

BASIC BELIEFS OF BUSINESS AND OFFICE EDUCATION PERSONNEL
IN VIRGINIA REGARDING THE COORDINATION
OF COOPERATIVE EDUCATION,

by

William Galen Neal,

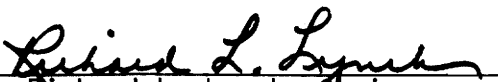
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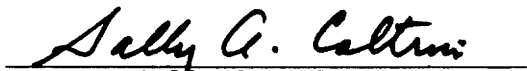
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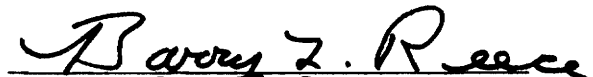
Vocational and Technical Education

APPROVED:



Richard L. Lynch, Chairman


Dennis E. Hinkle


Sally A. Coltrin


Barry L. Reece


Curtis R. Finch


Walter L. Shell

May, 1977

Blacksburg, Virginia

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Chapter 1

THE PROBLEM

This chapter is concerned with the problem of the study. Specifically, the chapter contains seven sections: (1) Background of the Problem, (2) Statement of the Problem, (3) Objectives of the Study, (4) Importance of the Study, (5) Assumptions of the Study, (6) Limitations of the Study, and (7) Definition of Terms.

BACKGROUND OF THE PROBLEM

In 1972 the National Education Association established a Bicentennial Committee charged with "developing a living commemoration of the principles of the American Revolution" (NEA, 1976, p. 64). Among the committee's ideas was that of developing a definitive volume to contain a reaffirmation of the cardinal principles of education. The original principles which were developed in 1918 and those recognized by NEA's Bicentennial Panelists emphasized the concept that education includes preparation for work.

Vocational education has been the vehicle which provides the training or retraining for gainful employment. In the recent vocational education legislation, it was stated that vocational education is:

. . . organized educational programs which are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career requiring other than a baccalaureate or advanced degree (U. S. Congress, 1976, p. 11084).

In support of the vocational education concept, the National Education Policies Commission issued a statement 27 years ago. This statement supported the need for all youth to develop salable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life. It further emphasized that most youth need supervised work experience (Prosser and Quigler, 1949).

The cooperative education concept, through its placement of students on a job with educational relevance, tends to eliminate training which does not lead to employment. The President's Advisory Council on Vocational Education stated:

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. Students cannot be trained faster than they can be placed (U. S. Congress, 1968, p. 1081).

Cooperative vocational education was defined in the Vocational Education Amendments of 1968 as follows:

Sec. 175. . . . a program of vocational education for persons who, through a cooperative arrangement between the school and employers, receive instruction, including required academic courses and related vocational instruction by alternation of study in school with a job in any occupational field, but these two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and to his employability. Work periods and school attendance may be on alternate half-days, full-days, weeks, or other periods of time in fulfilling the cooperative . . . program.

Thus, cooperative education serves as a delivery system for vocational instruction to provide on-the-job training to students enrolled in vocational education programs. Three goals of vocational education programs which are pursued in the work experience aspect of cooperative education programs were suggested by Borow (1969) at a conference on cooperative education. First, the student learns about the skills, duties, and practical understandings associated with the occupation through a training station. Second, the student acquires a work ethos, a set of attitudes, rules of etiquette, and interpersonal skills involving relations with fellow workers, supervisors, and clients. Third, the student enrolled in a cooperative education program may better understand individual strengths, limitations, aspirations, and personal values.

The Congress described the type of cooperative vocational education it wished to stimulate in the Vocational Education Amendments of 1968:

Section 171. The Congress finds that cooperative . . . programs offer many advantages in preparing young people for employment. Through such programs, a meaningful work experience is combined with formal education enabling students to acquire knowledge, skills, and appropriate attitudes. Such programs remove the artificial barriers which separate work and education and, by involving educators with employers, create interaction whereby the needs and problems of both are made known. Such interaction makes it possible for occupational curricula to be revised to reflect current needs in various occupations.

Among those vocational programs which utilize the cooperative education phase is business and office education. The President's Advisory Council provided an example of the value of cooperative education in business and office education:

No one would think of typing skills except through formal instruction, but formal instruction alone does not produce competent secretaries. Ideal vocational education combines formal instruction with learning on the job (U. S. Congress, 1968, p. 2022).

The general objective of business and office education programs is to prepare students for office jobs in areas such as manufacturing, law, medicine, education, insurance, or government. A comprehensive business and office education program will usually consist of one or more of the following occupational clusters: clerical, stenographic, secretarial, accounting and finance, and data processing.

In Virginia, cooperative office education is the capstone of a student's occupational training program in business and office education (Virginia, 1970). Through cooperative office education, the classroom instruction is supplemented by on-the-job training with joint supervision by the school (teacher-coordinator) and the employer (training sponsor). Therefore, student-trainees have the opportunity to relate office skills learned in class to those needed in the actual work environment.

The processes and procedures of coordinating a cooperative education program are extremely important (Cheshire, 1971). One of the major responsibilities of the teacher-coordinator is working with the training sponsors in conducting coordination activities. These activities include the selection of training stations, placement of students on the job, development of the on-the-job instructors' training ability, supervision of on-the-job instruction, and evaluation of students on the job.

To assist the teacher-coordinator in developing the operational procedures which should be used in coordinating a cooperative education program, many guidelines, handbooks, and textbooks have been prepared. Teacher-coordinators receive information of this type from state departments of education, teacher educators, and local supervisors. As a result of this information and their experiences as practitioners in the coordination of cooperative education, teacher-coordinators develop a philosophy--or set of basic beliefs--which serves as the basis for program organization, interpretation, and evaluation (Soutter, 1971).

In a review of the literature, it was determined that an attempt had not been made to identify the basic beliefs of business and office educators in Virginia regarding the coordination of cooperative education. This study was concerned with the identification and comparison of basic beliefs of business and office educators in Virginia. Specifically, teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia were surveyed to identify and compare their perceptions of basic beliefs regarding the coordination of cooperative education programs.

STATEMENT OF THE PROBLEM

The central problem of this study was to identify and compare the basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office

education programs. A secondary problem was to determine if there was a relationship between specific biographical variables (years of coordination experience, years of employment experience, and previous course work in cooperative education) and the basic beliefs expressed by the business and office education personnel and if there was a relationship between school location (urban, suburban, middle-sized, rural or smaller community) and the basic beliefs expressed by the teacher-coordinators in the study.

OBJECTIVES OF THE STUDY

This study sought to attain the following objectives:

1. The determination of basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs.
2. The comparison of basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs.
3. The determination of the relationship between years of coordination experience and basic beliefs of business and office education personnel in Virginia regarding the coordination of cooperative education.
4. The determination of the relationship between years of related office experience and basic beliefs of business and office

education personnel in Virginia regarding the coordination of cooperative office education.

5. The determination of the relationship between previous course work in cooperative education and basic beliefs of business and office education personnel in Virginia regarding the coordination of cooperative office education.

6. The determination of the relationship between school location (urban, suburban, middle-sized, rural or smaller community) and the basic beliefs of the teacher-coordinators in the study.

IMPORTANCE OF THE STUDY

As a result of the determination and comparison of basic beliefs concerning the coordination of cooperative office education of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia, the study:

1. Provides personnel in business and office education with a basis on which to develop program goals and processes regarding the coordination of cooperative office education programs.

2. Provides the data with which to compare the beliefs encouraged by local supervisors, state supervisors, and/or teacher educators with the actual beliefs of the practitioners (teacher-coordinators) in the field. Where differences are noted, changes may be made to conform to the practitioners' beliefs or to change their beliefs through pre- and in-service education.

3. Provides a set of basic beliefs to compare with actual practices of persons involved with the cooperative education programs in a future research effort. This could provide a measure of accountability for teacher-coordinators in determining to what extent the basic beliefs they express are actually operationalized in their programs.

4. Provides a basis with which to compare basic beliefs of business and office education personnel regarding the coordination of cooperative education with the basic beliefs of personnel in other vocational disciplines which utilize the cooperative education method, such as distributive education, trade and industrial education, etc.

5. Provides the teacher-coordinator with a set of basic beliefs statements which may be shared with local administrators to effect certain policies which are congruent with the beliefs of the study but may not receive support from the local administrators. This study provides the data base which will demonstrate the basic beliefs held throughout the state to lend support for their implementation locally.

6. Provides knowledge of the relationship between selected biographical variables (years of coordination experience, years of related office experience, and previous course work in cooperative education) and the basic beliefs of business and office education personnel.

7. Provides curriculum planners with a basis from which to plan pre-service, in-service, and graduate activities regarding the coordination of cooperative education.

ASSUMPTIONS OF THE STUDY

The following assumptions were made in conducting the study:

1. The personnel surveyed were knowledgeable about the appropriate coordination procedures in cooperative office education.
2. The statements included in the study were representative of the philosophy and operational procedures for cooperative office education and were representative of those which are most applicable to the coordination of cooperative office education.
3. The categories utilized by Cotrell (1971) were logical and were applicable for the categorization of the statements included on the survey instrument.
4. The basic beliefs of local supervisors, state supervisors, and teacher educators regarding the coordination of cooperative office education have a significant effect on the development of basic beliefs by teacher-coordinators regarding this same area.
5. A response rate of 84 percent of the teacher-coordinators, 91 percent of the teacher educators, and 100 percent of the local and state supervisors has provided an adequate return for data analysis.

LIMITATIONS OF THE STUDY

There are several limitations inherent in the nature of this study that are recognized:

1. Persons responding for purposes of this study were limited to high school teacher-coordinators, local supervisors, state supervisors,

and teacher educators of business and office education in the Commonwealth of Virginia.

2. The study was limited to the vocational education program of business and office education. Although other disciplines utilize cooperative education in their programs, no attempt was made to determine basic beliefs or compare basic beliefs with other vocational program areas.

3. The study was limited to vocational programs in business and office education employing the cooperative method of instruction; therefore, the study did not include other forms of work experience programs in secondary schools which may utilize the business community for instructional purposes but do not receive federal or state funds for cooperative education programs.

4. The study was limited to an analysis of basic beliefs regarding coordination in a cooperative office education program; no attempt was made to determine basic beliefs towards other aspects of the program (e.g., teaching, adult work, club sponsorship, etc.).

5. The study was designed to survey and analyze basic beliefs of those with expertise in business and office education to determine what should be occurring in the coordination of cooperative office education programs. No attempt was made to research what is actually being done in coordinating the program.

6. The unequal number of respondents in each personnel group was dictated by the populations being surveyed. There are more high school teacher-coordinators than local and state supervisors and teacher educators.

DEFINITION OF TERMS

For the purposes of this study, the following definitions were utilized:

Basic Belief. A statement about an object (in this study, the coordination of cooperative office education) with which an individual or group agrees or accepts (believes) (Edwards, 1957, p. 10).

Business and Office Education. A vocational program which prepares students for employment in one of the following occupational clusters: clerical, stenographic, secretarial, accounting and financial, and data processing.

Cooperative Education. A program of vocational education for persons who, through written cooperative arrangements between the school and employers, receive instruction, including required academic courses and related vocational instruction by 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 or her employability (U. S. Congress, 1976, p. 11985).

Cooperative Office Education. A cooperative education program for students enrolled in business and office education.

Coordination. As used in this study, activities which involve the teacher-coordinator in the selection of training stations, placement of the student on the job, development of the on-the-job instructors' training ability, supervision of on-the-job instruction, and evaluation of students on the job.

Local Supervisor. A member of the local school division who provides supervision and direction to teachers in business and office education, including cooperative office education.

State Supervisor. A member of the State Department of Education staff who provides supervision, consultation, and direction to local school districts operating business education programs, including cooperative office education.

Student-Trainee. A full-time student enrolled in a cooperative office education program who receives instruction in the school and on-the-job training in a selected office (training station) in the local community.

Teacher Educator. A member of a college or university faculty who is primarily concerned with the professional preparation of business education teachers, including the pre-service and in-service development of cooperative office education personnel.

Teacher-Coordinator. In this study, a member of the school staff who has primary responsibility for the cooperative office education program at the local school level and who acts as a liaison between the school and employers in performing coordination activities.

Training Sponsor. A business employer who provides supervised, comprehensive job experiences in part-time employment to students enrolled in the school's cooperative office education program (Taylor, 1971).

Training Station. The place of employment of the student where the student-trainee receives on-the-job training and supervision by a training sponsor (Crawford, 1967, p. 2).

Vocational Education. Organized educational programs which are directly related to the preparation of individuals for paid or unpaid employment, or for additional preparation for a career requiring other than a baccalaurate or advanced degree (U. S. Congress, 1976, p. 11084).

Chapter 2

REVIEW OF THE LITERATURE

A review of the literature was undertaken to establish a need for the study and to assist in determining the appropriate research methodology. In addition, the review provided potential belief statements regarding the coordination of cooperative education. Specifically, when procedures or guidelines were stated regarding how the coordination of cooperative education should be conducted, the procedure/guideline was recorded for consideration as a potential basic belief of business and office education personnel in Virginia regarding the coordination of cooperative education.

The search included a review of several distributive education studies since this field has historically utilized cooperative education at the high school level. Studies which have been conducted regarding the coordination of cooperative distributive education were reviewed when considered relevant to the purposes of this study.

This chapter contains three sections: Studies Designed to Assess Basic Beliefs, Issues, and Philosophies; Studies Regarding the Coordination of Cooperative Education; and Published Guidelines Regarding the Coordination of Cooperative Education.

Studies Designed to Assess Basic Beliefs,
Issues, and Philosophies

Several studies in business and office education and in other vocational areas were designed to establish a body of opinion with which respondents expressed agreement (belief) or disagreement. These studies were reviewed when they provided guidance in the development of the research design and when they focused on basic beliefs, issues, or philosophies related to the coordination of cooperative education.

The studies by J Marshall Hanna (1939), Carlos K. Hayden (1950), and Jerre E. Gratz (1961) were reviewed because of the historical impact they had on the determination of issues in the field of business and office education. Each study questioned leaders in business education and sought their opinions on certain issues in business subject areas. Hanna's was the first study in business education to determine major issues and provided a foundation for Hayden and Gratz to conduct their studies approximately ten and 20 years later and to compare with the preceding studies. Few issues were found in these studies which were related to the coordination of cooperative education; however, Gratz found a great majority (80-89 percent) of the business leaders expressed positive attitudes towards cooperative education.

Roman F. Warmke (1960) and John W. Weatherford (1974) conducted issues studies in distributive education. Each study included several items pertaining to the coordination of cooperative distributive education programs. These items were also considered for purposes of this study as potential basic belief statements regarding the coordination of cooperative office education. In addition to recommending specific

coordination practices, 92 percent of the national leaders in distributive education who were respondents to Warmke's study indicated that classroom instruction without business experience was inadequate preparation for a secondary student who planned a career in a distributive occupation, thus supporting the cooperative education concept.

In a more recent study, Weatherford found agreement on 19 statements which were considered beliefs and lack of agreement on 13 statements which were considered major issues in distributive education. Among the items on which Weatherford found strong agreement and which were recorded as potential belief statements regarding the coordination of cooperative education were:

Students should be paid for their on-the-job training on the basis of the same salary as paid to any part-time employee.

A written training plan is always necessary to insure optimum training.

In 1965, E. Edward Harris selected 20 of the 62 statements used by Warmke to compare office education and distributive education teacher-coordinators' opinions in the State of Illinois concerning selected issues regarding the operation of the secondary school cooperative programs. Among those areas were activities related to the coordination of cooperative education. Harris compared the practices of office and distributive education teacher-coordinators utilizing biographical variables of years of experience as teacher-coordinators, educational preparation, and school location. He found significant differences on the practices of the teacher-coordinators when controlling for these variables. These variables were also

considered for statistical analysis for purposes of this study to determine if there was a relationship between years of experience as teacher-coordinators, educational preparation, and school location with the basic beliefs expressed by business and office education personnel in Virginia.

Crawford (1967, 1975) and Kinzer (1969) conducted studies specifically designed to ascertain basic beliefs, including basic beliefs regarding the coordination of cooperative education. In 1967, Lucy C. Crawford published the first comprehensive national distributive education philosophy which included the agreed-upon beliefs about coordination and several other areas of distributive education. Statements of basic beliefs were drawn from the literature and research in distributive education and vocational education, from speeches at national clinics and professional meetings, from conferences with selected leaders, and from the personal experience of the investigator. The final list of beliefs were validated by more than 90 percent of the state supervisors; assistant, area and/or district supervisors; and teacher educators of distributive education as listed in the 1967 United States Office of Education Directory. The researcher made the following comment concerning this research:

These findings have implications for all phases of the distributive education program and should have a bearing on other vocational fields as well. The fact that the vast majority of the leadership in distributive education has agreed upon . . . coordination . . . as applied to this field indicates that the philosophy of distributive education expressed in these findings can serve as a theoretical structure on which not only this research but related research can be erected.

Research workers in other vocational fields may find a comparison of the philosophy of . . . business education . . . with the philosophy of distributive education of value from the standpoint of content and from the method used in the construction of the basic beliefs (pp. 37-38).

In 1975 Crawford revised the original basic belief statements as an update to her study. Her method of developing basic belief statements and the contents of the statements themselves were also applicable to the development of basic beliefs regarding the coordination of cooperative office education.

Kinzer compared the basic beliefs of office education teacher-coordinators with distributive education teacher-coordinators in New Mexico. The 96 statements including those concerned with coordination from the Crawford study were used as the basis for his comparison. Kinzer emphasized the importance of determining basic beliefs for each discipline, including business and office education, to provide a philosophy for the field. In addition, he recommended that similar studies to his be made in each state.

Studies Regarding the Coordination of Cooperative Education

Several studies have been conducted in the field of vocational education which were related to the coordination of cooperative education. Five of these studies (Dorr, 1962; Gray, 1970; Cheshire, 1971; Davis, 1974; and Vredenburg, 1975) were reviewed since they provided support for the need to concentrate on the improvement, and, thus, the identification of basic beliefs regarding the coordination of cooperative education. Most of these studies also identified

practices which should be followed to assure quality cooperative education programs which were recorded as potential basic beliefs.

Dorr (1962) surveyed the 50 state departments of education to elicit responses concerning the greatest weaknesses of teacher-coordinators in distributive education. Forty-one cases were received, of which 27 dealt with the high school cooperative program. Of the cases that dealt with the high school cooperative programs, 60 percent involved weaknesses in the use of time allocated for coordination of the program. The major weaknesses in the category were (1) lack of planned coordination calls; (2) lack of ability to develop a good working relationship with the training sponsor; (3) lack of orientation of training sponsors regarding their responsibilities; (4) permitting students to find their own training stations; (5) acceptance of inferior training stations; and (6) ineffective screening of students. This study pointed out the need to provide specific operational guidelines or procedures regarding the coordination of cooperative education, but no attempts were made to establish them.

Gray (1970) described the state-level vocational business education programs in the Southeastern states, including the Commonwealth of Virginia. Concerning cooperative office education, the Virginia teacher-coordinators listed a number of difficulties in coordinating and administering the program. The researcher also noted that there were different perceptions between the teacher-coordinators and state supervisors concerning various aspects of the business

education program, including cooperative office education. Therefore, a study to determine basic beliefs of business and office education personnel in Virginia regarding the coordination of cooperative education was considered important to the field.

Cheshire (1971) stated that "emphasis must be placed on coordination activities" (p. 3). He based his statement on the premise that if any of the three key participants in cooperative education (teacher-coordinator, student trainee, or training sponsor) fail to comprehend any segment of the training plan, to allow for individual differences, or to communicate with the other two, the triangle of training would be seriously damaged. He further recommended that selection of cooperative training stations should include a careful evaluation of selected criteria to assure a meaningful on-the-job experience for students. Thus, potential basic belief statements were recorded concerning these aspects of the coordination of cooperative education for consideration by the business and office education personnel in Virginia.

Davis (1974) in his study concluded that teacher-coordinators of the cooperative-plan distributive education programs in Indiana should improve their performance in the area of coordination, and (2) the Indiana state distributive education staff and teacher educators should be responsible for developing a more comprehensive philosophy and reviewing it with teacher-coordinators. Thus, Davis' study provided support for the purposes of this study, especially the involvement of state staff members and teacher educators in the development of basic beliefs regarding the coordination of cooperative education.

Vredenburg (1975) compared the practices of effective and ineffective distributive education teacher-coordinators. Among the conclusions made by the researcher were that effective teacher-coordinators tend to use a majority of their planning periods for conducting coordination activities. He recommended several guidelines for operating effective cooperative high school programs; these guidelines were recorded as potential basic belief statements for purposes of this study.

Two studies (Weber, 1970, and Cotrell, 1971) were designed to identify specific tasks performed by vocational educators, including teacher-coordinators of cooperative education programs. Weber identified a total of 145 specific performances with acceptable criteria for each performance. Those performances and criteria related to the coordination of cooperative education were recorded for consideration as potential basic belief statements regarding the coordination of cooperative education for purposes of this study.

The first two phases of a study by Cotrell, et. al., (1971) were concerned with determining the essential competencies for vocational teachers. Approximately 1,000 vocational teachers, supervisors, and teacher educators were involved in the identification and verification of 384 competencies considered essential for vocational teachers. In the first phase of the study, essential competencies needed by teachers of conventional vocational programs were identified. This study produced a list of 256 common competencies. The second phase sought to determine the essential competencies needed by teacher-

coordinators in cooperative vocational education programs. A total of 385 were identified in the second phase of the study. The identified competencies were clustered into ten categories representing ten areas of vocational teacher education. The findings of these first two phases were then merged into one comprehensive list of 390 competencies, which were later reduced to a total of 384 through elimination of duplications. The tenth area was "Coordination," in which there were 45 identified competencies; after categorization, a set of performance-oriented general objectives specifying the task and the general criteria for evaluating a teacher-coordinator's performance of the stated activity was developed.

The basis for analyzing and then grouping potential basic belief statements regarding the coordination of cooperative office education for purposes of this study was the clusters and related competencies identified by Cotrell in the "Coordination" category. Five of the categories and 36 of the competencies were used to group similar statements. The categories were Selection of Training Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, and Evaluation of Students on the Job.

Two studies (Soutter, 1971, and Peper, 1975) surveyed opinions of different personnel groups concerned with cooperative education and compared the perceptions of these respondent groups. These studies provided potential basic beliefs regarding the coordination of cooperative education. They were also helpful for research design

purposes because of the comparison analyses of personnel groups utilized.

Soutter (1971) utilized on-the-job training sponsors, teacher-coordinators, and principals to determine and compare their perceptions concerning the purposes and objectives of the cooperative office and distributive education programs. She concluded that a closer working relationship between the teacher-coordinator and the on-the-job training supervisors was needed to explain the related classroom assignments and to discuss what training the supervisors were to provide, more of the lower one-third in general scholastic ability and disadvantaged students should be admitted to cooperative education programs, and the on-the-job training sponsors need to become more involved in the interviewing of students. Further, she recommended that the participants in these programs should meet and discuss the use of written training plans and the planning of related instruction. Potential basic belief statements pertaining to each of these findings and recommendations were utilized in the development of the survey instrument for purposes of this study.

Peper (1975) conducted a study to determine and compare the attitudes of Iowa's distributive education teacher-coordinators, teacher educators, and state supervisors on specific issues involving on-the-job training at the secondary level. Significant differences existed among these groups on several of the items. Thus, Peper demonstrated the need to include teacher-coordinators, state supervisors,

and teacher educators when determining and comparing operational procedures to be used for cooperative education programs.

Three studies (Taylor, 1972; Ku, 1972; and Allred, 1974) employed the survey technique to propose guidelines which could be used ultimately as evaluative criteria for cooperative education. They were reviewed since an outcome of this study is the development of criteria for the evaluation of high school cooperative education programs in Virginia.

Taylor (1972) focused on the development of standards for evaluation of business and office education programs employing the cooperative method of instruction in the secondary schools. The standards developed in this study were recommended as the vehicle and, thus, quality control of secondary school cooperative office education programs.

Ku (1972) initiated a study on the assumption that since there was no set of regulations to guide the implementation and operation of the cooperative programs in Utah, many of the teacher-coordinators' interpretations of federal legislation and state regulations were based on their own preferences. The major purposes included the development of guidelines and the comparison of current practices with the established guidelines. He found that a comparison of the current practices with the guideline specifications revealed that most duties and responsibilities were performed by a majority of the teacher-coordinators. However, due to the lack of basic concepts and operational procedures, their performance had not attained the optimum level of

compliance with program standards and requirements. Ku recommended that a course in cooperative education should be required for certification for all vocational teachers as a delivery system for communicating the operational procedures and guidelines.

Finally, the purposes of the Allred study (1974) were to develop evaluative criteria for cooperative office education programs at the secondary level and to use these criteria to evaluate cooperative office education programs in the secondary schools of Louisiana. Concerning the coordination phase, Allred concluded that the criteria pertaining to this phase of cooperative education were being followed in most of the programs; however, one area of deficiency was the retention of the student-learner on a particular job after mastery was achieved.

Published Guidelines Regarding the Coordination of Cooperative Education

There are at least four published textbooks available in the field of vocational education pertaining to cooperative education. These textbooks were reviewed and potential basic belief statements regarding the coordination of cooperative education were recorded.

In their textbook, Mason and Haines' (1972) list of characteristics included guidelines related to the following coordination activities:

- Selection of training stations
- Development of step-by-step training plan
- Supervision of on-the-job training
- Employment of qualified teacher-coordinator
- Utilization of coordination time (pp. 108-110).

Meyer, Crawford, and Klaurens (1975) have written a comprehensive textbook for vocational educators entitled Coordination in Cooperative Vocational Education. In a discussion of the tasks of a teacher-coordinator they state:

Comprehending the many roles performed by teacher-coordinators is the first phase of learning that job, but it alone is not enough to become an effective practitioner. The second phase consists of acquiring a working knowledge of the daily tasks one performs and how these tasks relate to the purposes and goals of the program that he manages (p. 58).

They also emphasize that the careful planning and skillful execution of coordination activities is crucial to the successful operation of all cooperative vocational education programs. This publication provides several pages of guidelines and suggested procedures to be used by vocational teacher-coordinators, including cooperative office education teacher-coordinators.

In addition to textbooks, several published handbooks and guidelines were reviewed to record potential basic belief statements regarding the coordination of cooperative education. Several guidelines were provided by Huffman (1967) as a result of a national seminar on cooperative education. One of the guidelines which resulted from the seminar emphasized that "the duties and responsibilities of teacher-coordinators should be defined in terms of the objectives and policies of cooperative education" (p. 41). An explanation of each guideline with suggested implementation procedures was provided to assist those involved with cooperative education to provide programs which attain the objectives which have been established.

A publication entitled "A Guide for Cooperative Vocational Education" was issued by the University of Minnesota (1969) as a result of a federal grant; those guides which pertained to the coordination of cooperative education were utilized for the purposes of this study.

Many states, including Virginia, have handbooks and guidelines which are available to cooperative education teacher-coordinators. Many of these were reviewed for purposes of this study. The Virginia handbook (1970) is entitled "Teaching Guide for Cooperative Education: Suggested Content, Instructional Procedures, and Performance Goals." Suggested performance practices are listed for the many responsibilities of the cooperative education teacher-coordinators. Since consideration is currently being given to the revision and updating of this publication, the results of this study should be useful when specifying coordination practices and procedures in a new state publication.

Chapter Summary

This chapter provided a basis for conducting a study to determine the basic beliefs of business and office education personnel regarding the coordination of cooperative education. The literature related to the study revealed that:

1. Several studies have been designed to determine areas of agreement (beliefs) in business education (Hanna, 1939; Hayden, 1970; and Gratz, 1961). These studies did not concentrate specifically on the cooperative education phase of business education programs, however.

2. Studies designed to identify issues in vocational education and cooperative education provides guidance in the development of basic beliefs and often contain issues relevant to the coordination of cooperative education (Warmke, 1960; Weatherford, 1974; and Harris, 1965).

3. A need exists to identify the basic beliefs of business and office education personnel, including their beliefs regarding the coordination of cooperative education (Crawford, 1967, and Kinzer, 1969).

4. Specific tasks and coordination tasks with specific criteria can be identified (Weber, 1970, and Cotrell, et. al., 1971).

5. Emphasis should be placed in research upon the improvement of the coordination of cooperative education (Dorr, 1962; Gray, 1970; Cheshire, 1971; Davis, 1974; and Vredenburg, 1975).

6. State supervisors should assist in establishing a philosophy concerning the cooperative education phase of business and office education (Gray, 1970, and Davis, 1974).

7. Comparisons between respondent groups such as teacher-coordinators, local and state supervisors, and teacher educators are useful in establishing basic beliefs/guidelines for cooperative education (Crawford, 1967, 1975; Soutter, 1971; and Peper, 1975). In addition, perceptions among these groups regarding cooperative office education may differ (Gray, 1970; Soutter, 1971; and Peper, 1975).

8. Guidelines can result from survey research and serve as evaluative criteria or program operational guidelines (Ku, 1972; Taylor, 1972; and Allred, 1974). A need exists for teacher-coordinators of cooperative education to identify basic concepts (beliefs) in cooperative education to obtain compliance with program standards and requirements (Ku, 1972).

9. Many textbooks, handbooks, and guidelines are currently available to provide teacher-coordinators of cooperative education, including office education, with suggested procedures for coordinating the program (Mason and Haines, 1972; Meyer, et. al., 1975; Huffman, 1967; University of Minnesota, 1969; and Virginia, 1970).

Only one study was found which statistically treated the biographical variables of years of coordination experience, previous course work, and school location (Harris, 1965). However, the study did not attempt to determine if there was a relationship between these variables as well as years of office-related experience to the basic beliefs of his respondents regarding the coordination of cooperative education. Therefore, they were statistically treated for purposes of this study.

As a result of an extensive and thorough review of the related literature, a design for the study was developed and several potential basic belief statements regarding the coordination of cooperative office education were collected. A discussion of the research design and the results of the study are contained in the following chapters.

Chapter 3

RESEARCH METHODOLOGY

This chapter is concerned with the research methodology which was used to determine and compare beliefs of business and office education personnel in Virginia concerning the coordination of high school cooperative office education programs. Specifically, the chapter contains three sections: (1) Statement of the Problem, (2) Research Procedures, and (3) Analysis of the Data.

STATEMENT OF THE PROBLEM

The central problem of this study was to identify and compare the basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs. A secondary problem was to determine if there was a relationship between specific biographical variables (years of coordination experience, years of employment experience, and previous course work in cooperative education) and the basic beliefs expressed by the business and office education personnel and if there was a relationship between school location (urban, suburban, middle-sized, rural or smaller community) and the basic beliefs expressed by the teacher-coordinators in the study.

Therefore, the study sought to attain the following objectives:

1. The determination of basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs.

2. The comparison of basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs.

3. The determination of the relationship between years of coordination experience and basic beliefs of business and office education personnel in Virginia regarding the coordination of high school cooperative office education programs.

4. The determination of the relationship between years of related office experience and basic beliefs of business and office education personnel in Virginia regarding the coordination of high school cooperative office education programs.

5. The determination of the relationship between previous course work in cooperative education and basic beliefs of business and office education personnel in Virginia regarding the coordination of high school cooperative office education programs.

6. The determination of the relationship between school location (urban, suburban, middle-sized, rural or smaller community) and the basic beliefs of teacher-coordinators in Virginia regarding the coordination of high school cooperative office education programs.

The following research hypotheses were formulated and tested in this study:

$$1. H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1 : \mu_i \neq \mu_j, \text{ for at least some } i, j$$

where μ_1 is the mean score for teacher-coordinators for one factor regarding the coordination of cooperative education, μ_2 is the mean score for local supervisors for the same factor regarding the coordination of cooperative education, μ_3 is the mean score for state supervisors for the same factor regarding the coordination of cooperative education, and μ_4 is the mean score for teacher educators for the same factor regarding the coordination of cooperative education.

The following research hypotheses were formulated and tested congruent with the secondary problem of the study:

$$2. H_0 : \rho_{cy} = 0$$

$$H_1 : \rho_{cy} \neq 0$$

where ρ_{cy} represents the population correlation coefficient between variable c (years of coordination experience) and variable y (factor mean score regarding the coordination of cooperative education).

$$3. H_0 : \rho_{ey} = 0$$

$$H_1 : \rho_{ey} \neq 0$$

where ρ_{ey} represents the population correlation coefficient between variable e (years of related office experience) and variable y (factor mean score regarding the coordination of cooperative education).

$$4. H_0 : \rho_{wy} = 0$$

$$H_1 : \rho_{wy} \neq 0$$

where ρ_{wy} represents the population correlation coefficient between variable w (previous course work in cooperative education) and variable y (factor mean score regarding the coordination of cooperative education).

$$5. H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1 : \mu_i \neq \mu_j, \text{ for at least some } i, j$$

where μ_1 is the mean score for teacher-coordinators whose school is located in an urban location for one factor regarding the coordination of cooperative education, μ_2 is the mean score for teacher-coordinators whose school is located in a suburban location for the same factor regarding the coordination of cooperative education, μ_3 is the mean score for teacher-coordinators whose school is located in a middle-sized community for the same factor regarding the coordination of cooperative education, and μ_4 is the mean score for teacher-coordinators whose school is located in a small or rural community for the same factor regarding the coordination of cooperative education

RESEARCH PROCEDURES

The research procedures which were used in conducting this study are delineated in three areas: Selection of the Sample, Development of the Instrument, and Collection of the Data.

Selection of the Sample

The study was designed to determine and compare basic beliefs of teacher-coordinators, local supervisors, state supervisors, and

teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs. The combination of these groups represented the personnel most concerned or directly involved with this activity.

Because of the smaller number of local supervisors, state supervisors, and teacher educators, the total population of these three groups was used for this study; thus, 14 local supervisors, five state supervisors, and 56 teacher educators were asked to indicate their basic beliefs regarding the coordination of high school cooperative office education programs. Twenty-four of the 53 questionnaires returned by teacher educators were utilized in the data analyses; these represented the teacher educators who were primarily concerned with the professional preparation of business education teachers as evidenced by (1) instruction of methods courses and/or (2) supervision of student teachers. The 29 other teacher educators were primarily skills teachers (i.e., shorthand and typewriting) and were not directly involved with pedagogical processes.

A random sample of the 194 cooperative office education teacher-coordinators was used for the purposes of this study. Therefore, a sampling procedure was necessary to determine the appropriate sample size for the teacher-coordinator population. The sample formula of the NEA Research Division (NEA, 1970) was applied as an appropriate method to determine sample size. The formula for this procedure is:

$$n = \frac{[\chi^2 N \pi (1 - \pi)]}{[d^2 (N - 1) + \chi^2 (1 - \pi)]}$$

where n = the required sample size,

χ^2 = the table value of chi square for one degree of freedom and desired confidence level (2.706 for $\chi^2_{.10}$)

N = the population size (N = 194 for this study)

π = the population proportion which it is desired to estimate (assumed to .50 since this would provide the maximum sample size)

d = the degree of accuracy expressed as a proportion, or .05.

The calculations for determining the sample size were as follows:

$$n = \frac{[2.706 \times 194 \times .50 (1.00 - .50)]}{[.05^2 \times (194 - 1) + 2.706 \times .05 \times (1 - .5)]} \div$$

$$n = \frac{[524.964 \times .50 (.50)]}{[.0025 \times 193 + 2.706 \times .25]}$$

$$n = \frac{[524.964 \times .25]}{[.4825 + .6765]}$$

$$n = 131.241 \div 1.1590$$

$$n = 113.23641 \text{ or } \underline{113}$$

Therefore, from a population of 194 teacher-coordinators in cooperative office education, 113, or 58.4 percent, were randomly selected for this study. A list of all the teacher-coordinators was obtained from the Business Education Service in the Virginia State Department of Education. Each teacher-coordinator was assigned a number corresponding to the order in which he/she appeared on the list; a random number table (Tuckman, 1972, pp. 368-369) was used to determine which individuals would receive the survey instrument. Therefore, 113 teacher-coordinators, 14 local supervisors, five state supervisors, and 24 teacher educators were the participants for the study.

Development of the Instrument

It was determined that a questionnaire would be an appropriate method to collect the data for this study. Tuckman identified the purposes for which questionnaires are used as follows:

Questionnaires are used by researchers to convert into data the information directly given to a person. By providing access to what is "inside a person's head," these approaches make it possible to measure what a person knows (knowledge or information), what a person likes or dislikes (values and preferences), and what a person thinks (attitudes and beliefs) (1972, p. 48).

The closed statements on the questionnaire followed a Likert-type format. Kerlinger described the Likert scale in this way:

A summated rating scale (also called Likert-type scale) is a set of attitude items, all of which are considered of approximately equal "attitude value," and to each of which subjects respond with degrees of agreement or disagreement (intensity). . . . As in all attitude scales, the purpose of the summated rating scale is to place an individual somewhere on an agreement continuum of the attitude in question (1964, p. 484).

Fishbein (1967) explained that:

Rather than giving these items to judges, the person simply decides which items indicate favorableness and which items indicate unfavorableness to the attitude object. Having made these decisions, the experimenter then gives the set of remaining items to a group of subjects, who are asked to indicate their degree of agreement or disagreement with each statement (usually responding to each item ranging from "strongly agree" to "strongly disagree") (p. 232).

Review of the Literature. The initial step in the development of the survey instrument was a review of the literature concerning basic beliefs regarding the coordination of cooperative education. Fox (1969) indicated that the choice of selecting an available instrument or developing a new one is often made on the basis of the review of literature. In addition, Keller (1968) stated:

The problem of identifying statements of belief . . . requires the selection of literature and research to be reviewed for possible statements of beliefs, and the development of an instrument which would elicit from a group of respondents a degree of agreement regarding each statement of belief (p. 3).

Resources utilized in reviewing the literature for purposes of this study were American Doctoral Dissertation Index, Business Education Index, Dissertation Abstracts, Education Index, Reader's Guide to Periodical Literature, Index to Doctoral Dissertation in Business Education: 1900 to 1975, ERIC, AIM-ARM, DATRIX, books, monographs, unpublished dissertations, and pamphlets.

The review of the literature indicated that several studies had been completed concerning cooperative education; however, no instrument was found that measured the perceptions of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education regarding the coordination of cooperative education. The review also revealed a lack of studies investigating the attitudes and opinions of Virginia business and office educators. Thus, it was necessary to develop an instrument to measure the perceptions of business and office education personnel regarding the coordination of cooperative office education. The review of literature did provide information which was useful in determining statements that were later developed into potential basic belief statements on the research instrument.

Development of Potential Basic Belief Statements. The statements included on the instrument represented potential basic beliefs about

the coordination of cooperative office education. There were no simple rules or criteria for identifying statements of beliefs. Keller (1968) considered the problem as using subjective rather than objective reasoning.

The task of developing the instrument included a process of recording potential statements on cards, analyzing and grouping the statements, and developing a potential belief statement from related statements. Each time an item from literature or research indicated how the coordination of cooperative education should be conducted, the statement was recorded on a 3" x 5" card; over 400 statements were thus recorded.

The basis for analyzing and then grouping the statements was the cluster and related competencies identified and categorized by Cotrell, et. al., (1971) in the "Coordination" area. Five of the clusters from his research and the 36 related competencies were utilized in grouping similar statements for purposes of this study. First, the competency statements were reviewed in each of the categories to determine the coordination responsibilities included in each. Statements were then grouped in one of the five clusters: Selection of Training Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, or Evaluation of Students on the Job. Thus, those statements from the original 400 which were related to the "Selection of Training Stations" were grouped in the first cluster area. After each statement had been assigned a category, the Cotrell

competencies were once again reviewed to assure that at least one statement had been identified and included for each competency and that the statements had been categorized appropriately.

Finally, the cards were reviewed within each cluster to develop a representative statement from related cards. This procedure reduced the number of statements of potential beliefs to 80. Therefore, the first instrument which was evaluated by a panel of experts included 80 potential basic belief statements categorized into five cluster areas: Selection of Training Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, and Evaluation of Students on the Job.

Panel of Experts. A panel of experts was utilized to evaluate the potential belief statements. The panel included two teacher-coordinators, two local supervisors, two state supervisors, and two teacher educators. Members of the panel were in their respective positions for at least three years, were knowledgeable about the coordination of cooperative education, and were generally respected and recommended by other business and office education personnel. The persons were contacted by telephone to explain the purpose of this phase of the study and to solicit their assistance. Individually typed letters explaining the nature of the problem and the need for assistance, the questionnaire, and a postage-paid return envelope were then mailed to each panel member. (The letter, the first page of the instrument, and the list of jury members are included in Appendix A).

The panel members were directed to evaluate the potential belief statements for specific criteria identified by Edwards (1957). Specifically, panel members indicated with a checkmark (✓) by each statement if they felt: (1) The statement could be interpreted in only one way; (2) The statement was clear, simple, and direct; (3) The statement included only one complete thought; (4) The statement was relevant to the study (i.e., pertained to the coordination of cooperative office education); and (5) The statement was easily understood. In addition, panel members were requested to include any written comments which would improve the statements on the instrument.

The eight instruments were returned within one week, and a composite of results was made on a master questionnaire. If two or more panel members failed to check a criterion for a statement, the item was examined and amended to satisfy the criterion. In addition, the written comments were reviewed to assist in making the necessary changes. As a result of the responses from the panel, 20 items were modified, seven items were added, and three items were deleted. Letters were sent to panel members to express appreciation for their assistance with this phase of the study.

Pilot Test of the Instrument. A pilot test was completed by submitting the revised questionnaire to a jury of teacher-coordinators to assure the successful administration of the instrument for the study. The teacher-coordinators consisted of five individuals who were not selected for the study itself. The jury of teacher-coordinators received a letter explaining this phase of the study, the proposed

study instrument, and a postage-paid, return envelope. (The letter and list of pilot test participants are included in Appendix B). Each person was asked to react to the clarity of the directions and to indicate her degree of agreement with the potential basic belief statements.

The jury agreed that the directions were clear. However, five of the statements were revised to provide clarity, and two of the statements which were not considered relevant to the study were deleted. Therefore, the final instrument included 82 items.

Preparation of the Survey Instrument. The questionnaire contained two parts. The first section asked respondents for personal and biographical data. Because each of the four personnel groups (teacher-coordinators, local supervisors, state supervisors, and teacher educators) was asked questions related to the specific occupational areas, separate cover pages were developed. Each respondent provided information concerning the following areas: (1) Personnel classification; (2) Sex; (3) Total years of experience in personnel group; (4) Total years of experience (if any) as a teacher-coordinator of a secondary cooperative office education program; (5) Total years of equivalent full-time office-related business experience; (6) Highest degree completed; and (7) Previous course work in cooperative education. In addition, teacher educators verified that their responsibilities were primarily related to the preparation of business education teachers. Teacher-coordinators were also asked to identify the location of their schools; the number

of students they coordinated on the job; and whether they used training agreements, training plans, and advisory committees.

The basic belief statements comprised the second section of the questionnaire. The statements were listed in five categories: Selection of Training Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, and Evaluation of Students on the Job. Participants indicated their choices to the statements by encircling either: SA (Strongly Agree), A (Agree), D (Disagree), or SD (Strongly Disagree).

Isaac and Michael (1972) identified three tendencies which can plague the validity of ratings:

1. The over-rater error--rating subjects in general on the side of leniency or favorableness.
2. The under-rater error--rating subjects in general on the side of severity or unfavorableness.
3. The central tendency error--rating subjects toward the middle of the scale.

In order to increase the validity of the ratings, specific criteria were developed to describe each of the points on the scale. The descriptors for each response were defined on the questionnaire as follows:

STRONGLY AGREE (SA): You STRONGLY AGREE with the statement. The procedure or guideline implied in the statement must be followed to assure the successful operation of a cooperative office education program.

AGREE (A): You AGREE with the statement. The procedure or guideline implied in the statement would be nice to follow when given adequate time, money, or resources; the successful program could operate without the application of this procedure/guideline but would benefit by its application.

DISAGREE (D): You DISAGREE with the statement. The procedure or guideline implied in the statement would not contribute nor is it important to the successful operation of a cooperative office education program.

STRONGLY DISAGREE (SD): You STRONGLY DISAGREE with the statement. The procedure or guideline implied in the statement would be detrimental to the successful operation of a cooperative office education program.

The respondents were directed to indicate their extent of agreement or disagreement with each statement by circling one of the four possible responses. They were reminded that there were no right or wrong answers and were asked to select the answer which was most appropriate for them.

Collection of the Data

In addition to the questionnaire, the participants in the study received a cover letter requesting their participation and explaining the purpose of the study. The respondents were also informed in the cover letter that their names, schools, and responses would be kept confidential and would not be identified in the analyses. A numbering system was developed to code names of respondents with their returned questionnaires. After two weeks nonrespondents to the questionnaires received a letter, another questionnaire, and an addressed, stamped envelope to be returned to the researcher. (A copy of the first letter sent to the participants appears in Appendix C; the questionnaire, "Basic Beliefs Regarding the Coordination of Cooperative Education," appears in Appendix D; and the follow-up letter appears in Appendix E).

Three weeks after the initial mailing, questionnaires had been returned by all five state supervisors, 13 of the 14 local supervisors, 87 of the 118 teacher-coordinators, and 25 of the 56 teacher educators. A telephone call was placed by the researcher to each of the teacher educators and to the local supervisor who had not responded. As a result, an additional 28 questionnaires were received from the teacher educators, and the remaining questionnaire was received from the local supervisor. Twenty-four of the 53 questionnaires returned by teacher educators were utilized in the data analysis since these 24 teacher educators indicated involvement with the instruction of methods courses and/or the supervision of student teachers. The other 29 teacher educators were involved with other aspects of the business education program such as teaching skills classes. Eight additional questionnaires were received from the teacher-coordinators. As a result, the collection of the data was completed.

Validity Check with Nonrespondent Teacher-Coordinators. One hundred percent of the local and state supervisors and 91 percent of the teacher educators returned the instruments. However, a check of the validity of the nonrespondent teacher-coordinators was undertaken to assure representativeness of the returned sample. Specifically, five teacher-coordinators from the original sample who did not return questionnaires were contacted and asked to complete specific items on the questionnaire to compare with the respondent sample. In addition, five teacher-coordinators were interviewed on the phone and responses were given verbally to the same identified items.

A comparison of the descriptive data revealed that the nonrespondent group gave answers similar to those of the respondent sample group.

ANALYSIS OF THE DATA

The analysis of the data was made in four major sections. First, descriptive biographical data describing the respondents was provided. Biographical data obtained from all four respondent groups were presented first; in addition, biographical data applicable to the teacher-coordinator sample were presented.

Second, the basic beliefs of the business and office education personnel in Virginia regarding the coordination of cooperative education were identified and compared in five categories included on the questionnaire: Selection of Training Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, and Evaluation of Students on the Job. The means for each item for the total group and for each personnel group were reported with an identification and comparison of those items on which the respondents demonstrated strong agreement, agreement, disagreement, and strong disagreement.

Third, a factory analysis was conducted to assist in describing the underlying relationship which existed among the variables. Common factor analyses were conducted with both orthogonal and oblique rotations and with factors limited to six, five, four, and three for each of these rotational alternatives. Factor scores were derived by summing the scores across the items associated with the particular factor.

Finally, statistical tests of the identified hypotheses were conducted. Multivariate analysis of variance (MANOVA) was utilized to compare the personnel groups (teacher-coordinator, local supervisor, state supervisor, and teacher educator) on each of the factors identified. Concerning the use of multivariate statistics, Harris (1975) stated:

Almost any situation in which multivariate techniques are applied could be analyzed through a series of univariate significance tests (for example, t-tests), one such univariate test for each possible outcome variable. However, since each of the univariate tests is designed to produce a significant result \underline{x} x 100% of the time (where \underline{x} is the "significance level" of the test) when the null hypothesis is correct, the probability of having at least one of the tests produce a significant result when in fact nothing but chance variation is going on, increases rapidly as the number of tests increases. It is thus highly desirable to have a means of explicitly controlling for the experimentwise error rate. Multivariate statistical techniques provide this control (p. 6).

Multivariate analysis of variance was used to test the difference between the linear combination of means for the personnel groups on the factors identified in the factor analysis. Confidence intervals were computed to determine which groups differed significantly and on which factors; χ^2 tests were computed to determine on which items the differences occurred.

MANOVA was also used to test the differences between the combination of means for teacher-coordinators on the identified factors in each of the four school location areas (urban, suburban, middle-sized, and small or rural community). Confidence intervals and χ^2 tests were applied when appropriate.

In addition, bivariate correlation coefficients were computed to determine if significant relationships existed between the biographical variables (years of coordination experience, years of office-related experience, and previous course work in cooperative education) and the factors which were identified.

Chapter 4

RESULTS OF THE STUDY

The central problem of this study was to identify and compare the basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs. A secondary problem was to determine if there was a relationship between specific biographical variables (years of coordination experience, years of full-time office-related experience, and previous course work in cooperative education) to the basic beliefs expressed by the business and office education personnel and to determine if there was a relationship between school location (urban, suburban, middle-sized, rural or smaller community) to the basic beliefs expressed by the teacher-coordinators in the study.

The analyses of the data is divided into four sections. The first section consists of a description of the respondent characteristics. The second section provides an identification and discussion of the basic beliefs of business and office education personnel in Virginia regarding the coordination of cooperative education. The third section describes the factor analysis procedure which was used to derive empirical categories for data reduction and for testing the hypotheses. The fourth section presents the analyses relative to the research hypotheses.

Description of Respondent Characteristics

The population for this study consisted of business and office education personnel in Virginia, including 194 teacher-coordinators, 14 local supervisors, 5 state supervisors, and 56 teacher educators. A total of 113 teacher-coordinators were randomly selected to participate in this study. Because of the limited population sizes of the local supervisors, state supervisors, and teacher educators, all of these persons were invited to participate in the study. Of the 56 teacher educators, the returned instruments of those who were primarily involved in preparing business education teachers as evidenced by (1) teaching methods courses and/or (2) supervising student teachers were utilized. In Table 1 the number and percentages of usable returns are presented; a total of 135 respondents (92 teacher-coordinators, 14 local supervisors, 5 state supervisors, and 24 teacher educators) provided usable returns which were utilized in the data analysis.

Each respondent was asked to provide the following information:

1. Sex
2. Total years of experience in personnel group (teaching, local supervision, state supervision, or teacher education)
3. Total years of experience as a teacher-coordinator of a secondary cooperative office education program
4. Total years of equivalent full-time office-related experience
5. Highest degree completed
6. Reponse to the question: Have you taken a formal college course primarily designed to prepare cooperative education teacher-coordinators?

In addition to these six background questions, teacher-coordinators were asked to respond to the following:

TABLE 1
QUESTIONNAIRE RESPONSE

	Total Group		Teacher-Coordinator		Local Supervisor		State Supervisor		Teacher Educator	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Returned, usable	135	71.8	92	81.4	14	100.0	5	100.0	24	43.9
Returned, not usable	30	15.9	3	2.7	0	0.0	0	0.0	27*	48.2*
Not returned	23	12.3	18	15.9	0	0.0	0	0.0	5	8.9
TOTAL	188	100.0	113	100.0	14	100.0	5	100.0	56	100.0

* A total return of 91.1% of the teacher educators was achieved; of these instruments, 24, or 44%, of the teacher educators were (1) teaching methods classes and/or (2) supervising student teachers and were included in the data analyses.

1. School location (urban, suburban, middle-sized, rural or smaller community)
2. Number of students currently coordinating on the job
3. Do you use training agreements?
4. Do you use training plans?
5. Do you have an advisory committee?

Sex of Respondents. Of the 135 respondents, 104 (77 percent) were female and 31 (23 percent) were male. Over 90 percent of the teacher-coordinators (83 of the 92 persons in this group) were female. The state supervisory and teacher educator groups were primarily male (17 of the 29 persons in these groups). In Table 2 the male and female representation of the respondents is presented.

Years of Experience in Personnel Group. The teacher-coordinators ranged in teaching experience from one to 29 years with an average of 13.5 years. Local supervisors ranged from two persons who had one year of supervision at the local level to one person who had completed 21 years as a supervisor. The average was 8.2 years in local supervision for the 14 respondents. The state supervisors ranged from three years to 11 years of state supervision experience with an average of seven years. Teacher educators demonstrated the longest tenure in their positions; the least number of years of experience was one year (two persons), and the most number of years of experience was 28 years (two persons). This group averaged approximately 16 years of experience. (These data are presented in Table 3).

Years of Experience as a Teacher-Coordinator. Approximately 20 percent of the respondents indicated they had had no previous experience in coordinating a cooperative office education program. Three of the

TABLE 2
FEMALE AND MALE REPRESENTATION OF RESPONDENTS

	Total Group		Teacher-Coordinator		Local Supervisor		State Supervisor		Teacher Educator	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Female	104	77.0	83	90.2	9	64.3	2	40.0	10	41.7
Male	31	23.0	9	9.8	5	35.7	3	60.0	14	58.3
TOTAL	135	100.0	92	100.0	14	100.0	5	100.0	24	100.0

TABLE 3
TOTAL YEARS OF EXPERIENCE IN PERSONNEL GROUP

Years	Total Group		Teacher-Coordinator		Local Supervisor		State Supervisor		Teacher Educator	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1 - 3	7	5.2	3	3.3	2	14.3	1	20.0	1	4.2
4 - 6	16	11.9	13	14.1	2	14.3	1	20.0	0	0.0
7 - 9	29	21.5	16	17.4	6	42.9	2	40.0	5	20.9
10 - 12	20	14.8	13	14.1	3	21.4	1	20.0	3	12.5
13 - 15	18	13.3	16	17.4	0	0.0	0	0.0	2	8.3
16 - 18	13	9.6	10	10.9	0	0.0	0	0.0	3	12.5
19 - 21	11	8.2	6	6.5	1	7.1	0	0.0	4	16.7
22 - 24	8	5.9	6	6.5	0	0.0	0	0.0	2	8.3
25 - 27	5	3.7	3	3.3	0	0.0	0	0.0	2	8.3
28 - 30	8	5.9	6	6.5	0	0.0	0	0.0	2	8.3
TOTAL	135	100.0	92	100.0	14	100.0	5	100.0	24	100.0

14 local supervisors, two of the five state supervisors, and 20 of the 24 teacher educators gave this response. Teacher-coordinators ranged from one year to 22 years of experience as teacher-coordinators and averaged 6.3 years of experience. Approximately 60 percent of the teacher-coordinators were included in the range of one year to six years of experience as a teacher-coordinator (See Table 4).

Years of Experience in Office-Related Employment. Only six of the 135 respondents had no office-related experience. Eighty percent of the respondents ranged between one to six years of office-related experience. Four teacher-coordinators had no experience while one person had 20 years of experience; the teacher-coordinators averaged 3.75 years. All of the local supervisors had at least one year of experience, with one supervisor indicating 15 years; they averaged 4.9 years. Four of the five state supervisors indicated experience of one to three years, averaging approximately 3.4 years of office-related experience. Two teacher educators had no experience in office employment, with a maximum of 12 years for another teacher educator. They averaged 3.7 years of office-related experience (See Table 5).

Highest Degree Completed. In Table 6 the highest professional degree earned by the business and office education respondents is presented. All persons had earned at least a baccalaureate degree. Approximately 65 percent had a graduate degree, including 16.3 percent with an earned doctorate. Approximately 50 percent of the teacher-coordinators had a bachelor's or bachelor's plus credits; the other 50 percent had a master's or master's plus credits. The local and

TABLE 4

TOTAL YEARS OF EXPERIENCE AS A TEACHER-COORDINATOR OF A SECONDARY COOPERATIVE
OFFICE EDUCATION PROGRAM

Years	Total Group		Teacher- Coordinator		Local Supervisor		State Supervisor		Teacher Educator	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0	25	18.5	0	0.0	3	21.4	2	40.0	20	83.3
1 - 3	35	25.9	27	29.3	6	42.9	1	20.0	1	4.2
4 - 6	34	25.2	28	30.4	4	28.6	1	20.0	1	4.2
7 - 9	19	14.1	18	19.6	0	0.0	1	20.0	0	0.0
10 - 12	16	11.9	13	14.1	1	7.1	0	0.0	2	8.3
13 - 15	3	2.2	3	3.3	0	0.0	0	0.0	0	0.0
16 - 18	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
19 - 21	2	1.5	2	2.2	0	0.0	0	0.0	0	0.0
22 - 24	1	0.7	1	1.1	0	0.0	0	0.0	0	0.0
TOTAL	135	100.0	92	100.0	14	100.0	5	100.0	24	100.0

TABLE 5

TOTAL YEARS OF EQUIVALENT FULL-TIME
OFFICE-RELATED EXPERIENCE

Years	Total Group		Teacher- Coordinator		Local Supervisor		State Supervisor		Teacher Educator	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0	6	4.5	4	4.3	0	0.0	0	0.0	2	8.3
1 - 3	79	58.5	54	58.7	8	57.2	4	80.0	13	54.2
4 - 6	29	21.5	22	23.9	2	14.3	0	0.0	5	20.9
7 - 9	7	5.2	3	3.3	1	7.1	1	20.0	2	8.3
10 - 12	10	7.4	6	6.5	2	14.3	0	0.0	2	8.3
13 - 15	3	2.2	2	2.2	1	7.1	0	0.0	0	0.0
16 - 18	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
19 - 21	1	0.7	1	1.1	0	0.0	0	0.0	0	0.0
TOTAL	135	100.0	92	100.0	14	100.0	5	100.0	24	100.0

TABLE 6
HIGHEST DEGREE COMPLETED BY THE RESPONDENTS

Degree	Total Group		Teacher-Coordinator		Local Supervisor		State Supervisor		Teacher Educator	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Bachelor's	5	3.7	5	5.4	0	0.0	0	0.0	0	0.0
Bachelor's plus credits	43	31.9	43	46.7	0	0.0	0	0.0	0	0.0
Master's	24	17.8	19	20.7	3	21.4	1	20.0	1	4.2
Master's plus credits	40	29.6	25	27.2	8	57.1	3	60.0	4	16.6
CAGS or Specialist	1	0.7	0	0.0	0	0.0	0	0.0	1	4.2
Doctorate	22	16.3	0	0.0	3	21.4	1	20.0	18	75.0
TOTAL	135	100.0	92	100.0	14	100.0	5	100.0	24	100.0

state supervisors have similar degree patterns; approximately 20 percent of each group have a master's, approximately 60 percent have a master's plus credits, and approximately 20 percent have a doctorate. Seventy-five percent of the participating teacher educators have a doctorate (18 of the 24 persons in this group); others have obtained a master's or master's plus credits, including the CAGS or specialist degree.

Formal Cooperative Education Course. Only 54 persons (40 percent) of the respondents indicated prior enrollment in a course designed primarily to train cooperative education teacher-coordinators. A majority of the teacher-coordinators (61 percent), state supervisors (60 percent), and teacher educators (62.5 percent) have not taken a formal cooperative education course of this type. However, nine of the 14 local supervisors (64 percent) indicated they have this background, as indicated in Table 7.

School Location. Teacher-coordinators were asked to indicate their school location as being urban (100,000+), suburban, medium-sized, or rural or smaller community (10,000 or less). Nearly two-thirds of the respondents indicated their school location was urban or suburban. In Table 8 the school locations of the teacher-coordinators are identified.

Number of Students. Teacher-coordinators also indicated the number of students they supervised on the job. The number of students supervised ranged from two to 53. Eighty percent of the teacher-coordinators coordinated 20 or fewer students, with an average of approximately 16 students for each teacher-coordinator (See Table 9).

TABLE 7

BACKGROUND IN FORMAL COURSE PRIMARILY DESIGNED TO PREPARE
COOPERATIVE EDUCATION TEACHER-COORDINATORS

	Total Group		Teacher-Coordinator		Local Supervisor		State Supervisor		Teacher Educator	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	54	40.0	36	39.1	9	64.3	2	40.0	7	29.2
No	79	58.5	56	60.9	5	35.7	3	60.0	15	62.5
No Response	2	1.5	0	0.0	0	0.0	0	0.0	2	8.3
TOTAL	135	100.0	92	100.0	14	100.0	5	100.0	24	100.0

TABLE 8
SCHOOL LOCATION OF TEACHER-COORDINATORS

School Location	Number	Percent
Rural or Small (10,000 or less)	13	14.1
Medium-sized	16	17.4
Suburban	27	29.3
Urban	34	37.0
No Response	2	2.2
TOTAL	92	100.0

TABLE 9
 NUMBER OF STUDENTS COORDINATED BY TEACHER-COORDINATORS

Number of Students	Number	Percent
1 - 3	3	3.3
4 - 6	5	5.6
7 - 9	10	11.1
10 - 12	9	10.0
13 - 15	22	24.5
16 - 18	15	16.7
19 - 21	8	8.9
22 - 24	7	7.8
25 - 27	3	3.3
28 - 30	1	1.1
31 - 33	3	3.3
34 - 36	1	1.1
34 - 39	0	0.0
40 - 42	1	1.1
43 - 45	1	1.1
46 - 48	0	0.0
49 - 51	0	0.0
52 - 54	1	1.1
TOTAL	90*	100.0

* No Response = 2

Use of Training Agreements, Training Plans, and Advisory Committees. A review of the literature indicated the need for teacher-coordinators to use training agreements, training plans, and advisory committees to assure quality programs. A majority of the teacher-coordinators indicated they used these cooperative education tools (70.7 percent use training agreements, 90.2 percent use training plans, and 63 percent use advisory committees) as indicated in Table 10.

Identification and Comparison
of Basic Beliefs

In Part II of the survey, respondents were asked to indicate their degree of agreement on 82 items in five categories. Respondents were given four possible response patterns which were defined as follows:

Strongly Agree: You STRONGLY AGREE with the statement. The procedure or guideline implied in the statement must be followed to assure the successful operation of a cooperative education program.

Agree: You AGREE with the statement. The procedure or guideline implied in the statement would be nice to follow when given adequate time, money, or resources; the successful program could operate without the application of this procedure/guideline but would benefit by its application.

Disagree: You DISAGREE with the statement. The procedure or guideline implied in the statement would not contribute nor is it important to the successful operation of a cooperative office education program.

Strongly Disagree: You STRONGLY DISAGREE with the statement. The procedure or guideline implied in the statement would be detrimental to the successful operation of a cooperative office education program.

TABLE 10

USE OF TRAINING AGREEMENTS, TRAINING PLANS, AND
ADVISORY COMMITTEES BY TEACHER-COORDINATORS

	Training Agreements		Training Plans		Advisory Committees	
	Number	Percent	Number	Percent	Number	Percent
Yes	65	70.7	83	90.2	58	63.0
No	25	27.1	7	7.6	33	35.9
No Response	2	2.2	2	2.2	1	1.1
TOTAL	92	100.0	92	100.0	92	100.0

For purposes of analysis, the "Strongly Agree" response was given a weight of four; the "Agree" response, three; the "Disagree" response, two; and the "Strongly Disagree" response, one. Means for each of the items were determined for the total group of respondents and for each of the four personnel groups (teacher-coordinators, local supervisors, state supervisors, and teacher educators).

In identifying and comparing the basic beliefs of business and office education personnel, the means were utilized according to the following scale: (1) Items on which the mean was 3.50 and above represented items on which there was strong agreement; and, thus, the procedure or guideline implied in the statement must be followed to assure the successful operation of a cooperative office education program; (2) Items on which the mean was 2.50-3.49 represented items on which there was agreement; and, thus, the procedure or guideline implied in the statement would be nice to follow when given adequate time, money, or resources. The successful program could operate without the application of this procedure/guideline but would benefit by its application; (3) Items on which the mean was 1.50-2.49 indicated the respondents disagreed with the item; the procedure or guideline implied in the statement would not contribute nor is it important to the successful operation of a cooperative office education program; (4) Items on which the mean was less than 1.49 indicated the respondents strongly disagreed with the item; the procedure or guideline implied in the statement would be detrimental to the successful operation of a cooperative office education program.

In Table 11 the means for the total respondents and for the four personnel groups on the 82 questionnaire items in five categories are identified. (Appendix F identifies the rank order for the basic beliefs of the business and office education personnel in Virginia regarding the coordination of cooperative education). The identification of basic beliefs according to the degree of agreement and relevant descriptive comparisons of this data will be presented according to the five categories included on the questionnaire: Selection of Training Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, and Evaluation of Students on the Job.

Selection of Training Stations. Regarding the selection of training stations, the respondents indicated strong agreement with Items 4, 5, 6, 7, 10, and 11; agreement with Items 1, 2, 3, and 8; and disagreement with Item 9. Three of the personnel groups indicated strong agreement with Items 2, 5, 6, 10, and 11; however, teacher-coordinators indicated less agreement with Items 2, 6, and 10; teacher educators less agreement with Item 11, and state supervisors less agreement with Item 5.

Local supervisors and state supervisors indicated less support for Item 3; however, the teacher-coordinators and teacher educators indicated strong agreement. One teacher educator clarified his agreement with the statement: "However, I do not mean to imply that the coordinator should turn responsibility over to students. The responsibility belongs to the coordinator." All four personnel groups had means of 3.50 and above on Items 4 and 7 with state supervisors averaging 4.00 on each.

TABLE 11
 MEANS OF TOTAL GROUP, TEACHER-COORDINATORS, LOCAL SUPERVISORS, STATE SUPERVISORS,
 AND TEACHER EDUCATORS ON BASIC BELIEF STATEMENTS

Statements	Total Group	Teacher- Coordinator	Local Supervisor	State Supervisor	Teacher Educator
<u>Selection of Training Stations</u>					
1. The teacher-coordinator should use a planned and systematic method of selecting training stations.	3.38	3.23	3.43	3.80	3.86
2. The teacher-coordinator should assess the educational adequacy of prospective training stations' facilities and equipment.	3.47	3.35	3.64	3.80	3.82
3. The teacher-coordinator should avoid training stations that afford only simple repetitive tasks unless they happen to fit the needs of specific students.	3.14	3.00	3.43	2.60	3.64
4. The teacher-coordinator should make personal contacts with all potential training sponsors.	3.80	3.77	3.86	4.00	3.83
5. The teacher-coordinator should maintain a current and complete file of available training stations.	3.57	3.54	3.64	3.20	3.73
6. The teacher-coordinator should work closely with other cooperative teacher-coordinators within a school system where more than one program exists.	3.50	3.48	3.64	3.60	3.50
7. The teacher-coordinator should consider the needs, skills, and career objective of a student in determining the suitability of a training station for that particular student.	3.62	3.52	3.71	4.00	3.86
8. The teacher-coordinator should encourage students to identify potential training stations.	3.23	3.34	2.86	2.80	3.09
9. The teacher-coordinator should pay training sponsors from vocational education monies for the extra time and expense in teaching and training cooperative office education students.	1.61	1.50	1.79	1.80	1.95

Table 11. Continued

Statements	Total Group	Teacher-Cordinator	Local Supervisor	State Supervisor	Teacher Educator
10. The teacher-coordinator should assure that the students have the personal supervision of an employee who understands and appreciates the position of the student as well as the welfare of the training station.	3.55	3.47	3.71	3.60	3.77
11. The teacher-coordinator should be employed on an extended contract basis to conduct coordination activities including the selection of training stations.	3.66	3.70	3.79	3.60	3.46
<u>Placement of Students on the Job</u>					
12. The teacher-coordinator should match the students' needs, skills, and career objectives to jobs providing the type of experiences enhancing such needs, skills, and career objectives when placing students.	3.50	3.38	3.64	3.80	3.77
13. The teacher-coordinator should show equal consideration for both the employer and the student when placement on the job is made.	3.47	3.52	3.36	3.80	3.25
14. In matching students to training stations, the teacher-coordinator should select training stations which match the students' career objectives.	3.27	3.21	3.43	3.40	3.42
15. Ideally, the teacher-coordinator should give each training sponsor the opportunity to interview at least three students.	2.92	2.89	3.07	2.80	2.96
16. The teacher-coordinator should take the responsibility for setting up interview dates and times.	3.03	3.03	3.07	3.00	3.00
17. The teacher-coordinator should provide students with an introduction card for the job interview.	3.15	3.15	3.21	3.40	3.05
18. The teacher-coordinator should contact employers following the students' interviews to obtain employers' comments and evaluations concerning the students.	3.50	3.48	3.50	3.80	3.46
19. The teacher-coordinator and employer should discuss hours and wages consistent with local, state, and federal labor laws.	3.57	3.53	3.64	4.00	3.59

Table 11. Continued

	Statements	Total Group	Teacher Coordinator	Local Supervisor	State Supervisor	Teacher Educator
20.	The teacher-coordinator should approve the payment of a subminimum wage when subminimum wages are requested by a training sponsor.	2.47	2.50	2.57	2.50	2.25
21.	The teacher-coordinator should arrange for special job placement for the student with known limitations (i.e., handicapped, educably retarded, etc.)	3.30	3.25	3.50	3.60	3.29
22.	The teacher-coordinator should make a special effort to place "borderline" students (i.e., low grade-point average, poor appearance, low ability, limited skills, etc.) with a cooperative education training sponsor.	2.68	2.59	2.71	3.75	2.81
23.	The teacher-coordinator should permit the training sponsor to make the final selection of the student for a particular job and/or a particular firm.	3.34	3.34	3.43	3.60	3.23
24.	The teacher-coordinator should develop and use a written training agreement between the school and the training sponsor which lists specific responsibilities of the persons involved (i.e., student, parents, teacher-coordinator, training sponsor).	3.26	3.11	3.50	3.80	3.64
25.	The teacher-coordinator should give copies of the completed training agreement to all parties.	3.30	3.19	3.57	3.60	3.54
26.	The teacher-coordinator should develop a step-by-step training plan for each student in cooperation with the training sponsor and the student.	2.97	2.75	3.57	3.80	3.32
27.	The teacher-coordinator should relate a majority of the experiences outlined in the training plan to the student's career objective.	3.11	2.97	3.50	3.80	3.27
28.	The teacher-coordinator should list both general occupational training (i.e., human relations, work adjustment, etc.) and specific experiences (filing, answering the telephone, etc.) on the training plan.	3.12	3.06	3.36	3.60	3.14

Table 11. Continued

Statements	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
29. The teacher-coordinator should secure a new training station for a student who could receive more worthwhile training at another station.	2.78	2.74	3.08	3.00	2.73
30. If necessary, the teacher-coordinator should remove a student from a training station (in consultation with the training sponsor) in instances of continual rule violation or inability to perform duties.	3.60	3.56	3.79	3.60	3.64
31. The teacher-coordinator should assure that adequate transportation is provided for each student.	2.30	2.20	2.50	2.40	2.59
32. The teacher-coordinator should assure that students receive wages equal to those normally paid a beginning worker with comparable experience and background.	3.11	3.12	3.21	3.20	2.95
33. The teacher-coordinator should help place students (other than cooperative office education students) in part-time jobs as a general service to the school.	2.46	2.53	2.62	2.60	2.05
<u>Development of On-the-Job Instructors' Training Ability</u>					
34. The teacher-coordinator should ensure that training sponsors and other involved employees are familiar with the objectives of the cooperative office education program.	3.67	3.60	3.86	4.00	3.73
35. The teacher-coordinator should involve the training sponsors in developing the training plan for the student.	3.35	3.27	3.64	3.80	3.36
36. The teacher-coordinator should suggest to the training sponsor possible training experiences for the student if needed.	3.32	3.21	3.57	4.00	3.46
37. The teacher-coordinator should assist the training sponsor to cope with the inexperience and possible immaturity of the students.	3.36	3.32	3.43	4.00	3.36
38. The teacher-coordinator should conduct training sponsor development sessions to improve the quality of training given to the students on the job.	2.61	2.40	3.14	3.40	2.96

Table 11. Continued

Statements	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
39. The teacher-coordinator should provide each training sponsor with needed information concerning the content being covered in related instruction in school.	3.22	3.07	3.50	4.00	3.46
40. The teacher-coordinator should provide training sponsors with recognition of their accomplishments and contributions to the cooperative office education program.	3.58	3.53	3.71	3.60	3.68
41. The teacher-coordinator should encourage the training sponsor to telephone or otherwise contact the teacher-coordinator when problems arise.	3.88	3.89	3.86	4.00	3.82
<u>Supervision of On-the-Job Instruction</u>					
42. The teacher-coordinator should schedule a <u>minimum</u> of one regular coordination visit for each student during the month.	3.12	2.93	3.57	3.40	3.50
43. The teacher-coordinator should prepare a coordination schedule to identify which students are to be visited on each day of the month.	2.93	2.78	3.29	3.60	3.14
44. The teacher-coordinator should provide appropriate school administrators with copies of a tentative coordination schedule.	2.83	2.56	3.43	3.80	3.32
45. The teacher-coordinator should gather information on students' progress through reports, observations, conferences, and informal conversations.	3.60	3.52	3.71	3.80	3.79
46. The teacher-coordinator should use information obtained from coordination visits to plan future activities for the student in school or on the job, adapting or changing the training plan if appropriate.	3.56	3.50	3.79	3.80	3.58
47. The teacher-coordinator should help students and training sponsors solve problems, if necessary.	3.58	3.58	3.64	3.60	3.54
48. The teacher-coordinator should plan follow-up activities to check expected progress and the resolution of any identified problems on the job.	3.55	3.51	3.79	3.60	3.55

Table 11. Continued

	Statements	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
49.	When the student is known to be having difficulties or when the student is new on the job, the teacher-coordinator should visit the training station a minimum of twice a month, more often if necessary.	3.17	3.10	3.43	3.20	3.29
50.	A major purpose of coordination should be to assure that the student is being given prescribed learning experiences on the job.	3.33	3.26	3.57	3.60	3.42
51.	A major purpose of coordination should be to assure that the student is performing satisfactorily on the job.	3.48	3.49	3.57	3.00	3.50
52.	The teacher-coordinator should be given adequate released time during the school day to conduct coordination activities.	3.87	3.88	3.86	4.00	3.77
53.	The teacher-coordinator should encourage other school personnel (i.e., school administrators, counselors, other business teachers, etc.) to occasionally accompany the teacher-coordinator on coordination visits.	3.09	3.02	3.21	3.20	3.27
54.	The teacher-coordinator should make an appointment with training sponsors prior to a planned meeting with them.	3.32	3.29	3.36	3.80	3.27
55.	The primary responsibility of the training sponsor should be to provide a variety of activities and experiences related to the occupation.	3.37	3.29	3.50	3.80	3.55
56.	Upon request, the teacher-coordinator should help training sponsors with their business-related problems even though such problems do not specifically concern cooperative office education students.	2.70	2.73	2.71	2.60	2.59
57.	The student should have the opportunity to move from one job activity to another in order to gain various work experience.	3.23	3.16	3.36	3.40	3.43
58.	The teacher-coordinator should permit students to meet the minimum requirements of hours of occupational experience by working Saturdays and during school holiday and vacation periods.	3.16	3.21	3.29	3.20	2.86

Table 11. Continued

Statements	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
59. The teacher-coordinator should have approximately one-half hour of coordination time per week for each student enrolled in the program (or for each student for whom the teacher-coordinator is responsible).	3.09	3.17	2.71	2.60	3.14
60. The teacher-coordinator should make provisions for students to be released from school in order to work during the absence of other employees or when the workload is especially heavy at the training station.	2.19	2.36	2.07	1.40	1.73
61. The teacher-coordinator should require a daily work record from the students each week describing hours worked, activities performed, problems encountered, etc.	2.96	2.84	3.08	3.40	3.32
62. The number of hours worked by students each week should normally range from a minimum of 15 hours to a maximum of 25 hours, excluding Saturdays.	3.14	3.15	3.07	3.40	3.09
63. The teacher-coordinator should make the first official coordination call within two weeks after the student reports to work.	3.17	3.09	3.50	3.40	3.27
64. The teacher-coordinator should provide feedback to and discuss progress with the student on whom a coordination call was made.	3.65	3.65	3.64	3.80	3.63
65. If any follow-up of the coordination call with the training sponsor is necessary, the teacher-coordinator should do it promptly.	3.65	3.65	3.71	3.80	3.59
66. The teacher-coordinator should assure that students enrolled in the cooperative office education program receive a minimum of 15 hours of on-the-job training per week and a maximum of 40 hours when school and work are combined.	3.18	3.15	3.43	3.00	3.19
67. The teacher-coordinator should provide an opportunity for students to formally evaluate the quality of the training provided at the training station.	3.21	3.19	3.21	3.20	3.27
68. The teacher-coordinator should have a specific purpose in mind when making each coordination visit (i.e., observing student's telephone techniques).	2.95	2.82	3.29	3.60	3.14

Table 11. Continued

Statements	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
69. The teacher-coordinator should maintain records of each coordination call (i.e., purpose, action, evaluation) which will serve as a review before making another call.	3.34	3.22	3.64	3.80	3.55
<u>Evaluation of Students on the Job</u>					
70. The teacher-coordinator should develop procedures which provide for the continuous evaluation of students on the job.	3.42	3.34	3.57	3.40	3.63
71. The teacher-coordinator should use the training plan as a basis for evaluating the student on the job to determine the degree to which the student is performing specific activities.	3.15	2.99	3.50	3.60	3.46
72. The teacher-coordinator should use evaluation forms in conjunction with the training plan.	3.23	3.17	3.29	3.20	3.44
73. The teacher-coordinator should inform students and training sponsors of the evaluative criteria.	3.50	3.44	3.57	3.60	3.67
74. The teacher-coordinator should observe student activity during coordination visits.	3.22	3.17	3.29	3.20	3.38
75. The teacher-coordinator should discuss the completed evaluations with the training sponsor.	3.29	3.23	3.43	3.60	3.41
76. The teacher-coordinator should briefly discuss student progress and experiences with the student during coordination visits.	2.37	2.28	2.21	2.80	2.81
77. The teacher-coordinator should encourage the training sponsor to discuss the completed evaluations with the student.	3.18	3.20	3.29	2.60	3.14
78. The teacher-coordinator should review the completed evaluations with the student.	3.50	3.47	3.58	3.80	3.46
79. The teacher-coordinator should meet with the training sponsor and/or student to decide upon the actions to be taken to improve student progress or modify the training plan.	3.42	3.37	3.50	3.80	3.50

Table 11. Continued

Statements	Total Group	Teacher- Coordinator	Local Supervisor	State Supervisor	Teacher Educator
80. The teacher-coordinator should request a formal evaluation at least once each grading period.	3.37	3.33	3.43	3.40	3.50
81. The teacher-coordinator should give separate grades for the on-the-job training and the related classroom instruction.	2.64	2.64	2.43	1.40	3.09
82. The teacher-coordinator should permit the training sponsor to assign the grade for the on-the-job training.	2.08	2.11	2.07	1.60	2.05

The item which received the lowest mean score of all 82 items was Item 9. Each personnel group indicated disagreement with this statement; a teacher educator provided a written explanation which was typical of many of the responses: "There may be unusual circumstances when this might be justified. However, business should be a partner in educating future workers. They have expenses when employing any new workers."

Placement of Students on the Job. Strong agreement was indicated with Items 12, 18, 19, and 20; agreement with Items 13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 32; and disagreement with Items 20, 31, and 33. All four personnel groups indicated strong agreement with Items 19 and 30 with a mean of 3.50 or above. Three of the personnel groups (local supervisors, state supervisors, and teacher educators) indicated strong agreement with Items 12, 24, and 25; the teacher-coordinators averaged less than 3.50 on these items. Items 24 and 25, which concerned the use of training agreements, encouraged several written comments. One local supervisor commented that the city attorney had ruled training agreements with employers were not valid; training plans were used with employers and consent forms with students and parents.

Item 13 received strong agreement from teacher-coordinators and state supervisors and less agreement from local supervisors and teacher educators; one respondent explained:

The coordinator is, first of all, a teacher. His/her primary concern should be to the student. Consideration of the needs of the employer are important, but the needs of the student should be considered first.

Items 21 and 22 focused on the placement of students with special needs. Local and state supervisors indicated strong agreement, and teacher-coordinators and teacher educators indicated agreement. However, Item 22 received a lower rating by teacher-coordinators, local supervisors, and teacher educators while the state supervisors indicated strong agreement. Many teacher-coordinators included written comments which stressed the need to inform training sponsors of the special needs of the student if this belief were operationalized.

Teacher-coordinators differed in their beliefs with the other personnel groups concerning the use of training plans; the means for the teacher-coordinators on Items 26 and 27 were 2.75 and 2.97, respectively. Local supervisors and state supervisors indicated strong agreement with these items (3.50 and above), and teacher educators averaged 3.32 and 3.27 on the same two items.

Disagreement was indicated by the respondents on Item 20 with the following provision:

The coordinator should attempt to convince the employer that minimum wage is fair. If this is unsuccessful, the coordinator should agree to lower wages only if the training potential is greater than in some other business.

Item 33 was less than 2.50 (2.46) and also represented an item on which the total group indicated disagreement. However, several teacher-coordinators clarified their positive response to this item by indicating that this activity would be performed after the cooperative education students were placed and/or if some job became available which could not be used for the placement of program students.

Development of On-the-Job Instructors' Training Ability. The respondents strongly agreed with Items 34, 40, and 41 and agreed with Items 35, 36, 37, 38, and 39. Item 41 received the highest average for the 82 items on the questionnaire with a mean of 3.88. In addition, this item received the highest mean from teacher-coordinators and from local supervisors; each of the five state supervisors rated this item "Strongly Agree" which gave it a mean of 4.00 for this group.

Items 34 and 40 also had means of 3.50 or above for each of the four personnel groups; the state supervisors again indicated strong agreement with Item 34 with a mean of 4.00. Local supervisors and state supervisors indicated strong agreement with Items 35, 36, and 39, with an average of 4.00 for state supervisors on Items 36 and 39. Teacher educators and teacher-coordinators were less than 3.50 on these items and therefore in the "Agree" range. Teacher-coordinators indicated disagreement with Item 38 while the other personnel groups indicated agreement; the total mean for this item was above 2.50 but had the lowest mean of all 82 items between 2.50-3.49.

Supervision of On-the-Job Instruction. Concerning the supervision of on-the-job instruction, strong agreement was indicated with Items 45, 46, 47, 48, 52, 64, and 65; agreement with Items 42, 43, 44, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 67, 68, and 69; and disagreement with Item 60. On those seven items on which strong agreement was identified for the total respondent group, each of the four personnel groups also had means of 3.50 or above.

Local supervisors and teacher educators indicated strong agreement with Item 42; the mean for teacher-coordinators was less than 3.00. Several teacher-coordinators made comments indicating that one visit a month was too frequent; the most frequently mentioned period was one visit every six weeks. Local supervisors, state supervisors, and teacher educators indicated agreement with Items 43 and 44 with state supervisors indicating strong agreement. Although they agreed with these items, teacher-coordinators expressed less support for scheduled coordination visits and for sharing copies of their coordination schedule with school administrators.

Items 50 and 51 were similar in their content, each identifying a major purpose of coordination. Local and state supervisors indicated strong agreement with Item 50, and local supervisors and teacher educators indicated strong agreement with Item 51. The teacher-coordinators had a higher mean for Item 51 than for Item 50. In addition, Item 51 was the highest ranked item for those items between 2.50-3.49.

Teacher-coordinators, local supervisors, and state supervisors gave similar responses to Item 58 (3.21, 3.29, and 3.20, respectively). However, teacher educators indicated a mean of 2.86; one teacher educator commented concerning a lower rating, "Cooperative education is part of the school learning. If possible, it should conform to normal school schedules."

Teacher-coordinators gave the highest mean of the four personnel groups on Item 59. Local and state supervisors indicated less

agreement with this item (2.71 and 2.60, respectively). A comment which was common from many of the teacher-coordinators included, "It (one-half hour of coordination time per week for each student) is necessary but it doesn't happen."

All personnel groups disagreed with Item 60; state supervisors expressed strong disagreement with this statement (1.40). One respondent commented:

The training sponsor should be taught to view students as student-learners rather than student-workers. Occasionally, this practice may be acceptable but shouldn't be a general practice.

Strong agreement was expressed by the local supervisors, state supervisors, and teacher educators concerning Item 69 (3.64, 3.80, and 3.55, respectively). Teacher-coordinators agreed but with a mean considerably less than the other three groups (3.22).

Evaluation of Students on the Job. The last section of the questionnaire had two items on which there was strong agreement including 73 and 78; nine items on which there was agreement including 70, 71, 72, 74, 75, 77, 79, 80, and 81; and two items on which there was disagreement including 76 and 82. Local supervisors, state supervisors, and teacher educators averaged 3.50 or above on Items 73 and 78; however, the teacher-coordinators averaged less (3.44 and 3.47, respectively). Item 71 received strong agreement from local and state supervisors; the lower mean for teacher-coordinators paralleled similar responses concerning the use of the training plan discussed earlier.

Support was given to Item 77 by teacher-coordinators, local supervisors, and teacher educators (3.20, 3.29, and 3.14). However, the state supervisors expressed less agreement with this item with a mean of 2.60. Strong agreement was indicated by local supervisors, state supervisors, and teacher educators with Item 79; the teacher-coordinators indicated agreement with a mean of 3.37.

State supervisors and teacher educators would permit the practice stated in Item 76 as indicated by their means (2.80 and 2.81). However, teacher-coordinators and local supervisors indicated disagreement with means less than 2.50. Many teacher-coordinators felt discussing completed evaluations with the student while on coordination visits would be disruptive and should occur the following day in school.

Teacher educators indicated the most support for Item 81 with a mean of 3.09; teacher-coordinators showed a degree of agreement but indicated a mean of 2.64. Local supervisors disagreed with the item (2.43), and state supervisors strongly disagreed with the item (1.40).

All personnel groups disagreed with Item 82; most respondents indicated that the grade should be determined cooperatively among those involved (coordinator, sponsor, and/or student) or that the sponsor should determine a qualitative rating (excellent, good, fair, poor).

Summary. Thus, the business and office education personnel identified 22 items in five categories in which there was strong agreement; 53 items on which there was agreement; and 7 items on which there was disagreement. An analysis of beliefs for each of the four personnel groups regarding the coordination of cooperative education

indicated: (1) Teacher-coordinators expressed strong agreement with 17 items, agreement with 59 items, and disagreement with 6 of the items; (2) Local supervisors expressed strong agreement with 40 of the items, agreement with 37 of the items, and disagreement with 5 of the items; (3) State supervisors expressed strong agreement with 46 of the items, agreement with 31 of the items, disagreement with 3 of the items, and strong disagreement with 2 of the items; and (4) Teacher educators expressed strong agreement with 31 of the items, agreement with 46 of the items, and disagreement with 5 of the items.

Factor Analysis

The Statistical Package for the Social Sciences subprogram for factor analysis was used in conducting this procedure. Factor analysis was conducted (1) to verify the categories used on the questionnaire and (2) to provide a method of data reduction for testing the research hypotheses. The analyses with both orthogonal and oblique rotations were performed on the 82 items included in Part II of the questionnaire. Factor scores based upon the factors identified were determined by summing the scores for each of the questionnaire items which loaded on a specific factor.

The first analysis was conducted without limiting the number of factors generated; this assisted in determining the number of factors to retain. This analysis illustrated that the questionnaire tended to be unidimensional and provided construct validity since the loadings on the first factor, or principal component, were high. The first factor had an eigenvalue of 18.6 and accounted for 22.7 percent of the total

variance; the second factor had an eigenvalue of 4.09, accounting for only an additional 5.0 percent of the total variance. The eigenvalues for succeeding factors decreased consecutively and correspondingly the percent of the attributable variance (See Appendix G). Subsequently, rotated loadings on a smaller number of factors (six, five, four, and three) were studied.

As a result of these analyses, the analysis with five orthogonally rotated factors was used to identify subscales and to explain the interrelationship of questionnaire items. In this analysis, the unidimensional nature of the instrument was again evident by the loadings on the first factor of the initial-factor matrix (See Appendix G for initial-factor matrix). When the matrix was rotated, the loadings of each item for the five factors were studied (See Appendix H). The five factors described were named at that time by the researcher. The original category, "Supervision of On-the-Job Instruction," and many of the items from this category had high loadings on Factor I. Therefore, this factor retained the same name as the original category. Those items in the questionnaire that pertained to training plans, training agreements, and the identification and evaluation of learning experiences had high loadings on Factor II. Therefore, this factor became "Use of Training Plans and Training Agreements; Identification and Evaluation of Learning Experiences." The first two categories in the questionnaire, "Selection of Training Stations" and "Placement of Students on the Job," were closely associated with Factor III. Therefore, these two categories were combined into

one factor and called, "Selection of Training Stations and Placement of Students on the Job." Factors IV and V were comprised of items from throughout the five questionnaire categories and had fewer items associated with them since they were narrower in scope. An analysis of the related items resulted in naming Factor IV, "Planning for Effective Coordination; Time Structures," and Factor V, "Coordination-Related Services and Tasks; Recordkeeping."

The empirical identification of these factors demonstrated that the rational identification of categories originally used by Cotrell in 1971 and again on this questionnaire could be partially verified. Through the factor analysis procedure, the original categories were either separate factors ("Supervision of On-the-Job Instruction") or were combined into one of the five factors ("Evaluation of Students on the Job" in Factor II and "Selection of Training Stations" and "Placement of Students on the Job" in Factor III). Only one category on the questionnaire, "Development of On-the-Job Instructors' Training Ability," was not specifically identified through the factor analysis procedure. In addition, Factors II, IV, and V represented categories which had not been included specifically on the survey instrument.

As a result of the factor analysis, there were 24 items associated with Factor I, 15 items with Factor II, 18 items with Factor III, 7 items with Factor IV, and 9 items with Factor V--a total of 73 items. Nine other items were not associated with any of the factors if they had one of the following characteristics: (1) The item was

factorially complex; (2) The item had loadings on one of the factors that was not logically consistent with the other items assigned to that factor; or (3) The item did not relate to any of the five factors. These items were analyzed individually when testing the research hypotheses (See Appendix H for orthogonally rotated factor matrix).

Testing the Research Hypotheses

Five research hypotheses were tested in the analysis of the data. Multivariate analysis of variance (MANOVA) was utilized to test two of the hypotheses, and Pearson product moment correlation coefficients were computed to test three of the hypotheses. χ^2 tests were also used on those nine items on the questionnaire which were not associated with any of the five factors.

Since most of the questionnaire categories were represented in the identified factors and additional categories were identified, the factor scores were used to test the research hypotheses. Factor scores were determined by summing across the items assigned to a factor and computing a mean score for each personnel group.

$$1. H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1 : \mu_i \neq \mu_j, \text{ for at least some } i, j$$

where μ_1 is the mean score for teacher-coordinators for one factor regarding the coordination of cooperative education, μ_2 is the mean score for local supervisors for the same factor regarding the

coordination of cooperative education, μ_3 is the mean score for state supervisors for the same factor regarding the coordination of cooperative education, and μ_4 is the mean score for teacher educators for the same factor regarding the coordination of cooperative education.

Multivariate analysis of variance utilizing the Statistical Analysis System (SAS) subprogram was performed on the linear combination of mean scores on each of the five factors for teacher-coordinators, local supervisors, state supervisors, and teacher educators. When a significant difference existed among these groups on the linear combination of factor scores, simultaneous confidence intervals were calculated to determine which groups differed on which factors. χ^2 tests were then used to determine which items contributed to the difference among the identified groups.

As a result of the MANOVA, it was found that there was a significant difference with Wilks' λ computed at .757169. (The critical value for λ was .823573). Since the observed criterion was less than the critical value for λ , a significant difference existed among at least two of the groups and on at least one factor. Thus, the null hypothesis was rejected. (Factor mean scores are indicated in Table 12).

The confidence intervals for teacher-coordinators and teacher educators were calculated and were compared with the actual means of the local supervisors and state supervisors. As a result, it was determined that at least two of the personnel groups differed on two of the factors, Factors II and IV.

TABLE 12

MEANS FOR BUSINESS AND OFFICE EDUCATION
PERSONNEL ON FACTORS I-V

Factors	Teacher- Coordinator	Local Supervisor	State Supervisor	Teacher Educator
I	80.00	83.64	83.60	76.42
II	46.73	52.57	54.80	48.29
III	58.16	61.71	62.60	56.63
IV	18.76	21.29	21.80	19.83
V	24.50	26.07	25.60	24.29

The following groups differed on Factor II: teacher-coordinators and local supervisors, teacher-coordinators and state supervisors, teacher educators and local supervisors, and teacher educators and state supervisors. The local supervisors and state supervisors had means of 52.57 and 54.80, respectively, on Factor II; the confidence interval for teacher-coordinators was 45.17-48.28 and for teacher educators was 45.24-52.33. Since the intervals for the teacher-coordinators and teacher educators did not contain the means for the local supervisors and the state supervisors, it was concluded that there was a significant difference between these groups on this factor. The confidence intervals for the teacher-coordinators and the teacher educators were not mutually exclusive; therefore, there was no significant difference between these groups. Thus, it may be concluded that teacher-coordinators and local supervisors, teacher-coordinators and state supervisors, teacher educators and local supervisors, and teacher educators and state supervisors differed significantly in their beliefs concerning the "Use of Training Plans and Training Agreements; Identification and Evaluation of Learning Experiences."

χ^2 tests of independence were computed for these groups for those items associated with Factor II: 24, 25, 26, 27, 28, 35, 39, 63, 70, 71, 72, 73, 75, 78, and 79. Significant values for χ^2 ($p < .05$) resulted on Items 24, 26, 27, and 39; therefore, there was a significant relationship between the personnel groups and their responses to these items. An observation of the contingency tables

indicated that the teacher-coordinators' and teacher educators' responses included more "Disagree" and "Strongly Disagree" tendencies. The local supervisors and state supervisors indicated only agreement or strong agreement on each of these items. This finding concurred with the earlier discussion which found teacher-coordinators and teacher educators, to some extent, less agreeable concerning the use of training plans and training agreements.

On Factor IV the following groups differed significantly: teacher-coordinators and local supervisors, teacher-coordinators and state supervisors, and teacher educators and state supervisors. The confidence interval for teacher-coordinators was 17.98-19.54, and the confidence interval for teacher educators was 18.31-21.36. The means for the local supervisors and state supervisors was 21.29 and 21.80, respectively, which resulted in the differences identified above. Since the interval for the teacher-coordinators contained mutually exclusive values for the local supervisors and the state supervisors, the significant difference between these groups on this factor can be explained. Further, the interval for the teacher educators contained mutually exclusive values for the state supervisors and explained the significant difference between these groups. Therefore, it can be concluded that teacher-coordinators and local supervisors, teacher-coordinators and state supervisors, and teacher educators and state supervisors differed significantly in their beliefs concerning "Planning for Effective Coordination; Time Structures."

χ^2 tests of independence were conducted for these personnel groups on those items associated with Factor IV: 9, 42, 43, 44, 49, 57, and 62. Significant values for χ^2 ($p < .05$) resulted for Items 42 and 44; therefore, there was a relationship between the personnel groups and their responses to these items. An observation of the contingency tables indicated that the difference between teacher-coordinators and local supervisors and between teacher-coordinators and state supervisors was apparent on each item. It was particularly evident on Item 44 that all local and state supervisors indicated agreement or strong agreement while 50 percent of the teacher-coordinators indicated disagreement or strong disagreement with this item. Teacher-coordinators had a higher percentage of "Disagree" or "Strongly Disagree" on the other two items on which significance was reported. Teacher educators differed significantly with state supervisors on Item 44 as well. This personnel group also indicated less agreement towards this particular item. This finding concurred with the earlier discussion which found teacher-coordinators and teacher educators indicating less favorable responses concerning the planning and specific time structures included in these items.

χ^2 tests were also conducted on nine items which were not associated with the five factors including Items 8, 13, 50, 58, 60, 66, 68, 76, and 80. Significant χ^2 ($p < .05$) were indicated on Items 8, 58, 60, and 68. On 8, 58, and 60 the teacher-coordinators tended to indicate a higher percentage of agreement or strong agreement while the other personnel groups tended to disagree with

these items. On Item 68 the strong agreement responses tended to be associated with the local and state supervisors while the teacher-coordinators' and teacher educators' responses were associated with less support for this practice.

$$2. H_0 : \rho_{cy} = 0$$

$$H_1 : \rho_{cy} \neq 0$$

where ρ_{cy} represents the population correlation coefficient between variable c (years of coordination experience) and variable y (factor mean score regarding the coordination of cooperative education). Pearson product moment correlation coefficients were used to test this hypothesis which was concerned with the relationship of respondents' coordination experience with responses given on the five factors. There were no significant correlations ($p > .05$); thus, the null hypothesis was not rejected (See Table 12).

$$3. H_0 : \rho_{ey} = 0$$

$$H_1 : \rho_{ey} \neq 0$$

where ρ_{ey} represents the population correlation coefficient between variable e (years of related office experience) and variable y (factor mean score regarding the coordination of cooperative education). The relationship of years of full-time office-related experience to each of the five factors was also non-significant ($p > .05$). Thus, the null hypotheses was not rejected (See Table 13).

$$4. H_0 : \rho_{wy} = 0$$

$$H_1 : \rho_{wy} \neq 0$$

where ρ_{wy} represents the population correlation coefficient between

TABLE 13

CORRELATION COEFFICIENTS AND PROBABILITY FOR YEARS OF COORDINATION EXPERIENCE, YEARS OF EQUIVALENT FULL-TIME OFFICE-RELATED EXPERIENCE, AND COURSE BACKGROUND WITH FACTORS I-V

Factors	Coordination Experience	Office-Related Experience	Course Background
I	.08166 (.346)	.01532 (.860)	.09591 (.272)
II	-.07130 (.411)	.08919 (.304)	.07664 (.381)
III	.03669 (.673)	.07438 (.391)	.10105 (.247)
IV	-.10025 (.247)	.04474 (.606)	.19868 * (.022)
V	-.08792 (.311)	-.02549 (.769)	.08340 (.340)

* Significant ($p < .05$)

variable w (previous course work in cooperative education) and variable y (factor mean score regarding the coordination of cooperative education). Those individuals who had not had a course primarily designed to prepare cooperative education teacher-coordinators were coded with a "1." Those who had a course of this type were coded with a "2." As shown in Table 12, there was a significant correlation on Factor IV; the correlation was identified as .19868 and was significant at $p < .05$. Thus, the null hypothesis was rejected; and it was concluded that those individuals who had a previous course also demonstrated stronger agreement with the items related to Factor IV, "Planning for Effective Coordination; Time Structures."

$$5. H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1 : \mu_i \neq \mu_j, \text{ for at least some } i, j$$

where μ_1 is the mean score for teacher-coordinators whose school is located in an urban location for one factor regarding the coordination of cooperative education, μ_2 is the mean score for teacher-coordinators whose school is located in a suburban location for the same factor regarding the coordination of cooperative education, μ_3 is the mean score for teacher-coordinators whose school is located in a middle-sized community for the same factor regarding the coordination of cooperative education, and μ_4 is the mean score for teacher-coordinators whose school is located in a small or rural community for the same factor regarding the coordination of cooperative education. MANOVA was also performed on the linear combination of mean scores for the

five factors for teacher-coordinators in the four school locations. This analysis resulted with a nonsignificant λ (.741425). (This value was greater than the critical value for λ , .705140). Therefore, there were no significant differences between the means on the five factors when comparing teacher-coordinators in each of the four school location areas; and the null hypothesis was not rejected. Since the beliefs expressed by teacher-coordinators in the four locations were similar, confidence intervals or χ^2 were not conducted on those items associated with the five factors (See Table 14).

χ^2 tests were conducted on the nine items which were not associated with one of the five factors. Two of the items were significant ($p < .05$) including Items 60 and 76. The means for teacher-coordinators on each item were less than 2.50. Suburban and urban teacher-coordinators indicated stronger disagreement about releasing students from school to work during the absence of other employees or when the workload is especially heavy at the training station and discussing student progress and experiences with the student during coordination visits.

MEANS FOR TEACHER-COORDINATORS IN
FOUR LOCATIONS ON FACTORS I-V

Factors	Rural or Smaller	Middle-Sized	Suburban	Urban
I	78.62	80.50	80.96	80.18
II	46.00	50.00	46.18	46.32
III	57.54	60.19	57.07	58.50
IV	19.08	18.56	18.93	18.71
V	24.62	24.31	25.30	24.09

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is initiated with a summation of the study, including the background of the problem, statement of the problem, research procedures, and analysis of the data. Second, the findings of the study are reported. Third, conclusions for the study are presented based upon the findings. Finally, recommendations for utilizing the study and for developing further research are discussed.

SUMMARY

A delivery system common to many vocational education programs is the use of cooperative education. In the cooperative education approach, meaningful on-the-job experiences are combined and integrated with formal education to provide vocational training.

Among those programs which utilize cooperative education is business and office education. In cooperative office education, the classroom instruction is supplemented with on-the-job training in an office. This on-the-job training must be jointly planned and supervised by the school (teacher-coordinator) and an office employer (training sponsor). The teacher-coordinator is responsible for working with the training sponsors to insure that the students develop office-related competencies. Therefore, the processes and procedures of coordinating a cooperative education program are extremely important.

Many guidelines, handbooks, and textbooks have been prepared which delineate suggested coordination procedures. From these suggested procedures and their experiences as practitioners in the coordination of cooperative education, business and office education personnel develop a philosophy--or set of basic beliefs--which serves as the basis for program organization, interpretation, and evaluation.

Statement of the Problem

The central problem of this study was to identify and compare the basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs. A secondary problem was to determine if there was a relationship between specific biographical variables (years of coordination experience, years of employment experience, and previous course work in cooperative education) and the basic beliefs expressed by the business and office education personnel and if there was a relationship between school location (urban, suburban, middle-sized, rural or smaller community) and the basic beliefs expressed by the teacher-coordinators in the study.

Specifically, the study sought to attain the following objectives:

1. The determination of basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs.

2. The comparison of basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs.

3. The determination of the relationship between years of coordination experience and basic beliefs of business and office education personnel regarding the coordination of cooperative office education.

4. The determination of the relationship between years of related office experience and basic beliefs of business and office education personnel regarding the coordination of cooperative office education.

5. The determination of the relationship between previous course work in cooperative education and basic beliefs of business and office education personnel regarding the coordination of cooperative office education.

6. The determination of the relationship between school location (urban, suburban, middle-sized, rural or smaller community) and the basic beliefs of the teacher-coordinators in the study.

Research Procedures

Participants in this study consisted of teacher-coordinators, local supervisors, state supervisors, and teachers educators of business and office education in Virginia. A total of 113 teacher-coordinators were randomly selected from 194 teacher-coordinators in Virginia and asked to participate in the study. The total population of local

supervisors (14), state supervisors (five), and teacher educators (56) were potential respondents for this study. Only those teacher educators of the 56 who were primarily involved in business teacher education activities were utilized in the analysis of the data.

A questionnaire was considered an appropriate method to collect the data for purposes of this study. After a review of the literature, it was determined that an instrument was not available which would identify the basic beliefs of business and office education personnel in Virginia regarding the coordination of cooperative education. Thus, it was necessary to develop an instrument for purposes of the study. The review did provide information which was useful in the development of potential basic belief statements. A systematic procedure was used to record statements, analyze and group them, and finally list them in a questionnaire format. Eighty potential basic beliefs were organized into the following categories: Selection of Training Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, and Evaluation of Students on the Job. These categories conformed to the categories identified by Cotrell (1971) in the classification of coordination competencies.

These original statements were evaluated by a jury of experts consisting of two teacher-coordinators, two local supervisors, two state supervisors, and two teacher educators of business and office education. Each individual was asked to analyze the statements using five criteria for attitude statements identified by Edwards (1957).

As a result of the responses from the panel, twenty items were modified, seven were added, and three were deleted.

The items were incorporated into an instrument which would be utilized by the study sample and which consisted of two parts. In Part I, biographical information was requested from each respondent. Part II consisted of potential basic belief statements to which respondents indicated their degree of agreement by encircling Strongly Agree, Agree, Disagree, or Strongly Disagree. These responses were defined as follows:

STRONGLY AGREE: You STRONGLY AGREE with the statement. The procedure or guideline implied in the statement must be followed to assure the successful operation of a cooperative office education program.

AGREE: You AGREE with the statement. The procedure or guideline implied in the statement would be nice to follow when given adequate time, money, or resources; the successful program could operate without the application of this procedure/guideline but would benefit by its application.

DISAGREE: You DISAGREE with the statement. The procedure or guideline implied in the statement would not contribute nor is it important to the successful operation of a cooperative office education program.

STRONGLY DISAGREE: You STRONGLY DISAGREE with the statement. The procedure or guideline implied in the statement would be detrimental to the successful operation of a cooperative office education program.

To assure the successful administration of the instrument, a pilot test was conducted by submitting the revised questionnaire to a jury of five teacher-coordinators. As a result of the pilot test, it was determined that the directions and definitions were clear. In addition, five of the statements were revised to provide clarity,

and two of the statements which were not considered relevant to the study were deleted. Therefore, the instrument which was utilized for purposes of this study included 82 items.

The instrument, a cover letter, and a return-addressed, stamped envelope were mailed to the potential respondents. A follow-up letter and another questionnaire were sent after two weeks to the non-respondents. The return at the conclusion of the data collection phase included 81.4 percent of the teacher-coordinators, 100 percent of the local and state supervisors, and 91.9 percent of the teacher educators. Twenty-four, or 42.9 percent, of the teacher educators indicated they were primarily concerned with the professional preparation of business education teachers as evidenced by (1) teaching methods courses and/or (2) supervision of student teachers. Thus, responses on 135 instruments from 92 teacher-coordinators, 14 local supervisors, five state supervisors, and 24 teacher educators were utilized in the analysis of the data.

Analysis of the Data

The analysis of the data consisted of four major areas. First, descriptive biographical data describing the respondents were provided. Data were received from each of the four personnel groups: teacher-coordinators, local supervisors, state supervisors, and teacher educators.

Second, the basic beliefs of the business and office education personnel in Virginia were identified and compared in the five categories included on the questionnaire: Selection of Training

Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, and Evaluation of Students on the Job. The means for each item for the total group and for each personnel group were reported. Means were computed by assigning the numerical value of four to responses in the "Strongly Agree" column, a three to those in the "Agree" column, a two to those in the "Disagree" column, and a one to those in the "Strongly Disagree" column.

To determine the basic beliefs of business and office education personnel in Virginia regarding the coordination of cooperative education, the following scale was utilized: (1) Items on which the mean was 3.50 and above represented items on which there was strong agreement; and, thus, the procedure or guideline implied in the statement must be followed to assure the successful operation of a cooperative office education program; (2) Items on which the mean was 2.50-3.49 represented items on which there was agreement; and, thus, the procedure or guideline implied in the statement would be nice to follow when given adequate time, money, or resources. The successful program could operate without the application of this procedure/guideline but would benefit by its application; (3) Items on which the mean was 1.50-2.49 indicated the respondents disagreed with the item; the procedure or guideline implied in the statement would not contribute nor is it important to the successful operation of a cooperative office education program; (4) Items on which the mean was less than 1.49 indicated the respondents strongly disagreed with the item; the

procedure or guideline implied in the statement would be detrimental to the successful operation of a cooperative office education program.

Third, a factor analysis was conducted to verify the categories used on the questionnaire and to provide a method of data reduction. Several common factor analyses were conducted with orthogonal and oblique rotations and with factors limited to six, five, four, and three for each of these rotational alternatives. Factor scores based upon the factors identified were determined by summing the scores for each of the questionnaire items which loaded on a specific factor.

Finally, statistical tests of the research hypotheses were conducted. The following research hypotheses were formulated and tested in this study:

$$1. H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1 : \mu_i \neq \mu_j, \text{ for at least some } i, j$$

where μ_1 is the mean score for teacher-coordinators for one factor regarding the coordination of cooperative education, μ_2 is the mean score for local supervisors for the same factor regarding the coordination of cooperative education, μ_3 is the mean score for state supervisors for the same factor regarding the coordination of cooperative education, and μ_4 is the mean score for teacher educators for the same factor regarding the coordination of cooperative education.

The following research hypotheses were formulated and tested congruent with the secondary problem of the study:

$$2. H_0 : \rho_{cy} = 0$$

$$H_1 : \rho_{cy} \neq 0$$

where ρ_{cy} represents the population correlation coefficient between variable c (years of coordination experience) and variable y (factor mean score regarding the coordination of cooperative education).

$$3. H_0 : \rho_{ey} = 0$$

$$H_1 : \rho_{ey} \neq 0$$

where ρ_{ey} represents the population correlation coefficient between variable e (years of related office experience) and variable y (factor mean score regarding the coordination of cooperative education).

$$4. H_0 : \rho_{wy} = 0$$

$$H_1 : \rho_{wy} \neq 0$$

where ρ_{wy} represents the population correlation coefficient between variable w (previous course work in cooperative education) and variable y (factor mean score regarding the coordination of cooperative education).

$$5. H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_1 : \mu_i \neq \mu_j, \text{ for at least some } i, j$$

where μ_1 is the mean score for teacher-coordinators whose school is located in an urban location for one factor regarding the coordination of cooperative education, μ_2 is the mean score for teacher-coordinators whose school is located in a suburban location for the same factor regarding the coordination of cooperative education, μ_3 is the mean score for teacher-coordinators whose school is located in a middle-sized community for the same factor regarding the coordination of cooperative education, μ_4 is the mean score for teacher-coordinators whose school is located in a small or rural community for the same

factor regarding the coordination of high school cooperative office education.

Multivariate Analysis of Variance (MANOVA) was utilized to compare the personnel groups (teacher-coordinator, local supervisor, state supervisor, and teacher educator) on each of the factors identified through the factor analysis procedure. Confidence intervals were computed to determine which groups differed significantly and on which factors; χ^2 tests were computed to determine on which items the differences occurred.

Bivariate correlation coefficients were computed to determine if significant relationships existed between the biographical variables (years of coordination experience, years of office-related experience, and previous course work in cooperative education) and the factors which were identified.

MANOVA was also used to test the differences between the combination of means for teacher-coordinators in each of the four school location areas (urban, suburban, middle-sized, and small or rural community) on the identified factors. Confidence intervals and χ^2 were applied when appropriate.

FINDINGS

The findings of the study are presented in four sections: Description of Respondent Characteristics, Identification and Comparison of Basic Beliefs, Categorization of Basic Beliefs, and Relationship of Biographical Variables to Basic Beliefs.

Description of Respondent Characteristics

A profile of the respondents indicated that:

1. Of the 135 respondents, 104 (77 percent) were female and 31 (23 percent) were male. Over 90 percent of the teacher-coordinators were female, and the state supervisor and teacher educator groups were primarily male (59 percent).

2. Teacher-coordinators averaged 13.5 years of total teaching experience, local supervisors averaged 8.2 years of local supervision, state supervisors averaged 7 years of state supervision, and teacher educators averaged approximately 16 years of business teacher education experience.

3. Approximately 20 percent of the respondents indicated they had no previous experience in coordinating a cooperative office education program. Approximately 60 percent of the teacher-coordinators indicated from one to six years of experience as a teacher-coordinator.

4. Only six of the 135 respondents had no office-related experience. Eighty percent of the respondents ranged from one to six years of office-related experience.

5. All persons earned at least a baccalaureate degree. Approximately 65 percent have a graduate degree, including 16.3 percent with an earned doctorate.

6. Only 54 persons (40 percent) of the respondents indicated prior enrollment in a course designed primarily to train cooperative education teacher-coordinators.

7. Approximately two-thirds of the teacher-coordinators indicated their school location was urban or suburban; the other respondents indicated they were located in a middle-sized or rural or smaller community.

8. Eighty percent of the teacher-coordinators supervised the on-the-job training of 20 students or less with an average of 16 students for each teacher-coordinator participating in the study.

9. A majority of the teacher-coordinators indicated they used training agreements (70.7 percent), training plans (90.2 percent), and advisory committees (63 percent).

Identification and Comparison of Basic Beliefs

An analysis of the responses of the business and office education personnel resulted in 22 items with which there was strong agreement, 53 items with which there was agreement, and 7 items with which there was disagreement. There were no items which were classified in the "Strongly Disagree" category. Therefore, the findings were reflected in each of the five categories as follows:

1. Concerning the "Selection of Training Stations" the respondents indicated strong agreement with six items (4, 5, 6, 7, 10, and 11), agreement with four items (1, 2, 3, and 8), and disagreement with one item (9). The responses for each of the four personnel groups in this category were as follows:

a. Teacher-coordinators indicated strong agreement with four items (4, 5, 7, and 11), agreement with six items (1, 2, 3, 6, 8, and 10), and disagreement with one item (9).

b. Local supervisors indicated strong agreement with seven items (2, 4, 5, 6, 7, 10, and 11), agreement with three items (1, 3, and 8), and disagreement with one item (9).

c. State supervisors indicated strong agreement with seven items (1, 2, 4, 6, 7, 10, and 11), agreement with three items (3, 5, and 8), and disagreement with one item (9).

d. Teacher educators indicated strong agreement with eight items (1, 2, 3, 4, 5, 6, 7, and 10), agreement with two items (8 and 11), and disagreement with one item (9).

2. Concerning the "Placement of Students on the Job" the respondents indicated strong agreement with four items (12, 18, 19, and 20), agreement with 15 items (13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 32), and disagreement with three items (30, 31, and 33). The responses for each of the four personnel groups in this category were as follows:

a. Teacher-coordinators indicated strong agreement with three items (13, 19, and 30), agreement with 17 items (12, 14, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, and 33), and disagreement with one item (31).

b. Local supervisors indicated strong agreement with nine items (12, 18, 19, 21, 24, 25, 26, 27, and 30) and agreement with 13 items (13, 14, 15, 16, 17, 20, 22, 23, 28, 29, 31, 32, and 33).

c. State supervisors indicated strong agreement with 13 of the items (12, 13, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, and 30), agreement with eight items (14, 15, 16, 17, 20, 29, 32, and 33), and disagreement with one item (31).

d. Teacher educators indicated strong agreement with five items (12, 19, 24, 25, and 30), agreement with 15 items (13, 14, 15, 16, 17, 18, 21, 22, 23, 26, 27, 28, 29, 31, and 32), and disagreement with two items (20 and 33).

3. Concerning the "Development of On-the-Job Instructors' Training Ability" the respondents indicated strong agreement with two items (34 and 40) and agreement with five items (35, 36, 37, 38, and 39). The responses for each of the four personnel groups in this category were as follows:

a. Teacher-coordinators indicated strong agreement with three items (34, 40, and 41), agreement with four items (35, 36, 37, and 39), and disagreement with one item (38).

b. Local supervisors indicated strong agreement with six items (34, 35, 36, 39, 40, and 41) and agreement with two items (37 and 38).

c. State supervisors indicated strong agreement with seven items (34, 35, 36, 37, 39, 40, and 41) and agreement with one item (38).

d. Teacher educators indicated strong agreement with three items (34, 40, and 41) and agreement with five items (35, 36, 37, 38, and 39).

4. Concerning the "Supervision of On-the-Job Instruction" the respondents indicated strong agreement with seven items (45, 46, 47, 48, 52, 64, and 65), agreement with 20 items (42, 43, 44, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 67, 68, and 69), and disagreement with one item (60). The responses for each of the four personnel

groups in this category were as follows:

a. Teacher-coordinators indicated strong agreement with seven items (45, 46, 47, 48, 52, 64, and 65), agreement with 19 items (42, 43, 44, 49, 50, 51, 53, 54, 55, 56, 57, 58, 61, 62, 63, 66, 67, 68, and 69), and disagreement with one item (60).

b. Local supervisors indicated strong agreement with 13 items (42, 45, 46, 47, 48, 50, 51, 52, 55, 63, 64, 64, and 69), agreement with 14 items (43, 44, 49, 53, 54, 56, 57, 58, 59, 61, 62, 66, 67, and 68), and disagreement with one item (60).

c. State supervisors indicated strong agreement with 14 items (43, 44, 45, 46, 47, 48, 50, 52, 54, 55, 64, 65, 68, and 69), agreement with 13 items (42, 49, 51, 53, 56, 57, 58, 59, 61, 62, 63, 66, and 67), and strong disagreement with one item (60).

d. Teacher educators indicated strong agreement with 11 items (42, 45, 46, 47, 48, 51, 52, 55, 64, 65, and 69), agreement with 16 items (43, 44, 49, 50, 53, 54, 56, 57, 58, 59, 61, 62, 63, 66, 67, and 68), and disagreement with one item (60).

5. Concerning the "Evaluation of Students on the Job" the respondents indicated strong agreement with two items (73 and 78), agreement with nine items (70, 71, 72, 74, 75, 79, 80, and 81), and disagreement with two items (76 and 82). The responses for each of the four personnel groups in this category were as follows:

a. Teacher-coordinators indicated agreement with 11 items (70, 71, 72, 73, 74, 75, 77, 78, 79, 80, and 81) and disagreement with two items (76 and 82).

b. Local supervisors indicated strong agreement with five items (70, 71, 73, 78, and 79), agreement with five items (72, 74, 75, 77, and 80), and disagreement with three items (76, 81, and 82.).

c. State supervisors indicated strong agreement with five items (71, 73, 75, 78, and 79), agreement with six items (70, 72, 74, 76, 77, and 80), disagreement with one item (82), and strong disagreement with one item (81).

d. Teacher educators indicated strong agreement with four items (70, 73, 79, and 80), agreement with eight items (71, 72, 74, 75, 76, 77, 78, and 81), and disagreement with one item (82).

Categorization of Beliefs

A rotated orthogonal factor analysis with five factors was used to test the original categorization of questionnaire items and to reduce the data empirically for testing the hypotheses. As a result of this procedure and an examination of the item loadings, the following five factors were identified:

- Factor I: Supervision of On-the-Job Instruction
- Factor II: Use of Training Plans and Training Agreements;
Identification and Evaluation of Learning
Experiences
- Factor III: Selection of Training Stations and Placement of
Students on the Job
- Factor IV: Planning for Effective Coordination;
Time Structures
- Factor V: Coordination-Related Services and Tasks;
Recordkeeping

The empirical identification of these factors demonstrated that the rational identification of categories originally used by Cotrell in 1971 and again on this questionnaire could be partially verified. Through the factor analysis procedure, the original categories were either separate factors ("Supervision of On-the-Job Instruction") or were combined into one of the five factors ("Evaluation of Students on the Job" in Factor II and "Selection of Training Stations" and "Placement of Students on the Job" in Factor III). Only one category, "Development of On-the-Job Instructors' Training Ability," was not specifically identified through this factor analysis procedure. In addition, Factors II, IV, and V included categories which had not been specifically identified on the survey instrument. Since most of the questionnaire categories were represented in the identified factors and additional categories were identified, the factor scores were used to test the research hypotheses.

Relationship of Biographical Variables to Basic Beliefs

The results of the tests of the research hypotheses were as follows:

1. On Hypothesis One there was a significant difference ($p < .05$) between at least two of the groups and on at least one factor. Thus, the null hypothesis was rejected. Confidence intervals were developed, and it was determined that differences occurred on Factors II and IV. Specifically, teacher-coordinators and local supervisors, teacher-coordinators and state supervisors, teacher educators and local supervisors, and teacher educators and state

supervisors differed on Factor II; therefore, χ^2 tests were conducted on the items associated with this factor with significant values occurring on Items 24, 26, 27, and 39. An observation of the contingency tables indicated that the teacher-coordinators' and teacher educators' responses included more "Disagree" and "Strongly Disagree" tendencies on each item. The local supervisors and state supervisors indicated only agreement or strong agreement on each of these items.

On Factor IV, teacher-coordinators and local supervisors, teacher-coordinators and state supervisors, and teacher educators and state supervisors differed significantly with significant χ^2 values for Items 9, 42, and 44. An observation of the contingency tables indicated that the difference between teacher-coordinators and local supervisors and between teacher-coordinators and state supervisors was apparent on each item. It was particularly evident on Item 44 that all local and state supervisors indicated agreement or strong agreement while 50 percent of the teacher-coordinators indicated disagreement or strong disagreement with this item. Teacher educators differed significantly with state supervisors on this item as well. Teacher educators also indicated less agreement towards Item 44. Teacher-coordinators also had a higher percentage of "Disagree" or "Strongly Disagree" responses on Items 9 and 42 than the other personnel groups.

χ^2 tests were also conducted on the nine items not associated with one of the five factors with significant values occurring on Items 8, 58, 60, and 68. On Items 8, 58, and 60 the teacher-coordinators indicated a higher percentage of agreement or strong agreement

while the other personnel groups tended to disagree with these items. On Item 68 the strong agreement responses were from the local and state supervisors while the teacher-coordinators' and teacher educators' responses indicated less support for this practice.

2. On Hypothesis Two there were no significant correlations ($p > .05$) between the respondents' years of coordination experience with the means of the five factors. Therefore, the null hypothesis was not rejected.

3. On Hypothesis Three there were no significant correlations ($p > .05$) between the respondents' years of office-related experience with the means of the five factors. Therefore, the null hypothesis was not rejected.

4. On Hypothesis Four there was a significant correlation ($p < .05$) between the respondents' previous course work in cooperative education and the mean for Factor IV (Planning for Effective Coordination; Time Structures). Therefore, the null hypothesis was rejected. Those persons who had a previous course primarily designed to train teacher-coordinators for cooperative education programs indicated stronger agreement on those items related to this factor: 9, 42, 43, 44, 49, 59, and 62.

5. On Hypothesis Five there were no significant differences ($p > .05$) between at least two of the teacher-coordinator groups (urban, suburban, middle-sized, rural or smaller community) on the means of the five factors. Therefore, the null hypothesis was not rejected.

Confidence intervals and χ^2 tests for the items associated with the five factors were not computed. However, χ^2 tests were conducted on the nine items which were not associated with any of the factors. Significant differences did occur on Items 60 and 76. Teacher-coordinators in the urban and suburban locations demonstrated tendencies towards disagreement with Item 60; the lower mean scores were more frequently associated with teacher-coordinators from these locations. In addition, suburban and urban teacher-coordinators expressed strong disagreement with Item 76.

CONCLUSIONS

Based upon the findings reported in this study, the following conclusions have been drawn:

1. The participants in this study consisted of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia. The following conclusions are suggested based upon the respondent profile:

- a. Since populations were utilized for three of the personnel groups in Virginia (local supervisors, state supervisors, and teacher educators) and a random sample in the fourth group (teacher-coordinators), it may be concluded that the respondents of this study were representative of the business and office education personnel in Virginia most concerned or directly involved in the coordination of cooperative education and provided useful data regarding this activity.

b. Since a comprehensive profile of the business and office education personnel respondent group was presented, it may be concluded that the respondent profile should provide useful data to other states to determine if the results of the study can be generalized to their situation.

c. Since approximately 20 percent of the local supervisors, 40 percent of the state supervisors, and 80 percent of the teacher educators in Virginia have not coordinated a cooperative office education program, it may be concluded that the supervisory personnel and teacher educators have had limited coordination experience.

d. Since 60 percent of the respondents indicated they have not enrolled in a course primarily designed to prepare teacher-coordinators of cooperative education programs, it may be concluded that business and office education personnel in Virginia lack previous formal training concerning the coordination of cooperative education.

2. The study respondents indicated their degree of agreement with 82 items on the survey instrument in five categories (Selection of Training Stations, Placement of Students on the Job, Development of the On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, and Evaluation of Students on the Job). The following conclusions are suggested based upon the responses to these items:

a. Since there were 22 items in five categories with which the respondents indicated strong agreement regarding the coordination of cooperative education, it may be concluded that the respondents have a strong belief that the procedure or guideline implied in the

statements must be followed to assure the successful operation of a cooperative office education program.

b. Since there were 53 items in five categories with which the respondents indicated agreement regarding the coordination of cooperative education, it may be concluded that the respondents have a belief that the procedure or guideline implied in each of these statements would be nice to follow when given adequate time, money, or resources and that the successful program could operate without the application of this procedure/guideline but would benefit by its application. In addition, since one or more of the personnel groups (especially local supervisors, state supervisors, and teacher educators) indicated strong agreement with many of the 53 statements, it may be concluded that individual personnel groups(s) have a strong belief that the procedure or guideline implied in these statements must be followed to assure the successful operation of a cooperative office education program. For example, the mean for Item 1 was 3.38. The mean for state supervisors on this item was 3.80, and the mean for teacher educators on this item was 3.86, thus indicating strong agreement from these groups on the use of a planned and systematic method of selecting training stations. The application of procedures or guidelines related to this item, as well as other items with which there was agreement, may in fact be necessary to assure the successful operation of a cooperative office education program.

c. Since there were seven items in the five categories with which the respondents indicated disagreement regarding the coordination

of cooperative education, it may be concluded that the respondents do not believe that the procedures or guidelines implied in each of these statements would contribute nor is it important to the successful operation of a cooperative office education program. The disagreement with these items reflects the beliefs of the business and office education personnel for the application of the procedure/guideline to the majority of the cooperative office education programs in Virginia. However, the procedure/guideline may contribute or may be necessary to some programs. For example, each personnel group indicated disagreement with Item 9 concerning the reimbursement of training sponsors from vocational education monies for the extra time and expense in teaching and training cooperative education students. However, federal vocational legislation has provided funds specifically for this purpose to assist in the placement of students with special needs. Therefore, the application of this procedure and others with which there was disagreement may in fact be necessary to assure the successful operation of some cooperative office education programs.

d. Since there were no items in the five categories with which the respondents indicated strong disagreement regarding the coordination of cooperative education, it may be concluded that there were no procedures or guidelines implied in the statements that would be detrimental to the successful operation of a cooperative office education program.

e. Since teacher-coordinators expressed strong agreement with 17 of the items, local supervisors with 40 of the items, state

supervisors with 46 of the items, and teacher educators with 31 of the items, it may be concluded that the personnel groups differ in their beliefs regarding the coordination of cooperative education. Specifically, it is concluded that the teacher-coordinators believe that there are fewer guidelines and procedures which must be followed to assure the successful operation of the cooperative office education program than local supervisors, state supervisors, and teacher educators. Other studies have also found differences in personnel group perceptions concerning the coordination of cooperative education (Gray, 1970; Soutter, 1971; and Peper, 1975).

3. Factor analysis was conducted to verify the five categories used on the questionnaire and to provide a method of data reduction when testing the research hypotheses. The following conclusions are suggested concerning the categorization of statements regarding the coordination of cooperative education:

a. Since four of the five categories ("Selection of Training Stations," "Placement of Students on the Job," "Supervision of On-the-Job Instruction," and "Evaluation of Students on the Job") included on the questionnaire were also identified through the factor analysis procedure, it may be concluded that these categories are useful and realistic for grouping statements related to the coordination of cooperative education. Since some items which were originally associated with the five categories on the questionnaire were associated with different factors, it may be concluded that these categories ("Training Plans and Training Agreements; Identification of Learning

Experiences" and "Planning for Effective Coordination; Time Structures") may also be useful in the consideration and/or categorization of basic beliefs regarding the coordination of cooperative education. Since significant differences between personnel groups were also found in these two factors, special consideration of these areas is included with the conclusions related to testing the research hypotheses.

4. The following conclusions are suggested based upon the tests of the research hypotheses:

a. Since significant differences occurred between teacher-coordinators and local supervisors, teacher-coordinators and state supervisors, teacher educators and local supervisors, and teacher educators and state supervisors on Factor II for Items 24, 26, 27, and 39 (with local supervisors and state supervisors indicating strong agreement with these statements), it may be concluded that these groups differ in their beliefs concerning the use of training plans and training agreements. Teacher-coordinators and teacher educators were less supportive about developing and using training agreements, developing a step-by-step training plan, relating a majority of experiences outlined in the training plan to the student's career objective, and providing each training sponsor with needed information concerning the content being covered in related instruction in school.

b. Since significant differences occurred between teacher-coordinators and local supervisors, teacher-coordinators and state supervisors, and teacher educators and state supervisors on Factor IV for Items 42 and 44 (with local supervisors and state supervisors

indicating strong agreement with these statements), it may be concluded that these groups differ in their beliefs concerning effective planning and structuring for the coordination of cooperative office education. Teacher-coordinators prefer less structure in the scheduling of coordination visits and leaving itineraries with administrators than do the other personnel groups.

c. Since significant differences occurred between the four personnel groups on Items 8, 58, 60, and 68, it may be concluded that the groups differed in their beliefs concerning these items. Specifically, teacher-coordinators demonstrated more agreement than the other groups with encouraging students to identify potential training stations; teacher educators demonstrated more disagreement with permitting students to meet the minimum requirements of hours of occupational experience by working Saturdays and during school holiday and vacation periods; state supervisors indicated more strong disagreement about making provisions for students to be released from school to work during the absence of other employees or when the workload is especially heavy at the training station; and the teacher-coordinators were less supportive about having a specific purpose in mind when making each coordination visit.

d. Since there were no significant correlations between the respondents' years of coordination experience with the means of the five factors, it may be concluded that there is no relationship between years of coordination experience to the basic beliefs expressed by the respondents. Therefore, the degree of agreement or disagreement

regarding the coordination of cooperative education was not related to the number of years the respondents had coordinated a cooperative office education program.

e. Since there were no significant correlations between the respondents' years of office-related experience with the means of the five factors, it may be concluded that there is no relationship between years of office-related experience to the basic beliefs expressed by the respondents. Therefore, the degree of agreement or disagreement regarding the coordination of cooperative education was not related to the number of years the respondents had worked in an office.

f. Since there were no significant correlations between the respondents' previous course work in cooperative education with Factors I, II, III, and V ("Supervision of On-the-Job Instruction," "Use of Training Plans and Training Agreements; Identification and Evaluation of Learning Experiences," "Selection of Training Stations and Placement of Students on the Job," and "Coordination-Related Services and Tasks; Recordkeeping"), it may be concluded that there is no relationship between previous course work in cooperative education and the related basic beliefs expressed by the respondents.

g. Since there was a significant correlation between the respondents' previous course work in cooperative education with Factor IV ("Planning for Effective Coordination; Time Structures"), it may be concluded that those with previous course work expressed stronger agreement with items related to this factor: 9, 42, 43, 44

49, 59, and 62. Therefore, those who had enrolled in a course primarily designed to train teacher-coordinators for cooperative education indicated stronger belief towards paying training sponsors, visiting regularly, developing coordination schedules, and establishing coordination and student work hours.

h. Since significant differences did not occur between the means on the five factors when comparing teacher-coordinators in each of the four school locations (urban, suburban, middle-sized, rural or smaller community), it may be concluded that teacher-coordinators expressed similar beliefs regarding the coordination of cooperative education regardless of their school's geographical location.

i. Since significant differences did not occur between teacher-coordinators in the four school location areas on Items 60 and 76 which were not associated with a factor (with urban and suburban teacher-coordinators expressing more disagreement), it may be concluded that the teacher-coordinators differed in their beliefs concerning these items. The means for teacher-coordinators on each item were less than 2.50. Suburban and urban teacher-coordinators indicated stronger disagreement about releasing students from school to work during the absence of other employees or when the workload is especially heavy at the training station and discussing student progress and experiences with the student during coordination visits.

RECOMMENDATIONS

Recommendations are presented in two sections: Recommendations Resulting from the Study and Recommendations for Further Study.

Recommendations Resulting from the Study

1. The following recommendations are made based upon the conclusions drawn from the respondent profile:

a. Based upon the conclusion that the respondents of this study were representative of the business and office education personnel in Virginia and provided useful data regarding the coordination of cooperative education, it is recommended that the results of this study be reviewed to assist in the development of cooperative office education programs in the Commonwealth of Virginia. Specific recommendations for consideration by these personnel follow.

b. Based upon the conclusion that the supervisory personnel and teacher educators have had limited experience in the coordination of cooperative education, it is recommended that persons in these personnel groups seek specific experiences related to the coordination of cooperative education. It is further recommended that these persons work on an individual basis with teacher-coordinators to develop a comprehensive understanding of the coordination phase of cooperative education.

c. Based upon the conclusion that business and office education personnel in Virginia lack previous formal training concerning the coordination of cooperative education (79 percent), it is recommended that formal opportunities be provided and utilized to develop coordination-related competencies. Since the state supervisors and teacher educators have had limited exposure to coordination, it is further recommended that consultants from other vocational areas in

Virginia which utilize cooperative education (i.e., distributive education, trade and industrial education, etc.) be contacted to assist in the development of appropriate training experiences. It is also recommended that certification as a teacher-coordinator of office education include enrollment in a formal course primarily designed to train teacher-coordinators of cooperative education programs. This conforms to a recommendation made by Ku (1972).

2. The following recommendations are based upon the conclusions concerning the identification and comparison of basic beliefs of business and office education personnel in Virginia regarding the coordination of cooperative education:

a. It is recommended that 22 items with which the respondents indicated strong agreement be recognized in Virginia as basic beliefs regarding the coordination of cooperative education. It is further recommended that the 22 items be utilized:

- (1) As operational procedures/guidelines for teacher-coordinators in the development of existing cooperative education programs. (This recommendation conforms to the recommendations from several other studies, including Warmke, 1960; Harris, 1965; and Weatherford, 1974).
- (2) As "must know" competencies in the preparation of teacher-coordinators of cooperative office education programs through pre-service, in-service, and graduate activities.
- (3) As criteria to be used by those responsible for evaluating the cooperative office education programs. (The use of criteria based upon responses of strong agreement was also encouraged by Ku, 1972; Taylor, 1972; and Allred, 1974).

b. It is recommended that 53 items with which the respondents indicated agreement be analyzed as potential basic beliefs regarding the coordination of cooperative office education in Virginia. These items were included in the range which described them as procedures or guidelines which would be nice to follow when adequate time, money, or resources were available and which would be beneficial to a program if applied. However, one or more of the personnel groups often indicated strong agreement with many of the 53 statements; thus, indicating philosophical differences among the groups concerning the importance of some of these statements to the successful operation of a cooperative office education program. Therefore, it is further recommended that the personnel groups responsible for the leadership and development of cooperative office education in Virginia analyze the data carefully to identify additional items which should be included as basic beliefs. As a result of this analysis, it is recommended that the basic belief statements be analyzed:

- (1) As operational procedures/guidelines for teacher-coordinators in the coordination of cooperative office education which either must or should be followed to assure the successful operation of a cooperative office education program.
- (2) As "must know" and "should know" competencies in the preparation of teacher-coordinators of cooperative office education programs through pre-service, in-service, and graduate activities.
- (3) As criteria to be used by those responsible for evaluating the cooperative office education programs.

c. It is recommended that seven items with which the respondents indicated disagreement be further analyzed as potential basic beliefs regarding the coordination of cooperative office education. The application of the guidelines or procedures implied in these statements and in others with which there was disagreement may in fact be necessary to assure the successful operation of some cooperative office education programs. Therefore, those personnel groups responsible for the leadership and development of cooperative office education in Virginia should analyze the responses to these items to determine if they might be necessary for the operation of some cooperative office education programs.

d. It is recommended that teacher-coordinators, local supervisors, state supervisors, and teacher educators work to define further the basic beliefs regarding the coordination of cooperative education. (This procedure has been supported in studies by Crawford, 1967; Kinzer, 1969; Gray, 1970; and Davis, 1974). This recommendation is based upon the descriptive differences which indicated that personnel groups differed regarding those activities which must be performed to assure the successful operation of a cooperative office education program.

3. The following recommendations are based upon the conclusions drawn concerning the categorizations used in this study:

a. It is recommended that the five categories utilized on the questionnaire (Selection of Training Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability,

Supervision of On-the-Job Instruction, and Evaluation of Students on the Job) be retained for purposes of grouping statements related to the coordination of cooperative education. Therefore, these categories should be utilized in the identification of procedures/guidelines for teacher-coordinators of cooperative office education programs; for pre-service, in-service, and graduate activities instructional purposes; and for the identification of evaluative criteria for teacher-coordinators of cooperative office education programs.

b. It is recommended that items related to "Training Plans and Training Agreements" and "Planning for Effective Coordination; Time Structures" be retained as separate categories or receive special emphasis within the existing five categories since descriptive and statistical differences were found between personnel groups on items related to these areas.

4. The following recommendations are based upon the tests of the research hypotheses conducted in this study:

a. It is recommended that specific emphasis be given to the responsibilities of the teacher-coordinator related to "Training Plans and Training Agreements" and "Planning for Effective Coordination; Time Structures" in pre-service, in-service, and graduate activities which prepare teacher-coordinators of cooperative office education programs in Virginia. As noted above, this emphasis may occur through the utilization of the existing five categories or through the development of unique categories which consist of the items related to these areas. It is further recommended that those supervisory personnel and

teacher educators who elect to seek specific experiences when working with teacher-coordinators of cooperative education programs (See Recommendation 1.b.) include concentration in these areas.

b. It is recommended that a formal course be developed and offered which would be designed to prepare teacher-coordinators of cooperative education and made available to current and prospective teacher-coordinators of cooperative office education. It is further recommended that the responsibilities of the teacher-coordinators as identified by the basic beliefs of business and office education personnel in Virginia and as further analyzed by the leadership group for business and office education in Virginia be utilized in the development of the course content.

5. Finally, an effort should be undertaken to determine the reasons for the descriptive and statistical differences delineated in this study. Extensive descriptive differences were noted in the lack of strong beliefs held by teacher-coordinators (17 of 82 items) when compared with the other personnel groups, especially local and state supervisors. In addition, statistical differences were noted when testing the research hypotheses. Other authors and researchers have found similar differences in perceptions among personnel groups regarding coordination and other aspects of cooperative education.

The differences in beliefs of business and office education personnel in Virginia may be attributed to several reasons. Local and state supervisors who had expressed strong beliefs may need to provide more attention and direction to the teacher-coordinators for

conducting coordination activities. Teacher educators may need more direct experiences with cooperative education programs. Teacher-coordinators may need stronger administrative encouragement and support, formal training regarding coordination guidelines/procedures, self-confidence in their ability to conduct coordination activities, etc. In addition, teacher-coordinators may resist mandated requirements by the state department and may experience a real or perceived lack of time, money, or resources needed to conduct coordination activities.

This study has demonstrated the philosophical similarities and differences held by business and office education personnel in Virginia regarding the coordination of cooperative education and provides a basis for the continued development and improvement of cooperative office education programs in Virginia.

Recommendations for Further Study

Based upon the findings, conclusions, and recommendations for this study and upon related problems, the following recommendations for additional research are suggested:

1. A study to determine the extent to which the basic beliefs expressed by business and office education personnel in Virginia are operationalized by the teacher-coordinators in coordinating the cooperative office education programs. This study identified the basic beliefs with which such a comparison can be made.

2. A study to determine the reasons why basic beliefs were expressed by the business and office education personnel regarding the coordination of cooperative education. A field-based interview

approach might assist in the collection of these data.

3. A study to compare the basic beliefs of business and office education personnel in Virginia with those of business and office education personnel in other states. Specifically, those states which currently require a course primarily designed to train teacher-coordinators of cooperative education could be utilized as a basis for a comparison with the business and office education personnel in Virginia.

4. A study to determine the effectiveness of specific pre-service, in-service, and graduate activities which may be offered as a result of the recommendations of the study. Specifically, teacher-coordinators' performances before and after the activities could be assessed.

5. A study to compare the basic beliefs of business and office education personnel in Virginia with perceptions of other groups involved in the coordination of cooperative education (i.e., training sponsors, students, etc.).

6. A study to compare the basic beliefs regarding the coordination of cooperative education of other vocational area personnel in Virginia (i.e., distributive education, trade and industrial education, agricultural education, etc.) with those expressed by the business and office education personnel in the study.

7. A study to determine the basic beliefs of national leaders of business and office education regarding the coordination of cooperative education to compare with the business and office

education personnel in Virginia.

8. A study to determine the amount of time spent in the performance of various activities implied by the basic beliefs.

9. A study to determine basic beliefs of business and office education personnel regarding other aspects of cooperative education programs (i.e., related class instruction, youth club sponsorship, adult education participation, etc.).

10. A study to determine the extent to which the basic beliefs regarding the coordination of cooperative education change by replicating the study in the future.

11. A study to determine further the validity and reliability of the survey instrument used in the study and to verify the factors which resulted in the analysis of the data.

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APPENDIX A

LETTER, MEMBER LIST, AND FIRST PAGE OF QUESTIONNAIRE
SENT TO JURY OF EXPERTS



COLLEGE OF EDUCATION

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

DIVISION OF VOCATIONAL & TECHNICAL EDUCATION

As a part of my doctoral studies at Virginia Polytechnic Institute and State University, I have been developing statements which could serve as basic beliefs regarding the coordination of cooperative education. As a phase of this study, I am hopeful you will evaluate the statements on the enclosed questionnaire, "Basic Beliefs Regarding the Coordination of Cooperative Education."

This study will provide business and office education personnel in Virginia the opportunity to identify their beliefs about how the coordination phase of cooperative education SHOULD BE conducted. Such information will be of significant value in planning relevant pre-service and in-service courses and in developing operational guidelines and program goals; the study has been encouraged by Mr. Carl Jorgensen, Virginia State Supervisor for Business Education.

I will be most appreciative if you will review and complete the evaluation of the enclosed questionnaire. Directions for completing the instrument are included. In addition, you are requested to make any comments concerning recommended improvements of the instrument. Your response will provide valuable input for the final draft of the questionnaire.

Please return the instrument in the enclosed, addressed envelope by February 16 to facilitate the use of your completed instrument in the revision. Thank you for your consideration and cooperation in assisting with this study.

Sincerely

A handwritten signature in cursive script that reads "William G. Neal".

William G. Neal
Graduate Research Assistant

Approved

A handwritten signature in cursive script that reads "Richard L. Lynch".

Richard L. Lynch
Advisor

Enclosures: "Jury of Experts" List
Questionnaire

BASIC BELIEFS REGARDING THE COORDINATION
OF COOPERATIVE EDUCATION

Jury of Experts

Your assistance is requested in the evaluation of the following statements. They represent potential belief statements which will be mailed to teacher-coordinators, local supervisors, state supervisors, and teacher educators in business and office education in Virginia to identify and compare their basic beliefs regarding the coordination of cooperative education.

Before mailing these statements to the participants of the study in a questionnaire format, a careful refinement of the statements is necessary. Because of your experience and expertise in cooperative education, you are asked to provide assistance in this evaluation. Specifically, please judge each statement in the following areas:

1. Can the statement be interpreted in only one way?
2. Is the statement clear, simple, and direct?
3. Does the statement include only one complete thought?
4. Is the statement relevant to the study (i.e., does it refer to the coordination of cooperative office education)?
5. Is the statement easily understood?

As you read the statement, please take into consideration the above criteria and place a check mark in the appropriate column to indicate that the criteria has been met. In addition, any written comments that you may have should be included and will be appreciated.

An example is provided below:

POTENTIAL BASIC BELIEF STATEMENTS	The statement can be interpreted in only one way.	The statement is clear, simple, and direct.	The statement includes only one complete thought.	The statement is relevant to the study.	The statement is easily understood.
1. The teacher-coordinator should assess the educational adequacy of prospective training stations' facilities and equipment.	✓	✓	✓	✓	✓
2. The teacher-coordinator should observe student activity during coordination visits.	✓	✓	✓	✓	✓

PANEL OF EXPERTS

Miss Ima Jean Tjepkes
Teacher-Coordinator
Office Education
Cedar Falls High School
Cedar Falls, IA 50613

Mr. Douglas Schuldt
Teacher-Coordinator
Office Education
Audubon High School
Audubon, IA 50025

Mrs. Phyllis Heath
Local Supervisor
Office Education
Milwaukee Public Schools
Milwaukee, WI 53201

Mr. Emory Shriver
Local Supervisor
Business Education
Des Moines Public Schools
Des Moines, IA 50307

Mr. Donald Strait
State Supervisor
Business Occupations
Department of Education
120 East Tenth
Topeka, KS 66612

Mr. Vernon Fennel
State Supervisor
Office Education
Department of Public Instruction
Grimes State Office Building
Des Moines, IA 50319

Dr. Elaine Uthe
Teacher Educator
Business and Office Education
University of Georgia
Athens, GA 30602

Dr. Jack Reed
Teacher Educator
Business and Office Education
University of Northern Iowa
Cedar Falls, IA 50613

APPENDIX B

LETTER AND MEMBER LIST SENT TO
PILOT TEST PARTICIPANTS



COLLEGE OF EDUCATION

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

DIVISION OF VOCATIONAL & TECHNICAL EDUCATION

As a part of my doctoral studies at Virginia Polytechnic Institute and State University, I have collected statements which could serve as basic beliefs regarding the coordination of cooperative education. As a phase of this study, I am hopeful that you will assist in the field test by completing the enclosed questionnaire, "Basic Beliefs Regarding the Coordination of Cooperative Education."

This study will provide business and office education personnel in Virginia (including coordinators, local supervisors, state supervisors, and teacher educators) the opportunity to identify their beliefs about how the coordination of cooperative education SHOULD BE conducted. Such information will be of significant value in planning relevant pre-service and in-service courses and in developing operational guidelines and program goals; the study has been encouraged by Mr. Carl Jorgensen, State Supervisor for Business Education.

Your cooperation in completing the questionnaire will take a small amount of time but will be of great importance to the success of the study! Your responses will be used to develop the final instrument which will be sent to the respondents in the study.

Please complete and return the questionnaire in the stamped, addressed envelope by Monday, February 28; directions for completing the questionnaire are provided on the instrument. Your cooperation in assisting with this study is greatly appreciated.

Sincerely

A handwritten signature in cursive script that reads "William G. Neal".

William G. Neal
Graduate Research Assistant

Approved

A handwritten signature in cursive script that reads "Richard L. Lynch".

Richard L. Lynch
Advisor

Enclosure

PILOT TEST PARTICIPANTS

Mrs. Susan Hahn
Teacher-Coordinator
Office Education
Cedar Falls High School
Cedar Falls, IA 50613

Mrs. Ginny Lynch
Teacher-Coordinator
Office Education
(Previously with Milwaukee Public Schools)
1421 Locust Avenue
Blacksburg, VA 24060

Ms. Rae Martin
Teacher-Coordinator
Office Education
Andrew Lewis High School
Salem, VA 24153

Ms. Peggy Perdue
Teacher-Coordinator
Office Education
Cave Spring High School
Roanoke, VA 24018

Ms. Anita Reynolds
Teacher-Coordinator
Office Education
William Byrd High School
Vinton, VA 24179

APPENDIX C

LETTER SENT TO STUDY PARTICIPANTS

COLLEGE OF EDUCATION
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

DIVISION OF VOCATIONAL & TECHNICAL EDUCATION

As a part of my doctoral studies at Virginia Polytechnic Institute and State University, I have collected statements which could serve as basic beliefs regarding the coordination of cooperative education. As a phase of this study, I am hopeful that you will complete the enclosed questionnaire, "Basic Beliefs Regarding the Coordination of Cooperative Education."

This study will provide business and office education personnel in Virginia (including coordinators, local supervisors, state supervisors, and teacher educators) the opportunity to identify their beliefs about how the coordination of cooperative education SHOULD BE conducted. Such information will be of significant value in planning relevant pre-service and in-service courses and in developing operational guidelines and program goals; the study has been encouraged by Mr. Carl Jorgensen, State Supervisor for Business Education.

Your cooperation in completing the questionnaire will take a small amount of your time but will be of great importance to the success of the study! Responses which you provide will be kept in strict confidence, and in no case will anyone be able to ascertain individual responses in the preparation of the results.

Please complete and return the questionnaire in the stamped, addressed envelope by Friday, March 18; the directions for completing the questionnaire are provided on the instrument. Your cooperation in assisting with this study is greatly appreciated.

Sincerely

Handwritten signature of William G. Neal in cursive.

William G. Neal
Graduate Research Assistant

Approved

Handwritten signature of Richard L. Lynch in cursive.

Richard L. Lynch
Advisor

Enclosure

APPENDIX D

BASIC BELIEFS REGARDING THE COORDINATION
OF COOPERATIVE EDUCATION
(QUESTIONNAIRE)

BASIC BELIEFS REGARDING THE COORDINATION OF COOPERATIVE EDUCATION

PART I: TEACHER-COORDINATOR RESPONDENT INFORMATION

1. Female _____
Male _____ (Check One)
2. Total years of teaching experience (include this year with the total):
_____ years
3. Total years of experience as a teacher-coordinator of a cooperative office education program (include this year with the total):
_____ years
4. Total years of equivalent full-time office-related business experience:
_____ years
5. Teaching situation: (Check One)
_____ Urban (100,000+)
_____ Suburban
_____ Medium-sized community
_____ Rural or smaller community (10,000 or less)
6. Highest degree completed: (Check One)
_____ Bachelor's
_____ Bachelor's plus credits
_____ Master's
_____ Master's plus credits
_____ Specialist or CAGS
_____ Doctorate
7. Number of students you currently coordinate on the job:
_____ students
8. Have you taken a formal college course primarily designed to prepare cooperative education teacher-coordinators?
Yes No (Circle One)
9. Do you: have an advisory committee? Yes No (Circle One)
use training plans? Yes No (Circle One)
use training agreements? Yes No (Circle One)

BASIC BELIEFS REGARDING THE COORDINATION OF COOPERATIVE EDUCATION

PART I: LOCAL AND STATE SUPERVISOR RESPONDENT INFORMATION

1. Local Supervisor _____
State Supervisor _____ (Check One)
2. Female _____
Male _____ (Check One)
3. Total years of experience in local or state supervision (include this year with the total):
_____ years
4. Total years of experience as a teacher-coordinator of a secondary cooperative office education program (if any):
_____ years
5. Total years of equivalent full-time office-related business experience:
_____ years
6. Highest degree completed: (Check One)
 - _____ Bachelor's
 - _____ Bachelor's plus credits
 - _____ Master's
 - _____ Master's plus credits
 - _____ Specialist or CAGS
 - _____ Doctorate
7. Have you taken a formal college course primarily designed to prepare cooperative education teacher-coordinators?
Yes No (Circle One)

BASIC BELIEFS REGARDING THE COORDINATION OF COOPERATIVE EDUCATION

PART I: TEACHER EDUCATOR RESPONDENT INFORMATION

1. Female _____
Male _____ (Check One)
2. Total years of experience in business teacher education (include this year with the total):
_____ years
3. Total years of experience as a teacher-coordinator of a secondary cooperative office education program (if any):
_____ years
4. Total years of equivalent full-time office-related business experience:
_____ years
5. Highest degree completed: (Check One)
 _____ Bachelor's
 _____ Bachelor's plus credits
 _____ Master's
 _____ Master's plus credits
 _____ Specialist or CAGS
 _____ Doctorate
6. Have you taken a formal college course primarily designed to prepare cooperative education teacher coordinators?
Yes No (Circle One)
7. Have your responsibilities during the year included teaching methods courses and/or supervising student teachers in business education?
Yes No (Circle One)

PART II: POTENTIAL BASIC BELIEF STATEMENTS

Definition of Coordination

The statements included in this questionnaire pertain to the teacher-coordinator's coordination responsibilities; these responsibilities include the selection of training stations, placement of students on the job, development of the on-the-job instructors' training ability, supervision of on-the-job instruction, and evaluation of students on the job.

Directions

At the right of each statement, indicate your extent of agreement or disagreement with each statement by circling one of the four possible responses: STRONGLY AGREE, AGREE, DISAGREE, or STRONGLY DISAGREE. Remember, there are no right or wrong answers; select the answer which is most appropriate for you.

Descriptors for Rating Scale

STRONGLY AGREE (SA): You STRONGLY AGREE with the statement. The procedure or guideline implied in the statement must be followed to assure the successful operation of a cooperative office education program.

AGREE (A): You AGREE with the statement. The procedure or guideline implied in the statement would be nice to follow when given adequate time, money, or resources; the successful program could operate without the application of this procedure/guideline but would benefit by its application.

DISAGREE (D): You DISAGREE with the statement. The procedure or guideline implied in the statement would not contribute nor is it important to the successful operation of a cooperative office education program.

STRONGLY DISAGREE (SD): You STRONGLY DISAGREE with the statement. The procedure or guideline implied in the statement would be detrimental to the successful operation of a cooperative office education program.

Selection of Training Stations

1. The teacher-coordinator should use a planned and systematic method of selecting training stations.	SA	A	D	SD
2. The teacher-coordinator should assess the educational adequacy of prospective training stations' facilities and equipment.	SA	A	D	SD
3. The teacher-coordinator should avoid training stations that afford only simple repetitive tasks unless they happen to fit the needs of specific students.	SA	A	D	SD
4. The teacher-coordinator should make personal contacts with all potential training sponsors.	SA	A	D	SD
5. The teacher-coordinator should maintain a current and complete file of available training stations.	SA	A	D	SD
6. The teacher-coordinator should work closely with other cooperative teacher-coordinators within a school system where more than one program exists.	SA	A	D	SD
7. The teacher-coordinator should consider the needs, skills, and career objective of a student in determining the suitability of a training station for that particular student.	SA	A	D	SD

Potential Basic Belief Statements

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8. The teacher-coordinator should encourage students to identify potential training stations.	SA	A	D	SD
9. The teacher-coordinator should pay training sponsors from vocational education monies for the extra time and expense in teaching and training cooperative office education students.	SA	A	D	SD
10. The teacher-coordinator should assure that the students have the personal supervision of an employee who understands and appreciates the position of the student as well as the welfare of the training station.	SA	A	D	SD
11. The teacher-coordinator should be employed on an extended contract basis to conduct coordination activities including the selection of training stations.	SA	A	D	SD

Placement of Students on the Job

12. The teacher-coordinator should match the students' needs, skills, and career objectives to jobs providing the type of experiences enhancing such needs, skills, and career objectives when placing students.	SA	A	D	SD
13. The teacher-coordinator should show equal consideration for both the employer and the student when placement on the job is made.	SA	A	D	SD
14. In matching students to training stations, the teacher-coordinator should select training stations which match the students' career objectives.	SA	A	D	SD
15. Ideally, the teacher-coordinator should give each training sponsor the opportunity to interview at least three students.	SA	A	D	SD
16. The teacher-coordinator should take the responsibility for setting up interview dates and times.	SA	A	D	SD
17. The teacher-coordinator should provide students with an introduction card for the job interview.	SA	A	D	SD
18. The teacher-coordinator should contact employers following the students' interviews to obtain employers' comments and evaluation concerning the students.	SA	A	D	SD
19. The teacher-coordinator and employer should discuss hours and wages consistent with local, state, and federal labor laws.	SA	A	D	SD
20. The teacher-coordinator should approve the payment of a subminimum wage when subminimum wages are requested by a training sponsor.	SA	A	D	SD
21. The teacher-coordinator should arrange for special job placement for the student with known limitations (i.e., handicapped, educably retarded, etc.)	SA	A	D	SD
22. The teacher-coordinator should make a special effort to place "borderline" students (i.e., low grade-point average, poor appearance, low ability, limited skills, etc.) with a cooperative office education training sponsor.	SA	A	D	SD
23. The teacher-coordinator should permit the training sponsor to make the final selection of the student for a particular job and/or a particular firm.	SA	A	D	SD
24. The teacher-coordinator should develop and use a written training agreement between the school and the training sponsor which lists specific responsibilities of the persons involved (i.e., student, parents, teacher-coordinator, training sponsor).	SA	A	D	SD
25. The teacher-coordinator should give copies of the completed training agreement to all parties.	SA	A	D	SD

Potential Basic Belief Statements

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26. The teacher-coordinator should develop a step-by-step training plan for each student in cooperation with the training sponsor and the student.	SA	A	D	SD
27. The teacher-coordinator should relate a majority of the experiences outlined in the training plan to the student's career objective.	SA	A	D	SD
28. The teacher-coordinator should list both general occupational training (i.e., human relations, work adjustment, etc.) and specific experiences (filing, answering the telephone, etc.) on the training plan.	SA	A	D	SD
29. The teacher-coordinator should secure a new training station for a student who could receive more worthwhile training at another station.	SA	A	D	SD
30. If necessary, the teacher-coordinator should remove a student from a training station (in consultation with the training sponsor) in instances of continual rule violation or inability to perform duties.	SA	A	D	SD
31. The teacher-coordinator should assure that adequate transportation is provided for each student.	SA	A	D	SD
32. The teacher-coordinator should assure that students receive wages equal to those normally paid a beginning worker with comparable experience and background.	SA	A	D	SD
33. The teacher-coordinator should help place students (other than cooperative office education students) in part-time jobs as a general service to the school.	SA	A	D	SD
<u>Development of On-The-Job Instructors' Training Ability</u>				
34. The teacher-coordinator should ensure that training sponsors and other involved employees are familiar with the objectives of the cooperative office education program.	SA	A	D	SD
35. The teacher-coordinator should involve the training sponsors in developing the training plan for the student.	SA	A	D	SD
36. The teacher-coordinator should suggest to the training sponsor possible training experiences for the student if needed.	SA	A	D	SD
37. The teacher-coordinator should assist the training sponsor to cope with the inexperience and possible immaturity of the students.	SA	A	D	SD
38. The teacher-coordinator should conduct training sponsor development sessions to improve the quality of training given to the students on the job.	SA	A	D	SD
39. The teacher-coordinator should provide each training sponsor with needed information concerning the content being covered in related instruction in school.	SA	A	D	SD
40. The teacher-coordinator should provide training sponsors with recognition of their accomplishments and contributions to the cooperative office education program.	SA	A	D	SD
41. The teacher-coordinator should encourage the training sponsor to telephone or otherwise contact the teacher-coordinator when problems arise.	SA	A	D	SD
<u>Supervision of On-The-Job Instruction</u>				
42. The teacher-coordinator should schedule a minimum of one regular coordination visit for each student during the month.	SA	A	D	SD
43. The teacher-coordinator should prepare a coordination schedule to identify which students are to be visited on each day of the month.	SA	A	D	SD

Potential Basic Belief Statements

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44. The teacher-coordinator should provide appropriate school administrators with copies of a tentative coordination schedule.	SA	A	D	SD
45. The teacher-coordinator should gather information on students' progress through reports, observations, conferences, and informal conversations.	SA	A	D	SD
46. The teacher-coordinator should use information obtained from coordination visits to plan future activities for the student in school or on the job, adapting or changing the training plan if appropriate.	SA	A	D	SD
47. The teacher-coordinator should help students and training sponsors solve problems, if necessary.	SA	A	D	SD
48. The teacher-coordinator should plan follow-up activities to check expected progress and the resolution of any identified problems on the job.	SA	A	D	SD
49. When the student is known to be having difficulties or when the student is new on the job, the teacher-coordinator should visit the training station a minimum of twice a month, more often if necessary.	SA	A	D	SD
50. A major purpose of coordination should be to assure that the student is being given prescribed learning experiences on the job.	SA	A	D	SD
51. A major purpose of coordination should be to assure that the student is performing satisfactorily on the job.	SA	A	D	SD
52. The teacher-coordinator should be given adequate released time during the school day to conduct coordination activities.	SA	A	D	SD
53. The teacher-coordinator should encourage other school personnel (i.e., school administrators, counselors, other business teachers, etc.) to occasionally accompany the teacher-coordinator on coordination visits.	SA	A	D	SD
54. The teacher-coordinator should make an appointment with training sponsors prior to a planned meeting with them.	SA	A	D	SD
55. The primary responsibility of the training sponsor should be to provide a variety of activities and experiences related to the occupation.	SA	A	D	SD
56. Upon request, the teacher-coordinator should help training sponsors with their business-related problems even though such problems do not specifically concern cooperative office education students.	SA	A	D	SD
57. The student should have the opportunity to move from one job activity to another in order to gain various work experiences.	SA	A	D	SD
58. The teacher-coordinator should permit students to meet the minimum requirements of hours of occupational experience by working Saturdays and during school holiday and vacation periods.	SA	A	D	SD
59. The teacher-coordinator should have approximately one-half hour of coordination time per week for each student enrolled in the program (or for each student for whom the teacher-coordinator is responsible).	SA	A	D	SD
60. The teacher-coordinator should make provision for students to be released from school in order to work during the absence of other employees or when the workload is especially heavy at the training station.	SA	A	D	SD
61. The teacher-coordinator should require a daily work record from the students each week describing hours worked, activities performed, problems encountered, etc.	SA	A	D	SD
62. The number of hours worked by students each week should normally range from a minimum of 15 hours to a maximum of 25 hours, excluding Saturdays.	SA	A	D	SD

Potential Basic Belief Statements

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63. The teacher-coordinator should make the first official coordination call within two weeks after the student reports to work.	SA	A	D	SD
64. The teacher-coordinator should provide feedback to and discuss progress with the student on whom a coordination call was made.	SA	A	D	SD
65. If any follow-up of the coordination call with the training sponsor is necessary, the teacher-coordinator should do it promptly.	SA	A	D	SD
66. The teacher-coordinator should assure that students enrolled in the cooperative office education program receive a minimum of 15 hours of on-the-job training per week and a maximum of 40 hours when school and work are combined.	SA	A	D	SD
67. The teacher-coordinator should provide an opportunity for students to formally evaluate the quality of the training provided at the training station.	SA	A	D	SD
68. The teacher-coordinator should have a specific purpose in mind when making each coordination visit (i.e., observing student's telephone techniques).	SA	A	D	SD
69. The teacher-coordinator should maintain records of each coordination call (i.e., purpose, action, evaluation) which will serve as a review before making another call.	SA	A	D	SD

Evaluation of Students on the Job

70. The teacher-coordinator should develop procedures which provide for the continuous evaluation of students on the job.	SA	A	D	SD
71. The teacher-coordinator should use the training plan as a basis for evaluating the student on the job to determine the degree to which the student is performing specific activities.	SA	A	D	SD
72. The teacher-coordinator should use evaluation forms in conjunction with the training plan.	SA	A	D	SD
73. The teacher-coordinator should inform students and training sponsors of the evaluative criteria.	SA	A	D	SD
74. The teacher-coordinator should observe student activity during coordination visits.	SA	A	D	SD
75. The teacher-coordinator should discuss the completed evaluations with the training sponsor.	SA	A	D	SD
76. The teacher-coordinator should briefly discuss student progress and experiences with the student during coordination visits.	SA	A	D	SD
77. The teacher-coordinator should encourage the training sponsor to discuss the completed evaluations with the student.	SA	A	D	SD
78. The teacher-coordinator should review the completed evaluations with the student.	SA	A	D	SD
79. The teacher-coordinator should meet with the training sponsor and/or student to decide upon the actions to be taken to improve student progress or modify the training plan.	SA	A	D	SD
80. The teacher-coordinator should request a formal evaluation at least once each grading period.	SA	A	D	SD
81. The teacher-coordinator should give separate grades for the on-the-job training and the related classroom instruction.	SA	A	D	SD
82. The teacher-coordinator should permit the training sponsor to assign the grade for the on-the-job training.	SA	A	D	SD

Your responses will be kept in strict confidence, and no one will be able to ascertain individual responses; the following number is used to assist with recording returned questionnaires. Questionnaire number _____

APPENDIX E

FOLLOW-UP LETTER SENT TO STUDY PARTICIPANTS



COLLEGE OF EDUCATION

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061

DIVISION OF VOCATIONAL & TECHNICAL EDUCATION

Approximately two weeks ago you received a questionnaire which was designed to determine the basic beliefs of business and office education personnel in Virginia about the coordination of cooperative education. Your completion of the questionnaire represents one phase of my doctoral studies; for this study to be successful, your response to the instrument is needed.

Knowing that you may have been busy at the time, I am enclosing another copy of the questionnaire for your consideration. How you personally respond will be held in strict confidence. Only statistical findings will be reported.

Your opinion regarding the coordination of cooperative education is the focus of this study; so please, won't you take just a few minutes of your time to help me in the study? Your participation will be greatly appreciated. If you have already returned your questionnaire, please accept my thanks and excuse the inconvenience of this follow-up letter.

Sincerely

Handwritten signature of William G. Neal in cursive script.

William G. Neal
Graduate Research Assistant

Approved

Handwritten signature of Richard L. Lynch in cursive script.

Richard L. Lynch
Advisor

Enclosure

APPENDIX F

RANK ORDER IDENTIFICATION AND MEANS FOR BASIC BELIEFS
OF BUSINESS AND OFFICE EDUCATION PERSONNEL
IN VIRGINIA REGARDING THE COORDINATION
OF COOPERATIVE EDUCATION

Statements	Rank	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
41. The teacher-coordinator should encourage the training sponsor to telephone or otherwise contact the teacher-coordinator when problems arise.	1.0	3.88	3.89	3.86	4.00	3.82
52. The teacher-coordinator should be given adequate released time during the school day to conduct coordination activities.	2.0	3.87	3.88	3.86	4.00	3.77
4. The teacher-coordinator should make personal contacts with all potential training sponsors.	3.0	3.80	3.77	3.86	4.00	3.83
34. The teacher-coordinator should ensure that training sponsors and other involved employees are familiar with the objectives of the cooperative office education program.	4.0	3.67	3.60	3.86	4.00	3.73
11. The teacher-coordinator should be employed on an extended contract basis to conduct coordination activities including the selection of training stations.	5.0	3.66	3.70	3.79	3.60	3.46
64. The teacher-coordinator should provide feedback to and discuss progress with the student on whom a coordination call was made.	6.5	3.65	3.65	3.64	3.80	3.63
65. If any follow-up of the coordination call with the training sponsor is necessary, the teacher-coordinator should do it promptly.	6.5	3.65	3.65	3.71	3.80	3.59
7. The teacher-coordinator should consider the needs, skills, and career objective of a student in determining the suitability of a training station for that particular student.	8.0	3.62	3.52	3.71	4.00	3.86
30. If necessary, the teacher-coordinator should remove a student from a training station (in consultation with the training sponsor) in instances of continual rule violation or inability to perform duties.	9.5	3.60	3.56	3.79	3.60	3.64
45. The teacher-coordinator should gather information on students' progress through reports, observations, conferences, and informal conversations.	9.5	3.60	3.52	3.71	3.80	3.79

	Statements	Rank	Total Group	Teacher-Coodinator	Local Supervisor	State Supervisor	Teacher Educator
40.	The teacher-coordinator should provide training sponsors with recognition of their accomplishments and contributions to the cooperative office education program.	11.5	3.58	3.53	3.71	3.60	3.68
47.	The teacher-coordinator should help students and training sponsors solve problems, if necessary.	11.5	3.58	3.58	3.64	3.60	3.54
5.	The teacher-coordinator should maintain a current and complete file of available training stations.	13.5	3.57	3.54	3.64	3.20	3.73
19.	The teacher-coordinator and employer should discuss hours and wages consistent with local, state, and federal labor laws.	13.5	3.57	3.53	3.64	4.00	3.59
46.	The teacher-coordinator should use information obtained from coordination visits to plan future activities for the student in school or on the job, adapting or changing the training plan if appropriate.	15.0	3.56	3.50	3.79	3.80	3.58
10.	The teacher-coordinator should assure that the students have the personal supervision of an employee who understands and appreciates the position of the student as well as the welfare of the training station.	16.5	3.55	3.47	3.71	3.60	3.77
48.	The teacher-coordinator should plan follow-up activities to check expected progress and the resolution of any identified problems on the job.	16.5	3.55	3.51	3.79	3.60	3.55
6.	The teacher-coordinator should work closely with other cooperative teacher-coordinators within a school system where more than one program exists.	20.0	3.50	3.48	3.64	3.60	3.50
12.	The teacher-coordinator should match the students' needs, skills, and career objectives to jobs providing the type of experiences enhancing such needs, skills, and career objectives when placing students.	20.0	3.50	3.38	3.64	3.80	3.77
18.	The teacher-coordinator should contact employers following the students' interviews to obtain employers' comments and evaluation concerning the students.	20.0	3.50	3.48	3.50	3.80	3.46

Statements	Rank	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
73. The teacher-coordinator should inform students and training sponsors of the evaluative criteria.	20.0	3.50	3.44	3.57	3.60	3.67
78. The teacher-coordinator should review the completed evaluations with the student.	20.0	3.50	3.47	3.58	3.80	3.46
51. A major purpose of coordination should be to assure that the student is performing satisfactorily on the job.	23.0	3.48	3.49	3.57	3.00	3.50
2. The teacher-coordinator should assess the educational adequacy of prospective training stations' facilities and equipment.	24.5	3.47	3.35	3.64	3.80	3.82
13. The teacher-coordinator should show equal consideration for both the employer and the student when placement on the job is made.	24.5	3.47	3.52	3.36	3.80	3.25
70. The teacher-coordinator should develop procedures which provide for the continuous evaluation of students on the job.	26.5	3.42	3.34	3.57	3.40	3.63
79. The teacher-coordinator should meet with the training sponsor and/or student to decide upon the actions to be taken to improve student progress or modify the training plan.	26.5	3.42	3.37	3.50	3.80	3.50
1. The teacher-coordinator should use a planned and systematic method of selecting training stations.	28.0	3.38	3.23	3.43	3.80	3.86
55. The primary responsibility of the training sponsor should be to provide a variety of activities and experiences related to the occupation.	29.5	3.37	3.29	3.50	3.80	3.55
80. The teacher-coordinator should request a formal evaluation at least once each grading period.	29.5	3.37	3.33	3.43	3.40	3.50
37. The teacher-coordinator should assist the training sponsor to cope with the inexperience and possible immaturity of the students.	31.0	3.36	3.32	3.43	4.00	3.36

Statements	Rank	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
35. The teacher-coordinator should involve the training sponsors in developing the training plan for the student.	32.0	3.35	3.27	3.64	3.80	3.36
23. The teacher-coordinator should permit the training sponsor to make the final selection of the student for a particular job and/or a particular firm.	33.5	3.34	3.34	3.43	3.60	3.23
69. The teacher-coordinator should maintain records of each coordination call (i.e., purpose, action, evaluation) which will serve as a review before making another call.	33.5	3.34	3.22	3.64	3.90	3.55
50. A major purpose of coordination should be to assure that the student is being given prescribed learning experiences on the job.	35.0	3.33	3.26	3.57	3.60	3.42
36. The teacher-coordinator should suggest to the training sponsor possible training experiences for the student if needed.	36.5	3.32	3.21	3.57	4.00	3.46
54. The teacher-coordinator should make an appointment with training sponsors prior to a planned meeting with them.	36.5	3.32	3.29	3.36	3.80	3.27
21. The teacher-coordinator should arrange for special job placement for the student with known limitations (i.e., handicapped, educably retarded, etc.)	38.5	3.30	3.25	3.50	3.60	3.29
25. The teacher-coordinator should give copies of the completed training agreement to all parties.	38.5	3.30	3.19	3.57	3.60	3.54
75. The teacher-coordinator should discuss the completed evaluations with the training sponsor.	40.0	3.29	3.23	3.43	3.60	3.41
14. In matching students to training stations, the teacher-coordinator should select training stations which match the students' career objectives.	41	3.27	3.21	3.43	3.40	3.42
24. The teacher-coordinator should develop and use a written training agreement between the school and the training sponsor which lists specific responsibilities of the persons involved (i.e., student, parents, teacher-coordinator, training sponsor).	43.0	3.26	3.11	3.50	3.80	3.64

Statements	Rank	Total Group	Teacher-Cordinator	Local Supervisor	State Supervisor	Teacher Educator
3. The teacher-coordinator should encourage students to identify potential training stations.	44.0	3.23	3.34	2.86	2.80	3.09
57. The student should have the opportunity to move from one job activity to another in order to gain various work experience.	44.0	3.23	3.16	3.36	3.40	3.43
72. The teacher-coordinator should use evaluation forms in conjunction with the training plan.	44.0	3.23	3.17	3.29	3.20	3.44
39. The teacher-coordinator should provide each training sponsor with needed information concerning the content being covered in related instruction in school.	46.5	3.22	3.07	3.50	4.00	3.46
74. The teacher-coordinator should observe student activity during coordination visits.	46.5	3.22	3.17	3.29	3.20	3.38
67. The teacher-coordinator should provide an opportunity for students to formally evaluate the quality of the training provided at the training station.	48.0	3.21	3.19	3.21	3.20	3.27
66. The teacher-coordinator should assure that students enrolled in the cooperative office education program receive a minimum of 15 hours of on-the-job training per week and a maximum of 40 hours when school and work are combined.	49.5	3.18	3.15	3.43	3.00	3.19
77. The teacher-coordinator should encourage the training sponsor to discuss the completed evaluations with the student.	49.5	3.18	3.20	3.29	2.60	3.14
49. When the student is known to be having difficulties or when the student is new on the job, the teacher-coordinator should visit the training station a minimum of twice a month, more often if necessary.	51.5	3.17	3.10	3.43	3.20	3.29
63. The teacher-coordinator should make the first official coordination call within two weeks after the student reports to work.	51.5	3.17	3.09	3.50	3.40	3.27

	Statements	Rank	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
58.	The teacher-coordinator should permit students to meet the minimum requirements of hours of occupational experience by working Saturdays and during school holiday and vacation periods.	53.0	3.16	3.21	3.29	3.20	2.86
17.	The teacher-coordinator should provide students with an introduction card for the job interview.	54.5	3.15	3.15	3.21	3.40	3.05
71.	The teacher-coordinator should use the training plan as a basis for evaluating the student on the job to determine the degree to which the student is performing specific activities.	54.5	3.15	2.99	3.50	3.60	3.46
3.	The teacher-coordinator should avoid training stations that afford only simple repetitive tasks unless they happen to fit the needs of specific students.	56.5	3.14	3.00	3.43	2.60	3.64
62.	The number of hours worked by students each week should normally range from a minimum of 15 hours to a maximum of 25 hours, excluding Saturdays.	56.5	3.14	3.15	3.07	3.40	3.09
28.	The teacher-coordinator should list both general occupational training (i.e., human relations, work adjustment, etc.) and specific experiences (filing, answering the telephone, etc.) on the training plan.	58.5	3.12	3.06	3.36	3.60	3.14
42.	The teacher-coordinator should schedule a <u>minimum</u> of one regular coordination visit for each student during the month.	58.5	3.12	2.93	3.57	3.40	3.50
27.	The teacher-coordinator should relate a majority of the experiences outlined in the training plan to the student's career objective.	60.5	3.11	2.97	3.50	3.80	3.27
32.	The teacher-coordinator should assure that students receive wages equal to those normally paid to a beginning worker with comparable experience and background.	60.5	3.11	3.12	3.21	3.20	2.95

Statements	Rank	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
53. The teacher-coordinator should encourage other school personnel (i.e., school administrators, counselors, other business teachers, etc.) to occasionally accompany the teacher-coordinator on coordination visits.	62.5	3.09	3.02	3.21	3.20	3.27
59. The teacher-coordinator should have approximately one-half hour of coordination time per week for each student enrolled in the program (or for each student for whom the teacher-coordinator is responsible).	62.5	3.09	3.17	2.71	2.60	3.14
16. The teacher-coordinator should take the responsibility for setting up interview dates and times.	64.0	3.03	3.03	3.07	3.00	3.00
26. The teacher-coordinator should develop a step-by-step training plan for each student in cooperation with the training sponsor and the student.	65.0	2.97	2.75	3.57	3.80	3.32
61. The teacher-coordinator should require a daily work record from the students each week describing hours worked, activities performed, problems encountered, etc.	66.0	2.96	2.84	3.08	3.40	3.32
68. The teacher-coordinator should have a specific purpose in mind when making each coordination visit (i.e., observing student's telephone techniques).	67.0	2.95	2.82	3.29	3.60	3.14
43. The teacher-coordinator should prepare a coordination schedule to identify which students are to be visited on each day of the month.	68.0	2.93	2.78	3.29	3.60	3.14
15. Ideally, the teacher-coordinator should give each training sponsor the opportunity to interview at least three students.	69.0	2.92	2.89	3.07	2.80	2.96
44. The teacher-coordinator should provide appropriate school administrators with copies of a tentative coordination schedule.	70.0	2.83	2.56	3.43	3.80	3.32
29. The teacher-coordinator should secure a new training station for a student who would receive more worthwhile training at another station.	71.0	2.78	2.74	3.08	3.00	2.73

	Statements	Rank	Total Group	Teacher-Coordinator	Local Supervisor	State Supervisor	Teacher Educator
56.	Upon request, the teacher-coordinator should help training sponsors with their business-related problems even though such problems do not specifically concern cooperative office education students.	72.0	2.70	2.73	2.71	2.60	2.59
22.	The teacher-coordinator should make a special effort to place "borderline" students (i.e., low grade-point average, poor appearance, low ability, limited skills, etc.) with a cooperative office education training sponsor.	73.0	2.68	2.59	2.71	3.75	2.81
81.	The teacher-coordinator should give separate grades for the on-the-job training and the related classroom instruction.	74.0	2.64	2.64	2.43	1.40	3.09
38.	The teacher-coordinator should conduct training sponsor development sessions to improve the quality of training given to the students on the job.	75.0	2.61	2.40	3.14	3.40	2.96
20.	The teacher-coordinator should approve the payment of a subminimum wage when subminimum wages are requested by a training sponsor.	76.0	2.47	2.50	2.57	2.50	2.25
33.	The teacher-coordinator should help place students (other than cooperative office education students) in part-time jobs as a general service to the school.	77.0	2.46	2.53	2.62	2.60	2.05
76.	The teacher-coordinator should briefly discuss student progress and experiences with the student during coordination visits.	78.0	2.37	2.28	2.21	2.80	2.81
31.	The teacher-coordinator should assure that adequate transportation is provided for each student.	79.0	2.30	2.20	2.50	2.40	2.59
60.	The teacher-coordinator should make provision for students to be released from school in order to work during the absence of other employees or when the workload is especially heavy at the training station.	80.0	2.19	2.36	2.07	1.40	1.73
82.	The teacher-coordinator should permit the training sponsor to assign the grade for the on-the-job training.	81.0	2.08	2.11	2.07	1.60	2.05

Statements	Rank	Total Group	Teacher- Coordinator	Local Supervisor	State Supervisor	Teacher Educator
9. The teacher-coordinator should pay training sponsors from vocational education monies for the extra time and expense in teaching and training cooperative office education students.	82.0	1.61	1.50	1.79	1.80	1.95

APPENDIX G

INITIAL PRINCIPAL COMPONENTS FACTOR MATRIX,
EIGENVALUES, AND PERCENT OF VARIANCE

Items	Factors				
	1	2	3	4	5
1	0.43634	-0.26688	0.21695	0.07927	-0.08484
2	0.51132	-0.15498	0.18623	0.22319	-0.12267
3	0.17868	-0.05872	0.36145	0.06108	-0.10717
4	0.31355	0.16387	0.09120	0.11918	0.07110
5	0.25891	-0.05570	0.25014	0.03917	0.17867
6	0.24156	0.10943	0.30631	0.31606	0.21380
7	0.43740	-0.10459	0.27909	0.26452	-0.47568
8	0.01254	0.14295	0.01241	-0.00153	0.03275
9	0.23691	-0.29898	-0.01497	0.01930	0.40928
10	0.51256	-0.03179	0.10808	0.16797	0.03031
11	0.17623	0.24442	-0.08611	0.29630	-0.20493
12	0.46624	-0.08801	0.28961	0.28453	-0.09361
13	0.22059	0.19057	-0.26594	0.28042	0.07361
14	0.38952	0.03350	0.23323	0.30673	-0.32712
15	0.21573	-0.09351	0.02017	0.13958	0.03435
16	0.40305	0.10630	-0.02136	0.16448	-0.02059
17	0.36001	-0.05642	0.04949	0.19020	0.02432
18	0.51517	0.11862	0.00045	0.20189	0.01580
19	0.54851	0.11761	-0.20545	0.15775	0.15602
20	0.28555	0.10592	-0.26830	-0.13901	0.06633
21	0.46504	0.12224	0.18182	0.32234	-0.14099
22	0.13906	-0.03397	0.07238	0.27384	-0.00573
23	0.46199	0.25359	-0.19831	0.17869	0.04861
24	0.44106	-0.27488	0.12589	-0.29123	-0.15412
25	0.45242	-0.11999	0.12015	-0.20454	-0.22564
26	0.60195	-0.35579	-0.27091	0.06048	-0.28733
27	0.69599	-0.25334	-0.27902	-0.02366	-0.20796
28	0.56601	-0.10346	-0.37483	-0.02954	-0.26974
29	0.33525	0.15263	0.13646	0.08872	0.24894
30	0.51278	0.18647	-0.11641	0.04094	0.13229
31	0.42891	-0.20976	0.17588	-0.09866	0.17936
32	0.32725	0.28694	0.17460	0.07004	0.01048
33	0.05831	0.23031	-0.02443	0.23872	0.09773
34	0.60215	0.18880	-0.04831	0.09182	-0.10086
35	0.60880	-0.14508	-0.20682	-0.00802	-0.19422
36	0.63389	-0.07525	0.12570	0.05827	-0.01895
37	0.48062	0.17090	-0.07941	0.03006	0.03665
38	0.57618	-0.29025	0.17492	-0.04377	-0.03039
39	0.66239	-0.21027	0.02742	-0.19154	-0.31309
40	0.58674	0.15767	0.03991	-0.03965	-0.21003

Items	Factors				
	1	2	3	4	5
41	0.33672	0.28142	-0.02401	0.13221	-0.07326
42	0.37919	-0.31033	-0.40177	0.10176	0.26946
43	0.52185	-0.37161	-0.16385	0.06372	0.21030
44	0.45209	-0.38346	-0.11107	0.13505	0.05873
45	0.69051	0.20976	0.05419	-0.12436	0.04838
46	0.66875	0.10782	-0.10729	-0.05142	-0.01717
47	0.63599	0.41839	0.09876	-0.11128	0.17781
48	0.71431	0.35370	-0.05144	-0.04153	0.03139
49	0.36103	-0.32723	-0.37600	0.12135	0.46279
50	0.52442	-0.02507	0.13553	0.19910	0.18648
51	0.47336	0.26962	0.00786	0.04613	0.10945
52	0.35367	0.34109	-0.03599	0.09360	0.01163
53	0.40264	0.03916	0.13382	-0.23396	0.12188
54	0.24707	-0.13386	0.12753	-0.10476	0.06986
55	0.57341	-0.02123	0.09596	-0.03064	0.14562
56	0.36415	0.14947	0.10028	-0.11493	0.04025
57	0.42950	-0.01916	0.12374	-0.10743	0.29068
58	0.21372	0.18956	0.05345	0.18780	0.12349
59	0.08963	0.05199	-0.04286	0.08247	0.25122
60	-0.11108	0.07538	-0.02521	0.22882	0.12403
61	0.41195	-0.34820	0.07548	0.00405	0.10506
62	0.27499	0.00803	-0.12937	-0.07885	0.16074
63	0.42136	-0.14612	-0.13350	-0.09017	-0.06990
64	0.57885	0.39532	0.00755	-0.21533	0.08087
65	0.59610	0.41196	0.00840	-0.12798	0.00051
66	0.41417	-0.03034	0.12054	-0.15771	0.09982
67	0.54125	-0.10215	0.21477	0.16028	0.15441
68	0.56968	-0.29198	0.17927	0.10150	0.06506
69	0.74042	-0.15279	0.08727	0.09474	-0.06620
70	0.67544	-0.11680	-0.12000	0.06481	0.02152
71	0.71026	-0.26502	-0.30989	-0.00601	-0.06250
72	0.43339	0.11265	-0.10213	-0.31839	-0.08749
73	0.73338	0.12465	-0.11883	-0.39348	-0.07715
74	0.57999	-0.03050	0.01663	-0.16165	0.07673
75	0.64902	-0.06793	-0.20170	-0.14287	0.06944
76	0.14930	-0.24000	0.27644	-0.25757	0.06098
77	0.36028	0.24087	0.24057	-0.29560	-0.03468
78	0.53146	0.25255	-0.07161	-0.28100	-0.03122
79	0.67682	0.09615	-0.07353	-0.06448	-0.16212
80	0.37286	0.12532	0.22760	-0.25496	0.07199
81	0.10104	-0.12883	0.40167	-0.20636	0.19525
82	0.11468	-0.28864	0.32404	-0.10124	0.17953

Factor	Eigenvalue	Percent of Variance	Cumulative Percent
1	18.60577	22.7	22.7
2	4.09338	5.0	27.7
3	3.25391	4.0	31.7
4	3.05651	3.7	35.4
5	2.78163	3.4	38.8
6	2.59262	3.2	41.9
7	2.43585	3.0	44.9
8	2.38108	2.9	47.8
9	2.09323	2.6	50.4
10	1.94739	2.4	52.7
11	1.93552	2.4	55.1
12	1.76570	2.2	57.3
13	1.68150	2.1	59.3
14	1.62893	2.0	61.3
15	1.57360	1.9	63.2
16	1.54673	1.9	65.1
17	1.48065	1.8	66.9
18	1.38172	1.7	68.6
19	1.35242	1.6	70.2
20	1.24956	1.5	71.8
21	1.17331	1.4	73.2
22	1.16023	1.4	74.6
23	1.06655	1.3	75.9
24	1.00449	1.2	77.1
25	0.97987	1.2	78.3
26	0.97359	1.2	79.5
27	0.91285	1.1	80.6
28	0.84971	1.0	81.7
29	0.81641	1.0	82.7
30	0.78798	1.0	83.6
31	0.73666	0.9	84.5
32	0.70625	0.9	85.4
33	0.68874	0.8	86.2
34	0.67448	0.8	87.0
35	0.66002	0.8	87.8
36	0.64402	0.8	88.6
37	0.58919	0.7	89.3
38	0.55525	0.7	90.0
39	0.52951	0.6	90.7
40	0.49969	0.6	91.3
41	0.46872	0.6	91.9
42	0.43836	0.5	92.4
43	0.41257	0.5	92.9
44	0.40157	0.5	93.4
45	0.38541	0.5	93.9
46	0.34675	0.4	94.3

Factor	Eigenvalue	Percent of Variance	Cumulative Percent
47	0.33349	0.4	94.7
48	0.32756	0.4	95.1
49	0.32279	0.4	95.5
50	0.29599	0.4	95.8
51	0.29158	0.4	96.2
52	0.25912	0.3	96.5
53	0.25504	0.3	96.8
54	0.23736	0.3	97.1
55	0.21997	0.3	97.4
56	0.19715	0.2	97.6
57	0.19128	0.2	97.8
58	0.17728	0.2	98.1
59	0.15772	0.2	98.3
60	0.15119	0.2	98.4
61	0.13720	0.2	98.6
62	0.12821	0.2	98.8
63	0.11557	0.1	98.9
64	0.10928	0.1	99.0
65	0.10433	0.1	99.2
66	0.09055	0.1	99.3
67	0.08192	0.1	99.4
68	0.08113	0.1	99.5
69	0.07199	0.1	99.6
70	0.06219	0.1	99.6
71	0.05115	0.1	99.7
72	0.04723	0.1	99.8
73	0.03739	0.0	99.8
74	0.03459	0.0	99.8
75	0.02683	0.0	99.9
76	0.02492	0.0	99.9
77	0.02239	0.0	99.9
78	0.01827	0.0	100.0
79	0.01346	0.0	100.0
80	0.01142	0.0	100.0
81	0.00518	0.0	100.0
82	0.00321	0.0	100.0

APPENDIX H

ORTHOGONALLY ROTATED FACTOR MATRIX

Items	Factors				
	1	2	3	4	5
4	0.30808	0.05754	0.15168	0.15412	-0.08810
19	0.43053	0.18905	0.21772	0.36014	-0.08906
20	0.30236	0.21292	-0.12604	0.17642	-0.06852
29	0.34089	-0.09830	0.20291	0.18738	0.14830
30	0.47528	0.15432	0.15179	0.23997	-0.01057
32	0.39969	-0.04009	0.23821	-0.05867	0.05812
34	0.48431	0.28751	0.30695	0.07676	-0.04296
37	0.43560	0.18160	0.16696	0.14427	-0.01442
40	0.45746	0.35817	0.26652	-0.06808	0.05633
41	0.38194	0.06845	0.21914	-0.01287	-0.13132
45	0.61785	0.27090	0.19415	0.10550	0.19389
46	0.50917	0.37757	0.19244	0.17618	0.05836
47	0.75407	0.06021	0.15177	0.09456	0.17049
48	0.72310	0.24521	0.20852	0.11587	0.02794
51	0.50364	0.06155	0.19003	0.12925	0.02587
52	0.45782	0.02149	0.16814	0.02878	-0.11160
53	0.34225	0.15304	0.02604	0.07465	0.32302
55	0.37014	0.21197	0.23666	0.22984	0.26426
56	0.36433	0.10592	0.08991	0.00898	0.16647
57	0.31850	0.06733	0.09907	0.26271	0.33373
64	0.70857	0.15686	0.08113	0.02918	0.12434
65	0.70212	0.17646	0.11980	-0.00920	0.05427
74	0.38430	0.32543	0.12109	0.18667	0.25791
77	0.44850	0.10622	0.02063	-0.18588	0.29472
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24	0.10262	0.47990	0.08602	-0.01626	0.38211
25	0.20843	0.44475	0.16104	-0.09040	0.26345
26	0.06584	0.71737	0.27999	0.22251	-0.04090
27	0.22945	0.70841	0.22615	0.25416	0.00419
28	0.25254	0.64441	0.12104	0.15888	-0.16206
35	0.25162	0.57547	0.21850	0.17304	-0.00875
39	0.24732	0.66435	0.23867	-0.02394	0.24160
63	0.16685	0.40464	0.08308	0.15796	0.07944
70	0.33171	0.42790	0.29231	0.32049	0.02744
71	0.25025	0.64843	0.20269	0.38698	0.02744
72	0.40579	0.36440	-0.09272	-0.01361	0.11716
73	0.61946	0.54351	-0.03163	0.06480	0.20962
75	0.40148	0.45858	0.07346	0.31483	0.12555
78	0.30340	0.57114	-0.03533	0.00231	0.10856
79	0.48427	0.45699	0.23249	0.05832	0.04852
.....					
1	0.04184	0.29228	0.38734	0.08264	0.27880
2	0.13824	0.27328	0.51095	0.08619	0.15071

Items	Factors				
	1	2	3	4	5
3	0.02954	0.02694	0.31100	-0.14952	0.24608
6	0.19566	-0.24170	0.42093	0.13204	0.13577
7	0.06250	0.35645	0.62006	-0.24220	0.04797
10	0.26699	0.18293	0.39061	0.17562	0.12796
11	0.20309	0.04407	0.27776	-0.07450	-0.31955
12	0.14903	0.14742	0.57060	0.04075	0.16590
14	0.15085	0.19462	0.56570	-0.16534	-0.01880
15	0.04407	0.08903	0.20881	0.14635	0.03825
16	0.29645	0.14098	0.28012	0.11372	-0.05023
17	0.14960	0.13004	0.31990	0.16720	0.04928
18	0.37368	0.15696	0.35705	0.16881	-0.02149
21	0.29149	0.11017	0.53893	-0.01210	-0.01855
22	0.00592	-0.01564	0.30236	0.08433	-0.04403
23	0.45523	0.13291	0.20796	0.21041	-0.19734
36	0.32408	0.31984	0.38259	0.15482	0.22220
67	0.25118	0.12403	0.42573	0.25111	0.27617
.....					
9	-0.01038	0.03486	0.05476	0.48555	0.27117
42	0.04345	0.31195	0.03676	0.61811	-0.04309
43	0.07894	0.37004	0.19327	0.52378	0.17515
44	-0.01290	0.37910	0.27335	0.39137	0.11693
49	0.04563	0.18911	0.01652	0.75419	0.02773
59	0.11944	-0.11929	0.02359	0.23093	0.01001
62	0.22283	0.12882	-0.03334	0.23134	0.06001
.....					
5	0.13474	-0.03842	0.21954	0.12544	0.28740
31	0.15684	0.18817	0.17149	0.22771	0.39941
33	0.17604	-0.18348	0.14953	0.07706	-0.17499
38	0.14605	0.44030	0.32754	0.15893	0.36817
54	0.08402	0.13668	0.08267	0.08783	0.26607
61	0.01535	0.28642	0.22689	0.28692	0.30269
69	0.32027	0.43997	0.45649	0.20424	0.21516
81	0.02786	-0.08417	0.03843	-0.00953	0.50934
82	-0.10206	-0.00120	0.10881	0.09963	0.46018
.....					
8	0.11834	-0.07727	-0.01192	-0.02879	-0.02959
13	0.24353	0.01182	0.15254	0.23644	-0.31801
50	0.29724	0.08211	0.39796	0.28688	0.18072
58	0.25519	-0.11008	0.21106	0.10835	-0.03819

Items	Factors				
	1	2	3	4	5
60	-0.03825	-0.21840	0.07978	0.10025	-0.14428
66	0.28033	0.18370	0.09427	0.11120	0.29706
68	0.12742	0.30096	0.41625	0.26191	0.32832
76	-0.03148	0.12486	0.00463	-0.01258	0.45783
80	0.38057	0.09799	0.04053	-0.04734	0.34408

VITA

William Galen Neal was born in Waverly, Iowa, on March 27, 1949. He attended and graduated from Waverly-Shell Rock Senior High School, Waverly, Iowa, in 1967. He received his Bachelor of Arts degree in business education with an office education emphasis from the University of Northern Iowa, Cedar Falls, Iowa, in January, 1971. He was an office education teacher-coordinator at Spencer Senior High School, Spencer, Iowa, during 1971-1972 and accepted a position as a teacher-coordinator at Kirkwood Community College, Cedar Rapids, Iowa, where he taught from 1972-1974.

In August of 1974 he received his Master of Arts degree in business education from the University of Northern Iowa, Cedar Falls, Iowa, and assumed a position there as a teacher educator in the Department of Business Education and Office Administration during 1974-1975.

In the fall of 1975 he began his doctoral studies at Virginia Polytechnic Institute and State University as an Education Professions Development awardee from the State of Iowa. During the second year of his doctoral studies, he was a graduate research assistant in the distributive education program area.

He is a member of Phi Delta Kappa, Phi Kappa Phi, Delta Pi Epsilon, Pi Omega Pi, and several other business, adult, and vocational education associations. Upon completion of his doctoral degree, he joined the Department of Business Education and Office Administration at Utah State University, Logan, Utah.


William Galen Neal

BASIC BELIEFS OF BUSINESS AND OFFICE EDUCATION PERSONNEL
IN VIRGINIA REGARDING THE COORDINATION
OF COOPERATIVE EDUCATION

by

William Galen Neal

(ABSTRACT)

Statement of the Problem

The central problem of this study was to identify and compare the basic beliefs of teacher-coordinators, local supervisors, state supervisors, and teacher educators of business and office education in Virginia regarding the coordination of high school cooperative office education programs. A secondary problem was to determine if there was a relationship between specific biographical variables (years of coordination experience, years of employment experience, and previous course work in cooperative education) and the basic beliefs expressed by the business and office education personnel and if there was a relationship between school location (urban, suburban, middle-sized, and rural or smaller community) and the basic beliefs expressed by the teacher-coordinators in the study.

Research Procedures

A random sample of teacher-coordinators (113) and the populations of Virginia's local supervisors (14), state supervisors (5), and teacher educators (56) were potential respondents for this study. Each

participant provided biographical data and indicated his/her degree of agreement ("strongly agree" to "strongly disagree") with 82 potential basic belief statements in five categories: Selection of Training Stations, Placement of Students on the Job, Development of On-the-Job Instructors' Training Ability, Supervision of On-the-Job Instruction, and Evaluation of Students on the Job. The analysis of the data consisted of (1) descriptive statistics to provide a respondent profile, (2) descriptive statistics to identify and compare the basic beliefs, (3) factor analysis to verify the categories used on the questionnaire and to reduce the data to test the research hypotheses, and (4) statistical tests of the research hypotheses (multivariate analysis of variance, confidence intervals, chi square and Pearson correlations).

Conclusions

1. All respondents lacked formal course work designed to prepare persons in coordinating a cooperative education program. Supervisory personnel and teacher educators lacked experience in coordinating a program.

2. Business and office education personnel indicated strong agreement with 22 items, agreement with 53 items, and disagreement with 7 items on the questionnaire. Teacher-coordinators expressed strong agreement with 17 items, local supervisors with 40 items, state supervisors with 46 items, and teacher educators with 31 items.

3. The original categorization of questionnaire items could be partially verified through the factor analysis procedure. Additional factor categories included "Training Agreements and Training Plans" and "Planning for Effective Coordination; Time Structures."

4. Personnel groups differed significantly on the "Training Agreements and Training Plans" and "Planning for Effective Coordination; Time Structures" factors. Local and state supervisors indicated strong agreement with items associated with these factors.

5. There were no significant correlations between the factors and the following biographical variables: years of coordination experience and years of office-related experience.

6. There was a significant positive correlation between the agree responses on the factor "Planning for Effective Coordination; Time Structures" and those respondents who had previous course work in cooperative education.

7. Teacher-coordinators in each of the four school location areas (urban, suburban, middle-sized, rural or smaller community) did not differ significantly on any of the five factors regarding the coordination of cooperative education.

Recommendations

1. It was recommended that formal courses primarily designed to train teacher-coordinators be available to current and prospective teacher-coordinators.

2. It was recommended that the data from this study be utilized in determining operational procedures and guidelines, course content, and evaluative criteria with special consideration for training agreements, training plans, and planning for coordination.