the current practices with the guideline prescribed duties and responsibilities of employers shows that the listed functions of participating employers were performed by 77 percent or less of the total employers in this study. Among the least performed functions, "supply information for school" and "provide insurance, compensation and other fringe benefits for student-learners" were implemented by 54 percent and 42 percent of participating employers respectively.

CHAPTER IV  
SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

Cooperative Vocational Education is the term used in the 1968 Vocational Education Amendment to identify the vocational plan utilizing the joint effort between industry and school. The term cooperative education has been frequently misinterpreted by many layman as well as educators to be the work-experience or work-study program. However, the interpretation from the 1968 Federal Vocational Legislation is distinguished from these programs by including three rudimentary principles which should be imposed in any cooperative vocational program. They are: (1) In-school instruction related to the on-the-job training, (2) Supervised on-the-job training, and (3) Alternation between work period and school attendance on half-days, full days, weeks and other periods. Because of the above mentioned misinterpretation of the cooperative vocational program and its newness in the State of Utah, inconsistencies have appeared in the attempt to fully implement the program in the public schools; and, therefore has given rise to a need for determining some acceptable policies and practices.

The purpose of this study was

1. To develop a guideline for cooperative education.

2. to determine the current status of cooperative Vocational education in Utah.

3. to compare the current practices with a guideline derived from two national commonly accepted guides and which was approved by the 13 key administrators and supervisors in the state office.

The questionnaire survey method was employed to collect data for this study. Two types of questionnaires were designed for coordinators and participating employers in an attempt to discover the current practices in the Cooperative Vocational programs in Utah. A total of 89 tentatively identified coordinators and 152 selected participating employers were contacted. There were 75 coordinators questionnaires and 112 employer questionnaires used in this study. These numbers represented 85 percent of the existing programs and 80 percent of the total employer samples.

#### Development of guideline

In order to develop the guideline, several national guides in cooperative education were studied, and the few available state-wide research studies were reviewed. As a result, a tentative guideline was developed based on Guidelines in Cooperative Education (Ohio State University, 1967) and a Guide for Cooperative Vocational Education (Minnesota University, 1969). The focal point of the tentative guideline contained the roles of the coordinators, students and employers in relation to the program standards and requirements. More specifically, the tentative guideline included: program standards, duties,

and qualifications of the coordinators, legal responsibilities of student employment, criteria for work station selection, criteria for student selection, and duties and responsibilities of the employer. Pertinent features, commonalities and core activities related to this study from both guides were synthesized and refined into more precise terms as the essential elements in the tentative guideline. In addition, special suggestions from both guides were included. Subsequently, the tentative guideline was converted into a questionnaire form and presented to the 13 staff members in the Utah State Division of Vocational and Technical Education for verification.

#### Findings on current practices in Utah

1. Among the 1104 cooperative students reported by the coordinators, 402 or 36.5 percent spent less than 15 hours per week attending classes. Of the 239 student-learners indicated by the selected employers, 95 or 39.5 percent received fewer than 15 hours on-the-job training weekly.
2. The preparatory classes for 10th grade students and the individual study guides for second year cooperative students were not made available in half of the program in Utah.
3. Vocational youth organizations were not available in 42 percent of the programs; memberships in such organizations were recommended in 81 percent of the programs where the activities were available.

4. In 45 percent of the cases, 2 to 3 credits were given to students who had successfully completed one year of cooperative education.
5. Among the eight essential elements for in-school instruction, 40 to 65 percent had been implemented by the coordinators in their classroom instruction. "Work habits and attitude" received the highest priority in classroom instruction and "laws and regulations" was the item of least priority in classroom instruction.
6. There was a divergence between responses from coordinators and employers regarding the "on-the-job training standards." A training plan was used by 53 percent of the coordinators as opposed to 40 percent of the employers. Usage of the "training agreement" was made by 55 percent of the coordinators and by 59 percent of the employers.
7. The minimum wage was the prevalent wage level for students indicated by 44 percent of the coordinators and 35 percent of the employers. About 9 percent of the students worked without pay.
8. Responses from coordinators indicating compliance with "visitation schedule and evaluation frequency" were substantially more numerous than those from employers. In 39 percent of the cases, coordinators reported that the visitation frequency was at least once bi-weekly; 23 percent of the employers confirmed this report. Three ratings per school year or more was indicated by 49 percent

of the coordinators, while 27 percent of the employers verified this statement.

Comparisons between current practices  
and the guideline

1. The coordinators reported that 20 percent of the students satisfied the guideline specification for "school attendance;" the employers reported that 36 percent of the students complied with specified length of time for "on-the-job training. "
2. The guideline criteria requiring a minimum of one year teaching experience and one year occupational experience was met by 94 percent or more of all coordinators in this study. However, a study of the responses from the coordinators regarding the recommended professional courses showed some deficiencies in the "professional preparation. " Courses in curriculum development had been taken by 69 percent; courses in the philosophy of vocational education by 45 percent; and the remaining four recommended courses had been met by 41 percent or less of the coordinators.
3. The provision of training agreement prior to the commencement of student employment was implemented by 55 percent of the coordinators and 58 percent of the employers.
4. Seven of the nine duties specified by the guideline were performed by 80 percent or more of the coordinators. The remaining two functions, "organization of the advisory committee" was performed



by 61 percent, and "direction of vocational youth organization activities" was fulfilled by 33 percent of the coordinators.

5. More than 54 percent of the coordinators and 37 percent of the employers reported their compliance with all rules regarding "legal responsibilities of the student employment." The use of "the training contract" had been enforced by 87 percent of the coordinators and 86 percent of the employers. "Student wages" and the "criteria for hazardous operations" received less attention from both coordinators and employers. Wage standards were complied with by 54 percent of the coordinators. Observance of the criteria for hazardous operations was indicated by 37 percent of the employers.
6. Four of the five guideline criteria in student selection were utilized by 65 percent of the coordinators. "Vocational interests of the student" were considered by 97 percent of the coordinators in their student selection process; "the aptitude test battery" was employed by 39 percent of the programs.
7. Over 61 percent of the coordinators utilized all the 7 guideline criteria in their "work station selection process." In considering the optimum working conditions, 56 percent or more of the coordinators felt that facilities and equipment, and safety constituted the essential factor for desirable working conditions. Twenty-nine percent used insurance and compensation as criterion in their work

station selection practices, and 47 percent thought wages was an important factor in determining work station. Regarding "suitable working hours" in determining work station, 34 percent of the programs were in accord with guideline specifications stating that students can work any hours.

8. Five of the six guideline prescribed duties and responsibilities of the employers had been performed by 61 percent or more of the employers in this study. In 86 percent of the work stations, in this study, on-the-job trainers or supervisors were assigned to each individual student learner. In 47 percent, insurance, compensation and other fringe benefits were available for the student-learners.
9. The student-learners do not receive the same benefits as the full-time employees who perform identical work. Insurance, compensation and other fringe benefits were not provided; and wages were substandard.

#### Conclusions

The following conclusions were based upon a synthesis of the analyzed data:

1. Since there was no set of regulations to guide the implementation and operation of the cooperative programs in Utah, many of the coordinators' interpretations of federal legislation and state regulations were based on their own convenience. Inconsistencies

in program standards and requirements were frequently found among cooperative programs in Utah. Therefore, an official state guideline is needed.

2. The divergence in opinion and practice existing between coordinators and employers led to the conclusion that due to funding requirements, coordinators are more concerned about meeting the regulations than the employers are.
3. The majority of the cooperative students are not well placed according to their abilities since the aptitude test battery was not effectively utilized by coordinators in their student selection process.
4. The relaxation of student selection criteria in the guideline indicates that the 13 key administrators or supervisors in the state office tend to make the cooperative vocational programs more practical and flexible to meet the individual student need in Utah.
5. The coordinators are not well qualified since six of the ten criteria are met by less than 50 percent of the coordinators in this study.
6. The lack of requirement of a bachelor's degree for the coordinator in the guideline contradicts the state teacher certification requirement which specifies the degree as one of the minimal requirements in order to conduct in-school instruction.
7. In a majority of the programs in Utah:
  - a. Students spend insufficient number of hours in attending school or in receiving on-the-job training.

- b. Students are provided inadequate in-school instruction.
  - c. Students are given substandard on-the-job supervision.
8. Comparison of the current practices with the guideline specifications reveals that most duties and responsibilities have been performed by a majority of the coordinators and employers. However, due to the lack of basic concepts and operational principles in cooperative education, as indicated by the returned questionnaires, their performances have not attained the optimum level of compliance with program standards and requirements.

#### Recommendations

Based on the findings and conclusions, the following recommendations are suggested:

1. Since the coordinator is the backbone of any cooperative vocational program, improvement in Utah's cooperative vocational program should begin with improvement of the coordinators' qualifications. It is recommended that all coordinators in the State of Utah meet a required certification program. In addition, workshops in cooperative education for in-service coordinators should be instituted in order to orient them to the basic concepts and operational principles of cooperative education such as the development of a training plan.

2. The training plan should be made accessible to each student in every program. This training plan should be developed through the joint efforts of coordinators and employers and should list on-the-job learning experiences and related classroom instruction to be provided.
3. Preparatory classes for tenth grade students and individual study guides for second year cooperative students should be made compulsory in all programs.
4. For each occupational field in which training is given, there should be a local advisory committee composed of representatives of employers, employees, labor groups and educators. In each individual cooperative vocational program, the vocational youth organization activities should be made available. The use and development of advisory committees and vocational youth organizations can and should be valuable new features of the coordinators' expanding duties and responsibilities.
5. A more comprehensive cooperative education program should be provided for students with varying career goals and levels of abilities. More work stations can be identified through a state-wide promotional campaign for cooperative education. More students can be served by maximum use of training stations through different patterns of scheduling school and work.

6. The coordinators must work closely with guidance counselors in providing the most appropriate experiences for serving students' vocational interests. The aptitude test battery should be required for the student selection process in order to best match the students' ability and to ensure his future career success.
7. A course in cooperative education should be required for all vocational teacher certifications.
8. The minimum wage should be given to all students employed in cooperative vocational programs.
9. In order to develop the balance needed by the worker in his occupation, the coordinator should exert more effort to explain the necessary elements for in-school instruction; special emphasis should be placed on laws and regulations affecting the works, and the communication skills.
10. A written report from each cooperative vocational program regarding the degree of standards achievement should be required yearly. In addition, a periodic evaluation of each program by the state office is recommended.

#### Recommendations for Further Study

It is recommended that the following studies be made:

1. A follow-up study of the graduates from the cooperative vocational programs in Utah comparing their occupational success to that of the non-cooperative graduates.

2. A comparative study of current practices of work-study and cooperative vocational programs in Utah.
3. A study to discover the attitudes of school administrators, teachers, counselors, parents, students and the general publics in Utah toward the cooperative education program.
4. A study of the student selection criteria in cooperative education in Utah.

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## APPENDIXES

Appendix A

Staff members in the Utah State Vocational Technical Education Division selected as the panel of specialists to verify the guideline.

Administrator

Walter E. Ulrich

Coordinators

Jed W. Wasden, Secondary School Vocational Programs

David S. Gailey, Post secondary school vocational programs

Specialists

Elvin Downs, Agriculture

C. Aileen Ericksen, Home Economics

Garth Hill, Trade and Industry

Gary M. Lloyd, Business and Office Education

Joe O. Luke, Industrial Arts

Sandra Noall, Health Occupations

Germaine Page, Home Economics

Von Robertson, Technical Writer

L. L. Smith, Industrial Cooperative Programs

Charles Winn, Distributive Education

Appendix B

Dear Expert:

The following four pages contain tentative guidelines for cooperative education in Utah. Items included in these guidelines were mainly adapted and synthesized from Guidelines in Cooperative Education developed by the Ohio State University in 1966 and the Guide for Cooperative Vocational Education prepared by the University of Minnesota in 1969. Your evaluation and verification of each item is vital to the efforts of making these guidelines more valid and relevant for cooperative education in Utah. Part I examines three essential aspects of the program's standards and requirements; Part II pertains to the duties and responsibilities of the coordinator, student and employer. Please indicate your approval or disapproval of each item and add any necessary clarifying or qualifying statements. Thank you for your time and effort.

Sincerely,

George C. Ku

Part I: Program Standards and Requirements

1. Based on the interpretation of the federal legislation, the cooperative student's work period and the school attendance period should be on an alternate basis. How many hours per week should a cooperative student work in on-the-job training:

Fewer than 15 1 15-20 2 21-25 3 26-30 4 More than 30 5

1 2 3 4 5

2. In-school instruction in cooperative education should make on-the-job training educationally valuable. In other words, related instruction should facilitate the development of capabilities the student needs to enter into, adjust to, and advance in a satisfying career.

A. Should the following items be made criteria for in-school instruction?

(1) Preparatory classes in cooperative education should be made available in the 10th grade.

(2) Individual study guides should be made available for second year cooperative students.

1 2 3 (3) Membership in vocational youth organizations for cooperative students should be: Mandatory 1 Recommended 2  
Optional 3

1 2 3 4 5 (4) How many Carnegie unit(s) of high school credit should be given:  
One 1 Two 2 Three 3 Four 4 More than four 5

Yes No B. Which of the following elements should be taught in in-school instruction?

(1) Basic skills related to on-the-job training

(2) Basic information related to on-the-job training

(3) Job application procedures



- |                          |                          |   |
|--------------------------|--------------------------|---|
| Yes                      | No                       |   |
| <input type="checkbox"/> | <input type="checkbox"/> | (4) Employee's responsibilities               |
| <input type="checkbox"/> | <input type="checkbox"/> | (5) Work habits and attitudes                 |
| <input type="checkbox"/> | <input type="checkbox"/> | (6) Laws and regulations affecting the worker |
| <input type="checkbox"/> | <input type="checkbox"/> | (7) The importance of physical appearance     |
| <input type="checkbox"/> | <input type="checkbox"/> | (8) Communication skills                      |
| <input type="checkbox"/> | <input type="checkbox"/> | (9) Other elements _____                      |

3. On-the-job supervision in cooperative education should contribute directly to the development of occupational competency. Should the following activities be included in on-the-job supervision?
- |                          |                          |   |   |   |
|--------------------------|--------------------------|---|---|---|
| Yes                      | No                       |   |   |   |
| <input type="checkbox"/> | <input type="checkbox"/> | (1) The preparation of training plan  |   |   |
| <input type="checkbox"/> | <input type="checkbox"/> | (2) Daily report prepared by the students                                     |   |   |
| <input type="checkbox"/> | <input type="checkbox"/> | (3) The provision of training agreement prior to the acceptance of employment |   |   |
| 1                        | 2                        | 3   | 4 | (4) On-the-job visitation frequency:<br>Once a week <u>1</u> Once every two weeks <u>2</u> Once per month <u>3</u><br>Once every grading period <u>4</u>          |
| 1                        | 2                        | 3   | 4 | (5) Evaluation frequency:<br>One rating per year <u>1</u> Two ratings per year <u>2</u> Three ratings per year <u>3</u> More than three ratings per year <u>4</u> |

Part II: Roles of the Coordinator, Student and Employer in Relation to the Program's Standards and Requirements

4. The coordinator is the key to success for the cooperative program. In order to increase the efficiency and effectiveness of a program, a certification system is often utilized for program coordinators. Which of the following requirements should be included in the coordinator certification?
- |                          |                          |   |   |   |   |
|--------------------------|--------------------------|---|---|---|---|
| 1                        | 2                        | 3 | 4 | 5 | (1) Minimum years of occupational experience:<br>0 <u>1</u> One <u>2</u> Two <u>3</u> Three <u>4</u> More than three <u>5</u> |
| 1                        | 2                        | 3 | 4 | 5 | (2) Minimum years of teaching experience:<br>0 <u>1</u> One <u>2</u> Two <u>3</u> Three <u>4</u> More than three <u>5</u>     |
| Yes                      | No                       |   |   |   | (3) College degrees?  |
| <input type="checkbox"/> | <input type="checkbox"/> |   |   |   | (4) Professional courses related to cooperative education:  |
| <input type="checkbox"/> | <input type="checkbox"/> |   |   |   | a. Philosophy or Principles of Vocational Education   |
| <input type="checkbox"/> | <input type="checkbox"/> |   |   |   | b. Organization and Administration of Vocational Education  |
| <input type="checkbox"/> | <input type="checkbox"/> |   |   |   | c. Curriculum Development   |
| <input type="checkbox"/> | <input type="checkbox"/> |   |   |   | d. Occupational Analysis  |
| <input type="checkbox"/> | <input type="checkbox"/> |   |   |   | e. Vocational Guidance  |
| <input type="checkbox"/> | <input type="checkbox"/> |   |   |   | f. Methods of Teaching Technical Subjects   |
| <input type="checkbox"/> | <input type="checkbox"/> |   |   |   | g. Public Relations   |
| <input type="checkbox"/> | <input type="checkbox"/> |   |   |   | h. Cooperative Education  |
|                          |                          |   |   |   | (5) Other requirements _____  |

5. The duties and responsibilities of coordinators should be defined in terms of the objectives and policies of cooperative education. Generally speaking, should the following items be included among the duties and responsibilities of the program coordinator?

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	(1) Student selection
<input type="checkbox"/>	<input type="checkbox"/>	(2) Work station selection
<input type="checkbox"/>	<input type="checkbox"/>	(3) Counseling
<input type="checkbox"/>	<input type="checkbox"/>	(4) Supervision of on-the-job training
<input type="checkbox"/>	<input type="checkbox"/>	(5) In-school instruction related to on-the-job training
<input type="checkbox"/>	<input type="checkbox"/>	(6) Directing vocational youth organizations
<input type="checkbox"/>	<input type="checkbox"/>	(7) Placement and follow-up
<input type="checkbox"/>	<input type="checkbox"/>	(8) Public relations
<input type="checkbox"/>	<input type="checkbox"/>	(9) Organizing advisory committee
<input type="checkbox"/>	<input type="checkbox"/>	(10) Other duties and responsibilities _____

6. Students who need, want, and can profit from the experience provided should be carefully selected for the cooperative education program. However, due to the limited employment opportunities, criteria for selecting students for the program must be established. Should the following items be included among the criteria for student selection?

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	(1) Vocational interest of the student
<input type="checkbox"/>	<input type="checkbox"/>	(2) Intelligence test scores
<input type="checkbox"/>	<input type="checkbox"/>	(3) Aptitude test scores
<input type="checkbox"/>	<input type="checkbox"/>	(4) Health or physical suitability
<input type="checkbox"/>	<input type="checkbox"/>	(5) Emotional stability
<input type="checkbox"/>	<input type="checkbox"/>	(6) Previous work experience
<input type="checkbox"/>	<input type="checkbox"/>	(7) Disciplinary records
<input type="checkbox"/>	<input type="checkbox"/>	(8) Educational background
<input type="checkbox"/>	<input type="checkbox"/>	(9) Parental support
<input type="checkbox"/>	<input type="checkbox"/>	(10) Socioeconomic needs
<input type="checkbox"/>	<input type="checkbox"/>	(11) Other criteria _____

7. Local, state and federal regulations relating to the employment of cooperative students are important for both coordinator and employer. Which of the following provisions are essential so that all legal and moral responsibilities relating to student's employment are fulfilled?

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	(1) Work permits should be secured by students under 18 prior to their acceptance of employment
<input type="checkbox"/>	<input type="checkbox"/>	(2) Minimum age of 16 for any employment in cooperative programs
<input type="checkbox"/>	<input type="checkbox"/>	(3) Minimum age of 18 for participating in hazardous operations
<input type="checkbox"/>	<input type="checkbox"/>	(4) No cooperative students should be allowed to participate in hazardout operations
<input type="checkbox"/>	<input type="checkbox"/>	(5) Cooperative arrangements are to cease when student fails to attend classes regularly

- Yes    No  
  (6) The coordinator is responsible for relocating employment for students who have lost their work station involuntarily.
- 1 2 3 4 5 (7) The cooperative student should receive:  
 No pay 1 1/2 of regular wage 2 3/4 of regular wage\* 3  
 Minimum wage 4 Same wage as beginning workers 5

8. The coordinator must establish criteria for determining what constitutes a suitable training station with educational value. Which of the following criteria should be included among the guidelines for selection

- Yes    No of work station?  
  (1) Interest of the employer in training  
  (2) On-the-job supervision  
  (3) Reputation of business in community  
  (4) Identifiable learning content  
  (5) Opportunity for advancement  
  (6) Assurance of continuous employment  
  (7) Student's employment should not displace workers who perform such work  
  (8) Accessibility (relation to travel)
- 1 2 3 4 5 (9) Desirable working conditions: (Select as many as apply)  
 Wages 1 Facilities and equipment 2 Safety 3 Insurance and compensation 4
- 1 2 (10) Suitable working hours: Students are only allowed to work between 7 a. m. to 7 p. m. 1 Students can work any hours 2
- (11) Other criteria \_\_\_\_\_

9. The employer's cooperation and support is vital to the success of any cooperative program. Generally speaking, should the following elements be included among the duties and responsibilities for the participating employer?

- Yes    No  
  (1) Assigns on-the-job supervisor or trainer  
  (2) Provides information for in-school instruction  
  (3) Maintains student records and work permits  
  (4) Determines student's progress  
  (5) Assigns student grades  
  (6) Implements training agreement  
  (7) Provides insurance, compensation and other fringe benefits for cooperative students  
  (8) Other duties and responsibilities \_\_\_\_\_

\* Obtaining student-learner certificate from the Wage and Hour Public Contracts Division of the United States Department of Labor training opportunities can be extended to include 3/4 of federal employers who find it is difficult to pay required minimum wages.

Appendix C

DEPARTMENT OF  
INDUSTRIAL AND  
TECHNICAL EDUCATION

Dear Vocational Director:

A research study in cooperative education is currently being conducted jointly by the Utah State Divisions of Vocational and Technical Education, and the Industrial and Technical Education Department at Utah State University.

For the purpose of this study, cooperative vocational education is defined as a program of vocational education developed jointly by the school and business in which job skills and job adjustments are secured through an organized sequence of job experiences in paid part-time employment and through classroom experience in related instruction.

Questionnaires will be mailed to the program coordinators and participating employers at the later date in an attempt to discover the current practices in cooperative education in Utah. In order to complete this study, we need your assistance in identifying the current cooperative programs in Utah, and the names and addresses of the coordinators. We would appreciate your effort in completing the enclosed form and returning it in the pre-addressed envelope at your earliest convenience.

Thank you.

Sincerely yours,

George C. Ku

## UTAH STATE BOARD OF EDUCATION

1400 UNIVERSITY CLUB BUILDING, 136 EAST SOUTH TEMPLE STREET  
SALT LAKE CITY, UTAH 84111

WALTER D. TALBOT, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

MEMORANDUM

February 8, 1972

To: All Local Directors

From: Jed W. Wasden, Coordinator, Vocational-Technical Education

Subject: Mr. George Ku's Request

Mr. George Ku, a graduate student from Utah State University, is doing a study in cooperative education for the State Department of Public Instruction. In order for him to accomplish this task, he needs the name of those instructors who are acting as coordinators for cooperative programs.

Your help in this regard is most appreciated.

JWW:slw

COOPERATIVE VOCATIONAL EDUCATION PROGRAMS

Directions: Please provide information about each of your cooperative programs.

*Title of the Program	Part B	Part G	Coordinator's Name	Location
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

\*Please indicate whether your program(s) is (are) funded under Part B or G of the 1968 Vocational Education Amendments.

Appendix D



## UTAH STATE UNIVERSITY · LOGAN, UTAH 84321

COLLEGE OF ENGINEERING

DEPARTMENT OF  
INDUSTRIAL AND  
TECHNICAL EDUCATION

March 8, 1972

Dear Coordinator:

A research study regarding cooperative education in Utah is currently being conducted jointly by the Research Coordinating Unit and the Vocational-Technical Division of the State Department of Public Instruction. In order to complete this research, it is necessary to have the names of all participating employers involved with your cooperative program during the 1971-72 school year. In the near future, questionnaires will be mailed to employers in an attempt to discover the current practices in on-the-job training. Simultaneously, questionnaires concerning the current status of the programs will be forwarded to you as the program coordinator. We would appreciate your cooperation and effort in completing and returning the enclosed form today.

Thank you.

Sincerely,

George C. Ku  
Research Assistant  
Industrial and Technical  
Education Department  
Utah State University



## UTAH STATE BOARD OF EDUCATION

1400 UNIVERSITY CLUB BUILDING, 136 EAST SOUTH TEMPLE STREET  
SALT LAKE CITY, UTAH 84111

WALTER D. TALBOT, STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

March 3, 1972

TO: All Teacher Coordinators:

FROM: Dr. Jed W. Wasden, Coordinator  
Vocational-Technical Education

Mr. Ku is currently conducting a research study in cooperative education for this office. In order to complete this study, he needs the names of all participating firms involved with cooperative education during the 1971-72 school year.

Your cooperation in providing the names of the participating firms in your program to Mr. Ku and assisting him in completing of this study is most appreciated.

JWW: slw

PARTICIPATING EMPLOYERS IN COOPERATIVE VOCATIONAL EDUCATION

Name of the Coordinator \_\_\_\_\_

Title of the Program(s) \_\_\_\_\_

District or School \_\_\_\_\_

How many cooperative student(s) do you have working in the community or vicinity? \_\_\_\_\_

If you do not have any students working in the community, please disregard the following chart.

Please return this form whether or not you have student(s) working in the community.

Name of the Business Firm	Person to Contact	Location	Number of Student-Learner(s)	Average Number of Hours each Student Works per Week
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				

Use the back if necessary.

Appendix E

DEPARTMENT OF  
INDUSTRIAL AND  
TECHNICAL EDUCATION

March 20, 1972

Dear Coordinator:

Thank you for your prompt return of the list of participating employers in your program. As I indicated in my previous letter, this study is mainly concerned with the status of cooperative education in Utah.

For the purpose of this study, cooperative vocational education is defined as a program of vocational education developed jointly by the school and business in which job skill and job adjustment are secured through an organized sequence of job experiences in paid part-time employment and through classroom experience in related instruction.

As part of this study, all coordinators in Utah public schools are to be contacted in an attempt to discover the current practices in cooperative education. The enclosed questionnaire is anonymous and information furnished by all respondents will be kept strictly confidential. Your candid information and unbiased opinion is vital in making this study viable and representative of cooperative education in Utah. We would appreciate your effort and cooperation in completing and returning the enclosed questionnaire at your earliest convenience.

Sincerely,

George C. Ku  
Research Assistant

Questionnaire for the Coordinator

1. Supply information regarding your background as a coordinator.
- a      b
- (1) The academic degree you have received is:  
 a. Less than bachelor's degree    b. Bachelor's degree or more
- \_\_\_\_\_ years    (2) How many years of teaching experience have you accumulated?  
 \_\_\_\_\_ years    (3) How many years of related work experience have you accumulated?
- Yes    No    (4) Indicate if you have received credit(s) for the following subjects:
- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Philosophy or Principles of Vocational Education        |
| <input type="checkbox"/> | <input type="checkbox"/> | Organization and Administration of Vocational Education |
| <input type="checkbox"/> | <input type="checkbox"/> | Curriculum Development                                  |
| <input type="checkbox"/> | <input type="checkbox"/> | Occupational Analysis                                   |
| <input type="checkbox"/> | <input type="checkbox"/> | Vocational Guidance                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | Public Relations  |
| <input type="checkbox"/> | <input type="checkbox"/> | Cooperative Education                                   |

2. The duties and responsibilities of coordinators should be defined in terms of the objectives and policies of the cooperative program. Items listed below are frequently among the coordinator's duties and responsibilities. Please supply information regarding your performance or non-performance of each of the functions listed below by checking the appropriate response.
- Yes    No
- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | (1) Student selection                                    |
| <input type="checkbox"/> | <input type="checkbox"/> | (2) Work station selection                               |
| <input type="checkbox"/> | <input type="checkbox"/> | (3) Counseling   |
| <input type="checkbox"/> | <input type="checkbox"/> | (4) Supervision of on-the-job training                   |
| <input type="checkbox"/> | <input type="checkbox"/> | (5) In-school instruction related to on-the-job training |
| <input type="checkbox"/> | <input type="checkbox"/> | (6) Directing vocational youth organization              |
| <input type="checkbox"/> | <input type="checkbox"/> | (7) Placement and follow-up                              |
| <input type="checkbox"/> | <input type="checkbox"/> | (8) Public relations                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | (9) Organizing advisory committee                        |

3. Indicate the number of hours per week that your cooperative students attend classes.
- |                    |                                   |
|--------------------|-----------------------------------|
| Number of students | Number of hours attending classes |
| _____              | Less than 15 hours                |
| _____              | 15-20                             |
| _____              | 21-25                             |
| _____              | 26-30                             |
| _____              | More than 30                      |

- Yes No 4. The following items may be used as criteria for selecting cooperative students. Check the items you have employed in your student selection

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

- (1) Vocational interests of the students  
 (2) Aptitude test scores  
 (3) Health or physical suitability  
 (4) Emotional Stability  
 (5) Parental support (permission - agreement from parents)

5. In-school instruction for cooperative education should make on-the-job training educationally valuable.

Yes No

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

- A. Have the following provisions been made as criteria for in-school instruction?

- (1) Pre-cooperative classes are made available in the 10th grade  
 (2) Individual study guides are made available for second year cooperative students

a b c

- (3) Membership in vocational youth organizations for cooperative students in your school is:

(a) not available (b) recommended (c) mandatory

- \_\_\_\_\_ No. of unit(s) (4) Indicate the average number of unit(s) of high school credit that is (are) given for the completion of one year of cooperative education in your school.

- B. To what extent have you included the following elements in your in-school instruction for cooperative students?

High	Med.	Low	None
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (1) Basic skills related to on-the-job training  
 (2) Basic information related to on-the-job training  
 (3) Job application procedures  
 (4) Employees' responsibilities  
 (5) Work habits and attitudes  
 (6) Laws and regulations affecting the worker  
 (7) Physical appearance  
 (8) Communication skills

*do you have a related class?*

- Yes No NA\* 6. Awareness of and adherence to local, state and federal regulations relating to the employment of cooperative students are essential for both coordinator and employer. Check the provision(s) you have made regarding your legal responsibilities as a coordinator.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- (1) Work permits secured by all students under 18 prior to their acceptance of employment  
 (2) Minimum age of 16 for any employment in cooperative programs  
 (3) Minimum age of 18 for participating in hazardous operations

Yes    No    NA\*

    

(4) Cooperative arrangements cease when student fails to attend classes regularly

    

(5) Relocating employment for students who have lost their work involuntarily

a    b    c    d    e

(6) Based on your policy regarding student wages, your cooperative students receive: (a) no pay (b) 1/2 of regular wage (c) 3/4 of regular wage (d) minimum wage (e) same wage as beginning workers

Yes    No    NA

7. On-the-job supervision in cooperative education should contribute to the development of occupational competence. Check the items that have been implemented in your program.

    

    

(1) Training plan\*\*

(2) Availability of the training agreement prior to the employment of students

a    b    c    d    e

(3) On-the-job visitation frequency in your program is: (a) not available (b) once a week (c) once every two weeks (d) once per month (e) once every grading period

a    b    c    d    e

(4) Evaluation frequency in your program is: (a) various (b) one rating per year (c) two ratings per year (d) three ratings per year (e) more than three ratings per year

Yes    No

8. The items listed below may be used as criteria in selecting work stations. Which of the following criteria have you utilized in your station selection? (Select as many as apply.)

 

 

 

 

 

 

(1) Interest of the employer in training

(2) On-the-job supervision

(3) Reputation of business in community

(4) Identifiable learning content

(5) Opportunity for advancement

(6) Students' employment should displace workers who perform such work

(7) Accessibility (distance traveled from school to work)

a    b    c    d

(8) Desirable working conditions are essential in the selection of work stations. Check the item(s) you have utilized in your selection or work stations.

(a) wages (b) facilities and equipment (c) safety (d) insurance and compensation

a    b    c    d

(9) The working hours for the cooperative student varies with his own situation. Select the item which is



most prevalent in your program. (a) students are only allowed to work between 7 a. m. to 7 p. m.

(b) students can work any hours

(c) other \_\_\_\_\_

NA\* = Not Applicable

\*\*Training plan indicates what is to be learned by a specific student-learner and whether it is to be taught in the classroom, shop, or laboratory (on-the-job or project). The plan is derived from a realistic analysis of the tasks, duties, responsibilities, and occupational objectives of the student learner.

Please return the questionnaire to: George C. Ku  
Industrial and Technical Education Department  
Utah State University  
Logan, Utah 84321

Appendix F

## UTAH STATE UNIVERSITY · LOGAN UTAH 84321

COLLEGE OF ENGINEERING

DEPARTMENT OF  
INDUSTRIAL AND  
TECHNICAL EDUCATION

April 7, 1972

Dear Coordinator:

I am desperately in need of your assistance in the completion of this study.

Three weeks ago I mailed you a letter and a form requesting you to identify the participating employers in your program. As of this date, I have not received your list of participating employers. For your convenience, I am enclosing another blank list for identifying the participating employers in your program. In addition, I am enclosing a two-page questionnaire designed to collect information concerning the current status of cooperative education in Utah.

For the purpose of this study, cooperative vocational education is defined as a program of vocational education developed jointly by the school and business in which job skill and job adjustment are secured through an organized sequence of job experiences in part-time employment and through classroom experience in related instruction.

As part of this study, all coordinators in Utah public schools are to be contacted. Information furnished by all respondents will be kept in strict confidence. In order to make this study representative and valid, I need data from your program. If you do not have a cooperative vocational program existing at this time, please let me know at your earliest convenience. Your cooperation and effort regarding this matter will be greatly appreciated.

Thank you.

Sincerely,

George C. Ku  
Research Assistant  
Industrial and Technical Education  
Utah State University

## UTAH STATE UNIVERSITY · LOGAN, UTAH 84321

COLLEGE OF ENGINEERING

DEPARTMENT OF  
INDUSTRIAL AND  
TECHNICAL EDUCATION

April 25, 1972

Dear Coordinator:

Within the last month I mailed to you a form designed to identify the participating employers in your program. Later, I mailed you a questionnaire concerning the status of cooperative education in Utah. Up to date a majority of the coordinators selected for this study have responded. In order to make this study as representative as possible, I need data and the information from your program.

I would appreciate your taking time from your busy schedule to complete and return the enclosed questionnaire together with the form at your earliest convenience.

If you have done so, please disregard this letter.

Thank you very much.

Sincerely,

George Ku  
Research Assistant

Appendix G

## UTAH STATE UNIVERSITY · LOGAN, UTAH 84321

COLLEGE OF ENGINEERING

DEPARTMENT OF  
INDUSTRIAL AND  
TECHNICAL EDUCATION

April 10, 1972

Dear Participating Employer:

A research study regarding cooperative education in Utah is currently being conducted jointly by the Research Coordinating Unit and the Vocational-Technical Division of the State Department of Public Instruction.

Your name was indicated by the teacher-coordinator as one of the participating employers in cooperative education. As part of this study, participating employers are to be contacted in an attempt to discover the on-the-job training aspect of the program.

For the purpose of this study, cooperative vocational education is defined as a program of vocational education developed jointly by the school and business in which job skill and job adjustment are secured through an organized sequence of job experience in paid part-time employment and through classroom experience in related instruction.

I am in need of your assistance in the completion of this study. Your candid information and unbiased opinion is vital in making this study viable and representative of cooperative education in Utah. The enclosed questionnaire is anonymous, and information furnished by all respondents will be kept strictly confidential. I would appreciate your time and effort in the completing and returning the enclosed questionnaire at your earliest convenience.

Thank you.

Sincerely,

George C. Ku  
Research Assistant  
Industrial and Technical Education  
Utah State University

Questionnaire for the Employer

1. Indicate the number of hours per week your student-learner(s) work in on-the-job training.

Number of Students	Number of Working Hours
_____	Less than 15 hours
_____	15-20
_____	21-26
_____	26-30
_____	More than 30

2. On-the-job supervision in cooperative education should contribute to the development of occupational competence. The activities listed below may be used as a means of improving on-the-job supervision. Check the items that have been implemented and supply information which is apparent in your training program.

Yes      No      NA\*\*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a      b      c      d      e

- (1) The training plan\* is provided by the school  
 (2) A training agreement is secured before the commencement of student's employment  
 (3) Visitation frequency by the teacher-coordinator to the on-the-job student(s) is:  
 (a) not available (b) once a week (c) once every two weeks (d) once per month (e) once every grading period

a      b      c      d      e

- (4) Evaluation frequency of the student's progress in your training program is:  
 (a) various (b) one rating per year (c) two ratings per year (d) three ratings per year (e) more than three ratings per year

3. Awareness of and adherence to local, state, and federal regulations relating to the employment of cooperative students is essential for both coordinator and employer. Check the provision(s) you have made regarding your legal responsibilities as a coordinator.

Yes      No      NA

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

- (1) Work permits secured by all students under 18 before their employment  
 (2) Minimum age of 16 for any employment in your training program  
 (3) Minimum age of 18 for participating in hazardous operations

Yes    No    NA  
     

a    b    c    d    e

(4) The student-learner is not allowed to work when he fails to attend school regularly

(5) Regarding student wages, your student-learners receive:

(a) no pay (b) 1/2 the regular wage (c) 3/4 the regular wage (d) minimum wage (e) same wage as beginning workers

4. The employer's cooperation and support is vital to the success of any cooperative program. The following elements may be included among the duties and responsibilities of the participating employer. Check the elements you have implemented in your training program.

Yes    No  
  

 

 

 

 

 

(1) Assigning an on-the-job trainer or supervisor to each student-learner

(2) Furnishing information to the teacher-coordinator in developing the training plan and in facilitating in-school instruction

(3) Maintaining up-to-date student records and work permits

(4) Providing periodic evaluation to determine the students' progress

(5) Implementing the training agreement

(6) Providing insurance, compensation, and other fringe benefits for student-learners

\*A training plan indicates what is to be learned by a specific student-learner and whether it is to be taught in classroom, shop, or laboratory (on-the-job or project). The plan is derived from a realistic analysis of the tasks, duties, responsibilities, and occupational objectives of the student-learner.

NA\*\* = Not Applicable

Please return the questionnaire to:    George C. Ku  
 Industrial and Technical Education Department  
 Utah State University  
 Logan, Utah 84321



## UTAH STATE UNIVERSITY · LOGAN, UTAH 84321

COLLEGE OF ENGINEERING

DEPARTMENT OF  
INDUSTRIAL AND  
TECHNICAL EDUCATION

April 25, 1972

Dear Participating Employer:

About two weeks ago I mailed you a questionnaire in an attempt to discover the on-the-job training aspect of cooperative education in Utah. As of this date, the questionnaire has not been received. In order to make this study as representative as possible, I need data and the information from your program.

I would appreciate your taking time from your busy schedule to complete and return the enclosed questionnaire at your earliest convenience.

If you have done so, please disregard this letter.

Thank you very much.

Sincerely,

George C. Ku  
Research Assistant  
Utah State University

## VITA

George C. Ku

Candidate for the Degree of

Doctor of Education

Dissertation: An Analytical Study of the 1971-72 Cooperative Vocational Program in Utah with Comparison to a Guideline for Cooperative Vocational Programs

Major Field: Industrial and Technical Education

## Biographical Information:

Personal Data: Born at Nanking, China, July 8, 1936.

Education: Attended elementary and secondary schools in Taipei, Taiwan. Received an associated degree in Technology with a major in Automotive Technology, from Vocational Technical Institute, Southern Illinois University, in 1961; received a Bachelor of Science degree with a major in Industrial Technology in 1965; completed a Master of Science degree with specialization in Industrial and Technical Education from Southern Illinois University in 1968; completed requirements for Doctor of Education degree with a major in Industrial and Technical Education at Utah State University in 1972.

Professional Experience: 1971-72--Research Assistant at Utah State University; 1970-71 (1st semester) part-time instructor teaching Vocational Auto Mechanics at Logan High School, Logan, Utah; 1969-70 instructor teaching Vocational Auto Mechanics at LaSalle High School, South Bend, Indiana; 1961-68 worked as a part-time and regular Auto Mechanic and Machinist in various garages and laboratories while attending college.