

CETA AND VOCATIONAL EDUCATION ADMINISTRATORS'  
PERCEPTIONS OF PROCEDURES FOR THE IMPLEMENTATION  
AND OPERATION OF JOINTLY DELIVERED PROGRAMS IN VIRGINIA

by

Kay Fleshman Gow

Dissertation submitted to the Graduate Faculty of the  
Virginia Polytechnic Institute and State University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

in

Vocational and Technical Education

APPROVED:

---

J. Dale Oliver, Chairman

---

Curtis R. Finch

---

Walter L. Shell

---

Robert L. McGough

---

Max S. Wortman )

December, 1979

Blacksburg, Virginia

## ACKNOWLEDGMENTS

The author wishes to express appreciation to those individuals who contributed to the successful completion of this study.

A very special expression of gratitude is extended to Dr. J. Dale Oliver, graduate committee chairman, for his encouragement, guidance, and example of professionalism. His example will continue to be an inspiration. Each of the members of the graduate committee also made a special contribution for which the author would like to express appreciation: to Dr. Curtis R. Finch for his contribution to the design of the study, to Dr. Walter L. Shell for his continued encouragement and attention to detail, and to Dr. Robert L. McGough and Dr. Max S. Wortman for their expertise in employment and training programs.

This study would not have been possible without the contributions of the members of the panel of experts. These individuals gave willingly of their time to complete three Delphi probes and to make many helpful comments. The author also wishes to acknowledge the executive directors of each prime sponsorship in \_\_\_\_\_ and \_\_\_\_\_, Supervisor of Comprehensive Employment and Training Services, Virginia Department of Education, for providing nominations for the panel of experts.

The author wishes to extend heartfelt appreciation for the continued support and encouragement of her friends and family, especially her parents, \_\_\_\_\_ and \_\_\_\_\_. To her husband, \_\_\_\_\_, whose example of professional excellence encouraged the author to pursue this degree and whose support made it possible for her to do so, no written expression of appreciation would be sufficient.

## CONTENTS

	Page
ACKNOWLEDGEMENTS . . . . .	ii
LIST OF TABLES. . . . .	vi
Chapter	
1. INTRODUCTION. . . . .	1
FEDERAL LEGISLATION . . . . .	2
Employment and Training Legislation . . . . .	3
Vocational Education Legislation. . . . .	6
STATEMENT OF THE PROBLEM. . . . .	8
SIGNIFICANCE OF THE STUDY . . . . .	9
LIMITATIONS . . . . .	12
DEFINITION OF TERMS . . . . .	13
SUMMARY . . . . .	15
2. REVIEW OF LITERATURE. . . . .	17
CETA/VOCATIONAL EDUCATION LINKAGE STUDIES . . . . .	17
JOINTLY DELIVERED CETA/VOCATIONAL EDUCATION PROGRAMS. . . . .	23
Williamson County, Tennessee. . . . .	23
Jefferson County, Alabama . . . . .	24
Worcester, Massachusetts. . . . .	25
Tucson, Arizona . . . . .	26
Youthwork, Incorporated . . . . .	27
THE DELPHI TECHNIQUE. . . . .	28
Advantages. . . . .	29
Disadvantages . . . . .	30
Selection of the Panel of Experts . . . . .	31

Studies of the Delphi Technique . . . . .	32
SUMMARY . . . . .	36
3. METHODOLOGY . . . . .	37
DESIGN OF THE STUDY . . . . .	37
DATA COLLECTION TECHNIQUE . . . . .	38
SELECTION OF THE PANEL OF EXPERTS . . . . .	41
INSTRUMENTATION . . . . .	44
DATA COLLECTION PROCESS . . . . .	45
Delphi Probe I . . . . .	45
Delphi Probe II . . . . .	45
Delphi Probe III . . . . .	46
DATA ANALYSIS . . . . .	47
Delphi Probe I . . . . .	47
Delphi Probe II . . . . .	48
Delphi Probe III . . . . .	48
SUMMARY . . . . .	50
4. PRESENTATION AND DISCUSSION OF DATA . . . . .	52
SUMMARY OF PARTICIPATION OF THE PANEL OF EXPERTS . . . . .	52
ANALYSIS OF DATA FROM DELPHI PROBE I . . . . .	53
ANALYSIS OF DATA FROM DELPHI PROBE II . . . . .	57
ANALYSIS OF DATA FROM DELPHI PROBE III . . . . .	61
SUMMARY . . . . .	91
5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS . . . . .	92
SUMMARY . . . . .	92
FINDINGS . . . . .	94
CONCLUSIONS . . . . .	95
RECOMMENDATIONS . . . . .	97
DISCUSSION . . . . .	101

APPENDIXES . . . . .	104
A. PANEL OF EXPERTS . . . . .	106
B. INSTRUMENT FOR DELPHI PROBE I . . . . .	109
C. COVER LETTER DELPHI PROBE I . . . . .	117
D. ADDITIONAL PROCEDURES SUGGESTED BY PANEL . . . . .	119
E. DELPHI PROBE II . . . . .	123
F. DELPHI PROBE III . . . . .	132
VITA . . . . .	153
ABSTRACT	

LIST OF TABLES

Table	Page
1. Representation of Prime Sponsor Areas . . . . .	43
2. Delphi Probe I: Distribution of Responses . . . . .	54
3. Delphi Probe I: Summary of Responses by Group . . . . .	58
4. Delphi Probe II: Distribution of Responses . . . . .	62
5. Delphi Probe II: Summary of Responses by Group . . . . .	65
6. Delphi Probe III: Distribution of Responses . . . . .	69
7. Delphi Probe III: Summary of Responses by Group . . . . .	73
8. Sequential Listing of Procedures and Importance Ratings Indicated by the Panel of Experts . . . . .	76
9. Summary of Responses of CETA Administrators . . . . .	82
10. Summary of Responses of Vocational Education Administrators .	85
11. Summary of Responses of the Total Group . . . . .	88

## Chapter 1

### INTRODUCTION

There is increasing recognition of the need for collaborative efforts between administrators of occupational training programs funded under the Comprehensive Employment and Training Act (CETA) and administrators of vocational education programs to avoid duplication of services supported by public funds. One reason for this increased recognition is the strengthening of the legislative mandates for coordination in the Educational Amendments of 1976 and the CETA of 1978. These mandates are not new; they have existed since the days of the Manpower Development and Training Act (MDTA) of 1962 and the Vocational Education Act of 1963. What is new is the effort, although still only piecemeal, to establish collaborative CETA/vocational education programs. This study seeks to hasten these efforts through developing procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia.

The CETA of 1973, as amended in 1978, is the most complete and well-integrated federal manpower program to date. Having evolved from a series of politically expedient federal manpower and economic relief programs, the major objective of CETA "is to provide training and improve employment opportunities for the economically disadvantaged and for the unemployed and underemployed" (Mirengoff & Rindler, 1978:3). CETA had its beginnings in meeting the occupational training needs of economically disadvantaged, unemployed and underemployed adults who were

not being served by existing vocational education programs. These individuals often were unable to avail themselves of traditional adult vocational education programs because they lacked tuition, transportation, or child care services or, in the case of the underemployed, because the courses were offered at times which conflicted with their current jobs. CETA legislation allows for the provision of transportation, child care and other services which are necessary for these individuals. In addition, the passage of the Youth Employment Demonstration Projects Act (YEDPA) in 1977 added to the scope of CETA programs a major emphasis on serving the needs of economically disadvantaged youth in both in-school and out-of-school programs.

Historically, the mission of vocational educators throughout the nation has been to provide classroom and on-the-job training programs for youth and adults. Vocational educators have an increasing realization of the encroachment of other agencies into the field of vocational training. This realization is evidenced in a speech delivered in December 1974 by J. W. Lewis, Mississippi State Director of Vocational-Technical Education. Lewis said, "One of our main concerns in vocational education today is the trend at the national level for vocational education to be put in the hands of agencies other than educational agencies" (1975:65). A major expansion of occupational training programs into areas served by vocational education has resulted from the implementation of the CETA legislation.

#### FEDERAL LEGISLATION

A brief explanation of the evolution and mandates of federal legislation for employment and training programs and for vocational

education programs will provide important background information for readers of this study.

### Employment and Training Legislation

Federal jobs legislation has been a reality since the Works Progress Administration (WPA) of the 1930's. That legislation was designed as a temporary public-sector jobs program to alleviate unemployment during the Depression. When the need for this federal support of the economy subsided, the program ended.

Federal employment programs were not highly visible again until the increase in unemployment of the early 1960's. The MDTA of 1962 offered numerous training and employment opportunities to the unemployed. MDTA was based on the premise that given skills, the unemployed would be able to find jobs. Because unemployment continued to be a major economic and political problem, many additional administrative and legislative "cures" were enacted during the 1960's and early 1970's. Some of these were the Economic Opportunity Act of 1964 (EOA) and its amendments in 1967, the establishment of the Cooperative Area Manpower Planning System (CAMPS) by the Labor Department, the formation of the National Alliance of Businessmen (now the National Alliance of Business) to administer a program entitled Job Opportunities in the Business Sector (JOBS), and the Emergency Employment Act of 1971 (EEA).

During the Nixon administration, the emphasis in employment and training programs shifted to decentralization and decategorization. It has been said that

the passage of the Comprehensive Employment and Training Act (CETA) . . . was primarily a statement of administrative policy. It subsumed under one act many of the then

extant manpower efforts (under MDTA, EOA and EEA) and vested in states and localities responsibility for planning, administering and delivering services to the unemployed, underemployed or economically disadvantaged. The federal role was to be limited to assuring compliance with the law through plan reviews and program audits and providing technical assistance. (National Commission on Manpower Policy, 1978:39)

Federal funds to subsidize public service employment (PSE) in local governments had been guaranteed in a separate title (Title VI) of the CETA of 1973. It grew in importance to become a major component of President Carter's Economic Stimulus Program in 1977.

As such the program was slated to expand by more than 400,000 jobs over a nine month period, reaching a target level of 725,000 jobs. In fact, the program reached a level in excess of 750,000 jobs in March of 1978. (National Commission on Manpower Policy, 1978:47)

A new title addressing the special needs of youth--Title VIII--and amending the Title III youth provisions was enacted in August 1977. This legislation, the Youth Employment and Demonstration Projects Act (YEDPA), was the culmination of a year of hearings, proposals and counterproposals on youth programs. The law which was enacted provided for several programs: Youth Incentive Entitlement Pilot Projects (YIEPP), designed to test the effect of a year-round structured work experience as an entitlement to encourage school completion; Youth Community Conservation and Improvement Projects (YCCIP), designed to provide jobs and employment experience for youth in community betterment

projects; and Youth Employment and Training Programs (YETP), structured to make available to youth a broad range of employment and training services.

In the fall of 1978 and the early months of 1979, Congress passed the CETA of 1978. It has been said that "the focus is on improving the way the employment and training services are delivered, not on the services that are delivered" (National Commission on Manpower Policy, 1978: 52). Special emphasis is placed on the coordination of public employment and training services to avoid duplication. Specifically, coordination with vocational education programs is encouraged through Title II, Subpart D (Special Grant for Governors), section 677.38(a), which states, "Funds provided under section 677.32(d) shall be available for encouraging coordination and establishing linkages between prime sponsors and applicable educational agencies and institutions, and institutions providing training programs approved by the Secretary such as State apprenticeship councils" (Federal Register, January 19, 1979: 4407). Among the specific activities enumerated in this section are "establishing mechanisms to increase information exchange between prime sponsors and educational agencies and institutions and developing and disseminating models of linkages which can be shared with all prime sponsors in the State" (Federal Register, January 19, 1979:4407). In section 677.38(b) it is further stated that these funds may be used to: "(1) Expand the size of jointly delivered programs; (2) Enhance training and services available to participants in jointly delivered programs; (3) Assist in the planning, development and evaluation of jointly delivered programs" (Federal Register, January 19, 1979:4408).

Title IV, which authorizes special programs for youth, offers additional encouragement for interagency cooperation. Subpart A--Youth Employment and Training Programs--section 680.12(b)(1) states, "Prime sponsors shall use at least 22 percent of their total funds to serve in-school youth in programs designed to enhance their career opportunities and job prospects (section 433(d)(1)) pursuant to written agreements between them and local educational agencies (LEAs)" (Draft regulations, CETA Monitor, December 4, 1978:28). In addition, each governor receives 5 percent of the funds available under Title IV, Part A, for specified statewide youth services which include providing funds "to carry out special model employment and training programs and related services between appropriate State and local institutions" (Draft regulations, CETA Monitor, December 4, 1978:37).

#### Vocational Educational Legislation

Vocational education has experienced increased federal funding, control and insistence on interagency cooperation through legislation in recent years. The Smith-Hughes Act of 1917 was the first federal legislation to provide funds for vocational education programs. As defined by this act, vocational education was training to prepare youth for a selected vocation, to assist those seeking greater efficiency in that employment, or for those established in a trade who wish to improve their capacity to advance to positions of responsibility. The areas specifically designated to receive federal funds were trade and industrial education, homemaking and agriculture. In the decades which followed, additional legislation expanded the areas of instruction and provided additional funds for these programs.

A major revision of vocational education legislation was accomplished in the Vocational Education Act of 1963. This act continued the idea of federal, state and local participation in vocational education while broadening the provisions for programs. Emphasis was placed on offering vocational education programs to meet labor needs; devising programs to meet the needs of various age and ability groups; developing area vocational schools; evaluating programs on a regular basis; cooperating with the public employment service, other government agencies and advisory groups; and establishing work-study programs and residential schools.

The Vocational Education Amendments of 1968 further revised and systematized the nation's vocational education programs. These Amendments established the National Advisory Council for Vocational Education (NACVE) and mandated that each state have a state advisory council on which manpower agencies would be among those represented. The state advisory councils were given a major role in the evaluation of vocational education programs and in the review of the annual state plan. Additional funds were authorized under these Amendments for vocational research, exemplary programs, consumer education programs, cooperative vocational education, and work-study programs.

Title II of the Educational Amendments of 1976 further revised federal vocational education legislation. These Amendments mandated the establishment of local advisory councils for vocational education, state and local five-year plans for vocational education, efforts to overcome sex stereotyping, and the establishment of a National Occupational Information Coordinating Committee (NOICC), with a counterpart in each state (SOICC), with responsibility to improve coordination

between vocational education and manpower planners and others at federal, state and local levels. These Amendments also specify that the National Commission for Manpower Policy will be represented on the National Advisory Council for Vocational Education. The NACVE is specifically charged to identify, after consulting with the National Commission for Manpower Policy, the vocational education and employment and training needs of the nation and assess the extent to which vocational education, employment training, vocational rehabilitation, and other programs under this and related acts represent a consistent, integrated approach to meeting such needs. The NACVE is also required to review and comment, at least annually, on the reports of the National Commission on Manpower Policy.

#### STATEMENT OF THE PROBLEM

CETA and vocational education administrators are under increasing pressure to work together to avoid duplication of services while maintaining the necessary variety of programs to meet the needs of the groups to be served. The sources of this pressure are federal legislation (as previously discussed), the increased cost of providing services and increasing taxpayers' concern about costs versus benefits. Because both programs are designed to meet the occupational training needs of youth and adults, opportunities to cooperate in the attainment of mutual goals should be sought and exploited. Many times, however, these opportunities are not realized because of a mutual lack of knowledge or time to pursue them. The purpose of this study was to determine the perceptions of CETA and vocational education administrators as to the importance of procedures for the implementation and operation of jointly

delivered CETA/vocational education programs in Virginia. These procedures will assist in minimizing duplication of effort while maintaining an effective mix of programs which will serve participants of each program.

The problem this study seeks to resolve is: Can CETA and vocational education administrators agree on procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia? In resolving this problem, the answers to the following research questions were sought:

1. Can consensus be obtained among CETA and vocational education administrators as to the procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia?

2. Is there a difference in the perceptions of CETA and vocational education administrators as to the importance of procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia?

3. What is the extent of the agreement among panel members as to the appropriate sequencing of procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia?

4. Is there a difference in the tenacity of CETA administrators and vocational education administrators as demonstrated by their willingness to conform to the group's opinions?

#### SIGNIFICANCE OF THE STUDY

The legislated increase in coordination between CETA and vocational education predicted by \_\_\_\_\_, associate director of the American Vocational Association (Smith, 1977:72), became a reality in the 1978

CETA legislation. Under the regulations in Title II, Subpart D, section 677.32(d) of the CETA of 1978 as published January 19, 1979, and Title IV, section 97.703(b)(2) of the CETA of 1978 as published September 28, 1978, the Governor of each state will continue to receive set-aside or discretionary funds for vocational education programs. One of the specified uses of these funds is to develop and disseminate models of linkages which can be shared with all prime sponsors. According to the Annual Employment and Training Report to the Governor of Virginia, 1978, \$2,130,218.05 was distributed to the ten prime sponsors in Virginia in the fiscal year 1978 (October 1, 1977, to September 30, 1978). A strong cooperative effort should be possible using these funds; however, no guidelines specifically for implementing and operating jointly delivered programs have been developed.

Some CETA programs, notably those in Titles II and IV, address the vocational education needs of disadvantaged youth and adults; vocational education also has a legislative mandate to address the needs of these groups. Each of these delivery systems has a legislative mandate to work together. In its 1976 Annual Report, the NACVE stated,

We believe the State Plan for Vocational Education can be an aid in fostering cooperation between vocational education and manpower programs. We recommend that the State Plan address--in detail--efforts of coordination with CETA prime sponsors and State Manpower Councils, their successes and failures, and reasons therefor. (NACVE, 1976:12)

In keeping with this recommendation and the federal mandate for inter-agency cooperation, the Virginia State Plan for Vocational Education contains the following statement as its sixth and final goal:

Youth and adults will benefit, through cooperative efforts of the Department of Education, Council of Higher Education, Virginia Community College System, Governor's Manpower Services Council, Rehabilitative School Authority, Department of Vocational Rehabilitation, Virginia Employment Commission, and other agencies, institutions and organizations concerned with vocational education, from a coordinated vocational education delivery system which fully utilizes all resources-- public, private and proprietary. (Division of Vocational Education, State Department of Education, 1978:19)

This plan also contains an objective (17.4.2) requiring that each locality receiving funds from the state "describe how activities proposed [relate] to manpower programs under CETA" (Division of Vocational Education, State Department of Education, 1978:58).

There are federal mandates that CETA and vocational education administrators be represented on each other's advisory or planning councils. This is the initial communication link for program administrators. In addition, a number of conferences have been held to improve communication between CETA and vocational education administrators. A publication of the proceedings of two such conferences sponsored jointly by NACVE, the National Association for Industry-Education Cooperation, and the National League of Cities included a number of suggestions for the attainment of interagency program coordination. Among those stated are the following:

Mechanisms should be devised to foster a better interface between CETA and vocational education; the facilities of industry, labor and vocational education should be utilized

to the fullest extent in each locality to afford maximum choice of careers to CETA clients; prime sponsors should be required to provide justification in their plans for any failure to utilize existing vocational education resources; and institutional vocational education's delivery system should concern itself to a greater extent with the needs and goals of CETA and CETA's responsibility to prepare its clients for the job market. (Conner, 1975:23-24)

Although these suggestions were drafted several years ago, much work remains to be done to achieve the interagency program coordination these suggestions sought to encourage.

A statement entitled "Leadership Priorities of the Bureau of Occupational and Adult Education" prepared in September 1978 by Daniel B. Dunham, then Deputy Commissioner-Designee of the U.S. Office of Education, should provide the impetus for vocational educators to initiate the implementation and operation of jointly delivered CETA/vocational education programs. Dunham said in part, "Vocational education must surface and serve as the primary deliverer of education for work for the CETA-eligible client; this is the best system for preparing people for work" (Dunham, 1978). One method of becoming the "primary deliverer of education for work for the CETA-eligible client" is to initiate efforts toward jointly delivered CETA/vocational education programs.

#### DELIMITATIONS

The following delimitations are applicable to this study:

1. This study was delimited to CETA program linkages with vocational education programs provided by public school divisions in Virginia.
2. This study was delimited because the panel members were selected on the basis of administrative experience, interest in jointly delivered CETA/vocational education programs and willingness to serve, but no attempt was made to determine the effects of these variables on the panelists' perceptions of appropriate procedures for developing program linkages.
3. This study was delimited in that a purposive sample of CETA and vocational education administrators in Virginia was used.

#### DEFINITION OF TERMS

The following definitions were utilized for the purposes of this study:

Administration. "All of those functions, procedures and techniques employed in planning, organizing, staffing, directing, controlling, and evaluating in accordance with established procedures" (Lee, 1976:172).

CETA. The Comprehensive Employment and Training Act of 1973, as amended in 1978, is the most comprehensive federal manpower legislation to date. "The major objective of CETA is to provide training and improve employment opportunities for the economically disadvantaged and for the unemployed and underemployed. The means for accomplishing this end, the strategic objective, is to place the administration of manpower programs with local authorities and permit them to select programs appropriate to their needs" (Mirengoff & Rindler, 1978:3).

CETA Administrator. One who administers CETA programs as a prime sponsor, program agent, or program operator.

Implementation. The process of putting a new program into effect according to a definite, predetermined plan.

Jointly Delivered CETA/Vocational Education Program. An occupational training program designed to meet the needs of CETA-eligible participants which is cooperatively planned, operated and evaluated by CETA and vocational education personnel. Such a program might be structured in one of the following ways: (1) participant selection and supportive services are provided by CETA personnel and funds and a training program is provided by vocational education personnel and supported by vocational education funds; (2) the program may include CETA funding for the training program provided by vocational education personnel in their facilities; or (3) the program may include any combination of funding efforts to provide occupational training to CETA-eligible participants.

Operation. The process of administering ongoing programs, including periodic evaluation and revision for the expansion and/or improvement of programs.

Prime Sponsor. "Any unit of local government with a population of 100,000 or more can apply for prime sponsorship. In addition, in what he determines to be exceptional circumstances, the Secretary of Labor has discretion to grant prime sponsorship to smaller governmental units that serve major portions of the labor market or represent rural areas of high unemployment and that have demonstrated capability to carry on their own manpower programs" (Levitan, Mangum & Marshall, 1976:267). Prime sponsors are frequently consortia of cities and counties who, by mutual, formal

agreement, function as one body in the operation of employment and training programs.

Program Agent. "Cities or counties with 50,000 population are designated 'program agents' for Titles II and VI. Prime sponsors pass through funds to program agents, which then manage their own public service employment programs" (Mirengoff & Rindler, 1978:27-28).

Program Operator. An institution or agency which contracts with a prime sponsor or program agent to provide specific training, employment and/or support services to CETA clients.

Vocational Education. That portion of a total program of education which provides exploration, guidance and counseling, and preparation for careers below the professional level.

Vocational Education Administrator. One who administers vocational education programs within a local school division as a local director of vocational education or a superintendent or an assistant superintendent with responsibility for vocational education programs.

#### SUMMARY

Vocational education and CETA administrators are under federal mandates to coordinate their occupational training efforts. These groups of administrators have indicated interest in using vocational education facilities and other resources to meet CETA program goals and vice versa. Procedures for implementing and operating programs for the mutual attainment of goals should meet more efficiently the needs of vocational education students and CETA program participants. These jointly delivered occupational training programs will assist in minimizing the duplication of effort and enhancing the ability of each program to serve

its participants well. A sequential list of procedures for the implementation and operation of jointly delivered CETA/vocational education programs has been developed in this study.

## Chapter 2

### REVIEW OF LITERATURE

The review of literature included the examination of studies of CETA/vocational education program linkages and descriptive literature on existing jointly delivered programs. A description of the Delphi technique, which was selected for use in this research, and a review of the studies related to this technique and its effectiveness are also included in this chapter.

### CETA/VOCATIONAL EDUCATION LINKAGE STUDIES

This section includes a review of CETA/vocational education linkage studies which have illustrated the need for collaborative CETA/vocational education efforts. In addition, those studies whose findings included specific procedures for successfully implementing and operating jointly delivered programs are also discussed.

One of the first issues which must be examined in implementing and operating jointly delivered CETA/vocational education programs is planning. Boyer (1976) identified and analyzed vocational education administrators' and manpower planners' perceptions of "past performance" and "future priorities" of regional vocational and manpower planning activities in California. The impetus for this study was a report on vocational education in the California junior colleges, prepared by Dr. Charles S. Benson of the University of California at Berkeley, which decried the existing duplication of and lack of cooperative planning for vocational education programs (Boyer, 1976:7).

A three-part survey instrument was developed to obtain background information on respondents, respondents' perceptions of "past performance" and "future priority" of regional vocational and manpower planning activities, and a list of planning groups with which the respondents or their employing institutions worked. Those surveyed represented community colleges, secondary and unified districts, regional occupational centers and programs, private schools, and manpower planners. Boyer's study identified and described 30 groups with vocational education planning responsibility throughout the state of California; however, he made no claim for the exhaustiveness of this list.

The findings reported included a significant difference in the two groups' perceptions of "past performance" and "future priority" in 9 of 21 items describing regional vocational education planning. The items which evidenced differences in perceptions included six items dealing with interagency communication, two items concerned with boundaries for planning areas, and one item which read "Vocational Area Planning control of unnecessary duplication of vocational instruction or training." The latter item received the lowest mean rating on "past performance" (1.60 out of 5.00) from the manpower planners. The mean rating for all respondents was 2.03; the mean rating for all respondents on "future priority" was 3.23. A rating of 3 was interpreted as being "somewhat important." In his statement of findings, Boyer (1976) included the following items: "Area Vocational Planning Committees' control of unnecessary program duplication was perceived as ineffective [and] respondents perceived a need for future control of unnecessary program duplication" (pp. 123-124).

In its 1974 annual evaluation of vocational education in Nebraska, the Nebraska State Advisory Council for Vocational Education demonstrated concern for communication and cooperation between the new CETA administration and the existing vocational education administration. This concern was evidenced in the following recommendations:

The State Board for Vocational Education and the Division of Vocational Education should move rapidly to assess the kinds of systematic vocational instruction required to meet the needs and specifications of the Comprehensive Employment and Training Act of 1973. There should be a maximum of communication between the State Board for Vocational Education and the three prime sponsors in Nebraska in order to articulate training programs to educational needs of people in CETA programs. A complete listing of courses, descriptions, and locations of the state's system of vocational programs should be made available to the prime sponsors for reference in meeting specific needs of individuals to be served."

(Nebraska State Advisory Council for Vocational Education, 1974:10)

The Nebraska State Advisory Council for Vocational Education felt that implementing these recommendations should make a positive contribution to establishing program linkages rather than duplicating programs.

A joint meeting of the National and State Advisory Councils in November 1974 included a workshop on the CETA. , the group leader, provided the following summary of the input from participants:

1. There is a need for a clearer understanding of the CETA legislation by State Advisory Council members.
2. There is a need for cooperation among State Advisory Councils, State Vocational Boards, and CETA to provide a comprehensive statewide program of vocational training services (State Advisory Council representation on the State Manpower Council should be recommended to appointing authorities).
3. There is a need for coordination of the state CETA plan and the state vocational education plan.
4. State Advisory Councils should take the initiative in these early stages to become involved in CETA planning.
5. State Advisory Councils should take the initiative to promote local community understanding of vocational education and CETA legislation and motivate local communities to become more actively involved.
6. State Advisory Councils should have responsibilities for monitoring and evaluating vocational education services provided through state vocational boards.
7. The National Advisory Council should serve as a clearing house for State Advisory Councils' involvement with CETA, and share that information with all states. (National Advisory Council for Vocational Education, 1974:48)

These statements include several of the recommendations expressed by the Nebraska State Advisory Council for Vocational Education reported in the preceding paragraphs.

Harold S. Bonner completed a study entitled "To Develop a System for Interfacing the Administration and Implementation of CETA and Vocational Programs at the Local Level" in 1976. The purpose of this study was to determine the feasibility of using public schools as a delivery system for training the disadvantaged in rural areas and to identify those factors which have prevented the establishment of meaningful working relationships between manpower training providers and vocational personnel. The study consisted of two parts: collection of data from public schools which were participating in Texas's Rural Impact Program (training adult CETA clients in public school facilities during regular school hours) and the use of a modified Delphi technique to obtain opinions from a group of experts composed of sponsors, administrators, planners, field workers, and project directors of CETA and vocational programs at the local, state and federal levels.

Data on the Rural Impact Program identified the major problems encountered as:

(1) the requirement for submitting similar but different reports for each agency, (2) maintaining different student information for each agency, (3) difficulty in receiving reimbursement for funds expended, and (4) having to satisfy auditors on the basis of both CETA and vocational regulations. (Bonner, 1976:26)

The following techniques were suggested for overcoming these problems:

(1) employment of competent staff and faculty; (2) delay or refuse to implement a program when early notification of funding is not given; (3) eliminate politics from program planning and implementation; (4) establish, in writing,

which agency the project is responsible to when receiving joint funding; and (5) determine which agency is responsible for reimbursing project expenditures. (Bonner, 1976:27)

Among the findings of the Delphi process completed in Bonner's study (1976) were the following:

There is a need for clearly defined planning dates, program requirements, and procedures for CETA and vocational programs; sharing of resources is essential with less competition for recognition and clients; local operators need to know about the activities of all programs in their area so that coordination, cooperation and referrals can easily be accomplished; and there is a need for joint planning and funding by all state agencies providing occupational programs for the disadvantaged. (pp. 36-37)

Bonner (1976) also recommends "that additional research be conducted to find techniques for bringing about cooperative efforts between vocational and CETA administrators, in the conduct of programs for students with special needs" (p. 12).

In 1976, the Office of Manpower, DHEW, sponsored a study entitled "Education and CETA: A Coordination Guide for Adult Education and Vocational Administrators." The recommended procedures for adult education and vocational administrators wishing to coordinate their efforts with those of the CETA program included the following steps:

acquiring knowledge about CETA; assessing your program's own needs or unmet objectives; analyzing areas of commonality where CETA might fit your program's needs; discovering possible opportunities to coordinate with CETA; weighing the costs and

benefits of coordination, and, if applicable, negotiating and implementing a joint program. (Urban Management Consultants of San Francisco, Inc., 1976:6)

#### JOINTLY DELIVERED CETA/VOCATIONAL EDUCATION PROGRAMS

This section provides examples of jointly delivered CETA/vocational education programs. Brief descriptions will be noted along with comments regarding the success of these programs and the reasons therefor.

##### Williamson County, Tennessee

In-school and out-of-school youth in Williamson County, Tennessee, are participating in a special Guidance and Placement Program at W. C. Yates Vocational Center. This program is funded through Youth Employment and Training Program funds from the YEDPA of 1977.

The Guidance and Placement Program serves the 730 youth at this center by:

- (1) providing individual and group career counseling opportunities;
- (2) coordinating these counseling services with the education and training programs at Yates Vocational Center to provide training for specific jobs;
- (3) providing placement opportunities through regular cooperative education programs as well as through services of the program counselors and coordinators;
- (4) integrating the career counseling program into the overall activities of the school;
- and (5) initiating and maintaining liaison efforts between the school, the community and the businesses and industries in the community. (YEDPA Focus: The Tennessee Transition, 1979:47-48)

Factors contributing to the success of these efforts are the support of local businesses who contact program personnel about job openings; the housing of the program in an educational facility which allows the staff access to a majority of the target population; the high degree of awareness of the program because every student in Williamson County is visited on a group or individual basis; and the rapport established within the school system, the community, the state's Employment Security System, and the Vo-Tech Division of the Tennessee State Department of Education. The success of this program was reflected in a student employment survey conducted in June 1978. The survey results that follow are based on the responses of 566 students:

321 students, or 56 percent of the total population, were employed; 197 students, or 61 percent of those employed in the total population, were employed in areas related to their vocational coursework; and 143 students, or 25 percent of the total population, were seeking employment. (YEDPA Focus: The Tennessee Transition, 1979:48)

#### Jefferson County, Alabama

One example of the joint efforts of CETA and vocational education personnel in Jefferson County is the CETA-financed Career Employment Program. This program provides on-the-job training for economically disadvantaged students (ages 16 to 21) who are enrolled in vocational programs in the county's high schools. Students are placed with public and non-profit agencies in jobs that are directly related to their classroom training. They work 15 hours per week during the school year and full time during the summer. They are paid the minimum wage.

The success of this program is attributed, in part, to the fact that it builds upon the existing comprehensive vocational education program. Evidence of the degree of success is given in the following statement by \_\_\_\_\_, administrative assistant of career and vocational education for Jefferson County: "Our placement record for the last fiscal period shows placement in jobs trained for or related occupations at 71.8 percent and over-all placement at 94.6 percent" (Collaboration in Jefferson County, 1979:52).

### Worcester, Massachusetts

Worcester's Career Education Training Center was an outgrowth of federally funded career training provided for the economically disadvantaged by the Vocational School Department. This cooperative effort was begun under the MDTA, CETA's forerunner, and by 1975 had responsibility for nearly all classroom training contracted for by the Worcester CETA Consortium.

Twelve occupational training programs, lasting from 9 to 16 weeks, are offered at the Career Education Training Center. Full counseling services, from intake to placement, are available to participants. Placement efforts are assisted by an office of the Massachusetts Division of Employment Security located in the Center. To date the program has achieved a placement rate of 70 percent.

In speaking of the success of this program, Robert Butler, superintendent of the Worcester Vocational School Department, made the following statement:

We're fortunate in Worcester to have a prime sponsor with the administrative expertise of City Manager \_\_\_\_\_.

He's given department heads like myself and CETA Director  
free hands in the implementation of our programs while at the same time keeping a close eye on the progress of our programs. (Creating a Center of Success, 1979:55)

### Tucson, Arizona

The Tucson-Pima Employment & Training Consortium has produced a slide-tape presentation to publicize its numerous occupational training programs. The script of this presentation has been printed and made available, upon request, to those interested in CETA/vocational education program linkages.

A strong rapport has been established between the Tucson-Pima Employment & Training Consortium and the Arizona State Department of Education, especially the Adult Vocational Services Unit. These two agencies combine their efforts in programs offered at the Tucson Skill Center. The Center operates on a year-round basis, and its performance-based curriculum utilizes the open entry/open exit completion concept. A full range of counseling and supportive services is available to the Center's program participants. Notable among the counseling services is the vocational evaluation unit, which assesses each participant's interests and abilities prior to placement in any CETA-funded classroom training or employment program.

The combined efforts of the CETA and vocational education staffs have made it possible for the Tucson Skill Center to respond quickly to private industry needs. When Gates-Learjet Corporation announced plans to build a plant in Tucson, a special classroom and on-the-job training program was established to provide the necessary trained

technicians. A similar program, Health Occupations Programs for Employment (HOPE), was designed and instituted to meet the staff requirements of the new Pima County Kino Community Hospital.

The CETA-funded summer youth employment program is another example of cooperative CETA/vocational education efforts. This youth program includes a comprehensive counseling component

utilizing activities found in the career education matrix developed by the Arizona Department of Education. The matrix is structured around three primary career education goals--learning to live, learning to learn, and learning to make a living. The Vocational Education contribution extended even further by providing to these students workshops which exposed them to careers in business, health, hospitality and trade, and industrial occupations. (Tucson-Pima Employment & Training Consortium, undated:9)

These are just a few of the jointly delivered CETA/vocational education programs in this prime sponsor area. The success of these efforts is attested to by an 80 percent positive outcome rate for all participants over the last four years.

#### Youthwork, Incorporated

Several CETA/vocational education program linkages are coordinated and funded through competitive grants from Youthwork, Incorporated, of Washington, D.C. Youthwork is one of four private, non-profit corporations established to implement and administer funds for the demonstration projects called for in the YEDPA legislation.

Youthwork administers 60 projects in four program areas:

- (1) guidance, counseling, and job seeking skills;
- (2) academic

credit for work experience; (3) expanded private sector involvement; and (4) job creation through youth-operated projects. Youthwork's Board of Directors has adopted several philosophical themes which must be incorporated in all funded projects. These themes are:

Projects must actively involve young people in their management and operation; projects must "mainstream" young people--for example, dropouts or teenage parents or economically disadvantaged youth must not be segregated from their peers in a given project but must participate with in-school youth on an equal basis; projects must stress the fundamental importance and development of basic skills; and projects must try to form a bridge from the project's end to a structuring into the life of a young person as she or he enters the workplace. (Rieder, 1979:38)

Norfolk Public Schools, Norfolk, Virginia, is among the recipients of competitive grants from Youthwork. Its program uses CETA (YEDPA) funds to provide intensive skills training (basic skills and job skills) through the public schools in conjunction with visits to local plants and offices, counseling, and placement assistance provided by an employers' organization, "Friends of Education." These funds also provide wage subsidies, on a sliding scale, to private employers who provide on-the-job training for eligible students.

#### THE DELPHI TECHNIQUE

The Delphi technique has been defined as "an intuitive methodology for organizing and sharing 'expert' forecasts about the future" (Weaver, 1971:267). Although it was originally developed at the RAND Corporation

in California in 1953 for forecasting events which might affect military planning (McGaw, Browne & Rees, 1976:59), the Delphi technique has been used to achieve consensus in a variety of areas. Among these are: to set career education goals for an elementary school (Sklane, 1974:309), to sample attitudes within a liberal arts college towards an experimental curriculum (Judd, 1970:30), to identify problems related to education likely to affect Albertan society during the next 30 years (McGaw, Browne & Rees, 1976:64), and to obtain a consensus of opinions, from laymen and professionals, as to the desired goals of a teacher education program (Cyphert & Gant, 1971:272).

The Delphi technique is a sequential process which may begin by asking the panel of experts to produce a list of predictions or goals, etc., depending on the nature of the study, or by providing a list of items for the panel to rate as to how likely to happen or how important they are (again, depending on the nature of the study). After the initial rating by the panel, each succeeding round of questionnaires will also provide feedback as to the responses of the group as a whole. Any panel members who wish to maintain a minority position will be asked to provide one or more reasons for their dissent. These reasons will be included in any additional feedback to the panel for consideration by other members who may then wish to alter their positions. The process is usually repeated until a consensus is reached on most, if not all, items.

#### Advantages

Because the Delphi technique replaces the committee meeting through the use of sequential questionnaires which include opinion feedback, it eliminates several undesirable features of that methodology. Among

these are "the unwillingness of people to abandon positions to which they have publicly committed themselves" (McGaw, Browne & Rees, 1976:60); members are less subject to the halo effect, the dominant influence of one highly respected member on group opinion; and the members are also less subject to the bandwagon effect, agreeing with the majority, since dissent and reasons therefor are given anonymously (Tersine & Riggs, 1976:51-52). Face-to-face meetings also impose time and expense constraints on members and restrains participation as the size of the group increases (Tersine & Riggs, 1976:52); these problems are also eliminated with the Delphi technique.

Beyond the elimination of restraints on the quality of participation, the Delphi technique provides a further advantage in additional data which may be collected. The Delphi technique "provides the opportunity to calculate how firmly groups and individuals hold to their original priorities; how willing they are to move to the consensus position" (Rasp, 1974:42). This information on the tenacity of participating groups may affect plans for the attainment of goals or the implementation of procedures by allowing one to anticipate resistance and to plan to avoid or minimize it.

#### Disadvantages

One limitation on the use of the Delphi technique is the time required for analysis and feedback of data. "If the results do not come quickly, participant motivation can wane. [Also] adequate time must be available to use the technique" (Tersine & Riggs, 1976:55). It is obviously not suited to situations which require immediate action.

Although this technique has been adapted to many uses outside the area of technology in which it was developed,

the social science expectations [do] not carry the crispness of language and precision of judgment that the more rationalized process of technological change seemed to have in the original uses of Delphi . . . . [T]he data base available to social science forecasting is shifting and often more unreliable than technological data.

(Weaver, 1971:268)

This disadvantage is offset somewhat by the demonstration of the appropriateness of Delphi procedures for dealing with values as well as with facts (Dalkey & Rourke, 1971:vii-viii).

#### Selection of the Panel of Experts

The selection of the panel of experts is crucial to the significance of the results of any Delphi study. Tersine and Riggs (1976) have said, "The mechanics of the Delphi can be completely negated by poor panel selection and poor motivation" (p. 55). They suggest the following criteria for choosing participants (Tersine & Riggs, 1976:53-54):

They must have a basic knowledge of the problem area and be able to apply that knowledge.

They must have a good performance record in their particular areas.

They must possess a high degree of objectivity and rationality.

They must have time available to participate to the conclusion of the program.

They must be willing to give the amount of time and effort to do a thorough job of participation.

### Studies of the Delphi Technique

The Delphi technique has been the subject of research efforts which sought to analyze its strengths and weaknesses and to validate consensus data derived through its use. Some of these research studies and their findings are described in the following paragraphs.

In a study of the utilization of experts in business forecasting, Robert Campbell (1966) compared the forecasting accuracy of small groups employing direct confrontation to the forecasting accuracy of a group using the Delphi process. The subjects of this study were the members of two graduate seminars in business forecasting. Each seminar was divided into two groups: one which would seek answers through direct confrontation and one which would work through the Delphi Process. The task was for each group to forecast the same series of 16 economic indicators for the first quarter of 1966.

Because of their status as graduate students, each participant was presumed to have some knowledge or expertise. In addition, participants were instructed to spend two-thirds of their time on five specialty areas assigned to them and to divide the remaining one-third of their time among the other indicators. Participants were also asked to evaluate their self-confidence in each of their responses. These data were gathered to determine whether it would be possible to identify a more accurate subgroup of forecasters.

Campbell (1966) found that

group participants who were administered the Delphi process forecasted more accurately as a group and as individuals than did group participants functioning under the uncontrolled interaction method. However, the use of

self-confidence ratings did not prove to be a successful means for selecting a more accurate subgroup of forecasters. (p. 165)

In 1968, Norman Dalkey and others at RAND conducted 11 additional experiments on the use of the Delphi technique using almanac-type data. The experiments were performed to learn more about the convergence of group opinion during the Delphi process. Dalkey defined opinion as follows:

In between [knowledge and speculation] is a broad area of material for which there is some basis for belief but that is not sufficiently confirmed to warrant being called knowledge. There is no good name for this middling area. I call it opinion. (Dalkey, 1969:2)

The subjects, upperclass and graduate students from UCLA, were divided into groups of about 15 (the largest was 29). Dalkey felt that the general information questions used had many of the same attributes as opinion: "The subjects did not know the answer, they did have other relevant information that enabled them to make estimates, and the route from 'other relevant information' to an estimate was neither immediate nor direct" (Dalkey, 1969:19). The general outcomes of these experiments were summarized by Dalkey (1969) as follows:

(1) On the initial round, a wide spread of individual answers typically ensued. (2) With iteration and feedback the distribution of individual responses progressively narrowed (convergence). (3) More often than not, the group response (defined as the median of the final individual responses) became more accurate. (p. 20)

Some findings of these studies cited by Weaver (1969) were as follows:

Little correlation was found between (a) confidence of the

individual in his answer and (b) how much he thought he knew about the question, or the accuracy of the response . . . . Women were less accurate and more likely to shift opinion than men. (pp. 93-94)

A study of the Delphi process which sought to explain the differences among the estimating and predicting abilities of people was conducted by W. Timothy Weaver. In this study, Weaver (1969) proposed that judging, in regard to the future, bears some relationship to one's conceptual level. It is further proposed that people rated high and low in conceptual level (that is, rated integratively complex or simple) will differ on judgmental tasks of varying certitude and ambiguity. (p. 5)

This study examined the relationship between conceptual level and two variables: (1) the range of years used to estimate when future events will occur and (2) the ability to foresee alternative effects of present-day trends.

The subjects of Weaver's study, 101 graduate and undergraduate students, were randomly assigned to three versions of Delphi questionnaires: (1) expert dates given, (2) no expert dates given but a range of years provided, and (3) no assistance provided in predicting dates. The Paragraph Completion Test was administered to participants to determine their conceptual level. A sum of the top two scores equal to 7 or above was indicative of a high conceptual level or an integratively complex subject. A sum of the top two scores equal to 4 or less was indicative of a low conceptual level or an integratively simple subject. Weaver also collected biographical data--age, sex, professional experience, degrees held, and present occupation--in an attempt to determine if these variables seemed to affect estimating or predicting ability.

The results confirmed some of the expected differences between subjects of high and low conceptual levels. Subjects having low conceptual levels tended to be inconsistent when external cues in the form of expert date, range of choices, or description of remoteness were not given. Subjects having high conceptual levels remained relatively stable in the absence of such cues. The study failed to confirm that "highs" and "lows" would differ in terms of deviating from expert dates.

Waldron (1970) conducted "An Investigation into the Relationships Among Conceptual Level, Time Delay of Information Feedback, and Performance in the Delphi Process." The subjects of this study were 118 graduate and undergraduate students who also took the Paragraph Completion Test to determine their conceptual level--high or low integrative complexity. Each subject was exposed to one of two time delays of information feedback (5 seconds and 24 hours) during each of three Delphi rounds. It should be noted that feedback consisted of expert estimations, not group responses.

The findings of Waldron's study (1970) were as follows:

Low integratively complex persons converged in the direction of the controlled information feedback significantly more than the high integratively complex persons. In addition, the performance of individuals in the Delphi process on the tasks of: (a) making earliest and latest estimations, and (b) changing those estimations in line with controlled feedback, was found to be predictable on the basis of integrative complexity. Again, low integratively complex subjects produced significantly broader estimation ranges and significantly larger changes in estimations. (p. 142)

## SUMMARY

The review of literature for this study provided information on planning and administrative problems encountered in the limited cooperative efforts between CETA and vocational education programs which have occurred to date. The descriptive literature on jointly delivered CETA/vocational education programs reiterated the limited current efforts but revealed several frameworks within which such programs are operating. This research was designed to develop procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia. It also sought information on differences in the perceptions of CETA administrators and vocational education administrators as to how the implementation and operation of jointly delivered programs should occur.

The Delphi technique was selected as the most desirable technique for gaining consensus on the procedures developed in this study. The Delphi technique, as described in this chapter, allows one to achieve the consensus of a group of experts with varied backgrounds. Using the Delphi technique, one can also make determinations of the differences in the tenacity ratings of the two groups of administrators. These ratings may indicate potential snags in the coordination of efforts if either group (or both groups) is (are) unwilling to accept the procedures indicated by the consensus position of the total group. Such findings should assist in planning efforts to initiate jointly delivered programs.

## Chapter 3

### METHODOLOGY

This chapter describes the design of the study, the data collection technique, the selection of the panel of experts, the instrumentation, and the data collection process. The procedures for data analysis are also discussed.

#### DESIGN OF THE STUDY

Kerlinger (1973:300) said, "Research design is the plan, structure, and strategy of investigation conceived so as to obtain answers to research questions and to control variance." This study was designed to determine the following: (1) Can consensus be obtained among CETA and vocational education administrators as to what procedures are necessary for the implementation and operation of jointly delivered programs? (2) Are there differences in the perceptions of the two groups of administrators as to the importance of procedures for the implementation and operation of jointly delivered programs in Virginia? (3) To what extent do the panel members agree on the sequencing of these procedures? (4) Are there differences in the tenacity of CETA administrators and vocational education administrators as demonstrated by their willingness to conform to the group's opinions?

This study was deemed to be ex post facto research because the perceptions of the two groups of administrators as to the importance and appropriate sequencing of procedures were "inherently not manipulable" (Kerlinger, 1973:379) and were based, at least in part, on past

experience with jointly delivered programs. After an examination of its advantages and disadvantages (see discussion in Chapter 2), a modified Delphi technique was chosen as the means of collecting the data to answer the questions posed in this study.

#### DATA COLLECTION TECHNIQUE

There were two modifications of the classical Delphi technique for its use in this study. One modification was that the panel of experts was not asked to predict future events. Instead, they were asked to evaluate the importance of procedures for administering jointly delivered CETA/vocational education programs. In addition, the first round of the Delphi was modified in that participants did not generate a list of procedures but rated the importance of the procedures provided. The latter modification was made to encourage the participation of panel members. The panel members did, however, have an opportunity to suggest additional procedures in Probe I. Any procedures suggested by two or more panel members were included in the second questionnaire.

A major advantage of the Delphi technique is that it functions well when the "experts" are of widely varied backgrounds (as are CETA and vocational education administrators); there is no need for an assumption of homogeneous groups. In addition, the Delphi technique has three distinct characteristics which were identified by Dalkey (1969:3):

1. Anonymity
2. Controlled feedback
3. Statistical group response

The desirability of these characteristics is described in the following paragraph.

Anonymity will allow the experts who come from different levels of administration and from two widely diverse fields (CETA and vocational education) to have "equal voices" in rating the importance of procedures. No one administrator's opinion will carry more weight because of his/her job title, more extensive experience, or personal charisma. Controlled feedback is important to reduce the flow of extraneous information to the panel of experts. The feedback will include a measure of central tendency (the mode) as well as factual statements which support minority positions. This access to additional information may cause some panel members to reassess their positions because they previously overlooked some facts. Unlike reporting a majority opinion on a one-time survey, statistical group response reported in a Delphi procedure includes the opinion of each member. Each member has had an opportunity to give his/her opinion, to reassess his/her opinion in light of the opinions of the other experts, to state a reason(s) for maintaining a minority opinion, and to reassess his/her opinion after examining the comments of the other experts.

The Delphi technique is a consensus-gaining process. In order to determine which procedures the panel thought were important enough to be retained, consensus was defined as agreement of 67 percent or more of the panel members. The definition of consensus as 67 percent agreement was an outgrowth of acceptance of a "two-thirds rule" in our society. Under Robert's Rules of Order a simple majority is acceptable except in motions which "suspend or change some rule or custom of deliberative bodies" (Robert, 1967:75). These motions require a two-thirds vote. Also, some of the most important issues decided by the U.S. Congress (declarations of war, veto overrides, etc.) require approval of two-thirds of the

members. Because jointly delivered CETA/vocational education programs are still a relatively new phenomenon, it was felt that approval of the procedures by two-thirds of the panel would be necessary to ensure their applicability and importance to the implementation and operation of said programs.

The following steps were completed in this modified Delphi study:

1. A panel of experts was selected.
2. The panel was asked to rate the provided list of procedures as to their importance and to suggest additional procedures as needed.
3. The researcher analyzed the first-probe responses. The one additional procedure which was suggested by two or more panel members was included in the second questionnaire.
4. The second probe provided feedback to the panel members as to the modal response of the group as a whole. The panel members reassessed their ratings in light of these data. Any panel member who wished to maintain a minority opinion was asked to provide a reason for his/her dissent.
5. The researcher analyzed the second-probe data and edited reasons for minority positions.
6. The Probe III questionnaire provided feedback as to the modal response of the group as a whole and the edited comments of those maintaining minority positions. The panel members were asked to reevaluate their ratings after considering these new data. In the final round, panel members were also asked to suggest an appropriate sequence for the procedures.

7. The researcher analyzed the data received and reported the consensus of the group as to the procedures which are important, the suggested sequence and the tenacity ratings of each group. The specific application of these steps to this study is discussed in the following sections of this chapter.

#### SELECTION OF THE PANEL OF EXPERTS

The panel of experts selected to participate in this study comprised a purposive sample of CETA and vocational education administrators in Virginia. Fourteen panel members were selected from each of the two groups of administrators. The group of CETA administrators included planning officers of prime sponsorships, a program agent and program operators. Vocational education administrators included local directors of vocational education and superintendents or assistant superintendents with responsibility for vocational education programs. These job titles were selected to ensure representation of local and regional levels of administration which directly influence the development of CETA/vocational education program linkages. A listing of the panel members is presented in Appendix A.

The number of experts used in this study (28) follows closely the suggestions of two writers who have used this technique. Anderson (1970:9) said, "Once the number of experts gets beyond 25 or 30, handling the data (especially the arguments advanced) becomes exceedingly cumbersome." Norman Dalkey, formerly RAND's leading expert on the Delphi technique, stated in a telephone conversation (July 10, 1979), "My rule of thumb with social issues is something on the order of 30-35 [panel members]." An increase in the number of participants on the panel was rejected

because of the probable negative impact on the ability to identify appropriate participants and on the prompt collection and feedback of data which is necessary to maintain the motivation of participants.

There were three specific criteria for the selection of panel members for this study: (1) at least two years of administrative experience in his/her field, (2) an expressed interest in jointly delivered CETA/vocational education programs, and (3) time and willingness to participate in all three rounds of the Delphi process. In order to include representation from all geographic areas of the state, two vocational education administrators were sought from each of the seven State Superintendent's Advisory Council regions within Virginia (Virginia Educational Directory, 1979:13-14). Representation of CETA administrators was sought from each prime sponsor area according to its percentage of the total enrollees in Title I (training) programs (see Table I).

Using these criteria, nominations of vocational education administrators were sought from a member of the Comprehensive Employment and Training Services Supervisor's staff in the Division of Vocational Education, Virginia Department of Education. Insufficient nominations were received to complete this portion of the panel; consequently, the executive director of each prime sponsor area was asked to provide nominations of vocational education administrators as well as CETA administrators. These nominations were made by telephone. Each executive director was read a list of criteria and job titles and was asked to make nominations in as many job categories as possible. In most cases, each made more than one nomination per job title.

Several adjustments to the original plan for geographic representation became necessary. One of the seven State Superintendent's Advisory Council

regions did not have any vocational education administrators who were experienced in operating jointly delivered CETA/vocational education programs. Consequently, a third vocational education administrator was selected from Region II (Tidewater) and Region IV (Northern Virginia). These regions were chosen because of their concentrations of population and employment and training programs. The representation of CETA administrators was also adjusted. One executive director declined to participate because he reported that no linkages existed in his area with the public schools. One director of a Regional Operations Center within the Balance-of-State prime sponsor area also reported no linkages with the public school system. Because these areas had no linkages and it was deemed necessary to have some representation from each prime sponsor area which had linkage programs, one prime sponsor area had no representation and the Balance-of-State actually had two fewer representatives than its percentages of Title I enrollees suggested. The numbers of Title I enrollees varied greatly among prime sponsor areas. The actual representation by prime sponsor areas is shown in Table I.

#### INSTRUMENTATION

A list of suggested procedures for the implementation and operation of jointly delivered CETA/vocational education programs was developed from a review of the literature on existing programs and related studies. The suggested procedures were presented to the panel members in the form of a questionnaire (Appendix B). Each round of questionnaires asked the panel members to rate the procedures on a scale of 1 to 5 as to their importance. A five-point scale was chosen because it included as many ratings as there were distinct feelings about the importance of procedures.

Table 1  
Representation of Prime Sponsor Areas

Prime Sponsor	Total Enrollees in Title I*	Percentage of Total Enrollees	No. of Panel Members
Alexandria	650	3	1
Arlington	326	2	1
Balance-of-State (BOS)	8,739	47	5**
Fairfax	1,070	6	1
Henrico	992	5	1
POMP	1,176	6	1
Prince William	405	2	1
RAMPS	1,247	7	0***
Roanoke	1,504	8	1
STAMA	2,630	14	2
TOTALS	18,739	100	15

\*From the Annual Employment and Training Report to the Governor of Virginia, 1978.

\*\*One of the five BOS regions did not participate. Because of widely varied enrollments and the one non-participating region, BOS representation does not equal its percentage of the total enrollees. To have accomplished this, some regions would not have been represented.

\*\*\*The executive director declined to participate, citing no linkages with the public schools.

Values on this scale were assigned as follows:

- 5 - of extremely high importance
- 4 - of high importance
- 3 - of moderate importance
- 2 - of low importance
- 1 - of no importance

Panel members also had an opportunity to suggest additional procedures for inclusion in succeeding rounds. Those procedures which were suggested by two or more panel members were included in subsequent questionnaires for rating by all participants. One additional step was included in the final questionnaire. The panel members were asked to indicate the most desirable sequence of procedures.

#### DATA COLLECTION PROCESS

##### Delphi Probe I

The first Delphi probe was completed during personal interviews. A cover letter (Appendix C) explaining the purpose of the study and the importance of participating in all three rounds was presented prior to the completion of the questionnaire. In succeeding rounds the questionnaires and instructions were mailed to the panel members and a stamped, addressed envelope was included for their convenience in responding.

##### Delphi Probe II

In the second probe, the procedures were resubmitted to each panel member. The procedures were presented in the same order as Probe I, with the additional procedure added to the end as item 33. The panel members also received the modal response of the total group by item and an

indication of their original responses. Panel members were asked to re-evaluate their responses where different from those of the total group and change them if they wished to do so. Those panel members who did not wish to change ratings which were above or below those of the total group were asked to give a reason why their original ratings were more appropriate.

### Delphi Probe III

The final Delphi probe was conducted to gather data for the sequencing of the procedures (as described below) and for the determination of tenacity ratings for each group of administrators. (These ratings are described in the section on data analysis.) In addition, the researcher wished to determine the effect that the comments from Probe II would have on obtaining greater agreement on item ratings.

Each panel member received a questionnaire which included the 33 procedures rated in Probe II, the modal response of the total group in Probe II, an indication of the individual's second-probe responses, and the edited comments from Probe II. The panel members were asked to reevaluate their ratings based on the responses of the total group and the comments provided. Respondents were also invited to submit any additional comments they wished to make.

The third questionnaire included one additional step. Each panel member was asked to review the final list of procedures and to indicate the order in which the procedures should be completed. The initial list of procedures was not randomized because of the difficulty this would have caused in determining the importance of procedures and in determining the additional procedures necessary.

In their study of appropriate goals for the School of Education at the University of Virginia, Cyphert and Gant noted that "99 percent of the respondents' change in opinion from their first rating of items occurred in questionnaire three [the second instance in which ratings were requested]" (cited by Rasp, 1972:32). To avoid belaboring the process beyond the point where little or no change was occurring and the participants' motivation was waning, it was predetermined that the third probe would be the final probe.

The final list of procedures which is presented as an outcome of this study includes those procedures that 67 percent or more of the panel members rated 3 or higher. The procedures are presented in Chapter 4 in the sequence indicated by the responses of the panel members.

#### DATA ANALYSIS

Each probe completed by the panel of experts was analyzed immediately to provide prompt feedback to panel members. Immediate analysis has been demonstrated to be crucial to maintaining the motivation and sustaining the participation of members (Tersine & Riggs, 1976:55).

##### Delphi Probe I

Responses to the first-probe questionnaire were used to determine the modes by group for each item. The item modes for the total group were also determined. In the second-probe questionnaire, the item modes for the total group were reported to participants along with their first-probe responses. The one additional procedure suggested by two or more participants was included in the feedback in Probe II for rating by all panel members. The remaining data were used in further analysis after the completion of all probes.

Delphi Probe II

The responses to the second-probe questionnaire were used to determine new modes by group for each item, new item modes for the total group and the modal deviations from the preceding probe by item for each group. Comments received in support of minority positions were edited and included in the third-probe questionnaire.

Delphi Probe III

The responses to the third probe were used to compute new modes by group for each item, new item modes for the total group, and the modal deviations from the preceding probe by item for each group. The analysis of responses by group was used to report where differences in perceptions of the importance of procedures occurred. Discussion of these findings focuses primarily on differences which remain after the final probe, as these differences may impact on the success of efforts to implement and operate jointly delivered CETA/vocational education programs.

The degree of agreement on the sequencing of procedures was determined using Kendall's Coefficient of Concordance,  $W$ . The formula for computing  $W$  (Siegel, 1956:231) is:

$$W = \frac{s}{1/12 k^2 (N^3 - N)}$$

where

$s$  = sum of squares of the observed deviations from  
the mean

$k$  = number of sets of rankings (number of panel  
members

$N$  = number of entities (procedures) ranked

$1/12 k^2 (N^3 - N) =$  maximum possible sum of squared deviations, i.e.,  
the sum which would occur with perfect agree-  
ment among  $k$  rankings.

Siegel (1956:236) stated that "when  $N$  is larger than 7, [the observed values of  $W$  are] approximately distributed as chi square ( $\chi^2$ ). For this reason, the significance of the computed value of  $W$  will be tested using the following formula (Siegel, 1956:236):

$$df = N - 1$$

$$\chi^2 = k(N - 1)W$$

The obtained value of  $\chi^2$  will be compared with a table of critical values of  $\chi^2$  ( $\alpha = .05$ ). If the obtained value of  $\chi^2$  exceeds the table value, it can be interpreted as meaning that the panel members "are applying essentially the same standard in ranking the [procedures] under study" (Siegel, 1956:237).

The final list of procedures (those rated 3 or above by 67 percent or more of the participants in the final probe) are presented in sequence from the lowest sum of ranks to the highest. According to Siegel (1956:238), this procedure gives the best estimate of the true rankings of the procedures. In the case of tied rankings, precedence was given to the procedure for which the sum of squares was least, as suggested by Kendall (1970:102).

One additional step was included in the analysis of the third-probe data; a tenacity rating (Rasp, 1973:42) was calculated for each group of administrators. This rating indicates how willing each group was to conform to the total group's opinion of the importance of each procedure. The formula for calculating this rating is (Rasp, 1973:45):

$$\left[ 1 - \left( \frac{\text{Group Sum of Modal Deviations on Questionnaire 2} - \text{Group Sum of Modal Deviations on Questionnaire 3}}{\text{Group Sum of Modal Deviations on Questionnaire 2}} \right) \right] 100$$

Rasp states that while the tenacity rating does not "lend itself to a test of significant differences, it does furnish a number that reflects [the] degree of willingness to move to the modal response" (Rasp, 1973:44). This information will be helpful to administrators planning program linkages because it will enable them to plan for resistance that might otherwise have blocked the implementation of jointly delivered programs.

#### SUMMARY

This study provided a prioritized list of procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia. Through the use of a modified Delphi technique, experts from within the state who are currently administering one of these two programs have indicated the importance of these procedures; they have also indicated the most desirable sequence of these procedures. These procedures will assist CETA and vocational education administrators in the development of CETA/vocational education program linkages. This study also revealed differences in each group's perceptions of appropriate procedures, the sequencing of procedures and differences in the tenacity with which the two groups of administrators cling to their initial ratings of the importance of procedures in developing program linkages. This information should be pertinent to either CETA or vocational education

administrators in planning for the implementation and operation of jointly delivered CETA/vocational education programs.

## Chapter 4

### PRESENTATION AND DISCUSSION OF DATA

Three Delphi probes were conducted to obtain data on the importance and order of procedures for implementing and operating jointly delivered CETA/vocational education programs in Virginia. This chapter includes a summary of the participation of the panel of experts, an analysis of the data from each of the three probes, and a summary.

#### SUMMARY OF PARTICIPATION OF THE PANEL OF EXPERTS

A purposive sample of CETA and vocational education administrators in Virginia comprised the panel of experts for this study. Twenty-eight panel members (14 from each group of administrators) were nominated and agreed to serve. The CETA administrators included planning officers of prime sponsorships, a program agent and non-vocational education program operators. Panel members administering vocational education programs included local directors of vocational education and superintendents or assistant superintendents with responsibility for vocational education programs. These job titles were selected to ensure representation of local and regional levels of administration which directly influence the development of CETA/vocational education program linkages. The nomination and selection processes were discussed in Chapter 3.

Each of the twenty-eight panel members responded to Delphi Probes I and II. Delphi Probe III included not only a final rating of items but also a step which asked panel members to sequence the procedures in the

order in which they should be performed. Each of the twenty-eight panel members responded to the step requesting a final rating of items; however, two panel members (one from each group) declined to sequence the items, citing lack of time. Consequently, the sequencing of the procedures was based on the responses of 93 percent of the panel.

#### ANALYSIS OF DATA FROM DELPHI PROBE I

Delphi Probe I was completed during personal interviews. A cover letter (Appendix C) explaining the purpose of the study and the importance of participating in all three probes was presented to the panel members and signed by them prior to the completion of the questionnaire. All twenty-eight members of the panel of experts responded to this probe. Fifteen panel members suggested 29 additional procedures (Appendix D); however, only one of these procedures was suggested by two or more panel members. This procedure, which became item 33 on subsequent questionnaires, was suggested by one administrator from each group.

Thirty-two procedures were rated as to their importance five-point scale. Values on this scale were assigned as follows:

- 5 - of extremely high importance
- 4 - of high importance
- 3 - of moderate importance
- 2 - of low importance
- 1 - of no importance

The distribution of responses by group for each item is presented in Table 2.

On Delphi Probe I the modal responses of the total panel were 4 or 5 for all items, with three items having a bimodal response of 4 and 5. Each

Table 2

Delphi Probe I

Distribution of Responses

Item/Rating	CETA Administrators					Vocational Education Administrators					Total Group				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
1	7	3	4	0	0	4	6	2	2	0	11	9	6	2	0
2	9	2	3	0	0	6	6	1	1	0	15	8	4	1	0
3	4	7	3	0	0	4	7	1	2	0	8	14	4	2	0
4	11	3	0	0	0	10	2	2	0	0	21	5	2	0	0
5	8	4	2	0	0	8	4	2	0	0	16	8	4	0	0
6	9	5	0	0	0	7	5	2	0	0	16	10	2	0	0
7	4	6	3	1	0	6	4	4	0	0	10	10	7	1	0
8	7	6	0	1	0	8	4	2	0	0	15	9	2	1	0
9	4	9	1	0	0	5	6	1	2	0	9	15	2	2	0
10	8	6	0	0	0	3	7	2	2	0	11	13	2	2	0
11	5	8	1	0	0	2	6	3	3	0	7	14	4	3	0

Table 2 (Continued)

Item/Rating	CETA Administrators					Vocational Education Administrators					Total Group				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
12	3	4	1	2	4	4	3	5	2	0	7	7	6	4	4
13	8	6	0	0	0	6	6	0	2	0	14	12	0	2	0
14	6	4	2	1	1	7	6	1	0	0	13	10	3	1	1
15	7	4	0	2	1	7	4	2	0	1	14	8	2	2	2
16	3	8	1	0	2	11	2	0	0	1	14	10	1	0	3
17	3	6	3	1	1	6	5	2	0	1	9	11	5	1	2
18	4	6	1	1	2	7	5	1	0	1	11	11	2	1	3
19	9	2	1	1	1	6	4	4	0	0	15	6	5	1	1
20	10	2	0	0	2	6	4	2	1	1	16	6	2	1	3
21	8	5	0	1	0	6	7	1	0	0	14	12	1	1	0
22	6	5	0	2	1	3	3	4	4	0	9	8	4	6	1
23	4	9	0	0	1	3	5	5	1	0	7	14	5	1	1
24	8	3	2	1	0	9	3	2	0	0	17	6	4	1	0

Table 2 (continued)

Item/Rating	CETA Administrators					Vocational Education Administrators					Total Group				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
25	8	4	1	0	1	8	3	3	0	0	16	7	4	0	1
26	10	4	0	0	0	3	6	3	2	0	13	10	3	2	0
27	6	6	0	0	2	7	5	2	0	0	13	11	2	0	2
28	9	3	2	0	0	4	8	0	2	0	13	11	2	2	0
29	9	4	0	0	1	7	5	1	1	0	16	9	1	1	1
30	4	6	2	0	2	1	6	3	3	1	5	12	5	3	3
31	2	8	2	0	2	2	4	3	4	1	4	12	5	4	3
32	2	7	2	1	2	3	3	4	2	2	5	10	6	3	4
33	---Added after this probe---														

of the 32 items was rated at 3 and above by over 70 percent of the panel members in Probe I. Twenty-one of the items were rated at 3 and above by over 90 percent of the panel members in the initial probe.

All of the CETA administrators indicated ratings of 3 and above for 12 items in Delphi Probe I. These were items 1, 2, 3, 4, 5, 6, 9, 10, 11, 13, 26, and 28. One hundred percent of the vocational education administrators indicated ratings of 3 and above for the following 11 items: 4, 5, 6, 7, 8, 14, 19, 21, 24, 25, and 27. Only three items (4, 5 and 6) were rated at 3 and above by 100 percent of the total group. Item 12 (the submission of proposals for jointly delivered CETA/vocational education programs to vocational education advisory councils) had the smallest percentages of respondents at 3 and above: 57 percent of the CETA administrators, 86 percent of the vocational education administrators and 71 percent of the total group. A summary of the responses by group is presented in Table 3.

#### ANALYSIS OF DATA FROM DELPHI PROBE II

The second Delphi probe was mailed to the panel of experts with a cover letter and instructions (Appendix E). In this probe, the procedures from Probe I were presented in the same order, with the one additional procedure suggested by two or more panel members in Probe I being added to the list as item 33. The modal response of the total group in Probe I was indicated on the questionnaire along with the first-probe response of the individual panel member. Panel members were asked to reevaluate their responses where different from those of the total group and change them if they wished to do so. Those panel members who did not wish to change ratings which were above or below those of the total group were asked to give a reason why their original ratings were more appropriate.

Table 3

## Delphi Probe I

## Summary of Responses by Group

Item	CETA Administrators				Vocational Education Administrators				Total Group			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
1	5	7	50	100	4	6	43	86	5	11	39	93
2	5	9	64	100	5, 4	12	86	93	5	15	54	96
3	4	7	50	100	4	7	50	86	4	14	50	93
4	5	11	79	100	5	10	71	100	5	21	75	100
5	5	8	57	100	5	8	57	100	5	16	57	100
6	5	9	64	100	5	7	50	100	5	16	57	100
7	4	6	43	93	5	6	43	100	5, 4	20	71	96
8	5	7	50	93	5	8	57	100	5	15	54	96
9	4	9	64	100	4	6	43	86	4	15	54	93
10	5	8	57	100	4	7	50	86	4	13	46	93
11	4	8	57	100	4	6	43	79	4	14	50	89

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 3 (continued)

Item	CETA Administrators				Vocational Education Administrators				Total Group			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
12	4, 1	8	57	57	3	5	36	86	4	14	50	71
13	5	8	57	100	5, 4	12	86	86	5	14	50	93
14	5	6	43	86	5	7	50	100	5	13	46	93
15	5	7	50	79	5	7	50	93	5	14	50	86
16	4	8	57	86	5	11	79	93	5	14	50	89
17	4	6	43	86	5	6	43	93	4	11	39	89
18	4	6	43	79	5	7	50	93	5, 4	22	79	82
19	5	9	64	86	5	6	43	100	5	15	54	93
20	5	10	71	86	5	6	43	86	5	16	57	86
21	5	8	57	93	4	7	50	100	5	14	50	96
22	5	6	43	79	3, 2	8	57	71	5	9	32	75
23	4	9	64	93	4, 3	10	71	93	4	14	50	93
24	5	8	57	93	5	9	64	100	5	17	61	96

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 3 (continued)

Item	CETA Administrators				Vocational Education Administrators				Total Group			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
25	5	8	57	93	5	8	57	100	5	16	57	96
26	5	10	71	100	4	6	43	86	5	13	46	93
27	5, 4	12	86	86	5	7	50	100	5	13	46	93
28	5	9	64	100	4	8	57	86	5	13	46	93
29	5	9	64	93	5	7	50	93	5	16	57	93
30	4	6	43	86	4	6	43	71	4	12	43	79
31	4	8	57	86	4, 2	8	57	64	4	12	43	75
32	4	7	50	79	3	4	29	71	4	10	36	75
33	-----Added after this probe-----											

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Twenty panel members made 114 comments in response to Probe II. Some of these comments were addressed to more than one item and many comments were duplicated by several panel members.

All twenty-eight panel members responded to Probe II. The distribution of responses is shown in Table 4. Again, the modal response of the total group on each item was either 4 or 5. There were no bimodal responses remaining for the total group or within either group of administrators. Twenty-eight of the 33 items were rated at 4 and above by 75 percent or more of the panel members. The remaining five items were rated at 3 and above by 75 percent or more of the panel members.

Sixteen items (1-11, 13, 26, 28, 29, and 33) were rated 3 and above by 100 percent of the CETA administrators. One hundred percent of the vocational education administrators rated 17 items (2, 4, 5, 6, 7, 8, 13, 14, 15, 16, 19, 21, 23, 25, 26, 27, and 28) at 3 and above in Probe II. There were seven items (2, 4, 5, 6, 7, 8, and 26) rated at 3 and above by 100 percent of the total panel. A summary of the responses by group is presented in Table 5.

#### ANALYSIS OF DATA IN DELPHI PROBE III

Delphi Probe III was mailed to the panel of experts with a cover letter and instructions (Appendix F). In this probe, the 33 procedures from Probe II were presented to the panel members for their final ratings. The edited comments from those participants maintaining minority positions in Probe II were given beside each procedure. The modal response of the total group in Probe II was indicated for each item, as was the individual's second-probe response. Panel members were asked to read the procedure and

Table 4

## Delphi Probe II

## Distribution of Responses

Item/Rating	CETA Administrators					Vocational Education Administrators					Total Group				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
1	11	0	3	0	0	9	4	0	1	0	20	4	3	1	0
2	11	0	3	0	0	11	3	0	0	0	22	3	3	0	0
3	3	8	3	0	0	4	9	0	1	0	7	17	3	1	0
4	11	3	0	0	0	11	2	1	0	0	22	5	1	0	0
5	11	2	1	0	0	11	2	1	0	0	22	4	2	0	0
6	12	2	0	0	0	12	1	1	0	0	24	3	1	0	0
7	4	7	3	0	0	6	7	1	0	0	10	14	4	0	0
8	10	4	0	0	0	9	4	1	0	0	19	8	1	0	0
9	2	12	0	0	0	2	11	0	1	0	4	23	0	1	0
10	10	4	0	0	0	3	10	0	1	0	7	20	1	0	0
11	2	12	0	0	0	1	11	1	1	0	3	23	1	1	0

Table 4 (continued)

Item/Rating	CETA Administrators					Vocational Education Administrators					Total Group				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
12	3	5	1	2	3	6	5	2	1	0	9	10	3	3	3
13	11	3	0	0	0	9	3	0	0	0	20	6	0	2	0
14	9	2	1	1	1	13	0	1	0	0	22	2	2	1	1
15	9	2	0	2	1	12	2	0	0	0	21	4	0	2	1
16	8	3	1	0	2	13	0	0	0	1	21	3	1	0	3
17	3	8	2	0	1	5	7	1	0	1	8	15	3	0	2
18	4	7	0	1	2	6	7	0	0	1	10	14	0	1	3
19	10	1	1	1	1	9	1	4	0	0	19	2	5	1	1
20	12	0	0	0	2	8	2	2	1	1	20	2	2	1	3
21	12	1	0	1	0	12	2	0	0	0	24	3	0	1	0
22	9	2	0	2	1	9	1	2	3	0	18	3	2	4	1
23	1	12	0	0	1	2	10	2	0	0	3	22	2	0	1
24	12	0	1	1	0	10	2	2	0	0	22	2	3	1	0

Table 4 (continued)

Item/Rating	CETA Administrators					Vocational Education Administrators					Total Group				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
25	12	1	0	0	1	11	1	2	0	0	23	2	2	0	1
26	11	3	0	0	0	9	4	1	0	0	20	7	1	0	0
27	8	4	0	0	2	11	1	2	0	0	19	5	2	0	2
28	14	0	0	0	0	11	1	0	2	0	25	1	0	2	0
29	12	2	0	0	0	12	1	0	1	0	24	3	0	1	0
30	3	7	2	0	2	1	9	1	2	1	4	16	3	2	3
31	2	9	1	0	2	1	8	2	2	1	3	17	3	2	3
32	1	9	2	0	2	2	8	2	1	1	3	17	4	1	3
33	10	3	1	0	0	8	5	0	1	0	18	8	1	1	0

Table 5

Delphi Probe II

Summary of Responses by Group

Item	CETA Administrators				Vocational Education Administrators				Total Group			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
1	5	11	79	100	5	9	64	93	5	20	71	96
2	5	11	79	100	5	11	79	100	5	22	79	100
3	4	8	57	100	4	9	64	93	4	17	61	96
4	5	11	79	100	5	11	79	100	5	22	79	100
5	5	11	79	100	5	11	79	100	5	22	79	100
6	5	12	86	100	5	12	86	100	5	24	86	100
7	4	7	50	100	4	7	50	100	4	14	50	100
8	5	10	71	100	5	9	64	100	5	19	68	100
9	4	12	86	100	4	11	79	93	4	23	82	96
10	4	10	71	100	4	10	71	93	4	20	71	100
11	4	12	86	100	4	11	79	93	4	23	82	96

65

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 5 (continued)

Item	CETA Administrators				Vocational Education Administrators				Total Group			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
12	4	5	36	64	5	6	43	93	4	10	36	79
13	5	11	79	100	5	9	64	100	5	20	71	93
14	5	9	64	86	5	13	64	100	5	22	79	93
15	5	9	64	79	5	12	86	100	5	21	75	89
16	5	8	57	86	5	13	93	100	5	21	75	89
17	4	8	57	93	4	7	50	93	4	15	54	93
18	4	7	50	79	4	7	50	93	4	14	50	86
19	5	10	71	86	5	9	64	100	5	19	68	93
20	5	12	86	86	5	8	57	86	5	20	71	86
21	5	12	86	93	5	12	86	100	5	24	86	96
22	5	9	64	79	5	9	64	86	5	18	64	82
23	4	12	86	93	4	10	71	100	4	22	79	96
24	5	12	86	93	5	10	71	86	5	22	79	96

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 5 (continued)

Item	CETA Administrators				Vocational Education Administrators				Total Group			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
25	5	12	86	93	5	11	79	100	5	23	82	96
26	5	11	79	100	5	9	64	100	5	20	71	100
27	5	8	57	86	5	11	79	100	5	19	68	93
28	5	14	100	100	5	11	79	100	5	25	89	93
29	5	12	86	100	5	12	86	93	5	24	86	96
30	4	7	50	86	4	9	64	79	4	16	57	82
31	4	9	64	86	4	8	57	79	4	17	61	82
32	4	9	64	86	4	8	57	86	4	17	61	86
33	5	10	71	100	5	8	57	93	5	18	64	96

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

the comments, examine the group's modal response and their previous response, and indicate their ratings.

All 28 panel members responded to Probe III by providing a final rating of the procedures. The distribution of responses is given in Table 6. There was no change in the modal responses of the total group from Delphi Probe II to Delphi Probe III, although changes in individual responses were reflected in the frequency of responses on the mode. The frequency (and hence the percentage) of responses on the mode increased for 16 of the 33 items and decreased for seven items.

There were a number of changes in the items receiving ratings of 3 and above by groups. In Delphi Probe III, 15 items (2, 4, 5, 6, 7, 8, 9, 10, 11, 13, 19, 26, 28, 29, and 33) received ratings of 3 and above from 100 percent of the CETA administrators. Ratings of 3 and above were also given to 15 items (2, 4, 5, 6, 7, 8, 14, 15, 19, 21, 23, 24, 25, 26, and 27) by the vocational education administrators. Of those items rated 3 and above by 100 percent of either group, eight items (2, 5, 6, 7, 8, 10, 19, and 26) were rated at 3 and above by 100 percent of the total group. The most notable exception to the agreement between groups is seen in the responses of the two groups to item 12, presenting proposals for jointly delivered programs to vocational education advisory councils. Only 57 percent of the CETA administrators rated this item 3 or higher. This figure contrasts with 93 percent of the vocational education administrators who rated it 3 or higher.

The degree of consensus on all items continued to exceed the 67 percent which had been defined as the minimum for reporting procedures at the conclusion of the study. All 33 items were rated at 3 and above by 75 percent or more of the panel members. Twenty-nine items were rated

Table 6

Delphi Probe III

Distribution of Responses

Item/Rating	CETA Administrators					Vocational Education Administrators					Total Group				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
1	9	2	2	1	0	9	4	0	1	0	18	6	2	2	0
2	10	2	2	0	0	11	3	0	0	0	21	5	2	0	0
3	2	11	1	0	0	3	10	0	1	0	5	21	1	1	0
4	11	2	0	1	0	11	2	1	0	0	22	4	1	1	0
5	11	2	1	0	0	12	1	1	0	0	23	3	2	0	0
6	12	2	0	0	0	12	2	0	0	0	24	4	0	0	0
7	3	8	3	0	0	5	8	1	0	0	8	16	4	0	0
8	10	4	0	0	0	10	2	2	0	0	20	6	2	0	0
9	3	11	0	0	0	1	12	0	1	0	4	23	0	1	0
10	6	8	0	0	0	1	13	0	0	0	7	21	0	0	0
11	2	12	0	0	0	1	10	2	1	0	3	22	2	1	0

Table 6 (continued)

Item/Rating	CETA Administrators					Vocational Education Administrators					Total Group				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
12	2	6	0	3	3	4	7	2	1	0	6	13	2	4	3
13	12	2	0	0	0	9	3	0	2	0	21	5	0	2	0
14	12	0	0	1	1	13	0	1	0	0	25	0	1	1	1
15	8	3	0	2	1	12	2	0	0	0	20	5	0	2	1
16	7	4	1	0	2	13	0	0	0	1	20	4	1	0	3
17	2	9	2	0	1	4	8	1	0	1	6	17	3	0	2
18	4	7	0	1	2	4	9	0	0	1	8	16	0	1	3
19	11	1	2	0	0	9	2	3	0	0	20	3	5	0	0
20	12	0	1	0	1	8	2	2	1	2	20	2	3	1	2
21	13	0	0	1	0	12	2	0	0	0	25	2	0	1	0
22	9	3	0	1	1	9	1	2	2	0	18	4	2	3	1
23	0	12	1	0	1	2	12	0	0	0	2	24	1	0	1
24	12	0	1	1	0	11	1	2	0	0	23	1	3	1	0

Table 6 (continued)

Item/Rating	CETA Administrators					Vocational Education Administrators					Total Group				
	5	4	3	2	1	5	4	3	2	1	5	4	3	2	1
25	11	2	0	0	1	11	1	2	0	0	22	3	2	0	1
26	11	3	0	0	0	9	4	1	0	0	20	7	1	0	0
27	8	4	0	0	2	11	1	2	0	0	19	5	2	0	2
28	14	0	0	0	0	11	1	0	2	0	25	1	0	2	0
29	12	2	0	0	0	12	1	0	1	0	24	3	0	1	0
30	3	7	2	0	2	1	8	2	2	1	4	15	4	2	3
31	0	11	1	0	2	2	7	2	2	1	2	18	3	2	3
32	0	10	2	0	2	3	7	2	1	1	3	17	4	1	3
33	10	3	1	0	0	9	4	0	1	0	19	7	1	1	0

4 and above by 75 percent or more of the panel members in Probe III. A summary of the responses by group in Delphi Probe III is presented in Table 7.

Twenty-six panel members responded to the additional instruction on Delphi Probe III, which asked them to indicate the most appropriate sequence for completing the procedures. Those responding included thirteen administrators from each group. The degree of agreement on the sequencing of items was determined by calculating Kendall's Coefficient of Concordance,  $W$ , using the formula given in Chapter 3. The computed value of  $W$  was 0.59, which would indicate moderately high agreement. The significance of this value was tested by calculating the Chi square ( $\chi^2$ ) value using the formula given in Chapter 3. Chi square ( $\chi^2$ ) was computed to be 528.64. When compared to the table of critical values of  $\chi^2$ , this value was found to be significant at the  $\alpha = .01$  level with 32 degrees of freedom.

The significant value of  $W$  would indicate that the panel members were applying "essentially the same standard in ranking the [33 procedures] under study" (Siegel, 1956:237). The order of these procedures by the sums of ranks is presented in Table 8 along with their original order and final modal ratings. Procedures 1 and 2 had tied rankings. Procedure 1 retained its priority position because it had the least sum of squares (Kendall, 1970:102). The significant value of  $W$  should not be interpreted as meaning that the sequencing responses are correct; all panel members may have employed the same "wrong" criteria in their sequencing. The ordering of the last three procedures concerning the follow-up of program participants is an example of the application of the "wrong" criteria.

Comparisons of responses by probe for each group are presented in Tables 9, 10, and 11. Modal responses for the total group (Table 11)

Table 7

## Delphi Probe III

## Summary of Responses by Group

Item	CETA Administrators				Vocational Education Administrators				Total Group			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
1	5	9	64	93	5	9	64	93	5	18	64	93
2	5	10	71	100	5	11	79	100	5	21	75	100
3	4	11	79	100	4	9	64	93	4	21	75	96
4	5	11	79	93	5	11	79	100	5	22	79	96
5	5	11	79	100	5	11	79	100	5	23	82	100
6	5	12	86	100	5	12	86	100	5	24	86	100
7	4	8	57	100	4	7	50	100	4	16	57	100
8	5	10	71	100	5	9	64	100	5	20	71	100
9	4	11	79	100	4	11	79	93	4	23	82	96
10	4	8	57	100	4	10	71	93	4	21	75	100
11	4	12	86	100	4	11	79	93	4	22	79	96

\*Where two numbers are shown, the response was bimodal. The "No on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 7 (continued)

Item	CETA Administrators				Vocational Education Administrators				Total Group			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
12	4	6	43	57	4	7	50	93	4	13	46	75
13	5	12	86	100	5	9	64	86	5	21	75	93
14	5	12	86	86	5	13	93	100	5	25	89	93
15	5	8	57	79	5	12	86	100	5	20	71	89
16	5	7	50	86	5	13	93	93	5	20	71	89
17	4	9	64	93	4	8	57	93	4	17	61	93
18	4	7	50	79	4	9	64	93	4	16	57	86
19	5	11	79	100	5	9	64	100	5	20	71	100
20	5	12	86	93	5	8	57	86	5	20	71	89
21	5	13	93	93	5	12	86	100	5	25	89	96
22	5	9	64	86	5	9	64	86	5	18	64	86
23	4	12	86	93	4	12	86	100	4	24	86	96
24	5	12	86	93	5	11	79	100	5	23	82	96

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 7 (continued)

Item	CETA Administrators				Vocational Education Administrators				Total Group			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
25	5	11	79	93	5	11	79	100	5	22	79	96
26	5	11	79	100	5	9	64	100	5	20	71	100
27	5	8	57	86	5	11	79	100	5	19	68	93
28	5	14	100	100	5	11	79	86	5	25	89	93
29	5	12	86	100	5	12	86	93	5	24	86	96
30	4	7	50	86	4	8	57	79	4	15	54	82
31	4	11	79	86	4	7	50	79	4	18	64	82
32	4	10	71	86	4	7	50	86	4	17	61	86
33	5	10	71	100	5	9	64	93	5	19	68	96

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 8

Sequential Listing of Procedures and Importance Ratings  
Indicated by the Panel of Experts

No. in Sequence by Panel	No. in Original Listing	Procedure	Final Modal Rating*
1	1	Vocational education administrators invite CETA administrators to serve on the local Vocational Education Advisory Council.	5
2	2	CETA administrators invite vocational education administrators to serve on the local employment and training council.	5
3	3	Vocational education administrators are invited to serve on the prime sponsor's Youth Advisory Council and/or other advisory councils as may be appropriate.	4
4	5	CETA administrators share information on CETA regulations pertaining to vocational training for youth and adults and eligibility requirements with vocational education administrators.	5
5	4	Vocational education administrators make CETA administrators aware of vocational programs currently offered and facilities and equipment available for vocational training programs.	5
6	6	CETA administrators make vocational education administrators aware of vocational training program needs and options for addressing needs such as classroom training, on-the-job training and work experience programs.	5

\*The final modal ratings for each group of administrators were the same as those of the total group. The number of participants responding on the mode did vary between groups. Details are given in Table 7.

Table 8 (continued)

No. in Sequence by Panel	No. in Original Listing	Procedure	Final Modal Rating*
7	7	CETA administrators familiarize vocational education administrators with steps in CETA's competitive funding process such as how to prepare a proposal and when to submit it.	4
8	8	CETA and vocational education administrators meet to discuss mutual program needs, ways of meeting these needs and constraints imposed by variances in planning and budgeting cycles.	5
9	10	As a part of the annual plan, the prime sponsor/program agent proposes a program mix to meet labor market and participant needs. This mix should reflect labor market trends, target groups, and vocational education proposals for addressing needs.	4
10	9	As a part of the annual update of the five-year plan for vocational education, vocational education administrators design programs to meet predetermined needs. Proposed programs included in the five-year plan will include descriptions, dates of operation, target populations, measurable objectives, and budget projections.	4
11	11	The vocational education administrator/program operator prepares the required program proposals for CETA administrators. These will include information similar to that in the annual update of the five-year plan and any additional information the prime sponsor/program agent may require.	4
12	12	The vocational education administrator/program operator submits the new program proposal to the Vocational Education Advisory Council for approval.	4

\*The final modal ratings for each group of administrators were the same as those of the total group. The number of participants responding on the mode did vary between groups. Details are given in Table 7.

Table 8 (continued)

No. in Sequence by Panel	No. in Original Listing	Procedure	Final Modal Rating*
13	13	The prime sponsor/program agent reviews, evaluates and approves program proposals.	5
14	14	The prime sponsor/program agent and vocational education administrator/program operator meet to discuss final arrangements and details of contracts. The flow of funds to the program operator (vocational education administrator in local school divisions) is explicitly stated in the final contract.	5
15	15	The vocational education administrator submits program contracts to school officials (usually the superintendent) for approval and signature.	5
16	16	The vocational education administrator/program operator selects staff, facilities, equipment, instructional materials, and supplies as needed for the vocational training program.	5
17	17	The vocational education administrator/program operator contracts with staff members and for the necessary facilities in accordance with final contractual agreements with the prime sponsor/program agent.	4
18	19	The Virginia Employment Commission (VEC) or other appropriate agency certifies the eligibility of program participants.	5
19	18	The vocational education administrator/program operator arranges for the purchase of equipment, instructional materials and supplies in accordance with final contractual arrangements with the prime sponsor/program agent.	4

\*The final modal ratings for each group of administrators were the same as those of the total group. The number of participants responding on the mode did vary between groups. Details are given in Table 7.

Table 8 (continued)

No. in Sequence by Panel	No. in Original Listing	Procedure	Final Modal Rating*
20	20	The vocational education administrator/program operator selects eligible participants on the basis on interest/ability in a particular training program and/or according to other previously agreed-upon criteria.	5
21	23	The vocational education administrator/program operator (or the program staff) collects participant data which will assist in completing follow-up surveys.	4
22	22	The vocational education administrator/program operator completes Participant Characteristics Reports and other reports required by the prime sponsor/program agent as well as enrollment and other pertinent forms for vocational education reporting requirements.	5
23	21	The vocational education administrator/program operator conducts the vocational training program according to agreed-upon time limits and/or objectives.	5
24	24	The staff of the training program assists those participants who complete the program in securing employment.	5
25	25	The vocational education administrator/program operator (or the program staff) evaluates the results of the vocational training program.	5
26	26	The program results are included in a final report to the prime sponsor/program agent prepared by the vocational education administrator/program operator. Said final report will also include a final expenditure report.	5

\*The final modal ratings for each group of administrators were the same as those of the total group. The number of participants responding on the mode did vary between groups. Details are given in Table 7.

Table 8 (continued)

No. in Sequence by Panel	No. in Original Listing	Procedure	Final Modal Rating*
27	27	Data on participants who complete the training program but who are not placed are turned over by the vocational education administrator/program operator to the VEC for additional assistance in placement.	5
28	28	The prime sponsor/program agent conducts an independent evaluation of program results.	5
29	33	The vocational education administrator/program operator provides counseling for intake, selection of training, personal and vocational counseling concerns while in training, exit counseling, and job placement and follow-up counseling.	5
30	29	The prime sponsor/program agent meets with the vocational education administrator/program operator to discuss strengths and weaknesses of the completed vocational training program and suggestions for future cooperative efforts.	5
31	32	The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program one year after the ending date of the program and reports the results to the prime sponsor/program agent.	4
32	31	The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program six months after the ending date of the program and reports the results to the prime sponsor/program agent.	4

\*The final modal ratings for each group of administrators were the same as those of the total group. The number of participants responding on the mode did vary between groups. Details are given in Table 7.

Table 8 (continued)

No. in Sequence by Panel	No. in Original Listing	Procedure	Final Modal Rating*
33	30	The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program three months after the ending date of the program and reports the results to the prime sponsor/program agent.	4

\*The final modal ratings for each group of administrators were the same as those of the total group. The number of participants responding on the mode did vary between groups. Details are given in Table 7.

Table 9

## Summary of Responses of CETA Administrators

Item	Delphi Probe I				Delphi Probe II				Delphi Probe III			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
1	5	7	50	100	5	11	79	100	5	9	64	93
2	5	9	64	100	5	11	79	100	5	10	71	100
3	4	7	50	100	4	8	57	100	4	11	79	100
4	5	11	79	100	5	11	79	100	5	11	79	93
5	5	8	57	100	5	11	79	100	5	11	79	100
6	5	9	64	100	5	12	86	100	5	12	86	100
7	4	6	43	93	4	7	50	100	4	8	57	100
8	5	7	50	93	5	10	71	100	5	10	71	100
9	4	9	64	100	4	12	86	100	4	11	79	100
10	5	8	57	100	4	10	71	100	4	8	57	100
11	4	8	57	100	4	12	86	100	4	12	86	100

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 9 (continued)

Item	Delphi Probe I				Delphi Probe II				Delphi Probe III			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
12	4, 1	8	57	57	4	5	36	64	4	6	43	57
13	5	8	57	100	5	11	79	100	5	12	86	100
14	5	6	43	86	5	9	64	86	5	12	86	86
15	5	7	50	79	5	9	64	79	5	8	57	79
16	4	8	57	86	5	8	57	86	5	7	50	86
17	4	6	43	86	4	8	57	93	4	9	64	93
18	4	6	43	79	4	7	50	79	4	7	50	79
19	5	9	64	86	5	10	71	86	5	11	79	100
20	5	10	71	86	5	12	86	86	5	12	86	93
21	5	8	57	93	5	12	86	93	5	13	93	93
22	5	6	43	79	5	9	64	79	5	9	64	86
23	4	9	64	93	4	12	86	93	4	12	86	93
24	5	8	57	93	5	12	86	93	5	12	86	93

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 9 (continued)

Item	Delphi Probe I				Delphi Probe II				Delphi Probe III			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
25	5	8	57	93	5	12	86	93	5	11	79	93
26	5	10	71	100	5	11	79	100	5	11	79	100
27	5, 4	12	86	86	5	8	57	86	5	8	57	86
28	5	9	64	100	5	14	100	100	5	14	100	100
29	5	9	64	93	5	12	86	100	5	12	86	100
30	4	6	43	86	4	7	50	86	4	7	50	86
31	4	8	57	86	4	9	64	86	4	11	79	86
32	4	7	50	79	4	9	64	86	4	10	71	86
33	-Added after this probe-				5	10	71	100	5	10	71	100

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 10

## Summary of Responses of Vocational Education Administrators

Item	Delphi Probe I				Delphi Probe II				Delphi Probe III			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
1	4	6	43	86	5	9	64	93	5	9	64	93
2	5, 4	12	86	93	5	11	79	100	5	11	79	100
3	4	7	50	86	4	9	64	93	4	10	71	93
4	5	10	71	100	5	11	79	100	5	11	79	100
5	5	8	57	100	5	11	79	100	5	12	86	100
6	5	7	50	100	5	12	86	100	5	12	86	100
7	5	6	43	100	4	7	50	100	4	8	57	100
8	4	6	43	86	4	11	79	93	4	12	86	93
9	4	7	50	86	4	10	71	93	4	13	93	100
10	4	7	50	86	4	10	71	93	4	13	93	100
11	4	6	43	79	4	11	79	93	4	10	71	93

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 10 (continued)

Item	Delphi Probe I				Delphi Probe II				Delphi Probe III			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
12	3	5	36	86	5	6	43	93	4	7	50	93
13	5, 4	12	86	86	5	9	64	100	5	9	64	86
14	5	7	50	100	5	13	64	100	5	13	93	100
15	5	7	50	93	5	12	86	100	5	12	86	100
16	5	11	79	93	5	13	93	93	5	13	93	93
17	5	6	43	93	4	7	50	93	4	8	57	93
18	5	7	50	93	4	7	50	93	4	9	64	93
19	5	6	43	100	5	9	64	100	5	9	64	100
20	5	6	43	86	5	8	57	86	5	8	57	86
21	4	7	50	100	5	12	86	100	5	12	86	100
22	3, 2	8	57	71	5	9	64	86	5	9	64	86
23	4, 3	10	71	93	4	10	71	100	4	12	86	100
24	5	9	64	100	5	10	71	86	5	11	79	100

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 10 (continued)

Item	Delphi Probe I				Delphi Probe II				Delphi Probe III			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
25	5	8	57	100	5	11	79	100	5	11	79	100
26	4	6	43	86	5	9	64	100	5	9	64	100
27	5	7	50	100	5	11	79	100	5	11	79	100
28	4	8	57	86	5	11	79	100	5	11	79	100
29	5	7	50	93	5	12	86	93	5	12	86	93
30	4	6	43	71	4	9	64	79	4	8	57	79
31	4, 2	8	57	64	4	8	57	79	4	7	50	79
32	3	4	29	71	4	8	57	86	4	7	50	86
33	--Added after this probe--				5	8	57	93	5	9	64	73

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 11

## Summary of Responses of the Total Group

Item	Delphi Probe I				Delphi Probe II				Delphi Probe III			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
1	5	11	39	93	5	20	71	96	5	18	64	93
2	5	15	54	96	5	22	79	100	5	21	75	100
3	4	14	50	93	4	17	61	96	4	21	75	96
4	5	21	75	100	5	22	79	100	5	22	79	96
5	5	16	57	100	5	22	79	100	5	23	82	100
6	5	16	57	100	5	24	86	100	5	24	86	100
7	5, 4	20	71	96	4	14	50	100	4	16	57	100
8	5	15	54	96	5	19	68	100	5	20	71	100
9	4	15	54	93	4	23	82	96	4	23	82	96
10	4	13	46	93	4	20	71	100	4	21	75	100
11	4	14	50	89	4	23	82	96	4	22	79	96

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 11 (continued)

Item	Delphi Probe I				Delphi Probe II				Delphi Probe III			
	Mode *	No. on Mode	% on Mode	% 3.0 and above	Mode *	No. on Mode	% on Mode	% 3.0 and above	Mode *	No. on Mode	% on Mode	% 3.0 and above
12	5, 4	14	50	71	4	10	36	79	4	13	46	75
13	5	14	50	93	5	20	71	93	5	21	75	93
14	5	13	46	93	5	22	79	93	5	25	89	93
15	5	14	50	86	5	21	75	89	5	20	71	89
16	5	14	50	89	5	21	75	89	5	20	71	89
17	4	11	39	89	4	15	54	93	4	17	61	93
18	5, 4	22	79	82	4	14	50	86	4	16	57	86
19	5	15	54	93	5	19	68	93	5	20	71	100
20	5	16	57	86	5	20	71	86	5	20	71	89
21	5	14	50	96	5	24	86	96	5	25	89	96
22	5	9	32	75	5	18	64	82	5	18	64	86
23	4	14	50	93	4	22	79	96	4	24	86	96
24	5	17	61	96	5	22	79	96	5	23	82	96

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

Table 11 (continued)

Item	Delphi Probe I				Delphi Probe II				Delphi Probe III			
	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above	Mode*	No. on Mode	% on Mode	% 3.0 and above
25	5	16	57	96	5	23	82	96	5	22	79	96
26	5	13	46	93	5	20	71	100	5	20	71	100
27	5	13	46	93	5	19	68	93	5	19	68	93
28	5	13	46	93	5	25	89	93	5	25	89	93
29	5	16	57	93	5	24	86	96	5	24	86	96
30	4	12	43	79	4	16	57	82	4	15	54	82
31	4	12	43	75	4	17	61	82	4	18	64	82
32	4	10	36	75	4	17	61	86	4	17	61	86
33	--Added after this probe--				5	18	64	96	5	19	68	96

\*Where two numbers are shown, the response was bimodal. The "No. on Mode" and "% on Mode" represent the total responses on the mode, and one-half of each of these numbers applies to each part of the bimodal response.

remained the same throughout all three probes except for the three items (7, 12 and 18) which were bimodal (4 and 5) in Probe I. Each of these items maintained a modal response of 4 in the second and third probes. The increases in the percentages of respondents on the mode from Probe I to Probe III ranged from 10.7 to 42.9 percent. Twenty-five items had at least one rating of 1 or 2 remaining in the final probe, demonstrating that some panel members were not swayed by the modal response of the total group.

Tenacity ratings were computed for each group using the formula developed by Rasp and discussed in Chapter 3. The computed tenacity rating for the CETA administrators was 94, and the computed rating for the vocational education administrators was 92. According to Rasp (1973:44) "the larger the number the greater the tenacity in holding to questionnaire 2 priorities." Both ratings are extremely high indicating an unwillingness of either group to move from their original position; however, the tenacity of the two groups had little effect on the responses to this study because of the high degree of initial agreement.

#### SUMMARY

The findings of each of the three Delphi probes conducted to develop procedures for the implementation and operation of jointly delivered CETA/vocational education programs were discussed in this chapter. The data were presented for each probe by group (CETA administrators, vocational education administrators, and the total panel). The data were also summarized for each group in individual tables. In addition, the list of procedures that was developed was presented in the sequence suggested by the panel with an indication of the original order and the final modal rating for each item.

## Chapter 5

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter contains a brief summary of this study and the conclusions drawn from the data it provided. Recommendations for future action and further study are also presented.

#### SUMMARY

Employment and training programs under CETA and vocational education programs are both designed to meet the occupational training needs of youth and adults. Because of this overlap in program goals, the strengthening of legislative mandates for coordination among federally funded programs and the increased cost of providing services, CETA and vocational education administrators are under increasing pressure to avoid duplication of services. These factors have intensified the interest in collaborative efforts between CETA and vocational education administrators. This interest has been manifested in efforts to establish jointly delivered programs.

The purpose of this study was to determine the perceptions of CETA and vocational education administrators as to the importance of procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia. In order to accomplish this goal, the answers to the following research questions were sought: (1) Can consensus be obtained among CETA and vocational education administrators as to what procedures are necessary for the implementation and operation of jointly delivered programs? (2) Are there differences in the perceptions of the

two groups of administrators as to the importance of procedures for the implementation and operation of jointly delivered programs in Virginia? (3) To what extent do the panel members agree on the sequencing of these procedures? (4) Are there differences in the tenacity of CETA administrators and vocational education administrators as demonstrated by their willingness to conform to the group's opinions?

A review of the literature on existing programs and related studies was undertaken to assist in the development of a tentative list of procedures for the implementation and operation of jointly delivered programs. The review of literature revealed a need for increased communication and collaboration between CETA and vocational education administrators (Nebraska State Advisory Council for Vocational Education, 1974; NACVE, 1974). In addition, Bonner (1976) identified duplicate reports on participants and finances as major problems in conducting jointly delivered programs. Several specific suggestions for the successful operation of jointly delivered programs were made by Bonner (1976) and Urban Management Consultants of San Francisco, Inc. (1976) and were incorporated into the tentative list of procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia.

This study was conducted utilizing a modified Delphi technique and a panel of 28 experts. Panel members were divided equally between CETA and vocational education administrators and included representation from all geographic regions of Virginia. The Delphi technique was chosen because it allowed the researcher to attempt to gain consensus from panel members of widely varied backgrounds and to collect the data necessary to compute tenacity ratings.

In each of the three Delphi probes, the panel members were asked to rate the importance of each of the items on the tentative list of procedures. Additional procedures were suggested by panel members in Probe I. Probes II and III included one additional procedure to be rated and contained indications of the modal responses of the total group and each individual's responses on the previous probe. Probe III also included comments from panel members maintaining minority positions in Probe II. In Probe III each panel member was also asked to sequence the procedures.

### FINDINGS

The items in this section provide a summary of the findings of this study.

1. The panel of experts achieved consensus on the procedures for the implementation and operation of jointly delivered programs in the initial Delphi probe. The degree of consensus increased in subsequent probes.

2. At the conclusion of Probe III, all 33 procedures were rated at 3 and above by 75 percent or more of the panel members, indicating high agreement between these groups on the importance of the procedures. Eight of the procedures (2, 5, 6, 7, 8, 9, 10, 19, and 26) received ratings of 3 and above by 100 percent of the panel members. Twenty-nine of the 33 procedures were rated at 4 and above by 75 percent or more of the panel members.

3. Although the modal ratings for each item in Probe III were the same for each of the two groups of administrators, the number of panel members in each group responding on the mode did vary.

4. Procedures 1-11 (which pertain to developing communication links and program proposals) were rated as of high or extremely high importance

by 86 percent or more of the panel.

5. Procedures 25 and 28 (which pertain to program evaluation by vocational education administrators and independently by the prime sponsor/program agent) were rated as of high or extremely high importance by 90 percent or more of the panel.

6. Comments made by some panel members in Probe II indicate that local administrative patterns do not allow some procedures to be completed exactly as stated.

7. The extent of agreement on the sequencing of items was determined by computing the value of Kendall's  $W$ . The Kendall's  $W$  (0.59) was moderately high and significant at the .01 level.

8. The computed tenacity rating for the CETA administrators was 94. The vocational education administrators had a computed tenacity rating of 92. Both ratings are extremely high, indicating an unwillingness of either group to move from their original position.

#### CONCLUSIONS

The findings of this study would seem to justify the following conclusions:

1. Consensus on the procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia was obtained among the CETA and vocational education administrators participating in this study.

2. All procedures rated in this study are important to the implementation and operation of jointly delivered CETA/vocational education programs in Virginia.

3. Although all procedures were found to be important, procedures 1-11 (which pertain to developing communication links and program

proposals) seemed to be very important because they were rated as of "high importance" or "of extremely high importance" by 86 percent or more of the total panel.

4. Procedures 25 and 28 (which pertain to program evaluation by vocational education administrators and independently by the prime sponsor/program agent) were also very important. They were rated of high or extremely high importance by 90 percent or more of the total panel.

5. Although there was high agreement among all panel members that all procedures were important, some localities have an administrative pattern that does not allow some of these procedures to be executed in the indicated manner. This prohibition is evidenced by the panel members who maintained ratings of 1 or 2 on some procedures in the final probe and by the comments of these panel members in Probe II.

6. There were two or three administrators from each group who indicated, even in the final probe, that follow-up of program participants (items 30-32) was of low or no importance. These low ratings may be attributable to the emphasis in the procedural statement on the completion of follow-up by vocational education administrators. Comments by panel members indicated that follow-up was important but that time and staff to complete it was insufficient.

7. Because the modal ratings for all items were the same for each group of administrators in the third probe, one might conclude that any differences in their perceptions of the importance of procedures are inconsequential.

8. Because the Kendall's *W* was significant and moderately high, one might conclude that the panel members were applying the same criteria to the sequencing of procedures. Despite this agreement, some items are sequenced illogically.

9. The computed tenacity ratings indicate that each group of administrators was very tenacious. The high extent of agreement in the initial probe and the increase in agreement in subsequent probes would suggest the opposite, or that each group holds the same strong opinions.

#### RECOMMENDATIONS

The following recommendations are made as a result of the findings of this study:

1. Based on the extremely high importance which was indicated for those procedures (1-11) that pertain to developing communication links and sharing information on program needs, CETA and vocational education administrators should begin to undertake these steps where no previous efforts have been made or where such efforts have ceased.

2. Where jointly delivered CETA/vocational education programs exist or are to be implemented, CETA administrators need to be made aware of the function of vocational education advisory councils. Increased awareness may occur when they are invited to serve on these councils.

3. Each local school district and its prime sponsor should attempt to develop a coordinated planning process which would encourage increased program linkages and allow collaborative efforts to be reflected in the annual update of the vocational education five-year plan and the prime sponsor's annual plan.

4. Jointly delivered CETA/vocational education programs should be evaluated by vocational education administrators and independently by the prime sponsor.

5. Since each group of administrators agrees on what needs to be done to implement and operate jointly delivered CETA/vocational education

programs, further research should be done to determine why more such programs do not exist.

6. Based on conclusion 6 above, follow-up procedures should be studied further to determine when they should be undertaken, who is best equipped to undertake them, and what additional costs are involved. No preferences were discernible from this study.

7. The importance of the additional procedures in Appendix D, which were suggested by only one panel member, should be examined in future research.

8. Further research should be conducted to determine the differences in the perceptions of the importance of procedures which are legislatively mandated and those which are not.

9. The high degree of agreement on the importance of procedures for CETA program linkages with vocational education programs in the public schools suggests that further research should be undertaken to determine whether these procedures are applicable to CETA program linkages with community colleges and proprietary schools.

10. Further research should be undertaken to determine the effects of personal characteristics, amount and type of administrative experience, and previous operation of jointly delivered programs on the panelists' perceptions of appropriate procedures for developing program linkages.

11. A random sample of CETA and vocational education administrators nationwide should be utilized in further research to test the generalizability of the procedures developed in this study.

12. In future research using a modified Delphi technique in which the researcher provides a tentative list of items (procedures) to the panel, all suggestions for additional items should be presented to the panel for rating.

## DISCUSSION

The following discussion presents the views of the researcher that were not necessarily supported by the findings of this study.

The personal dedication of CETA and vocational education administrators to jointly delivered programs impacts on the number and success of linkage efforts. In areas where this dedication is lacking or where the personalities of administrators prohibit the development of working relationships, there is little interest in establishing and sustaining jointly delivered occupational training programs.

Administrators from local school systems and private program operators competing for CETA monies exhibit some hostility towards each other. The private program operators maintain that the public schools have already failed the CETA-eligible client. The administrators of local school programs espouse the view that public monies should not be spent for additional programs and facilities when these are available in the public schools.

Frequent changes in CETA regulations seem to have a negative impact on the desire of each group of administrators to make efforts to establish or improve linkage efforts. All administrative efforts are spent in bringing ongoing programs into compliance with the new regulations and the accompanying paperwork.

R E F E R E N C E S

## REFERENCES

- Anderson, D. P. Clarifying and setting objectives on an intermediate school district's objectives utilizing the Delphi technique. Paper presented at the American Educational Research Association symposium March 4, 1970, Minneapolis, Minnesota.
- Bonner, H. S. To develop a system for interfacing the administration and implementation of CETA and vocational programs at the local level. Prairie View, Texas: Prairie View A & M University, 1976. (ERIC Document Reproduction Service No. ED 140 097)
- Boyer, G. B. Regional planning in vocational education and manpower programs in California from 1960 to 1975 (Doctoral dissertation, Arizona University, 1976). (University Microfilms No. 77-2714)
- Campbell, R. M. A methodological study of the utilization of experts in business forecasting (Doctoral dissertation, University of California at Los Angeles, 1966). (University Microfilms No. 67-4491)
- CETA: an analysis of the issues, a special report of the National Commission for Manpower Policy, special report no. 2. Washington, D.C.: U.S. Government Printing Office, 1978.
- CETA Monitor, Washington, D.C.: U.S. Conference of Mayors, December 4, 1979.
- Collaboration in Jefferson County. VocEd, 1979, 54(4), 51-52.
- Conner, J. E. Conditions and possibilities. Proceedings of conferences on the Comprehensive Employment and Training Act. Washington, D.C.: National Advisory Council of Education, 1975. (ERIC Document Reproduction Service No. ED 138 723)
- Creating a center of success. VocEd, 1979, 54(5), 54-55.
- Curtis, T. D., Spence, J. G., & Johnson, T. E. An analysis of the impact of CETA Title I classroom training on vocational and technical education. Tampa, Florida: University of South Florida, 1976. (ERIC Document Reproduction Service No. ED 134 721)
- Cyphert, F. R., & Gant, W. L. The Delphi Technique: a case study. Phi Delta Kappan, 1971, 52, 272-273.
- Dalkey, N. C. The Delphi method: an experimental study of group opinion. Santa Monica, California: RAND Corporation, 1969.
- Dalkey, N. C. with Rourke, D. L., Lewis, R., & Snyder, D. Studies of the quality of life: Delphi and decision-making. Lexington, Massachusetts: Lexington Books, 1972.

- Dunham, D. B. Leadership priorities of the Bureau of Occupational and Adult Education. Washington, D.C.: U.S. Department of Health, Education, and Welfare, U.S. Office of Education, 1978.
- Federal Register, January 19, 1979, Part IX, 44.
- Governor's Manpower Services Council. Annual employment and training report to the Governor of Virginia, 1978.
- Judd, R. C. Delphi method: computerized "oracle" accelerates consensus formation. College & University Business, 1970, 49(3), 30, 32, 34.
- Kendall, M. G. Rank correlation methods, 4th ed. London: Griffin, 1970.
- Kerlinger, F. N. Foundations of behavioral research, 2nd ed. New York: Holt, Rinehart and Winston, Inc., 1973.
- Lee, A. M. Learning and living across the nation. Volume V. Project Baseline. Fifth National Report. Flagstaff, Arizona: Northern Arizona University, 1976. (ERIC Document Reproduction Service No. ED 137 505)
- Levitan, S. A., Mangum, G. L., & Marshall, R. Human resources and labor markets: labor and manpower in the American economy. New York: Harper & Row, 1976.
- Lewis, J. W. State manpower legislation: an alternate strategy. American Vocational Journal, 1975, 50(2), 65-66.
- McGaw, B., Browne, R. K., & Rees, P. Delphi in education: review and assessment. The Australian Journal of Education, 1976, 20(1), 59-71.
- Mirengoff, W., & Rindler, L. CETA: manpower programs under local control. Washington, D.C.: National Academy of Sciences, 1978.
- National Advisory Council on Vocational Education. 1976 annual report. Washington, D.C.: National Advisory Council on Vocational Education, 1977. (ERIC Document Reproduction Service No. ED 149 145)
- \_\_\_\_\_. Proceedings of the joint meeting: national and state advisory councils on vocational education. Washington, D.C.: National Advisory Council on Vocational Education, 1974. (ERIC Document Reproduction Service No. ED 123 436)
- Nebraska State Advisory Council for Vocational Education. Getting it all together: the 1974 annual evaluation of vocational education in Nebraska. Lincoln: Nebraska State Advisory Council for Vocational Education, 1974.
- Rasp, A. E. Delphi: a strategy for decision implementation. Educational Planning, 1974, 1(2), 42-47.
- Rieder, C. H. Tracking success in youth employment. VocEd, 1979, 54(2), 37-39.

- Robert, H. M., & Vixman, R. Robert's rules of order. Old Tappan, New Jersey: Spire Books, 1967.
- Sawyer, J. E. Crucial elements in state and local manpower planning (Doctoral dissertation, University of Utah, 1975). (University Microfilms No. 75-18,041)
- Siegel, S. Nonparametric statistics for the behavioral sciences. New York: McGraw-Hill Book Company, 1956.
- Sklane, A. R. Career consulting: utilizing the Delphi technique with career education content. Elementary School Guidance & Counseling, 1974, 11(4), 309-315.
- Smith, C. D. Manpower division looks at CETA: a report of a session at the 1976 AVA convention. American Vocational Journal, 1977, 52(2), 71-73.
- Tersine, R. J., & Riggs, W. E. The Delphi Technique: a long-range planning tool. Business Horizons, 1976, 19(2), 51-55.
- Tucson-Pima Employment and Training Consortium. CETA works. Tucson, Arizona: Tucson-Pima Employment and Training Consortium.
- Urban Management Consultants of San Francisco, Inc. Education and CETA: a coordination guide for adult education and vocational administrators. Washington, D.C.: Office of Manpower (DHEW), 1976. (ERIC Document Reproduction Service No. ED 133 501)
- Virginia educational directory. Richmond, Virginia: Department of Education, 1979.
- Vocational Education, Division of. State plan for vocational education. Richmond, Virginia: Department of Education, 1978.
- Waldron, J. S. An investigation into the relationships among conceptual level, time delay of information feedback and performance in the Delphi process (Doctoral dissertation, Syracuse University, 1970). (University Microfilms No. 71-11,000)
- Weaver, W. T. The Delphi forecasting method. Phi Delta Kappan, 1971, 52(5), 267-271.
- \_\_\_\_\_. The Delphi forecasting method: some theoretical considerations. The Potential of Educational Futures. Marien, M., & Ziegler, W. L., eds. Worthington, Ohio: Charles A. Jones Publishing Company, 1972.
- \_\_\_\_\_. An exploration into the relationship between conceptual level and forecasting future events (Doctoral dissertation, Syracuse University, 1969). (University Microfilms No. 70-10,405)
- YEDPA focus: the Tennessee transition. VocEd, 1979, 54(2), 47-48.

A P P E N D I X E S

A P P E N D I X A

PANEL OF EXPERTS

## PANEL OF EXPERTS

CETA Administrators

, Exec. Director  
Fairfax Community Action Programs

Program Agent  
Montgomery County Board  
of Supervisors

Branch Supervisor for Youth  
Henrico-Chesterfield-Hanover  
CETA Consortium

Chief Planner  
Peninsula Office of Manpower  
Programs

Associate Planner  
Economic Opportunities Commission

, Exec. Director  
Lynchburg OIC

Career Education Representative  
Control Data Institute

Vocational Education Administrators

Director of Vocational Education  
York County Schools

Assistant Superintendent  
Bath County Schools

, Superintendent  
Clifton Forge City Schools

Asst. Supt. for Instruction  
Giles County Schools

Director of Vocational Education  
Washington County Schools

Director of Vocational Education  
Newport News City Schools

Asst. to the Supt for Ed.  
Facilities/Vocational Ed.  
Alexandria City Schools

CETA AdministratorsVocational Education Administrators

, Director  
 CETA Component  
 Southeastern Tidewater  
 Opportunity Project

Director of Vocational Education  
 Russell County Schools

Branch Supervisor of Field Services  
 Prince William Manpower Programs

Assistant Superintendent  
 Nottoway County Schools

Executive Director  
 Central Virginia OIC, Inc.

Superintendent  
 Bedford County Schools

Youth Planner  
 Southeastern Tidewater Area  
 Manpower Opportunity Project

Director of Vocational and Adult  
 Education  
 Fairfax County Schools

Planner, ROC II

Director of Vocational Education  
 Chesterfield County Schools

Manpower Director  
 Total Action Against Poverty

Director of Vocational Education  
 Norfolk City Schools

Planner, ROC I

, Director  
 Adult and Career Education  
 Arlington Public Schools

A P P E N D I X    B

INSTRUMENT FOR DELPHI PROBE I

## DELPHI PROBE I

## INSTRUCTIONS

The statements on the following pages comprise a potential list of procedures for the implementation and operation of jointly delivered CETA/vocational education programs. This list of procedures has been developed from a review of related CETA/vocational education studies and descriptive information on existing CETA/vocational education program linkages.

The expertise of CETA and vocational education administrators is needed to refine this potential list into a tool which can be used to increase the cooperative efforts of CETA and vocational education administrators. Your careful consideration of these procedures, their importance and completeness, will ensure that they are comprehensive and practical.

Please follow the steps listed below in completing this questionnaire.

Step 1. Read each item (1-32) and rate its importance on a scale of 1 to 5. Values on this scale are assigned as follows:

- 5 - of extremely high importance
- 4 - of high importance
- 3 - of moderate importance
- 2 - of low importance
- 1 - of no importance

(These values are restated at the top of each page of the questionnaire.)

Indicate your rating by circling the appropriate number for each procedure.

Step 2. After you have rated all items, review them again. If there are additional procedures which you feel are necessary for the implementation and operation of jointly delivered CETA/vocational education programs, write these suggested procedures in the space labeled "ADDITIONAL PROCEDURES" on page 5. There is no need to number these procedures.

PROCEDURES FOR THE IMPLEMENTATION AND  
OPERATION OF JOINTLY DELIVERED PROGRAMS IN VIRGINIA

Rating Scale: 5 - of extremely high importance  
4 - of high importance  
3 - of moderate importance  
2 - of low importance  
1 - of no importance

- 
- |   |           |
|---|-----------|
| 1. Vocational education administrators invite CETA administrators to serve on the local Vocational Education Advisory Council.  | 5 4 3 2 1 |
| 2. CETA administrators invite vocational education administrators to serve on the local employment and training council.  | 5 4 3 2 1 |
| 3. Vocational education administrators are invited to serve on the prime sponsor's Youth Advisory Council and/or other advisory councils as may be appropriate.   | 5 4 3 2 1 |
| 4. Vocational education administrators make CETA administrators aware of vocational programs currently offered and facilities and equipment available for vocational training programs.                                   | 5 4 3 2 1 |
| 5. CETA administrators share information on CETA regulations pertaining to vocational training for youth and adults and eligibility requirements with vocational education administrators.                                | 5 4 3 2 1 |
| 6. CETA administrators make vocational education administrators aware of vocational training program needs and options for addressing needs such as classroom training, on-the-job training and work experience programs. | 5 4 3 2 1 |
| 7. CETA administrators familiarize vocational education administrators with steps in CETA's competitive funding process such as how to prepare a proposal and when to submit it.  | 5 4 3 2 1 |
| 8. CETA and vocational education administrators meet to discuss mutual program needs, ways of meeting these needs and constraints imposed by variances in planning and budgeting cycles.                                  | 5 4 3 2 1 |

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

---

- |     |  |   |   |   |   |   |
|-----|--|---|---|---|---|---|
| 9.  | As a part of the annual update of the five-year plan for vocational education, vocational education administrators design programs to meet predetermined needs. Proposed programs included in the five-year plan will include descriptions, dates of operation, target populations, measurable objectives, and budget projections. | 5 | 4 | 3 | 2 | 1 |
| 10. | As a part of the annual plan, the prime sponsor/program agent proposes a program mix to meet labor market and participant needs. This mix should reflect labor market trends, target groups, and vocational education proposals for addressing needs.  | 5 | 4 | 3 | 2 | 1 |
| 11. | The vocational education administrator/program operator prepares the required program proposals for CETA administrators. These will include information similar to that in the annual update of the five-year plan and any additional information the prime sponsor/program agent may require.                                     | 5 | 4 | 3 | 2 | 1 |
| 12. | The vocational education administrator/program operator submits the new program proposal to the Vocational Education Advisory Council for approval.  | 5 | 4 | 3 | 2 | 1 |
| 13. | The prime sponsor/program agent reviews, evaluates and approves program proposals.   | 5 | 4 | 3 | 2 | 1 |
| 14. | The prime sponsor/program agent and vocational education administrator/program operator meet to discuss final arrangements and details of contracts. The flow of funds to the program operator (vocational education administrator in local school divisions) is explicitly stated in the final contract.                          | 5 | 4 | 3 | 2 | 1 |
| 15. | The vocational education administrator submits program contracts to school officials (usually the superintendent) for approval and signature.  | 5 | 4 | 3 | 2 | 1 |
| 16. | The vocational education administrator/program operator selects staff, facilities, equipment, instructional materials, and supplies as needed for the vocational training program.   | 5 | 4 | 3 | 2 | 1 |

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

---

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 17. The vocational education administrator/program operator contracts with staff members and for the necessary facilities in accordance with final contractual agreements with the prime sponsor/program agent.  | 5 | 4 | 3 | 2 | 1 |
| 18. The vocational education administrator/program operator arranges for the purchase of equipment, instructional materials and supplies in accordance with final contractual arrangements with the prime sponsor/program agent.   | 5 | 4 | 3 | 2 | 1 |
| 19. The Virginia Employment Commission (VEC) or other appropriate agency certifies the eligibility of program participants.  | 5 | 4 | 3 | 2 | 1 |
| 20. The vocational education administrator/program operator selects eligible participants on the basis of interest/ability in a particular training program and/or according to other previously agreed-upon criteria.   | 5 | 4 | 3 | 2 | 1 |
| 21. The vocational education administrator/program operator conducts the vocational training program according to agreed-upon time limits and/or objectives.   | 5 | 4 | 3 | 2 | 1 |
| 22. The vocational education administrator/program operator completes Participant Characteristics Reports and other reports required by the prime sponsor/program agent as well as enrollment and other pertinent forms for vocational education reporting requirements. | 5 | 4 | 3 | 2 | 1 |
| 23. The vocational education administrator/program operator (or the program staff) collects participant data which will assist in completing follow-up surveys.  | 5 | 4 | 3 | 2 | 1 |
| 24. The staff of the training program assists those participants who complete the program in securing employment.  | 5 | 4 | 3 | 2 | 1 |
| 25. The vocational education administrator/program operator (or the program staff) evaluates the results of the vocational training program.   | 5 | 4 | 3 | 2 | 1 |

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

---

- |     |  |   |   |   |   |   |
|-----|--|---|---|---|---|---|
| 26. | The program results are included in a final report to the prime sponsor/program agent prepared by the vocational education administrator/program agent. Said final report will also include a final expenditure report.                              | 5 | 4 | 3 | 2 | 1 |
| 27. | Data on participants who complete the training program but who are not placed are turned over by the vocational education administrator/program operator to the VEC for additional assistance in placement.  | 5 | 4 | 3 | 2 | 1 |
| 28. | The prime sponsor/program agent conducts an independent evaluation of program results.   | 5 | 4 | 3 | 2 | 1 |
| 29. | The prime sponsor/program agent meets with the vocational education administrator/program operator to discuss strengths and weaknesses of the completed vocational training program and suggestions for future cooperative efforts.                  | 5 | 4 | 3 | 2 | 1 |
| 30. | The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program three months after the ending date of the program and reports the results to the prime sponsor/program agent. | 5 | 4 | 3 | 2 | 1 |
| 31. | The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program six months after the ending date of the program and reports the results to the prime sponsor/program agent.   | 5 | 4 | 3 | 2 | 1 |
| 32. | The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program one year after the ending date of the program and reports the results to the prime sponsor/program agent.     | 5 | 4 | 3 | 2 | 1 |

---

ADDITIONAL PROCEDURES. (If more space is needed, please use the back of this sheet.)

A P P E N D I X C

COVER LETTER DELPHI PROBE I



## VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

*Blacksburg, Virginia 24061*

## DIVISION OF VOCATIONAL &amp; TECHNICAL EDUCATION

Today there is great interest in increasing efforts to implement jointly delivered CETA/vocational education programs. In order to improve the implementation process, a potential list of procedures for the implementation and operation of jointly delivered CETA/vocational education programs has been developed. These procedures were derived through a review of related CETA/vocational education studies and descriptive information on existing jointly delivered CETA/vocational education programs.

To ensure that these procedures are comprehensive and practical, they are being submitted to a panel of experts for review. This review will be completed in three parts. Panel members will be asked to rate the importance of the procedures presented and suggest additional procedures which may be needed.

Because of your administrative experience and your interest in jointly delivered CETA/vocational education programs, you have been nominated to serve on this panel of experts. If you agree to participate, each part of the process will take about 45 minutes of your time. It is important that you participate in each part of the study in order for the results to be meaningful. Your signature below and the completion of the first questionnaire during our meeting today will indicate your willingness to participate in this study. If you would like to receive a summary of the study results, please indicate that by checking the appropriate space below.

Thank you very much for your contribution to the success of this study.

Sincerely,

Kay F. Gow

## Enclosures

\_\_\_\_\_ I am willing to participate in all three parts of this study.  
\_\_\_\_\_ (Signature)

\_\_\_\_\_ I would like to receive a summary of the study results.

A P P E N D I X D

ADDITIONAL PROCEDURES SUGGESTED BY PANEL

## ADDITIONAL PROCEDURES SUGGESTED BY PANEL

1. The program operator (vocational education administrator) provides for an independent audit of all program funds. This audit is financed by program funds as written into the contract.
2. Strong recruitment procedures should be implemented to insure that program participants are available for program beginning and replacement of dropouts.
3. Program design should have definite and significant input from client population to insure interest and commitment on the part of the population to be reached.
4. Sufficient time should be given to programs to allow adequate feedback for determining success or failure of approach used. (Too often programs are funded for one year with no follow-up capability or allocated funds to carry program participants through completion of project.)
5. Realistic tests and evaluation measures should be designed to establish interest and levels of accomplishment and placement within programs.
6. Immediate success should be built into the program for the clients.
7. A vocational education sampling system should be implemented to give participants exposure to more than one experience before they are expected to participate in one field. This effort could reduce the dropout rate for vocational education programs.
8. Formal on-site evaluation by the prime sponsor's staff should be required to enable maximum understanding of vocational education processes and facilitate cooperative efforts to improve and provide continuity in service delivery.
9. Additional information/review by state staff (vocational education division) should be included.
10. The follow-up surveys should be administered by VEC or other state agency.
11. CETA administrators should distribute procedural materials on obtaining CETA monies to vocational directors in each school district to be disseminated to each vocational education teacher.
12. An audio-visual presentation on procedures for the implementation and operation of jointly delivered programs could be provided for those interested.
13. The vocational education staff completes the required time attendance reports, participant evaluations, worker's compensation, and other forms consistent with the program agent's personnel policies.

14. Participants complete evaluations (monthly) on program content and instruction.
15. The vocational education administrator/program operator asks approval of the prime sponsor/program agent for all subcontracts necessary to carry out the program.
16. The program proposal is submitted to school officials prior to review by CETA administrators.
17. A follow-up of program participants is conducted by the prime sponsor at three-months, six-months, and one-year intervals.
18. Some time prior to the contract solicitation process, each local vocational education agency should be made aware of the local plan for the coming year and be asked to submit a brief request form on what programs they would like to operate within the guidelines of the plan. This document should include an estimated cost factor. This procedure might eliminate the rewrite or modification of vocational education programs.
19. Vocational education administrators indicate their willingness to make existing facilities available for CETA training programs when they are not otherwise occupied.
20. CETA and vocational education administrators meet frequently and informally to discuss program needs, plans, and progress.
21. Guided tours, receptions, etc., are encouraged between CETA and vocational education facilities and staff.
22. Governing bodies of localities insist that programs be coordinated, duplication eliminated, and facilities used during day and evening hours.
23. Leaders of business and industry are involved in planning and operating jointly delivered programs.
24. Budgets of CETA-funded programs are separated from other vocational education programs so that expenditure per pupil does not appear excessive.
25. The state superintendent's staff informs local superintendents of the opportunities and benefits of involvement in jointly delivered CETA/vocational education programs.
26. Vocational education administrators invite proprietary school administrators/program operators to serve on local vocational education advisory council or appropriate planning and review committees.
27. Occupational experts and economic planning experts advise vocational education administrators, CETA prime sponsors, and program operators of projected labor market needs from a local prospective.

28. The 22 percent set-aside funds for inservice training programs are channeled through the Division of Vocational Education, Department of Education, thereby eliminating the duplication of reporting. LEA's apply for these monies through the five-year plan.

A P P E N D I X E

DELPHI PROBE II



## VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

*Blacksburg, Virginia 24061*

DIVISION OF VOCATIONAL &amp; TECHNICAL EDUCATION

October 2, 1979

Enclosed you will find a copy of the instructions and the questionnaire for the second part of this three-part study to determine procedures for the implementation and operation of jointly delivered CETA/vocational education programs. Your continued participation in this study is crucial to ensure meaningful results.

Please complete and return the enclosed questionnaire before October 9, 1979. A stamped, addressed envelope is enclosed for your convenience in responding.

Sincerely,

Kay F. Gow

Enclosures

## DELPHI PROBE II

## INSTRUCTIONS

The following list of procedures for the implementation and operation of jointly delivered CETA/vocational education programs was developed through a review of related CETA/vocational education studies and descriptive information on existing jointly delivered CETA/vocational education programs. In addition, this list now includes one other procedure which was suggested by two or more panel members in Delphi Probe I.

Once again your careful evaluation of these procedures is requested. The questionnaire is already marked to provide some information which may help you as you consider the importance of these procedures. The interpretation of this information is discussed in the following outline of steps for completing this questionnaire.

Step 1. Review each item (1-32) and note the indication of the rating most frequently chosen by members of the panel of experts. This response is indicated by brackets around the number as illustrated below.

1. Vocational education administrators invite CETA administrators to serve on the local Vocational Education Advisory Council. 5 [4] 3 2 1

Your answer in Probe I is indicated by an arrow (↗) underneath the rating you chose. The example below indicate how the Probe II form would look if the most frequently chosen rating was "4" and your rating was "3."

1. Vocational education administrators invite CETA administrators to serve on the local Vocational Education Advisory Council. 5 [4] 3 2 1  
↑

This probe provides you an opportunity to reconsider your initial response in view of the most frequent response of the total group. Having considered this additional information, indicate your rating by circling the appropriate number for each procedure. (Circle a rating for each procedure even if your choice is the same as your original rating or the rating most frequently chosen by the panel. Be sure to rate item 33.)

Step 2. After you have rated all items, review them again. If you do not agree with the most frequently chosen response of the panel, write one or two reasons why you feel the procedure is more important or less important in the space labeled "MINORITY POSITION COMMENTS" on page 5. Be sure the appropriate item number is noted beside each comment. (These comments will be edited and included in Delphi Probe III for consideration by other panel members.)

Step 3. Return this questionnaire in the stamped, addressed envelope provided before October 9, 1979.

PROCEDURES FOR THE IMPLEMENTATION AND  
OPERATION OF JOINTLY DELIVERED PROGRAMS IN VIRGINIA

Rating Scale: 5 - of extremely high importance  
4 - of high importance  
3 - of moderate importance  
2 - of low importance  
1 - of no importance

- 
- |    |  |              |
|----|--|--------------|
| 1. | Vocational education administrators invite CETA administrators to serve on the local Vocational Education Advisory Council.  | [5] 4 3 2 1  |
| 2. | CETA administrators invite vocational education administrators to serve on the local employment and training council.  | [5] 4 3 2 1  |
| 3. | Vocational education administrators are invited to serve on the prime sponsor's Youth Advisory Council and/or other advisory councils as may be appropriate.   | 5 [4] 3 2 1  |
| 4. | Vocational education administrators make CETA administrators aware of vocational programs currently offered and facilities and equipment available for vocational training programs.                                   | [5] 4 3 2 1  |
| 5. | CETA administrators share information on CETA regulations pertaining to vocational training for youth and adults and eligibility requirements with vocational education administrators.                                | [5] 4 3 2 1  |
| 6. | CETA administrators make vocational education administrators aware of vocational training program needs and options for addressing needs such as classroom training, on-the-job training and work experience programs. | [5] 4 3 2 1  |
| 7. | CETA administrators familiarize vocational education administrators with steps in CETA's competitive funding process such as how to prepare a proposal and when to submit it.  | [5][4] 3 2 1 |
| 8. | CETA and vocational education administrators meet to discuss mutual program needs, ways of meeting these needs and constraints imposed by variances in planning and budgeting cycles.                                  | [5] 4 3 2 1  |

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

---

- |     |  |              |
|-----|--|--------------|
| 9.  | As a part of the annual update of the five-year plan for vocational education, vocational education administrators design programs to meet predetermined needs. Proposed programs included in the five-year plan will include descriptions, dates of operation, target populations, measurable objectives, and budget projections. | 5 [4] 3 2 1  |
| 10. | As a part of the annual plan, the prime sponsor/program agent proposes a program mix to meet labor market and participant needs. This mix should reflect labor market trends, target groups, and vocational education proposals for addressing needs.  | 5 [4] 3 2 1  |
| 11. | The vocational education administrator/program operator prepares the required program proposals for CETA administrators. These will include information similar to that in the annual update of the five-year plan and any additional information the prime sponsor/program agent may require.                                     | 5 [4] 3 2 1  |
| 12. | The vocational education administrator/program operator submits the new program proposal to the Vocational Education Advisory Council for approval.  | [5][4] 3 2 1 |
| 13. | The prime sponsor/program agent reviews, evaluates and approves program proposals.   | [5] 4 3 2 1  |
| 14. | The prime sponsor/program agent and vocational education administrator/program operator meet to discuss final arrangements and details of contracts. The flow of funds to the program operator (vocational education administrator in local school divisions) is explicitly stated in the final contract.                          | [5] 4 3 2 1  |
| 15. | The vocational education administrator submits program contracts to school officials (usually the superintendent) for approval and signature.  | [5] 4 3 2 1  |
| 16. | The vocational education administrator/program operator selects staff, facilities, equipment, instructional materials, and supplies as needed for the vocational training program.   | [5] 4 3 2 1  |

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

---

- |     |  |              |
|-----|--|--------------|
| 17. | The vocational education administrator/program operator contracts with staff members and for the necessary facilities in accordance with final contractual agreements with the prime sponsor/program agent.  | 5 [4] 3 2 1  |
| 18. | The vocational education administrator/program operator arranges for the purchase of equipment, instructional materials and supplies in accordance with final contractual arrangements with the prime sponsor/program agent.   | [5][4] 3 2 1 |
| 19. | The Virginia Employment Commission (VEC) or other appropriate agency certifies the eligibility of program participants.  | [5] 4 3 2 1  |
| 20. | The vocational education administrator/program operator selects eligible participants on the basis of interest/ability in a particular training program and/or according to other previously agreed-upon criteria.   | [5] 4 3 2 1  |
| 21. | The vocational education administrator/program operator conducts the vocational training program according to agreed-upon time limits and/or objectives.   | [5] 4 3 2 1  |
| 22. | The vocational education administrator/program operator completes Participant Characteristics Reports and other reports required by the prime sponsor/program agent as well as enrollment and other pertinent forms for vocational education reporting requirements. | [5] 4 3 2 1  |
| 23. | The vocational education administrator/program operator (or the program staff) collects participant data which will assist in completing follow-up surveys.  | 5 [4] 3 2 1  |
| 24. | The staff of the training program assists those participants who complete the program in securing employment.  | [5] 4 3 2 1  |
| 25. | The vocational education administrator/program operator (or the program staff) evaluates the results of the vocational training program.   | [5] 4 3 2 1  |

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

---

- |     |  |             |
|-----|--|-------------|
| 26. | The program results are included in a final report to the prime sponsor/program agent prepared by the vocational education administrator/program agent. Said final report will also include a final expenditure report.                              | [5] 4 3 2 1 |
| 27. | Data on participants who complete the training program but who are not placed are turned over by the vocational education administrator/program operator to the VEC for additional assistance in placement.  | [5] 4 3 2 1 |
| 28. | The prime sponsor/program agent conducts an independent evaluation of program results.   | [5] 4 3 2 1 |
| 29. | The prime sponsor/program agent meets with the vocational education administrator/program operator to discuss strengths and weaknesses of the completed vocational training program and suggestions for future cooperative efforts.                  | [5] 4 3 2 1 |
| 30. | The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program three months after the ending date of the program and reports the results to the prime sponsor/program agent. | 5 [4] 3 2 1 |
| 31. | The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program six months after the ending date of the program and reports the results to the prime sponsor/program agent.   | 5 [4] 3 2 1 |
| 32. | The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program one year after the ending date of the program and reports the results to the prime sponsor/program agent.     | 5 [4] 3 2 1 |
| 33. | The vocational education administrator/program operator provides counseling for intake, selection of training, personal and vocational concerns while in training, exit counseling, and job placement and follow-up counseling.                      | 5 4 3 2 1   |

---

MINORITY POSITION COMMENTS. (Please give a reason for any rating above or below the most frequently chosen rating of the group in Probe I. Be sure to indicate the appropriate item number beside each comment.)

A P P E N D I X F

DELPHI PROBE III



## VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

*Blacksburg, Virginia 24061*

DIVISION OF VOCATIONAL &amp; TECHNICAL EDUCATION

October 22, 1979

Enclosed is Delphi Probe III to determine the procedures for the implementation and operation of jointly delivered CETA/vocational education programs. The information this final probe will provide is necessary to the successful completion of this study.

Please complete the enclosed questionnaire and be sure it is postmarked on or before Monday, October 29, 1979. A stamped, addressed envelope is enclosed for your convenience in responding.

Your participation in this study has enhanced the value of these procedures to other program administrators. Thank you for your time and contributions.

Sincerely,

Kay F. Gow

Enclosures

## DELPHI PROBE III

## INSTRUCTIONS

This questionnaire includes the final list of procedures to be rated by this panel. The initial list of procedures was developed through a review of related CETA/vocational education studies and descriptive information on existing jointly delivered CETA/vocational education programs. One item (suggested by two or more panel members in Delphi Probe I) was added to the original list before Delphi Probe II.

Your careful evaluation of these procedures is requested. The questionnaire is marked in the same way as Delphi Probe II: brackets indicate the rating most frequently chosen by the panel of experts and an arrow indicates your response.

Please follow the steps listed below in completing this questionnaire.

Step 1. Read each item (1-33) and the comments which other panel members have made about its importance. Consider the item, the comments, the most frequently chosen response of the panel, and your previous rating. Rate the item by circling the number of the rating you feel is most appropriate. (Circle a rating for each procedure even if your choice is the same as your rating in Delphi Probe II or the rating most frequently chosen by the panel in Delphi Probe II.)

Step 2. In the space labeled "SEQUENCE OF PROCEDURES" on page 17, write the numbers of the procedures in the order which you feel represents the most desirable order for their completion. For example, if you feel item 15 should be the first step toward the successful implementation and

operation of jointly delivered CETA/vocational education programs, write 15 in the blank beside the number 1 as follows: 1. 15

Step 3. Review the questionnaire again. Be sure that each item has been rated as to its importance and has been given a place in the sequencing in Step 2.

Step 4. If you wish to make any additional comments about a particular procedure or about this study, write your comments in the space labeled "COMMENTS" on the back of page 17.

Step 5. Return this questionnaire in the stamped, addressed envelope before Monday, October 29, 1979.

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
1. Vocational education administrators invite CETA administrators to serve on the local Vocational Education Advisory Council.	More important in some areas than others. Not essential for good linkages; depends on CETA involvement in vocational education.  Only if they are qualified to serve on an advisory committee in one of the stipulated categories.  It is not necessary that CETA administrators serve on such an advisory council. They may furnish technical assistance or material to the council as needed.	[5] 4 3 2 1
2. CETA administrators invite vocational education administrators to serve on the local employment and training council.	Not essential for good linkages; depends on CETA involvement in vocational education.	[5] 4 3 2 1
3. Vocational education administrators are invited to serve on the prime sponsor's Youth Advisory Council and/or other advisory councils as may be appropriate.	The Youth Advisory Council of our prime sponsor is very influential in determining the types of CETA youth projects to be funded and in evaluating the quality of projects. If vocational education wants "a piece of the pie," representation should be on this group.	5 [4] 3 2 1

(Continued on next page.)

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
<p>3. Comments (continued)</p>	<p>Of little or moderate importance as compared to other items listed.</p> <p>Vital to ensure their input.</p> <p>Most of the vocational education in Virginia is operated by local school systems, and many of the people who need CETA are people who the schools have failed.</p>	
<p>4. Vocational education administrators make CETA administrators aware of vocational programs currently offered and facilities and equipment available for vocational training programs.</p>	<p>Prime sponsors should be aware of the vocational education five-year plan and propose ways to interface with it. The same is true of vocational educators and the CETA plan.</p> <p>Of little or moderate importance as compared to other items listed.</p> <p>They should be made aware like everyone else.</p>	<p>[5] 4 3 2 1</p>

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
5. CETA administrators share information on CETA regulations pertaining to vocational training for youth and adults and eligibility requirements with vocational education administrators.	<p>I sincerely doubt the importance of spending a great deal of time communicating CETA regulations which are vague and constantly changing.</p> <p>Details of administration are too often used to "cover up" other problems related to cooperation.</p> <p>This information is a shared responsibility. Vocational education administrators don't need to know CETA eligibility requirements if CETA is making referrals to the vocational education programs.</p>	[5] 4 3 2 1
6. CETA administrators make vocational education administrators aware of vocational training program needs and options for addressing needs such as classroom training, on-the-job training and work experience programs.	<p>The determination of program needs and options would ordinarily involve other, perhaps more objective minds, at the decision-making level.</p>	[5] 4 3 2 1

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
<p>7. CETA administrators familiarize vocational education administrators with steps in CETA's competitive funding process such as how to prepare a proposal and when to submit it.</p>	<p>I sincerely doubt the importance of spending a great deal of time communicating CETA regulations which are vague and constantly changing.</p> <p>They should be made aware like everyone else</p>	<p>5 [4] 3 2 1</p>
<p>8. CETA and vocational education administrators meet to discuss mutual program needs, ways of meeting these needs and constraints imposed by variances in planning and budgeting cycles.</p>	<p>It may not be important to meet even though it is important to discuss needs and planning and budgeting cycles.</p> <p>There are too many meetings for most vocational education administrators to attend now; not essential for successful programs.</p> <p>The determination of program needs and options would ordinarily involve other, perhaps more objective minds, at the decision-making level.</p> <p>Details of administration are too often used to "cover up" other problems related to cooperation.</p> <p>(Continued on next page.)</p>	<p>[5] 4 3 2 1</p>

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
8. Comments (continued)	Very important, but time consuming and not vital if vocational education administrators are on advisory councils where this information is available.	
9. As a part of the annual update of the five-year plan for vocational education, vocational education administrators design programs to meet predetermined needs. Proposed programs included in the five-year plan will include descriptions, dates of operation, target populations, measurable objectives, and budget projections.	A coordinated planning process is of extremely high importance to assure proper planning of CETA/vocational education programs that should be coordinated.  This is of high importance to the vocational administrator but not necessarily so for "jointly delivered" CETA/vocational education programs.	5 [4] 3 2 1
10. As a part of the annual plan, the prime sponsor/program agent proposes a program mix to meet labor market and participant needs. This mix should reflect labor market trends, target groups, and vocational education proposals for addressing needs.	A coordinated planning process is of extremely high importance to assure proper planning of CETA/vocational education programs that should be coordinated whether they originate in vocational education or CETA.  Requested by DOL.	5 [4] 3 2 1

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
<p>11. The vocational education administrator/ program operator prepares the required program proposals for CETA administrators. These will include information similar to that in the annual update of the five-year plan and any additional information the prime sponsor/program agent may require.</p>	<p>Of moderate importance because the timetable for planning is different. The vocational administrator could provide CETA with a copy of the five-year plan but not an additional document.</p> <p>This is how CETA and vocational education collaborate.</p> <p>Too much duplication in paperwork.</p> <p>The Prime should define what it wants done; the program operators can best address how to get the job done (i.e. goals achieved).</p>	<p>5 [4] 3 2 1</p>
<p>12. The vocational education administrator/ program operator submits the new program proposal to the Vocational Education Advisory Council for approval.</p>	<p>Advisory Council may endorse, but approval is not necessary.</p> <p>Our CETA supervisor performs this function.</p> <p>Matter of local policy; may or may not be extremely important.</p> <p>The public should have a role.</p>	<p>5 [4] 3 2 1</p>

(Continued on next page.)

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
12. Comments continued.	<p>There are already too many "bureaucratic review layers" to accommodate what is essentially a short funding period (for CETA). The Prime Sponsor should have professional expertise within its staff to do its review.</p> <p>This procedure may be necessary depending upon the makeup of the advisory council. Is the council attuned to the needs of the target population?</p>	
13. The prime sponsor/program agent reviews, evaluates and approves program proposals.	<p>Vocational administrators and their local advisory councils have the best knowledge of what is needed and compatible with local vocational programs; they should decide.</p> <p>The public should have a role.</p>	[5] 4 3 2 1
14. The prime sponsor/program agent and vocational education administrator/program operator meet to discuss final arrangements and details of contracts. (Continued on next page.)	<p>All program funds are administered from the program agent's office.</p> <p>This is required.</p>	[5] 4 3 2 1

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
14. The flow of funds to the program operator (vocational education administrator in local school divisions) is explicitly stated in the final contract.		
15. The vocational education administrator submits program contracts to school officials (usually the superintendent) for approval and signature.	<p>Does not add to linkage process.</p> <p>Because funds are administered by the program agent, this would be of little importance to our office.</p> <p>If the five-year plan is approved and the program is in compliance with the plan, is this necessary?</p>	[5] 4 3 2 1
16. The vocational education administrator/program operator selects staff, facilities, equipment, instructional materials, and supplies as needed for the vocational training program.	<p>Our CETA supervisor performs these functions.</p> <p>Because funds are administered by the program agent, this would be of little importance to our office.</p> <p>The CETA prime sponsor may wish to select these.</p>	[5] 4 3 2 1
	The prime sponsor may elect to "buy slots" in existing programs.	

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
<p>17. The vocational education administrator/ program operator contracts with staff members and for the necessary facilities in accordance with final contractual agreements with the prime sponsor/program agent.</p>	<p>A contractual agreement on the use of facilities is of extremely high importance for a clearly understood arrangement. Good fences make good neighbors.</p> <p>No contract would invite much misunderstanding.</p> <p>You cannot start a program without this step.</p> <p>Our CETA supervisor performs this function.</p> <p>How can this be less than totally important?</p> <p>It is important, but not highly important that the vocational education administrator do the contracting.</p> <p>Not applicable when the prime sponsor/program agent "buys slots" in existing programs.</p> <p>To best achieve goals, program operators must be able to control selection of staff and facilities.</p>	<p>5 [4] 3 2 1</p>

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
<p>18. The vocational education administrator/ program operator arranges for the purchase of equipment, instructional materials and supplies in accordance with final contractual arrangements with the prime sponsor/program agent.</p>	<p>Our CETA supervisor performs these functions. Because funds are administered by the program agent, this would be of little importance to our office.</p> <p>An important procedure but not necessarily required of the vocational education administrator.</p> <p>Not applicable when the prime sponsor/ program agent "buys slots" in existing programs.</p>	<p>5 [4] 3 2 1</p>
<p>19. The Virginia Employment Commission (VEC) or other appropriate agency certifies the eligibility of program participants.</p>	<p>The VEC may not be the best agency to certify participants.</p> <p>Bottlenecks may develop when too many agencies have to make independent decisions with no one having the authority to expedite those decisions.</p> <p>This process is ill-advised, awkward to work with and functions poorly in our area.</p> <p>This is required.</p>	<p>[5] 4 3 2 1</p>

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
20. The vocational education administrator/program operator selects eligible participants on the basis of interest/ability in a particular training program and/or according to other previously agreed upon criteria.	If this is a CETA program, VEC is the agency to select.  This should be a joint operation of the CETA and vocational education administrators.  The VEC is in a better position to perform this function than we are.  Vocational administrators do not have the time to make these selections.  The prime sponsor's staff makes these selections in our area.	[5] 4 3 2 1
21. The vocational education administrator/program operator conducts the vocational training program according to agreed upon time limits and/or objectives.	Some flexibility is necessary in time requirements, objectives and funding levels to compensate for inaccurate planning.	[5] 4 3 2 1
22. The vocational education administrator/program operator completes Participant Characteristics Reports and other reports required by the prime sponsor/program agent as well as enrollment and other pertinent forms for vocational education reporting requirements.	Too much paperwork.  Data that is needed for both CETA and vocational education should be collected on the same forms. Duplication of effort (reports) makes for inefficient (costly) program administration.	[5] 4 3 2 1

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
23. The vocational education administrator/ program operator (or the program staff) collects participant data which will assist in completing follow-up surveys.	This is the key to program evaluation.  Our CETA supervisor handles this function.	5 [4] 3 2 1
24. The staff of the training program assists those participants who complete the program in securing employment.	This is the responsibility of the VEC.  As long as the participant gets a job, it should not be extremely important who assists them.  In some instances, the prime sponsor's staff does the job development and placement.  Placement assistance by program staff depends somewhat on the prime sponsor's willingness to fund special services staff for each program.	[5] 4 3 2 1
25. The vocational education administrator/ program operator (or the program staff) evaluates the results of the vocational training program.	Program evaluation should always involve persons outside the area of responsibility as well as those within if objectivity is to be achieved.	[5] 4 3 2 1
	Our CETA supervisor performs this function.	

146

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
<p>26. The program results are included in a final report to the prime sponsor/program agent prepared by the vocational education administrator/program operator. Said final report will also include a final expenditure report.</p>	<p>Final report is important but "close out" package is completely unnecessary.</p> <p>Required; does not add to linkage.</p>	<p>[5] 4 3 2 1</p>
<p>27. Data on participants who complete the training program but who are not placed are turned over by the vocational education administrator/program operator to the VEC for additional assistance in placement.</p>	<p>Participants who have not been employed at the end of the training program probably are employable. They should be evaluated and placed in another program or retrained in the same program.</p> <p>I question the definition of "data". For certain types of information concerning a participant, I would agree with "5". For other types of information I do not see any importance or value in passing on to any other agency. I considered "data" to be all inclusive.</p> <p>Information should be turned over to prime sponsor first.</p> <p>The prime sponsor may "buy" placement services from the program operator.</p>	<p>[5] 4 3 2 1</p>

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
28. The prime sponsor/program agent conducts an independent evaluation of program results.	Vocational educators are perfectly capable of evaluating their own CETA programs and interpreting these evaluations.	[5] 4 3 2 1
29. The prime sponsor/program agent meets with the vocational education administrator/program operator to discuss strengths and weaknesses of the completed vocational training program and suggestions for future cooperative efforts.	Vocational education administrators should meet with the prime sponsor/program agent to explain to them the results of their own evaluation.	[5] 4 3 2 1
30. The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program three months after the ending date of the program and reports the results to the prime sponsor/program agent.	<p>This is a duplication of the Vocational Education Reporting System (VERS) follow-up.</p> <p>A most important part of any successful program.</p> <p>These types of follow-up surveys have proven to be ineffective in vocational education already. They will not work three months later; perhaps three years later.</p> <p>Six months or a year later is better.</p>	5 [4] 3 2 1

148

(Continued on next page.)

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
<p>30. Comments (continued)</p>	<p>This may be highly desirable, but the vocational education administrator does not have the staff to conduct a follow-up in any of the suggested time frames.</p> <p>Follow-up is important, but the three month date is arbitrary.</p> <p>These studies may be done by the prime sponsor.</p>	
<p>31. The vocational education administrator/program operator conducts a follow-up survey of participants who completed the training program six months after the ending date of the program and reports the results to the prime sponsor/program agent.</p>	<p>This is a duplication of the VERS follow-up.</p> <p>A most important part of any successful program.</p> <p>Benefit could be realized from a follow-up of participants in a program that is continued; but not if the program is ended.</p> <p>Follow-up at three months and one year should be sufficient.</p>	<p>5 [4] 3 2 1</p>

DELPHI PROBE III

Rating Scale: 5 - of extremely high importance  
 4 - of high importance  
 3 - of moderate importance  
 2 - of low importance  
 1 - of no importance

PROCEDURE	COMMENTS	RATING
<p>32. The vocational education administrator/ program operator conducts a follow-up survey of participants who completed the training program one year after the ending date of the program and reports the results to the prime sponsor/program agent.</p>	<p>This is a duplication of the VERS follow-up.</p> <p>A most important part of any successful program.</p> <p>Benefit could be realized from a follow-up of participants in a program that is continued; but not if the program is ended.</p> <p>Great if vocational education administrator is willing, but this may not be realistic.</p> <p>May be completed by the prime sponsor.</p>	<p>5 [4] 3 2 1</p>
<p>33. The vocational education administrator/ program operator provides counseling for intake, selection of training, personal and vocational concerns while in training, exit counseling, and job placement and follow-up counseling.</p>		<p>[5] 4 3 2 1</p>

SEQUENCE OF PROCEDURES. Write the numbers of the procedures in the order which you feel represents the most desirable order for their completion. For example, if you feel that item 15 should be the first step toward the successful implementation and operation of jointly delivered CETA/vocational education programs, write 15 in the blank beside the number 1 as follows: 1. 15

- |           |           |
|-----------|-----------|
| 1. _____  | 18. _____ |
| 2. _____  | 19. _____ |
| 3. _____  | 20. _____ |
| 4. _____  | 21. _____ |
| 5. _____  | 22. _____ |
| 6. _____  | 23. _____ |
| 7. _____  | 24. _____ |
| 8. _____  | 25. _____ |
| 9. _____  | 26. _____ |
| 10. _____ | 27. _____ |
| 11. _____ | 28. _____ |
| 12. _____ | 29. _____ |
| 13. _____ | 30. _____ |
| 14. _____ | 31. _____ |
| 15. _____ | 32. _____ |
| 16. _____ | 33. _____ |
| 17. _____ |           |

**The vita has been removed from  
the scanned document**

CETA AND VOCATIONAL EDUCATION ADMINISTRATORS'  
PERCEPTIONS OF PROCEDURES FOR THE IMPLEMENTATION  
AND OPERATION OF JOINTLY DELIVERED PROGRAMS IN VIRGINIA

by

Kay Fleshman Gow

(ABSTRACT)

The purpose of this study was to determine the perceptions of CETA and vocational education administrators as to the importance of procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia. In order to accomplish this goal, the answers to the following research questions were sought: (1) Can consensus be obtained among CETA and vocational education administrators as to what procedures are necessary for the implementation and operation of jointly delivered programs? (2) Are there differences in the perceptions of the two groups of administrators as to the importance of procedures for the implementation and operation of jointly delivered programs in Virginia? (3) To what extent do the panel members agree on the sequencing of these procedures? (4) Are there differences in the tenacity of CETA administrators and vocational education administrators as demonstrated by their willingness to conform to the group's opinions?

This study was conducted utilizing a modified Delphi technique and a panel of 28 experts. Panel members were divided equally between CETA and vocational education administrators and included representation from all geographic regions of Virginia. In each of the three Delphi

probes, the panel members were asked to rate the importance of each of the items on the tentative list of procedures. Additional procedures were suggested by panel members in Probe I. The second and third probes included indications of the modal responses of the total group and each individual's responses on the previous probe. In Probe III each panel member was also asked to sequence the procedures.

The data collected in these three probes provided a sequential list of 33 procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia. On the basis of the findings of this study, the following conclusions were drawn:

1. Consensus on the procedures for the implementation and operation of jointly delivered CETA/vocational education programs in Virginia was obtained among the CETA and vocational education administrators participating in this study.

2. All procedures rated in this study are important to the implementation and operation of jointly delivered CETA/vocational education programs in Virginia.

3. Those procedures that pertained to developing communication links and program proposals are among the most important because they were rated as of "high importance" or "of extremely high importance" by 86 percent or more of the panel.

4. Those procedures pertaining to program evaluation by the operator and the prime sponsor were also very important.

5. Some localities have an administrative pattern that does not allow some of these procedures to be executed in the indicated manner.

6. Even in the final probe, there were some very low ratings of follow-up procedures. These low ratings may be attributable to the

emphasis in the procedural statement on the completion of follow-up by vocational education administrators.

7. Any differences between the two groups of administrators in their perceptions of the importance of procedures are inconsequential.

8. Although the Kendall's  $W$  was significant and indicated moderately high agreement on the sequencing of procedures, some procedures are sequenced illogically.

9. The computed tenacity ratings indicate that each group of administrators was very tenacious. The high extent of agreement in the initial probe and the increase in agreement in subsequent probes would suggest the opposite, or that each group holds the same strong opinions.