

1-1-1980

A Study Of Vocational Education Completers And Leavers, At Dixie College, To Determine The Effect, On Job Seeking And Keeping Skills, Of Participation In Cooperative Vocational Education Courses

John Garth Hacking
University of Nevada, Las Vegas

Follow this and additional works at: <https://digitalscholarship.unlv.edu/rtds>

Repository Citation

Hacking, John Garth, "A Study Of Vocational Education Completers And Leavers, At Dixie College, To Determine The Effect, On Job Seeking And Keeping Skills, Of Participation In Cooperative Vocational Education Courses" (1980). *UNLV Retrospective Theses & Dissertations*. 2897.
<http://dx.doi.org/10.25669/v422-p9fo>

This Dissertation is protected by copyright and/or related rights. It has been brought to you by Digital Scholarship@UNLV with permission from the rights-holder(s). You are free to use this Dissertation in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself.

This Dissertation has been accepted for inclusion in UNLV Retrospective Theses & Dissertations by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact digitalscholarship@unlv.edu.

INFORMATION TO USERS

This reproduction was made from a copy of a document sent to us for microfilming. While the most advanced technology has been used to photograph and reproduce this document, the quality of the reproduction is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help clarify markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure complete continuity.
2. When an image on the film is obliterated with a round black mark, it is an indication of either blurred copy because of movement during exposure, duplicate copy, or copyrighted materials that should not have been filmed. For blurred pages, a good image of the page can be found in the adjacent frame. If copyrighted materials were deleted, a target note will appear listing the pages in the adjacent frame.
3. When a map, drawing or chart, etc., is part of the material being photographed, a definite method of "sectioning" the material has been followed. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.
4. For illustrations that cannot be satisfactorily reproduced by xerographic means, photographic prints can be purchased at additional cost and inserted into your xerographic copy. These prints are available upon request from the Dissertations Customer Services Department.
5. Some pages in any document may have indistinct print. In all cases the best available copy has been filmed.

**University
Microfilms
International**

300 N. Zeeb Road
Ann Arbor, MI 48106

8325594

Hacking, John Garth

A STUDY OF VOCATIONAL EDUCATION COMPLETERS AND LEAVERS, AT
DIXIE COLLEGE, TO DETERMINE THE EFFECT, ON JOB SEEKING AND
KEEPING SKILLS, OF PARTICIPATION IN COOPERATIVE VOCATIONAL
EDUCATION COURSES

University of Nevada, Las Vegas

Ed.D. 1983

University
Microfilms
International 300 N. Zeeb Road, Ann Arbor, MI 48106

Copyright 1984

by

Hacking, John Garth

All Rights Reserved

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy.
Problems encountered with this document have been identified here with a check mark ✓.

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy _____
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages ✓
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print ✓
11. Page(s) _____ lacking when material received, and not available from school or author.
12. Page(s) _____ seem to be missing in numbering only as text follows.
13. Two pages numbered _____. Text follows.
14. Curling and wrinkled pages _____
15. Other _____

University
Microfilms
International

University of Nevada,
Las Vegas

A Study of Vocational Education Completers and Leavers,
at Dixie College, to Determine the Effect, on Job Seeking and
Keeping Skills, of Participation in Cooperative Vocational
Education Courses

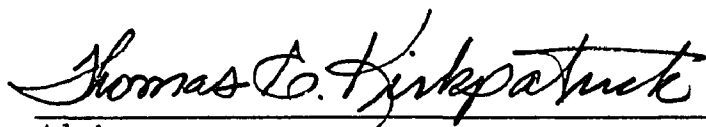
A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Education
in Post-Secondary Vocational Curriculum

by

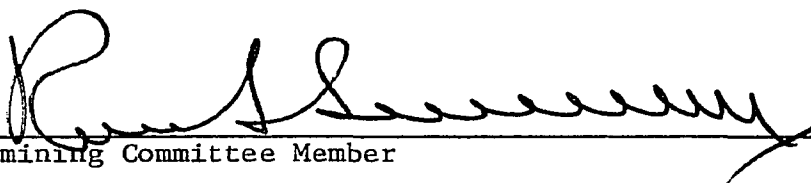
John Garth Hacking

1982

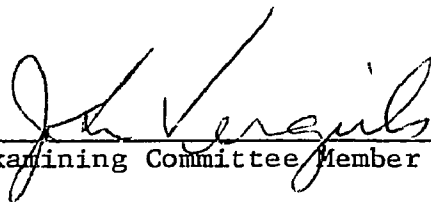
This dissertation of John G. Hacking is approved:



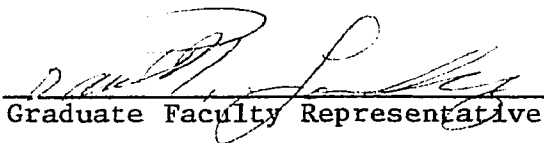
Advisor



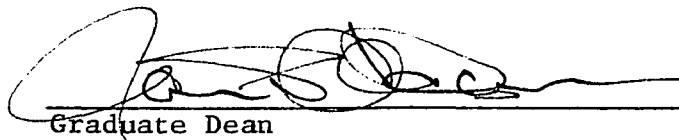
Examining Committee Member



Examining Committee Member



Graduate Faculty Representative



Graduate Dean

University of Nevada

Las Vegas

Fall 1982

Date

ABSTRACT

Title: A study of Vocational Education Completers and Leavers, at Dixie College, to Determine the Effect, on Job Seeking and Keeping Skills, of Participation in Cooperative Vocational Education Courses

Author: John Garth Hacking

Advisor: Dr. Thomas E. Kirkpatrick

Institution: University of Nevada, Las Vegas

Date: October 15, 1982

This study established the extent to which there is a correlation between the job seeking and keeping skills of Cooperative Vocational Education students and students in similar programs who elect not to participate in CVOE. Data gathered by the use of a questionnaire was compared to determine the effects of CVOE on grade point average, length of time to initial employment, initial salaries received, job advancement, and student reaction to having taken a CVOE program.

The study was limited to a group of Dixie College vocational students enrolled at that institution between Fall Quarter, 1971, and Spring Quarter, 1977.

ACKNOWLEDGEMENTS

Completion of this project represents the realization of a long-standing personal goal. This goal could not have been realized without the assistance and support of numerous colleagues, friends, family, and faculty members. A sincere expression of gratitude is offered to my Graduate Faculty Committee--Dr. Thomas Kirkpatrick, Dr. Robert Seckendorf, Dr. John Vergiels, and Dr. Paul Loveday for the time and effort they have spent in my behalf.

A tribute is also extended to professional colleagues who demonstrated interest in this research, offered constructive criticism, and assisted in the completion of the project. Mrs. Becky Atkinson Smith, Mrs. Susan McArthur Mower, Mrs. Delora Hunt and Mr. Val C. Stauffer, Dixie College deserve special recognition for their assistance. Mrs. Shanna W. Hacking deserves a special thanks for her assistance in research design and computer program components of the study.

The patience and support offered by my wife, Shanna, and our daughters Heidi and Heather was appreciated throughout.

To all those who have assisted in this venture--family, colleagues, friends, Graduate Committee members, and Advisor--my most sincere appreciation.

CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	v
Chapter	
1. THE PROBLEM	1
Introduction	1
Statement of the Problem	1
Significance of the Problem	2
Assumptions of the Study	2
Limitations of the Study	3
Definition of Terms	4
Summary	4
2. REVIEW OF RELATED LITERATURE	6
Summary	14
3. RESEARCH DESIGN AND PROCEDURES	15
Design of the Study	15
Instrumentation	16
Procedure	17
Treatment of Data	18
Summary	18

	Page
Chapter	
4. FINDINGS	19
Review of the Problem	19
Review of Research Procedures	19
Findings of the Study	20
Summary	39
5. CONCLUSIONS AND RECOMMENDATIONS	41
Summary	48
6. RECOMMENDATIONS FOR FUTURE ACTION	49
Some Final Words	51
SELECTED BIBLIOGRAPHY	53
APPENDIXES	56
A. EXPLANATION LETTER	57
B. QUESTIONNAIRE	58
C. COMPUTER PROGRAM	60

TABLES

Table	Page
1. Demographics of Study Population	21
2. Grade Point Averages of Questionnaire Recipients by category/program/year	23
3. Questionnaires Returned by Category	26
4. Associate Degrees Received by Respondents	27
5. Receipt of Certifications by Respondents	28
6. Employment Status of Respondents	29
7. Employment Timetables of Respondents	30
8. Respondents with Initial Jobs Outside Major Vocational Field	31
9. Enrollment of Respondents in Cooperative Vocational Education	32
10. Career Advancements of Respondents	34
11. Reactions of Respondents to Having Taken Cooperative Vocational Education	35
12. Reasons for Not Taking Cooperative Vocational Education as given by Respondents Not Enrolled in CVOE Programs	37
13. Initial Salary Figures for CVOE/non-CVOE Respondents	38

Chapter 1

THE PROBLEM

Introduction

The need for an evaluation of the Cooperative Vocational/ Occupational Education (CVOE) programs at Dixie College is as great as at any other educational institution offering this type of program. The completion of this study provided the institution an opportunity to determine the effectiveness of its programs as they are presently being administered, and at the same time aid in decisions about future courses of action.

Statement of Problem

It was the purpose of this investigation to gather, correlate and evaluate the data on a group of Dixie College vocational education trainees. The data were gathered by individual questionnaires mailed to each participant. Questions asked were designed to gain information pertinent to the job seeking and keeping skills of students receiving training in CVOE as opposed to students in similar programs of training, but without the CVOE education segment in their program.

The outcomes of the study will be used to help determine the continuation, expansion, or abandonment of the CVOE programs at the institution, and will be helpful to other institutions offering or contemplating a CVOE program.

Significance of the Problem

Evaluation in its various forms is a vital part of any educational enterprise which is supported in whole, or in part by one of the agencies of a federal, state or local government. For years vocational educators have advocated the idea of evaluation of programs (Darcy, 1980) because of the realization that without the support of those who use, or finance their product (the student) there is little hope of sustaining a vital and healthy program.

Most vocational educators have welcomed program evaluation because they realize that a viable program demands a system of checks and balances, including assessment, to remain forceful and productive. As vocational education has grown, so has the need for evaluation. Provisions for federal, state and local evaluation have been made a part of federal law. The Vocational Education Act of 1963 and the Vocational Education Amendments of 1968 require that periodic review become a part of the monetary and educational accountability procedure at the various levels of the educational enterprise.

Assumptions of the Study

For purposes of this study, it was assumed:

1. That students completing CVOE, maintained a higher Grade Point Average (GPA) than did their counterparts who did not include CVOE in their training programs.

2. That CVOE students secured their first full-time, major-related job more quickly, upon completion of their programs, than did those who did not enroll in CVOE training.

3. That CVOE students received a higher, initial salary than did those students in an identical program, but who did not receive CVOE training.

4. That CVOE students advance on the job at a faster rate than those students who did not participate in CVOE during their educational experience.

5. That CVOE completers would demonstrate a positive feeling toward the experiences they had while enrolled in the CVOE program.

6. That given the opportunity to repeat their educational experience, the CVOE completers would include CVOE in their current programs.

7. That students who did not take CVOE would elect to enroll in the program if they were able to repeat their educational experience.

Limitations of the Study

This study was limited to students who had participated in vocational education training at Dixie College, St. George, Utah. For purposes of comparison, the study included students who had included CVOE in their training programs, and students studying the same occupations areas, but who did not include CVOE in their programs. Only students enrolled between Fall Quarter, 1971 and Spring Quarter, 1977 were included in the study.

Definition of Terms

For the purposes of this study, the following terms are defined:

Cooperative Vocational/Occupational Education. (CVOE) A program of study offering students an opportunity to work in their major field of interest while gaining their education. The program must be supervised by the instructional institution, and a member of the staff of the employing agency. There must be a provision for the student to receive payment for work done during this working time.

Job Seeking and Keeping Skills. Those skills either natural or learned, which give an advantage in securing initial employment and in keeping that job or advancing to a better position in the student's field of interest.

GPA. Grade Point Average as computed by the Registrar at the institution where the student receives education and/or training.

CVOE Completers. Those students who have completed a program of study for a chosen occupational field, and at the same time completed a CVOE program as defined above.

Summary

At the present time there is a need to evaluate the Cooperative Vocational Education programs at Dixie College. This evaluation will be of future value in determining courses of action taken in relation to CVOE.

The purpose of this study was to gather, correlate and evaluate data concerning program completers previously enrolled in the

vocational programs at the institution. Students from a predetermined time frame were selected as subjects for the study. The information was gathered by questionnaire.

It was assumed that the CVOE students would show a positive correlation in relation to such items as GPA, employability, initial salary, job advancement, and attitude toward CVOE experiences.

It was expected that the results of this study would be of significant value to the administrators at Dixie College, as well as to the instructional personnel in the various vocational programs surveyed.

Chapter 2

REVIEW OF RELATED LITERATURE

A review of literature related to vocational education reveals that a major problem, during the early history of the discipline and one which has persisted to the present time is a definition of program. According to Vocational Education Act of 1963, as amended in 1976, Part A, Section 101, vocational education is an organized educational program which is directly related to the preparation of individuals for paid employment, or for additional preparation for a career requiring other than a baccalaureate or advanced degree.

A search of the history of vocational education reveals five major federal legislative acts which came into existence prior to 1900 which affected the development of vocational education as we presently know it in the United States. (1) The Land Ordinance Act of 1785, which forced developing territories to set aside land for support of education; (2) The Northwest Ordinance of 1787, which encouraged the establishment of schools and a means of support for such schools; (3) and (4) The Morrill Acts of 1862 and 1890, which established support and maintenance for agricultural and mechanical arts colleges; and (5) the Hatch Act of 1887, which provided funds for establishment of agricultural experimental stations.

Calhoun and Finch (1976) further supply a history of federal legislative acts following 1900 which have aided in the development of vocational education. A review of these acts shows a gradual switch from training for the job and for the welfare of industry, to a plan to train people to satisfy both their career and personal goals.

Franchak, Franken and Sabisak (1980), state that the most urgent challenge of vocational education at the present time, is evaluation. Indeed the Vocational Education Amendments of 1976 prescribe, in section 112, specific evaluation requirements for state and local educational agencies. Section 108 sets forth the details of the accountability requirements. This is not a new concept as evaluation and accountability have long been of major concern to educators.

According to investigators at the National Center for Research in Vocational Education (Franchak, Franken and Subisak, 1980), a number of national studies and reports published following the enactment of the Vocational Education Acts of 1963, have pointed to the need for reliable and valid data to support evaluation and accountability at the local, state and federal levels of vocational education. There is, according to these researchers, a great need for evaluation which will produce data which can be used for decision-making for immediate and long-range goals.

The Education for All Handicapped Children Act of 1975, (P. L. 94-142) requires unprecedented demands for program design,

implementation, and evaluation for the educational community at all levels. Title II of the Education Amendments of 1976, (P. L. 94-482) requires each state to collect data to determine the degree of program effectiveness of the various vocational education programs under their jurisdiction. Each state must measure the degree to which program leavers and completers find employment in occupations related to their training, and the degree to which program leavers and completers are considered by their employers to be well-trained and prepared for employment.

During the last two decades numerous studies have been undertaken to supply relevant data for study of the effectiveness of vocational education programs. Project Talent in 1957, among other things, helped to establish a set of standards for educational and psychological measurement, and to identify the educational and life experiences which better prepare students for a chosen life's work (Franchak, Franken, and Subisak, 1980).

The national Longitudinal Survey of Labor Market Experience, 1965; the Continuous Longitudinal Manpower Survey, 1974; the National Longitudinal Study of the High School Classes of 1972 and 1980; the Statewide longitudinal Study of California Community Colleges, 1978; and the Texas Student Information System all provided input into the effectiveness of vocational education programs throughout the United States.

The Vocational Educational Amendments of 1976, Section 112,

(b) (1), requires that:

- (B) each state shall evaluate, by using data collected wherever possible by statistically valid sampling techniques, each such program within the State which purports to impact entry level job skills according to the extent to which program completers and leavers--
 - (i) find employment in occupations related to their training, and
 - (ii) are considered by their employers to be well-trained and prepared for employment
 except that in no case can pursuit of additional education or training by program completers or leavers be considered negatively in these evaluations.

A more explicit section of 94-482 (Section 523-B), directs the National Institute of Education to undertake a thorough evaluation and study of vocational education programs, to include, among other concerns, "An analysis of the means of assessing program quality and its effectiveness".

According to Little (1970), there is a "vacuum" of vocational information which ought to be filled. He suggests, as an important need, a comprehensive study of the in-school and post-school careers of cohorts of persons who move through the educational system along different paths.

The use of the survey method in evaluating continuing vocational programs at institutions of higher education is a common practice. Studies which have utilized the follow-up technique include Brice (1974), Armstrong (1974), Carr (1974), and Bolton (1974). Each of these research studies was concerned with some aspect of an educational program, utilized a question-

naire, identified former students as subjects of the survey, and utilized the data obtained from the survey instrument to assess or evaluate specific strengths and/or weaknesses of a particular program.

These studies suggest that the survey method is an effective and valid technique to obtain data from former students. Follow-up studies have been utilized to evaluate and improve programs and to provide information about the establishment of new programs. For the purposes of this study, data obtained from a follow-up survey of former vocational students at Dixie College forms the basis for the research reported.

In assessing the different evaluative tools which might be effective in vocational education evaluation, Purcel (1971) discusses a "cross-sectional" study. In this type of study the same information is gathered from different groups of individuals selected because they represent different stages of development. The data from these different groups are compared to determine what changes occur as people or programs progress through different stages of development. The individuals are administered the same follow-up instrument at the same time and the results are compared to determine what changes were experienced by graduates during specific periods after graduation. The advantage of this particular type of study is that it can be accomplished during a relatively short period of time. Some of the answers which emerge from such a study include: (1) The changes which occur in the

employment situation as graduates develop their careers.

(2) The factors which influence student choices as they mature.

(3) How skill levels of students change with increased amounts of instruction. (4) The relative efficiency of a particular program.

The use of graduates of a program as a source of data is not new. The practice of questioning former students about a variety of situations is a well-known and widely used technique of evaluation. Data obtained through the use of follow-up studies provides a means for improvement in curriculum, guidance services, administrative procedure, selection techniques, and in predictive criteria (Best, 1959).

O'Conner (1964) states that follow-up studies should be used to gather information which will enable educators to do a better job and should not be used just to compile records.

According to Jamrich and Dressel (1961), the objective of the design of the survey should be to provide data and information for judging the adequacy, effectiveness, and the efficiency of some part of the institution as well as to furnish a basis for assessing future needs.

Hillway (1964) says that teaching methods have been improved, growth patterns of children have been determined, buildings redesigned, and many other important changes have resulted from survey research.

Previous research indicates that the effective use of data generated as a result of the use of survey techniques is unlimited and may provide insight and information about such things as facilities and equipment, financial resources, curriculum, effects of existing school policy or school administration, student needs or problems, for example. It should be emphasized, however, that according to Best (1959), data gathered from surveys are used to describe characteristics of groups and are not usually concerned with individuals as individuals. A sound basis for planning the future can be provided if data are gathered, analyzed and interpreted correctly.

Best (1959) further indicates that the adequacy of programs can be examined through information obtained from individuals who have left an institution after completing a program, treatment, or course of study. By determining what has happened to these people and what impact the program might have had, persons administering a program can evaluate its effectiveness in light of actual results.

Hemphill (1960) identified a series of characteristics which describe the process of evaluation. (1) The problem is determined by the situation and because of its complexity may involve many definers; (2) the task of evaluation is to test generalizations rather than specific hypotheses. The absence of verifiable and empirical knowledge must often be filled by relying on judgement and experience; (3) value judgements are appropriate at all stages of an evaluation study. (4) Each evaluation study is unique to a

situation and can seldom be replicated; (5) data collected is determined by feasibility and by value judgment; and (6) randomization is extremely difficult or impractical to accomplish and only superficial or selective control of the multitude of variables is possible.

At the same time Guba (1965) advocated shifting from experimental to "A-experimental" designs in evaluation. He defined "A-experimental" as a design to inquire into "what has happened---into actualities". He stated that in vocational education evaluation, total control of variables is almost totally impossible, if not impractical.

Little (1970) stated that most post-secondary vocational program graduates have a clear employment advantage over high school program graduates. He suggested, however, that there is a great need for research to evaluate the success of persons who have acquired occupational skills and the resulting employment picture which they display.

Douglas Sparks (Taylor, Darcy & Bolland, 1979), in his synthesis of research findings which describes selected benefits and outcomes for participants in vocational education, suggested that the most effective information will be received from participants who have been about five years out of vocational programs. He suggests that this group will indicate a satisfaction with their peer positions, a satisfaction with job position, a satisfaction with training they received during their educational experience,

a desire to continue to grow in their career, and a desire for other segments of the society to be more adequately served.

Summary

The random selection of population subjects, and the follow-up survey approach which have been selected for this study received general support from the researchers reviewed. It is further evident that although evaluation is not new to vocational education, there is still a need to continue to sample graduates to determine effectiveness of programs as they are presently structured and administered. Specifically, if CVOE is to remain a strong, viable program, the need for evaluation remains a strong need as well.

Chapter 3

RESEARCH DESIGN AND PROCEDURES

This was a follow-up study in which a stratified, random sample population responded to questionnaires designed to investigate the job seeking and keeping skills of students enrolled in CVOE training as opposed to similar students not taking CVOE. Assumptions of the study, as discussed in Chapter 1, dealt with both factual and attitudinal information supplied by the respondents. Discussed in Chapter 3 are procedures used in the investigation, including: population, survey instrument, data gathering methodology, and the procedures used to evaluate the collected data.

Design of the Study

Population

In completing the study, the first step was the determination of the make-up of the population which was used. This was done by the random selection of a stratified sample taken from all vocational classes offered for a given year. The number of students selected, by year, was determined by the total number of students enrolled in vocational courses offering CVOE for a given year, and the percentage of total that each vocational area represented of the whole. Where possible comparative numbers of students were selected who had taken CVOE and who had not. The sample was drawn from students enrolled

between the beginning of Fall Quarter 1971, and Spring Quarter 1977.

A random sample table was used for selection of the students who comprised the population of the study.

Special care was taken to assure that all vocational programs offered were represented during each year being sampled. The vocational areas from which the sample was drawn included *management, *accounting, *marketing, secretarial, flight attendant, aero, automotive, *graphics, journalism, drafting, metals, and apprenticeships.

Instrumentation

A single questionnaire was created which would elicit the necessary information from the study population. The instrument consisted of twenty-four questions constructed to gain data for each of the assumptions listed in Chapter 1. Questions were designed in such a way that information gained could be fed directly from the answer sheets to the computer for analysis. Where possible participants were asked to select from pre-determined answer lists in order to more closely align their responses for analysis.

As a check against error, all information fed into the computer, was hand-checked against the original questionnaires for verification.

*NOTE: During the years 1971, 1972, 1973 no CVOE courses offered for management, accounting, or marketing. No CVOE courses were offered for graphics until Fall Quarter, 1976.

Procedure

The questionnaire, in its original form, was pilot tested on a group of four business education teachers, and three vocational education teachers at Dixie College. A group of twelve current vocational students at Dixie College were also asked to complete the questionnaire. After completion of the pilot tests, a final form of the questionnaire was devised (Appendix B).

The third step in the study was the creation of the mailing list from the students previously selected. Using both the alumni list, as maintained by the Office of Institutional Studies, and the follow-up lists maintained by the Office of the Dean of the Division of Business and Trades, an address list was compiled and inserted into the word processing equipment. This equipment was then used to generate copies of the cover letter (Appendix A), the addressed envelopes and copies of the questionnaire (Appendix B).

The fourth step was the collection of the data. This collection took place by mail. A tabulation was kept of questionnaires as they were returned to determine, where possible, who had returned the forms. Initially it was believed that a follow-up questionnaire would be necessary. However, since the return on the first mailing was 182 out of 300 (61 percent), a second mailing was considered unnecessary.

The student returns were identified by name and/or postmark, where possible. Those which were unidentifiable were coded as "unknown".

By using a process of equalization, an examination of the non-respondents to the questionnaire would reveal characteristics which are similar to those participants who did respond to the questionnaire (Leedy, 1980).

Treatment of Data

The fifth step in the study was the compilation and tabulation of the data collected. As questionnaires were returned, each was checked off the master list if it was possible to ascertain who had returned the form.

The sixth step was the use of a computer program which allowed for compilation and analysis of the collected data (Appendix C).

Following the above steps, the data were processed through the computer, and an analysis was performed. A discussion of the findings of this study will be given in Chapter 4.

Summary

This study used a stratified sample of previous vocational students at Dixie College. Students enrolled in CVOE were compared with those not taking the courses by using a mailed questionnaire. Information from the questionnaire was fed into a computer for analysis. Data collected was compiled and tabulated for analysis. The findings are reported in Chapter 4.

Chapter 4

FINDINGS

Review of the Problem

A need for answers to questions relative to the effectiveness of the Cooperative Vocational Education program at Dixie College, St. George, Utah, precipitated this study. Although the CVOE program has been in effect at Dixie College for ten years, no study has been done to determine the effectiveness of the program in relation to the advantages it gives participants in the job market.

The study sought to provide answers to the following questions:

1. Are the job-seeking skills of students improved by participation in CVOE?
2. Are the job-keeping skills of students improved by participation in CVOE?
3. Do former CVOE students feel that their chances in the job market were improved by participation in CVOE?

Review of Research Procedures

One group, composed of both former CVOE students and non-CVOE students was surveyed. They responded to a mailed questionnaire based on their job-seeking and keeping skills, and program satisfaction. The returns were compiled and analyzed

through the use of computer programming (Appendix C). All material fed into the computer was hand-checked for accuracy.

Findings of the Study

The findings of this study are reported at this point. The questions asked in the questionnaire, and answers to the assumptions stated previously are dealt with during the course of this discussion. Where appropriate, specific reference to question or assumption will be given.

Unless otherwise stated, all figures and percentages are drawn on a base as represented by the one hundred and sixty-four questionnaires which were returned by respondents.

Questionnaire Information--Demographics of the Population

Table 1, page 21, illustrates the demographics of the study population. A total of three hundred students were selected as participants in the study. These students were all enrolled in vocational education courses during the time of September 1971 to June 1977. Two hundred and fourteen of the students were enrolled in at least one quarter of CVOE, while eighty-six were students taking vocational education courses, but who had elected not to participate in CVOE. In the random selection process, only three programs had students selected for 1971. However, for the remainder of the years studied, every category that had a CVOE program operating had students selected. The reason for only three programs being studied during the 1971 year was that these were the only programs having CVOE at the

time (only aeronautics, auto mechanics and apprenticeship programs offered CVOE prior to 1971). This was a loosely structured program, which was not centrally administered.

Table 1
Demographics of Study Population

Vocational Students Selected for Study
Enrolled in Vocational Education Programs
Between September 1971 and June 1977

Program	Enrolled in CVOE		Number in Program Per Year						
	Yes	No	1971	1972	1973	1974	1975	1976	1977
Management	9	3	N/P	N/P	N/P	N/P	5	5	2
Accounting	4	1	N/P	N/P	N/P	2	2	1	0
Marketing	8	0	N/P	N/P	N/P	1	2	3	2
Secretarial	104	27	0	8	4	13	41	45	20
Flight Attd.	22	0	0	1	3	6	4	7	1
Aero	17	5	1	1	1	2	7	3	7
Auto	18	20	1	0	0	3	6	18	10
Graphics	2	0	N/P	N/P	N/P	N/P	N/P	2	0
Journalism	4	4	N/P	N/P	N/P	1	1	3	3
Drafting	9	21	N/P	N/P	N/P	N/P	6	12	12
Metals	4	5	0	1	2	1	2	2	1
Apprentice	13	0	2	3	3	1	2	1	1
TOTALS	214	86	4	14	13	30	78	102	59
GRAND TOTAL	300								

NOTE: N/P = No CVOE program offered during this year.

In September of 1972, CVOE was first introduced into the Business Education Department. At that time the CVOE program was expanded to include secretarial studies, flight attendant, metals, and apprenticeship programs. In the Fall of 1974 accounting, marketing, and journalism were added to the CVOE program. In the Fall of 1975, management and drafting were added, and in the Fall of 1976 graphic arts was added. In the Fall of 1977 the CVOE program became a campus-wide program administered from a central office, with the coordinator responsible for job finding and placement, and the instructors responsible for in-class instruction, and coordination of the student work stations.

When figured on a percentage basis, the number of students shown in each year (by program), compares closely with the number of students enrolled in that program during that particular year. For example, during 1972, 57% of the sample were enrolled in secretarial studies, and 61% of the total vocational enrollment was in secretarial studies courses. Other programs, reported in the study, fall within similar ranges for enrollments and percentages.

In relation to a gender breakdown of the population, there were one hundred thirty-seven males, and one hundred sixty-three females surveyed. The ages of the population were not surveyed or considered a factor in the study.

Table 2 delineates the grade point averages of the students who served as the population of this Study. For each of the categories, the average grade points for each student were

Table 2
Grade Point Averages of Questionnaire Recipients
by
Category/Program/Year

Program Totals	1971		1972		1973		1974		1975		1976		1977	
	No.	GPA	No.	GPA	No.	GPA	No.	GPA	No.	GPA	No.	GPA	No.	GPA
Management	N/P		N/P		N/P		N/P		5	-	5	-	2	-
CVOE									4	3.13	3	3.16	1	2.44
No									1	2.89	2	2.89	1	1.88
Accounting	N/P		N/P		N/P		2	-	2	-	1	-	0	-
CVOE							2	3.55	2	3.63	0	-	0	-
No							0	-	0	-	1	3.76	0	-
Marketing	N/P		N/P		N/P		1	-	2	-	3	-	2	-
CVOE							1	3.03	2	2.26	3	2.76	2	3.62
*No							0	-	0	-	0	-	0	-
Secretarial	0	-	8	-	5	-	13	-	46	-	51	-	22	-
CVOE	0	-	6	3.32	4	3.54	9	2.69	38	2.79	44	2.80	16	2.96
No	0	-	2	2.64	1	2.05	4	2.96	8	2.30	7	1.53	6	2.61
Flight Attnd.	0	-	1	-	3	-	6	-	4	-	8	-	1	-
CVOE	0	-	1	3.71	3	3.10	6	2.92	4	2.08	8	3.01	1	3.23
*No	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Aeronautics	1	-	1	-	1	-	2	-	7	-	3	-	7	-
CVOE	1	2.62	1	3.16	1	2.22	1	.95	5	2.01	3	2.42	5	2.83
No	0	-	0	-	0	-	1	1.88	2	1.45	0	-	2	2.69
Auto Mechanics	1	-	0	-	0	-	3	-	6	-	18	-	10	-
CVOE	1	2.10	0	-	0	-	1	2.38	2	3.01	7	3.22	7	2.76
No	0	-	0	-	0	-	2	3.30	4	2.91	11	2.70	3	2.31
Graphic Arts	N/P		N/P		N/P		N/P		N/P		2	-	0	-
CVOE											2	2.57	0	-
No											0	-	0	-
Journalism	0	-	0	-	0	-	1	-	1	-	3	-	3	-
CVOE	0	-	0	-	0	-	1	2.90	0	-	2	2.85	1	2.71
No	0	-	0	-	0	-	0	-	1	3.40	1	2.45	2	2.50
Drafting	0	-	0	-	0	-	0	-	6	-	21	-	12	-
CVOE	0	-	0	-	0	-	0	-	2	3.07	5	3.15	2	2.74
No	0	-	0	-	0	-	0	-	4	2.32	16	2.52	10	2.86
Metals	0	-	1	-	2	-	1	-	2	-	2	-	1	-
CVOE	0	-	0	-	1	3.28	1	1.35	1	2.21	1	2.30	0	-
No	0	-	1	1.74	1	.05	0	-	1	1.25	1	2.50	1	2.05
Apprenticeship	2	-	3	-	3	-	1	-	2	-	1	-	1	-
CVOE	2	1.78	3	2.70	3	2.99	1	2.25	2	3.66	1	2.62	1	2.95
*No	0	-	0	-	0	-	0	-	0	-	0	-	0	-

NOTE: All marketing, flight attendant, and apprenticeship students are required to participate in CVOE

N/P = No CVOE program offered during this year.

obtained from the Registrar's Office at Dixie College. These points were then averaged together to represent the mean grade point average for the students represented in that block or segment of the study population.

Table 2 further reveals the fact that as a general trend, the GPA's of those students in the study population who were enrolled in CVOE were higher than were those in the population who did not elect to participate in CVOE. Further study shows that in over sixty percent of the comparisons between CVOE and non-CVOE students the CVOE students maintained a higher grade point average.

Table 2 also demonstrates that there were some of the vocational programs surveyed that did not show a non-CVOE segment. The reason for this lack of student population in these programs is that these programs (marketing, flight attendant, apprenticeships), require every student receiving certification to enroll in the CVOE program.

In the instance of the graphic arts segment of the study population, only one year was represented by students in this category when the final random selection was made. Therefore the information gathered from this segment of the population should not be considered representative of the entire program, or ultimately reliable in the facts which it may reveal.

Another element gathered from Table 2 is the fact that there appears to be a correlation between the increase in the number of

students in a program and the increase in the grade point averages of the group. Using secretarial studies as an example, it can be seen that as the student numbers increased, so did the grade point averages of the students enrolled in the program. Taking into consideration the fact that the student population at the institution has consistently grown, it is interesting to note that the grade point averages of the CVOE students have not dropped with enrollment increases. In the majority of cases, as revealed by the study population data, and Table 2, the grade point averages have either remained fairly static, or have continued a gradual upward increase.

Table 3 (page 26) presents information relative to questionnaires which were sent out, by category, and the number returned. While some of the categories such as secretarial, flight attendant, auto mechanics, journalism and drafting did not return questionnaires in sufficient quantities to give them the same return percentage as the mail-out percentage, the number returned in each category was sufficiently high to give a reliable picture of the population as a whole.

One factor which emerged from this tabulation is that some of the categories (management and graphics), returned sufficient questionnaires to give them an increased ranking in relation to the total number of questionnaires returned. The flight attendant, accounting, secretarial, auto mechanics, journalism, drafting, and metals programs all had returns of less than fifty percent of the total questionnaires sent in that category.

Table 3
Questionnaires Returned
by Category

Program	Sent	Percent of Total	Returned	Percent of Return
Management	12	4.00	8	4.40
Accounting	5	1.70	2	1.10
Marketing	8	2.70	4	2.20
Secretarial	132	44.00	61	33.50
Flight Attend.	22	7.30	9	4.90
Aero	22	7.30	11	6.00
Auto	38	12.70	18	9.90
Graphics	2	.70	2	1.10
Journalism	8	2.70	1	.05
Drafting	30	10.00	12	6.60
Metals	9	3.00	4	2.20
Apprenticeship	12	4.00	6	3.30
Unknown			27	14.80
Not Deliverable			17	9.30
TOTALS	300	100.00	182	100.00

NOTE: One questionnaire was returned by the parents of a student recently killed in an auto accident. This student's information was not included in the study.

Table 4 documents the receipt of Associate Degrees by the respondents to the questionnaire. One hundred twenty-three of those returning instruments received an Associate Degree from Dixie College. Seventy-six received the Associate in Science, three students received the Associate in Arts, and four students were awarded the Associate in Applied Science. There were forty respondents who did not differentiate their degree title.

Table 4
Associate Degrees Received
by Respondents

	TOTAL NUMBER	UNKNOWN	SCIENCE	ARTS	APPLIED SCIENCE
*Yes	123	40	76	3	4
No	42	--	--	--	--

*NOTE: 40 respondents did not indicate type of degree received and were classified as "unknown".

Of the 165 students returning the questionnaire, forty-two reported that they did not receive any type of degree upon their exit from the program. This number represents twenty-six percent of the total vocational students returning the questionnaire. Of those responding forty students did not indicate the type of degree which they received, but did indicate that a degree had been received.

The one hundred twenty-three students receiving degrees of one type or another represent seventy-five percent of the population.

Table 5 delineates the areas of vocational training in which students received vocational certification. Of the one hundred sixty-four respondents, one hundred and fifteen indicated receipt of a vocational certification. It should be noted that although accounting does award associate degrees, there are no vocational certifications given for the program. Therefore, there are no certifications shown in Table 5 for the accounting program.

For the remainder of the programs surveyed, there is at least one vocational certification for each program.

Table 5
Receipt of Vocational Certification
by Respondent and Program

	Total	Mgmt	Acct	Mrkt	Sec	F/A	Aero	Auto	Graphics	Jrnlsn	Draft	Metals	Apprent
Yes	115	6	0	4	49	9	11	17	2	1	9	2	5
No	49	--	--	--	--	--	--	--	--	--	--	--	--

Forty-nine of the respondents indicated that they did not receive vocational certification upon their exit from the program in which they were studying.

The above figures indicate that sixty-eight percent of the students returning the questionnaire did receive a vocational certification in one of the various institutional programs.

Table 6 illustrates the employment statistics of the students who responded to the questionnaire. The table shows that 133, or 81% of the respondents were employed at the time they answered the questionnaire. Of this number 119, or 72% were working at a job full time. There were 14 students, or 9% who reported that they were working part-time only. Thirty-one of the respondents did not report their job status.

Table 6

Employment Status of Respondents
at the time of Receipt of Questionnaire

	Yes	Full-Time	Part-Time	E-R	E-NR	NE
EMPLOYED	*133	119	14	98	35	32

NOTE: *31 respondents did not differentiate job status
 E-R = Employed in job related to vocational major
 E-NR = Employed, but not in a job related to vocational major
 NE = Respondents not presently employed

Ninety-eight of the respondents reported that they were working at a job directly related to the vocational major they held while attending Dixie College. This amounts to 59% of the students who reported.

Thirty-five, or 21% of the students reported that they were working at jobs outside the vocational major they held in college. There were thirty-two students who reported that they were not working at the time of the questionnaire.

Table 7 deals with the length of time it took the respondents to secure employment. There were 106, or 64% of the respondents who found a job during the first month after school. Fifty, or 71% of the CVOE were in this category and 56, or 59% of the non-CVOE. Fourteen or 20% of the CVOE students were employed in two months and 16, or 17% of the non-CVOE.

Table 7
Employment Timetables of Respondents

How Soon to Employment (in months)	1	2	6	9	12	Other	No Job
Total Respondents (164)	106	30	7	2	3	7	9
CVOE (70)	50	14	1	1	1	2	1
non-CVOE (94)	56	16	6	1	2	5	8

There were only five or 7% of the CVOE respondents who took longer than two months to find employment as opposed to 14 or 15% of the non-CVOE students in these same categories.

There was only one, or 1.3% of the CVOE students who reported that he had not secured a job. On the other hand there were eight or 8.5% of the non-CVOE students who indicated that they had never been able to secure work.

Table 8 shows the number of students who had initial employment outside their vocational major, but who later secured employment in that major. The 88 students reporting in this section, showed some difficulty in initial job placement in their vocational major.

Table 8
Respondents with Initial Jobs
Outside Major Vocational Field

		Although first job was outside vocational field, how long to secure job in major field (in months)					
	Totals	6	9	12	18	24	No Job Found
Did seek employment in major field	55	25	2	0	0	3	25
Never looked for work in major field	33						
TOTALS	88						

Of the eighty-eight students reporting in this section, fifty-five or 62% reported that they had made the attempt to gain employment in their field of study even though their initial job was in some other area of employment.

There were thirty-three, or 37% who reported that they had never attempted to gain employment in their vocational specialization area. These thirty-three students were, however, working at some type of job.

Table 9 illustrates the number of students who enrolled in the various vocational CVOE programs, and the number of quarters the students spent in the program. Also listed in the table are the number of respondents who did not enroll in CVOE.

There were thirty of the students, taking CVOE, who were employed by local Washington County businesses. These businesses included law offices, medical facilities, municipal offices, state and federal offices, retail establishments, automobile-related businesses, newspapers, architects, and several different types of apprenticeship-oriented businesses such as plumbers, carpenters, electricians and sheet metal workers.

Table 9
Enrollment of Respondents
in
Cooperative Vocational Education

RESPONDENTS	Number of Quarters Taking CVOE					
	1	2	3	4	5	6
Enrolled in CVOE (70 Students Total)	5	7	31	6	9	12

NOTE: Of the total number of respondents ninety-five reported not taking CVOE.

Forty of the students, who indicated that they had participated in CVOE, listed their employment during that time, with one of the various Dixie College departments. These departments include, Fine and Performing Arts, English and Social Studies, Natural and Physical Sciences, Home Economics, Business, Trades and Industries, Student Services, and the various Administrative Offices which are housed on the campus.

In relation to the number of quarters during which the students elected to take CVOE, the enrollment ranged from five students who took only one quarter to twelve students who indicated that they had taken six quarters of CVOE training while at Dixie College. By far the largest number of students indicated that they enrolled in CVOE for three quarters while at Dixie College.

Thirty-one, or 44% of the students indicated that they had enrolled in CVOE for three quarters. The next highest number of student enrollments came in the six-quarter range with twelve, or 17% of the students reporting in this category.

The largest number of students reported CVOE related classes taken in the secretarial science area. Forty, or 57% of the students were enrolled in secretarial. The other vocational areas were about evenly distributed in the number of students who enrolled for CVOE related classes.

Of the seventy students who reported taking CVOE courses, five were in Management, one was in accounting, four were in marketing and forty were in secretarial. Eight students reported taking CVOE in connection with the flight attendant program, three in aero, three in auto, two in drafting and four in the apprenticeship programs.

Graphics, journalism, and metals had no students return questionnaires who indicated that they had enrolled in CVOE courses in connection with their vocational programs of study while at Dixie College.

Table 10 deals with career advancements of respondents, both CVOE and non-CVOE, after the completion of their vocational training. There were a total of 164 students who responded to this question.

Table 10
Career Advancements of Respondents

YEAR OF GRADUATION	CVOE ADVANCEMENTS					non-CVOE ADVANCEMENTS				
	0	1	2	3	4	0	1	2	3	4
1971	0	0	0	0	0	3	0	0	0	0
1972	2	1	1	2	0	5	0	0	1	0
1973	2	1	1	0	0	3	0	0	0	0
1974	2	2	0	0	0	3	0	0	1	0
1975	1	4	6	1	1	14	1	1	1	1
1976	4	11	6	6	1	24	0	0	0	0
1977	5	6	0	2	2	28	2	3	1	2
Totals	16	25	14	11	4	80	3	4	4	3
GRAND TOTALS	CVOE 70					non-CVOE 94				

The table is delineated by year of graduation, by number of advancements, and the responses are separated by CVOE/non-CVOE classification.

It is interesting to note that 16, or 22% of the CVOE students reported making no advancements, while 80, or 95% of the non-CVOE students have made no advancements beyond their basic hiring position.

It can be further noted from Table 10 that 25, or 33% of the CVOE students had made one advancement, while three, or only 3.2% of the non-CVOE students had made one advancement.

Table 10 demonstrates the fact that in every advancement category listed the CVOE students had made a greater showing than did the non-CVOE students. However, it is interesting to note that in the category of "four advancements" four, or 5.7% of the CVOE students were represented while only three, or 3.2% of the non-CVOE students had advanced to such a degree.

Table 11 delineates the reactions of the respondents to having taken CVOE during their vocational training. Seventy of the respondents answered this question. Of this number sixty-eight, or 97% felt that the CVOE experience they had was of benefit to them.

Table 11
Reactions of Respondents
to
Having Taken Cooperative Vocational Education

REACTION	Yes	No
CVOE experience was beneficial	68	2
Time spent was worth benefit	65	5
Instructors were adequately prepared	70	0
Received adequate training on the job	54	16
Received adequate training in classroom	67	3
Would take CVOE again	66	4

NOTE: Seventy of the respondents answered this portion of the questionnaire.

Sixty-five, or 93% of the respondents felt that the time spent was worth the benefits which they derived from the experience. One hundred percent of the respondents felt that the instructors in their CVOE related classes were adequately prepared to teach the classes.

The greatest number of negative comments came in relation to the quality of training the students received during the on-the-job portion of their CVOE training. Sixteen, or 23% felt that they did not receive adequate training on the job.

Sixty-seven, or 96% of the students felt that the training and instruction they received in the classroom were adequate. Sixty-six, or 94% felt that they would be willing to enroll in CVOE again if they were to have the opportunity to retake their vocational training.

Table 12 lists the reasons given, by the respondents who did not enroll in CVOE, for not participating in the program. There were ninety respondents who answered this section of the questionnaire.

Sixteen, or 18% of those not taking CVOE listed the fact that they had no interest in the program as their reason for not participating in the program, while eighteen, or 21% indicated that their reason for not taking the class was the fact that they were unable to fit CVOE into their academic schedule.

By far the largest number of respondents (49, or 54%) indicated that they did not know what CVOE was at the time they were taking

vocational training and thus did not participate. There were only seven, or 8% of the group who felt that CVOE would have been of little value to their vocational programs.

Table 12

Reasons for Not Taking Cooperative Vocational Education
as given by
Respondents Not Enrolled in CVOE Programs

REACTION	NUMBER
Not interested in working during schooling	16
Unable to fit CVOE into schedule	18
Didn't know what CVOE was	49
Felt CVOE would be of little value	7
Other	0
TOTALS	90
Would include CVOE in program if it were to be repeated	Yes No 67 23

There were sixty-seven, or 75% of the non-CVOE participants who indicated that they would include CVOE in their vocational training programs if they had the opportunity to repeat their vocational training experience.

Table 13 delineates the beginning salaries received by both the CVOE and non-CVOE respondents to the questionnaire. As the table shows, there were slightly fewer CVOE students who began at the lowest listed salary level.

Table 13
Initial Salary Figures
for
CVOE/non-CVOE Respondents

Salary Amount	CVOE		non-CVOE	
	Number	Percentage	Number	Percentage
\$ 0 -- \$ 6,000	9	12%	15	17%
6,100 -- 8,000	10	14	8	9
8,100 -- 10,000	1	11	0	0
10,100 -- 12,000	22	31	24	27
12,100 -- 14,000	20	28	18	20
14,100 -- 16,000	2	3	11	12
16,100 -- 18,000	0	0	2	2
18,100 -- 20,000	0	0	1	1
20,100 and over	0	0	0	0
TOTALS	*64		*79	

NOTE: Twenty-one respondents did not list beginning salary

Other salary figures and percentages remained fairly equal for the two categories of respondents. The highest beginning salaries were reported by the non-CVOE students with two students reporting beginning salaries of \$16,000 to \$18,000 and one non-CVOE student reporting a beginning salary of \$18,000 to \$20,000.

Summary

The findings of this study provided a base for evaluation of the Cooperative Vocational Education program at Dixie College. The survey included one hundred thirty-seven males and one hundred sixty-three females. The ages of the population were not considered.

A comparison of GPA's for the two groups showed a trend for the CVOE students to maintain a higher average. There also appears to be a correlation between growth in student numbers in a program and an increase in GPA.

A large number of respondents (one hundred twenty-three as opposed to forty-two) reported some type of Associate Degree as the result of their vocational training. An equally high number, (one hundred fifteen against forty-nine) of the students reported receipt of vocational certification.

Seventy-two percent of the respondents reported working in a job directly related to their vocational major. There were twenty-one percent of the respondents who reported working outside the major they held during their vocational training.

Seventy-one percent of the CVOE respondents reported gaining employment within one month of the end of training. Fifty-nine percent of the non-CVOE reported one-month success in job finding.

The largest number of quarters of CVOE training reported was at three with forty-four percent in this category. At the same time CVOE students reported a more rapid advancement pattern, on-the-job.

A high number of the CVOE respondents reacted favorably to having been enrolled in the courses. The majority felt that the courses were beneficial, that time spent was worth the benefit, and that they would enroll in CVOE again if they were to repeat their educational experience. However, twenty-three percent felt that they should have received more adequate training on the job.

Those respondents not taking CVOE gave as their most frequent reason for not enrolling in the program the fact that they did not know what CVOE was. Fifty percent of the non-CVOE respondents gave this reason for non-enrollment.

Salaries reported for both groups were closely aligned in the amounts each received for initial job. In both cases, the majority of respondents reported salaries ranging from \$10,000 to \$14,000 per year.

Chapter 5

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on the findings of this study. The assumptions of the study were answered in varying degrees of positive and negative results.

The first assumption of the study was that students enrolled in CVOE would show a higher grade point average than would similar students, participating in the same vocational preparation courses, who did not elect to take CVOE. Table 2 (page 23) previously presented in this study, tends to show evidence that, indeed, CVOE students do achieve a higher grade point average than do non-CVOE students. In over sixty percent of the comparisons made, CVOE student grade point averages were higher than non-CVOE student averages. In most cases the grade point averages of the CVOE students were higher.

Another significant factor demonstrated by the figures in Table 2, is the fact that there is also a trend to increased grade point averages, program wise, as the program continues to gain experience in carrying on a CVOE element in its curriculum. For example, the apprenticeship programs increased their grade point average from 1.78 for 1971, to 2.95 for 1977. This is an increase of 1.17, or more than a full letter grade.

Therefore, the conclusion can be drawn that students enrolled in CVOE programs do achieve a higher grade point average than do similar students who do not take CVOE courses. It is also possible to conclude from Table 2 (page 23) that as a training program gains experience in operating a CVOE element in its' curriculum, the program grade point average will increase.

With the above facts taken into consideration, it is recommended that, where possible, students be encouraged to enroll in CVOE as soon as they reach acceptable levels of vocational performance for their particular training program.

Assumption two of the study was that students who participated in CVOE training would gain employment more rapidly, after completing their training, than those students who elected not to participate in CVOE. A comparison of Tables 7 and 8 (pages 30, 31) shows this is true. There were 106 of the 164 students who reported that they had secured a job within one month of the end of their vocational training. Seventy-one percent of the CVOE students were employed within the first month as opposed to only fifty-nine percent of the non-CVOE respondents.

Table 7 consistently shows that the CVOE students were more readily employed than were the students in the non-CVOE segment of the population. There was only one CVOE student reporting that no job had been found, but eight of the non-CVOE students reported that they had not been able to find work at the time that the survey was taken.

Table 6 (page 29) shows that 98, or 73% of the students were able to secure employment in a job that was directly related to the vocational major which they held in college. Also demonstrated in Table 6, is the fact that thirty-five, or 26% of the students were working at jobs not related to their vocational major.

Taking the facts from Tables 6 and 7 (page 30) into consideration, it is recommended that students be made aware of the positive job-seeking effects they will experience by enrollment in a CVOE program related to their vocational major. Students should be given information demonstrating that the job-seeking time frame will be shortened by participation in a CVOE program.

Although the survey did not produce evidence to substantiate the following factors, they could be seen as having a bearing on the shorter time span apparently necessary for CVOE students to secure employment. These factors include the possibility of employer retention of exceptional CVOE students into the permanent work force; the ability of the CVOE student to follow up on job openings available in the related job market; and the student's visibility to other employers seeking to hire new employees.

An additional recommendation is that the institution make an attempt to improve the quality of the job-placement services provided to non-CVOE students. It is well documented (Stadt and Gooch, 1980; Mason and Haines, 1965), that CVOE students tend to develop job leads in a more rapid and efficient manner than do those students who have not had CVOE training. It is important, therefore, that vocational institutions help all students develop job-seeking skills.

The third assumption of this study was that CVOE students would receive a higher initial salary than did those students who did not receive CVOE experience. Table 13 (page 38) shows that average, initial salaries for the non-CVOE students were 3.9% higher than the average salary for the CVOE students. The research showed no appreciable difference in base salary amounts for either of the two groups. On an individual salary amount basis, however, the CVOE group showed only 12% starting at the lowest salary range (\$0 -- \$6,000), as opposed to 17% of the non-CVOE group starting at that salary.

In analyzing the information on Table 13 it became evident that the mean of the salary amounts was the same for both the CVOE and the non-CVOE groups. Likewise the median and mode were the same for both groups.

Therefore, it is a conclusion of the study that the factor of CVOE or non-CVOE in a student's vocational training does not affect beginning salary figures to an appreciable extent.

With the information gained from Table 13 it is recommended that steps be taken to make potential employers aware of the additional skills which CVOE student have gained through participation in the program. At the same time, employers should be convinced that these additional skills are of value, and therefore should be compensated for with additional salary amounts.

The fourth assumption of the study was that CVOE students would make more rapid advancements on the job than did those students not taking CVOE. Table 10 (page 34) illustrates that this assumption is true. There were 16 CVOE students who indicated that they had not progressed beyond their initial hiring, while 80 non-CVOE students indicated that they had made no advancements. At the same time, 25 CVOE students had made one career advancement, 14 had made two advancements, 11 had made three advancements and four had made four advancements.

In relation to the non-CVOE students, only three had made one advancement, four had made two advancements, four had made three advancements, and only three had made four advancements. The evidence is strong that CVOE does aid the student in making advancements on the job, once the initial position has been obtained.

Therefore, it is recommended, that this information be made available to students in order that they may see the advantage of taking CVOE training. This information, coupled with other advantages of the program, should be useful to CVOE coordinators in recruitment of students into the program.

The fifth assumption of the study was that those students who had participated in CVOE, during their vocational training, would demonstrate a positive feeling toward the experiences they had while enrolled in the program.

As demonstrated by the data in Table 11 (page 35), a high percentage of the study respondents indicated a positive attitude toward their CVOE experience. Ninety-seven percent of those surveyed, who had taken CVOE, felt that the experience was of value to them. Ninety-three percent of the students felt that the time spent in the program was worth the benefits they derived. One hundred percent of those responding felt that the CVOE instructor/coordinators responsible for the various programs were adequately prepared.

However, only 77% of the respondents felt that they received adequate training on the job. This figure was offset by over 95% of the respondents who felt that they received adequate training in the classroom, and the fact that 94% of the CVOE students indicated that they would include CVOE in their programs of study if they were to be repeated.

With the above information in mind, it is recommended that the CVOE programs, in the various vocational areas of the college, be continued; but, that more attention be given to assurance that the on-the-job portion of the training be more closely supervised to assure a wide range of work-related experiences for the students.

The sixth assumption, that given the opportunity, the CVOE respondents would elect to take these courses if they were to repeat their educational process, was answered in Table 11. As previously stated, this assumption was positively shown, therefore, it can be concluded that this assumption was positive in nature.

Because the reaction of former CVOE students towards the program is positive, it is recommended that where possible these students be used as recruiters to encourage new students to enter the program. Either by personal testimonial, or through the use of written statements, the program should take advantage of the image which these former students portray.

The seventh assumption, that program participants who did not elect to take CVOE would show a desire to enroll in the program if they were to have the opportunity to repeat their schooling, was demonstrated positively in Table 12 (page 37). Seventy-four percent of the non-CVOE respondents indicated that they would take CVOE if they were able to repeat their educational experience.

By far the most damaging reason given, by the non-CVOE students, for not taking the CVOE courses was ignorance about the program. Fifty-four percent indicated that they did not know what CVOE was, and as a result did not participate. Only 17% indicated that CVOE did not interest them at the time of their schooling, and 20% said that they were unable to fit CVOE into their schedules. A very few, only 7%, said that they felt that CVOE would have been of little value to them.

Therefore, it is recommended that the CVOE Director, and the departmental coordinators pay particular attention to recruitment into the various programs. Special concern should be given to those students who do not feel inclined to work during their training. As there are certain positive values in CVOE, these students should be encouraged to participate.

A real effort should be made, on behalf of the Director's Office, and the various departments to advertise their CVOE classes to potential students. Care should be taken to make sure that all students in the various programs both understand and appreciate CVOE potential in relation to their careers.

Where possible, and if practicable, students should be required to participate in CVOE at the point in their training when they reach professional work standards for their potential career choice.

Summary

Several positive conclusions were drawn from the study. These include:

1. CVOE students tend to show a higher grade point average than non-CVOE students in the same program.
2. Students who participate in CVOE tend to gain employment more rapidly than those students who do not participate in CVOE.
3. CVOE students make more rapid advancements, on the job, than non-CVOE students.
4. CVOE students demonstrate a positive feeling toward the experiences which they had while enrolled in the program.
5. CVOE students would elect to repeat their CVOE courses if they were to take their vocational training over again.
6. Non-CVOE students show a strong tendency to include CVOE training in their programs if they were to repeat them.

Chapter 6

RECOMMENDATIONS FOR FUTURE ACTION

In the realm of recommendations for future consideration, the following recommendations are given. These recommendations are the recommendations of the researcher, and they may or may not have emerged from the data treated in this study. Some of the recommendations may not bear a direct relationship to the study itself, but are quality elements that would increase the effectiveness of a program based solely on the recommendations generated out of the findings of this study.

1. All students should be encouraged to take CVOE during their vocational training programs.

2. Instructors should be encouraged to include as many CVOE students in their programs as is practical.

3. The institution should establish a guideline as to the maximum number of students a CVOE coordinator can supervise. Where possible more than one instructor in each discipline should be encouraged to participate to relieve the burden of one individual doing all of the coordination work.

4. Great care should be taken to assure that the CVOE program meets Federal and State guidelines. Special care should be given to make sure that the program does not degenerate into a work-study program, and that all students are required to include a related class, taught by the coordinator, as a part of their CVOE program.

5. All students participating in the CVOE program should be assured of a situation in which they will receive a wide range of training experiences, properly supervised by both their coordinator and their work supervisor. Care should also be taken to assure that the students are paid a fair wage for the work which they perform, and that a sounding board is provided for problems for which the students may have no other recourse.

6. Where practical, full control of work station creation, student recruitment, placement, supervision and grading should remain strictly with the teacher/coordinator. If the institution continues the position of Director of Cooperative Education, the position should be responsible for only general over-all coordination, and should not concern itself with those areas more aptly performed by the teacher/coordinator.

7. The institution should continue the practice of providing job-placement services for students and alumni. Every effort should be made to assure a wide range of job possibilities and geographical locations for job placement.

8. It is recommended that the institution continue and refine the practice of follow-up studies of vocational trainees and graduates. This information should be of valuable assistance in assuring a quality CVOE program in the future.

9. It is further recommended that the institution begin a public relations campaign to inform potential employers of the advantages

of hiring students who have participated in CVOE. Care should be taken to inform the public of the enhanced quality of potential employees who have been through a CVOE experience.

10. A final recommendation would be that the institution investigate the possibility of released time for teacher/coordinators, and/or extra monetary reimbursement for time spent in coordination of the program.

Some Final Words

There is a tendency among vocational educators to view Cooperative Vocational/Occupational Education as an area of instruction to be avoided because of its reputation as carrying with it great amounts of additional work. Although these rumors are not wholly false, vocational educators must realize that CVOE is one of the prime methods to assure a student the opportunity of tying the theory of the classroom to the practicality of the work they will perform in their chosen career.

The history of vocational education has seen students working as unpaid assistants to gain experience; as work-study students to supplement their incomes, and as cooperative vocational education students gaining experience on the job while attending training classes. Although all of these programs have merit under certain circumstances, CVOE appears to offer a full range of experiences for the student preparing to enter the world of work.

It is important that vocational educators, who have never had an exposure to CVOE, be given the opportunity to experience the program, firsthand, and see the student successes which are generated by such a program. By experiencing a CVOE program and witnessing the successes which it can create an educator may be willing to instigate such a program in their own skill area.

Students in all vocational areas of training should be given the opportunity to participate in CVOE. Through enrollment in such a program, they will find that they not only are able to tie theory and practicality together, but will also gain subtle points of job success that might otherwise take years to achieve in a normal working condition.

The question for the future is not "Can we teach CVOE in the vocational training institutions?" but "How can we, as vocational educators justify not giving our students the learning opportunities afforded by participation in a CVOE program?"

SELECTED BIBLIOGRAPHY

- Armstrong, G.E. "A Study of Doctoral Training Programs for College And University Administrators, Including a Critical Evaluation of the Ph.D. Degree Program in Higher Education Administration at the University of Utah." Unpublished doctoral dissertation, University of Utah, 1974.
- Barlow, N. L. The Unconquerable Senator Page. Washington, D.C., The American Vocational Association, Inc, 1976.
- Best, J. W. Research in Education. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959.
- Bolton, C. R. "Recent Graduates' Perceptions of Their Doctoral Training Programs in College Student Personnel." Unpublished doctoral dissertation, The University of Oklahoma, 1974.
- Bloom, B. S., ed., Taxonomy of Educational Objectives, The classification of Educational Goals. Handbook I: Cognitive Domain. New York: Longman, Inc. 1956.
- Brice, B. C. "The Doctoral Programs in Higher Education at North Texas State University: An Appraisal." Unpublished doctoral dissertation, North Texas State University, 1974.
- Calhoun, C. C. and A. V. Finch. Vocational Career Education: Concepts and Operations. Belmont, California: Wadsworth Publishing Company, 1976.
- Carr, W. D. "A Survey Analysis of Doctoral Graduates in Higher Education as a Specialized Field of Study." Unpublished doctoral dissertation, The Florida State University, 1974.
- Darcy, R. L. "What Can Research Tell Us about the Effectiveness of Vocational Education? Defining the Basis for Judgement." VocEd, Journal of the American Vocational Association, 55:7 pp. 31-32.
- Doll, R. C. Curriculum Improvement: Decision Making and Process. 4th ed. Boston. Allyn and Bacon, Inc., 1979.
- Evans, R. N. and E. L. Herr. Foundations of Vocational Education. 2nd. ed. Columbus, Ohio: Charles E. Merrill Publishing Company, 1978.

- Franchak, S. J., M. E. Franken, and J. Sabisak. Specifications for Longitudinal Studies (Research and Development Series No. 191). The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1980.
- Franchak, S. J. and J. E. Spirer. Evaluation Handbook Volume 2: Guidelines and Practices for Follow-up Studies of Special Populations (Research and Development Series No. 172). The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1979.
- Guba, E. C. Methodological Strategies for Educational Change. A paper presented to the Conference for Educational Change, Washington, D. C., 1965.
- Harrow, A. J. A Taxonomy of the Psychomotor Domain. New York: Longman, Inc. 1972.
- Hemphill, J. D. The Relationship Between Research and Evaluation Studies, Educational Evaluation: New Roles, New Means. National Society for the Study of Education, 68th Yearbook, Part II. Chicago, Illinois, University of Chicago Press, 1969.
- Heermann, B. Cooperative Education in Community Colleges. San Francisco: Jossey-Bass Publishers, 1975.
- Hillway, T. Introduction to Research. Boston: Houghton Mifflin Company, 1964.
- Jamrich, J. X., and P. L. Dressel. "Surveys and Studies of Higher Education Needs and Problems." Evaluation in Higher Education. Boston: Houghton Mifflin Company, 1961.
- Krathwohl, D. R., B. S. Bloom, and B. B. Masia. Taxonomy of Educational Objectives. The Classification of Educational Goals. Handbook II: Affective Domain. New York. David McKay Company, Inc, 1956.
- Leedy, P. D. "Practical Research Planning and Design." 2nd. Ed. New York: Macmillan Publishing Co. Inc., 1980.
- Lewy, A. Ed., Handbook of Curriculum Evaluation. New York: Longman, Inc., 1972.
- Little, J. K. Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students. Columbus, Ohio: The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1970.

- Manchak, P. The Status of Vocational Education, School Year 1976-77 (Research and Development Series No. 193) The National Center For Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1979.
- Mason, R. E. and P. G. Haines. "Cooperative Occupational Education and Work Experience in the Curriculum." Danville, Illinois: The Interstate Printers & Publishers, Inc., 1965.
- Nanassy, L. C., D. R. Malsbary and H. A. Tonne. Principles and Trends in Business Education. Indianapolis: Bobbs-Merrill Educational Publishing, 1977.
- O'Conner, T. J. Follow-Up Studies in Junior Colleges: A Tool for Institutional Improvement. Washington, D. C.: American Association of Junior Colleges, 1964.
- Purcell, D. J. Longitudinal Methods as a Tool for Evaluating Vocational Education: Information Series No. 155. The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1971.
- Seckendorf, R. S. The Organization, Structure and Financing of Vocational Education: 1987. Advanced Study Center, The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1979.
- Stadt, R. W. and B. G. Gooch. "Cooperative Education: Vocational, Occupational, Career." Indianapolis, Indiana: Bobbs-Merrill Educational Publishing, 1980.
- Taylor, C. M., R. L. Darcy and K. A. Bolland. Vocational Education Outcomes: Annotated Bibliography of Related Literature: Bibliography Series No. 48. The National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio, 1979.
- Thompson, J. F. Foundations of Vocational Education: Social and Philosophical Concepts. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1973.
- United States, 94th Congress, Second Session, 1976. Public Law 94-482: Education Amendments of 1976, October 1976.
- Wenrich, R. C. and J. W. Wenrich. Leadership in Administration of Vocational and Technical Education. Columbus, Ohio: Charles E. Merrill Publishing, Company, 1974.

APPENDIXES

APPENDIX A

EXPLANATION LETTER

Dixie College
St. George, Utah 84770
April 15, 1982

Dear:

As a part of my Doctoral Dissertation, I am doing a study on the effectiveness of the Cooperative Vocational/Occupational Education program at Dixie College. The common name for this program on campus is COOP.

According to our records you were enrolled in one of the various vocational education programs at Dixie and, perhaps, were also enrolled in a COOP series. Therefore, I would like to ask you to fill out the enclosed, two-page questionnaire and return it to me no later than May 15, 1982. A postage-paid, self-addressed envelope is also enclosed for your convenience.

Your assistance in this process will be greatly appreciated, as you will be helping us to make a decision relative to the future of COOP on campus.

Thanks again for your help. I look forward to hearing from you soon.

Sincerely,

John G. Hacking
Business Education Department

Enclosures: 2

APPENDIX B

QUESTIONNAIRE FOR STUDY

Q U E S T I O N N A I R E

Please complete the following questionnaire. As you proceed through the questions, be sure to fill in only those sections which pertain to you and the vocational program you completed while at Dixie College.

1. Name (optional) _____
2. Year of graduation from Dixie College: _____
3. If you did not graduate from Dixie College give period when you attended the college: _____
4. Are you: (Male _____ Female _____) (Single _____ Married _____ Divorced _____)
5. Did you receive an Associate Degree? Yes _____ No _____
(If NO skip to question number seven)
6. Was it an: Associate in Science _____ Associate in Arts _____
Associate in Applied Science _____
7. Did you receive a Vocational Certification? Yes _____ No _____
8. In which area did you receive vocational certification? _____
9. Are you presently employed? Yes _____ No _____
10. Is your employment: Full-time _____ Part-time _____
11. Are you working in a job directly related to the vocational major you had during your college training? Yes _____ No _____
12. How soon after completing your vocational training did you secure employment?
One month _____ three months _____ six months _____ nine months _____
twelve months _____ Other: (specify) _____
13. Was this job directly related to your vocational training? Yes _____ No _____
(If YES skip to question number 16) (If NO answer question 14)
14. Did you seek employment in your major field? Yes _____ No _____
15. How long did it take you to secure employment in a job directly related to your vocational major? Six months _____ nine months _____ twelve months _____
eighteen months _____ twenty-four months _____ never worked in major field _____
16. Approximately what was the initial salary for the first job you secured which was directly related to your vocational major?

\$ 0--6,000 annually _____	\$ 14,100--16,000 annually _____
6,100--8,000 annually _____	16,100--18,000 annually _____
8,100--10,000 annually _____	18,100--20,000 annually _____
10,100--12,000 annually _____	20,100 and above _____
12,100--14,000 annually _____	
17. Were you enrolled in COOP ED. during your time at Dixie? Yes _____ No _____

Page #2

QUESTIONNAIRE

HACKING

18. In which vocational area did you receive cooperative training?

19. Was your COOP experience in a local business, or was it a position with Dixie College? Local Business ____ College ____
20. Please answer only one section of this question.
A. What was the name of your employer if your COOP job was not with the college? _____
B. If you worked on campus, what department were you with?

21. How many quarters did you participate in COOP? _____
22. Once you secured a job related to your vocational training, how many advancements have you made up the career ladder of your employing organization? _____
23. If you have not taken COOP please skip to question number 24. If you have taken COOP please continue to answer the following questions.
A. Do you feel that your COOP experience was beneficial to you in applying classroom theory to onthejob practicality?
Yes ____ No ____
B. Do you feel that the time you spent in COOP was worth the benefits derived? Yes ____ No ____
C. Were your COOP instructor(s) adequately prepared to teach the at-school portion of the course? Yes ____ No ____
D. Do you feel that you received adequate training experiences during the on-the-job portion of your COOP training? Yes ____ No ____
E. Do you feel that you received adequate training experiences during the classroom portion of your COOP training? Yes ____ No ____
F. If you had the opportunity to repeat your training experiences at Dixie College, would you include COOP in your training program again?
Yes ____ No ____
24. If you have answered question number 23, skip this question. If you did not take COOP please answer the following questions.
A. What was your reason for not including COOP in your training program?
a. Not interested in working during schooling. ____
b. Unable to fit COOP into my schedule. ____
c. Didn't know what it was. ____
d. Felt that it would be of little value to me. ____
e. Other (specify) _____

- B. If you had the opportunity to repeat your training experiences at Dixie College, would you include COOP in your program? Yes ____ No ____

Thank you very much for taking the time to complete this questionnaire. Please return your completed form to me in the self-addressed, postage-paid envelope which has been provided.

APPENDIX C

COMPUTER PROGRAM

```

10 REM* THIS PROGRAM IS DESIGNED TO TABULATE THE RESULTS OF A COOP QUESTIONNAIRE
20 REM* INPUT WILL BE THE VARIOUS CHARACTERS REPRESENTING ANSWERS TO QUESTIONS
30 REM* OUTPUT WILL BE THE TOTALS IN EACH CATAGORY REPRESENTED BY TOTALING
40 REM* CHARACTERS
50 LPRINT " JOHN HACKING COOP ED SURVEY"
60 LPRINT
70 LPRINT " QUESTIONNAIRE RESULTS"
80 LPRINT
90 LPRINT " 2 ";" 3 ";" 4 ";" 5 ";" 6 ";" 7 ";" 8 ";" 9 ";" 10 ";" 11 ";
100 LPRINT "12 ";"13 ";"14 ";"15 ";"16 ";"17 ";
110 LPRINT " 18 ";" 19 ";"21 ";"22 ";"23A ";"B ";" C ";" D ";" E ";" F ";
120 LPRINT "24A ";"B ":" EMPLOYER"
130 FOR I= 1 TO 130
140 LPRINT "-";
150 NEXT I
160 LPRINT "-"
170 LET I=0:G=0:U=0:S=0:M=0:D=0:F=0:V=0:A=0:E=0:T=0:R=0:H=0:R4=0:E4=0:D4=0
180 LET P=0:C=0:K=0:L=0:Q=0:N=0:B=0:Z=0:J=0:X=0:O=0:Y=0:W=0
190 LET S$ = " "
200 INPUT "YEAR OF GRADUATION FROM DIXIE COLLEGE";G
210 IF G=8 THEN GOSUB 2800
220 INPUT "DID NOT GRADUATE, BUT ATTENDED IN -";U
230 INPUT "IF MALE ENTER 1, IF FEMALE ENTER 2";S
240 INPUT "ENTER 1 IF SINGLE, 2 IF MARRIED, 3 IF DIVORCED";M
250 INPUT "DID YOU RECEIVE AN ASSOCIATE DEGREE";D
260 PRINT
270 INPUT "ENTER 1 IF SCIENCE, 2 IF ARTS, 3 IF APPLIED SCIENCES";F
280 INPUT "DID YOU RECEIVE A VOCATIONAL CERTIFICATION";V
290 PRINT "IN WHICH AREA DID YOU RECEIVE VOCATIONAL CERTIFICATE ?"
300 PRINT
310 PRINT "MNGMNT-1 ACCT-2 MKRT-3 SECRE-4 FLGHT ATTN-5 AERO-6"
320 PRINT "AUTO-7 GRAPH-8 JRNL-9 DRAFT-10 METALS-11 APPRE-12"
330 INPUT A
340 INPUT "ARE YOU PRESENTLY EMPLOYED";E
350 INPUT "ENTER 1 IF FULL TIME, ENTER 2 IF PART TIME";T
360 INPUT "ARE YOU WORKING IN JOB DIRECTLY RELATED TO YOUR VOC. MAJOR";R
370 PRINT "HOW SOON DID YOU SECURE EMPLOYMENT?"
380 PRINT
390 PRINT "ONE MONTH-1 THREE MONTHS-2
400 PRINT "SIX MONTHS-3 NINE MONTHS-4
410 PRINT "TWELVE MONTHS-5 OTHER-6
420 INPUT H
430 INPUT "WAS THIS JOB DIRECTLY RELATED TO VOC. TRAINING";R4
440 INPUT "DID YOU SEEK EMPLOYMENT IN MAJOR FIELD";E4
450 PRINT "HOW LONG DID IT TAKE TO SECURE EMPLOYMENT IN VOC. MAJOR"
460 PRINT "6 MONTHS - 1 9 MONTHS - 2 12 MONTHS - 3"
470 PRINT "18 MONTHS - 4 24 MONTHS - 5 NEVER - 6"
480 INPUT D4
490 PRINT "APPOXIMATE SALARY FIRST YEAR"
500 PRINT
510 PRINT "0-6000 = 1 6100-8000 = 2 8100-10000 = 3"
520 PRINT "10100-12000 = 4 12100-14000 =5"

```

```

530 PRINT "14100-16000 = 6      16100-18000 = 7"
540 PRINT "18100-20000 = 8      20100 & ABOVE = 9"
550 INPUT P
560 INPUT "WERE YOU ENROLLED IN COOP";C
570 PRINT "IN WHICH AREA WAS COOP TRAINING?"
580 PRINT
590 PRINT "MNGMNT-1 ACCT-2 MKT-3 SEC-4          FLGHT ATTN-5 AERO-6"
600 PRINT "AUTC-7 GRAPH-8 JRNL-9"
610 PRINT "DRAFT-10 METALS-11 APPREN-12"
620 INPUT K
630 PRINT "ENTER 1 IF COOP EXPR WAS IN LOCAL BUS. ;
640 INPUT "ENTER 2 IF WITH DIXIE COLLEGE";L
650 INPUT "ENTER NAME OF EMPLOYER";S$
660 INPUT "ENTER # QTRS. YOU WERE IN COOP";Q
670 INPUT "ENTER HOW MANY ADVANCEMENTS YOU HAVE MADE";N
680 INPUT "WAS COOP EXPR. BENEFICAL";B
690 INPUT "WAS TIME IN COOP WORTH BENEFITS DERIVED";Z
700 INPUT "WERE COOP INSTRUCTORS ADEQUATELY PREPARED";I
710 INPUT "DID YOU RECEIVE ADEQUATE TRAINING WHILE ON THE JOB";J
720 INPUT "DID YOU RECEIVE ADEQUATE TRAINING WHILE IN THE CLASSROOM";X
730 INPUT "WOULD YOU INCLUDE COOP AGAIN";O
740 PRINT "REASON FOR NOT INC. COOP IN PROGRAM";
750 INPUT "      ENTER 1 IF A, 2 IF B, 3 IF C, 4 IF D, 5 IF E";Y
760 PRINT
770 INPUT "WOULD YOU INCLUDE COOP NEXT TIME AT DIXIE? ";W
780 LPRINT USING "## ";G;U;S;
790 LPRINT ", ";
800 LPRINT USING "## ";M;D;F;V;A;E;T;R;H;R4;E4;D4;P;C;
810 LPRINT USING " ## ";K;
820 LPRINT USING "## ";L;Q;N;B;Z;I;J;X;O;Y;
830 LPRINT ";W;" ";S$
840 IF G=1 THEN G1=G1+1
850 IF G=2 THEN G2=G2+1
860 IF G=3 THEN G3=G3+1
870 IF G=4 THEN G4=G4+1
880 IF G=5 THEN G5=G5+1
890 IF G=6 THEN G6=G6+1
900 IF G=7 THEN G7=G7+1
910 IF U=1 THEN U1=U1+1
920 IF U=2 THEN U2=U2+1
930 IF U=3 THEN U3=U3+1
940 IF U=4 THEN U4=U4+1
950 IF U=5 THEN U5=U5+1
960 IF U=6 THEN U6=U6+1
970 IF U=7 THEN U7=U7+1
980 IF S=1 THEN S1=S1+1
990 IF S=2 THEN S2=S2+1
1000 IF M=1 THEN M1=M1+1
1010 IF M=2 THEN M2=M2+1
1020 IF M=3 THEN M3=M3+1
1030 IF D=1 THEN D1=D1+1
1040 IF D=2 THEN D2=D2+1

```

```

1050 IF F=1 THEN F1=F1+1
1060 IF F=2 THEN F2=F2+1
1070 IF F=3 THEN F3=F3+1
1080 IF V=1 THEN V1=V1+1
1090 IF V=2 THEN V2=V2+1
1100 IF A=1 THEN A1=A1+1
1110 IF A=2 THEN A2=A2+1
1120 IF A=3 THEN A3=A3+1
1130 IF A=4 THEN A4=A4+1
1140 IF A=5 THEN A5=A5+1
1150 IF A=6 THEN A6=A6+1
1160 IF A=7 THEN A7=A7+1
1170 IF A=8 THEN A8=A8+1
1180 IF A=9 THEN A9=A9+1
1190 IF A=10 THEN A10=A10+1
1200 IF A=11 THEN A11=A11+1
1210 IF A=12 THEN A12=A12+1
1220 IF E=1 THEN E1=E1+1
1230 IF E=2 THEN E2=E2+1
1240 IF T=1 THEN T1=T1+1
1250 IF T=2 THEN T2=T2+1
1260 IF R=1 THEN R1=R1+1
1270 IF R=2 THEN R2=R2+1
1280 IF H=1 THEN H1=H1+1
1290 IF H=2 THEN H2=H2+1
1300 IF H=3 THEN H3=H3+1
1310 IF H=4 THEN H4=H4+1
1320 IF H=5 THEN H5=H5+1
1330 IF H=6 THEN H6=H6+1
1340 IF R4=1 THEN R5=R5+1
1350 IF R4=2 THEN R6=R6+1
1360 IF E4=1 THEN E5=E5+1
1370 IF E4=2 THEN E6=E6+1
1380 IF E4=3 THEN E7=E7+1
1390 IF E4=4 THEN E8=E8+1
1400 IF E4=5 THEN E9=E9+1
1410 IF E4=6 THEN E10=E10+1
1420 IF D4=1 THEN D5=D5+1
1430 IF D4=2 THEN D6=D6+1
1440 IF D4=3 THEN D7=D7+1
1450 IF D4=4 THEN D8=D8+1
1460 IF D4=5 THEN D9=D9+1
1470 IF D4=6 THEN D10=D10+1
1480 IF P=1 THEN P1=P1+1
1490 IF P=2 THEN P2=P2+1
1500 IF P=3 THEN P3=P3+1
1510 IF P=4 THEN P4=P4+1
1520 IF P=5 THEN P5=P5+1
1530 IF P=6 THEN P6=P6+1
1540 IF P=7 THEN P7=P7+1
1550 IF P=8 THEN P8=P8+1
1560 IF P=9 THEN P9=P9+1

```

```

1570 IF C=1 THEN C1=C1+1
1580 IF C=2 THEN C2=C2+1
1590 IF K=1 THEN K1=K1+1
1600 IF K=2 THEN K2=K2+1
1610 IF K=3 THEN K3=K3+1
1620 IF K=4 THEN K4=K4+1
1630 IF K=5 THEN K5=K5+1
1640 IF K=6 THEN K6=K6+1
1650 IF K=7 THEN K7=K7+1
1660 IF K=8 THEN K8=K8+1
1670 IF K=9 THEN K9=K9+1
1680 IF K=10 THEN K10=K10+1
1690 IF K=11 THEN K11=K11+1
1700 IF K=12 THEN K12=K12+1
1710 IF L=1 THEN L1=L1+1
1720 IF L=2 THEN L2=L2+1
1730 IF Q=1 THEN Q1=Q1+1
1740 IF Q=2 THEN Q2=Q2+1
1750 IF Q=3 THEN Q3=Q3+1
1760 IF Q=4 THEN Q4=Q4+1
1770 IF Q=5 THEN Q5=Q5+1
1780 IF Q=6 THEN Q6=Q6+1
1790 IF N=1 THEN N1=N1+1
1800 IF N=2 THEN N2=N2+1
1810 IF N=3 THEN N3=N3+1
1820 IF N=4 THEN N4=N4+1
1830 IF B=1 THEN B1=B1+1
1840 IF B=2 THEN B2=B2+1
1850 IF Z=1 THEN Z1=Z1+1
1860 IF Z=2 THEN Z2=Z2+1
1870 IF I=1 THEN I1=I1+1
1880 IF I=2 THEN I2=I2+1
1890 IF J=1 THEN J1=J1+1
1900 IF J=2 THEN J2=J2+1
1910 IF X=1 THEN X1=X1+1
1920 IF X=2 THEN X2=X2+1
1930 IF O=1 THEN O1=O1+1
1940 IF O=2 THEN O2=O2+1
1950 IF W=1 THEN W1=W1+1
1960 IF W=2 THEN W2=W2+1
1970 IF Y=1 THEN Y1=Y1+1
1980 IF Y=2 THEN Y2=Y2+1
1990 IF Y=3 THEN Y3=Y3+1
2000 IF Y=4 THEN Y4=Y4+1
2010 PRINT
2020 PRINT
2030 PRINT "END OF INDIVIDUAL QUESTIONNAIRE."
2040 PRINT "ENTER (8) IF THAT WAS THE LAST QUESTIONNAIRE"
2050 GOTO 170
2060 PRINT "SET PAPER AT TOP OF FORM AND THEN PRESS RETURN TO START REPORT ";
2070 INPUT "ARE YOU READY? Y(1) N(2)";W3
2080 IF W3 = 2 GOTO 2060

```

```

2090 LPRINT " JOHN HACKING COOP ED SURVEY"
2100 LPRINT
2110 LPRINT " ACCUMULATIVE TOTALS OF QUESTIONNAIRE ANSWERS"
2120 LPRINT
2130 LPRINT
2140 LPRINT " 2. NUMBER OF STUDENTS GRADUATING IN THESE YEARS"
2150 LPRINT "      1971", "1972", "1973", "1974", "1975", "1976", "1977"
2160 LPRINT "      "; G1, G2, G3, G4, G5, G6, G7
2170 LPRINT " 3. NUMBER OF STUDENTS ATTENDING IN THESE YEARS, ";
2180 LPRINT "      "BUT NOT GRADUATING"
2190 LPRINT "      1971", "1972", "1973", "1974", "1975", "1976", "1977"
2200 LPRINT "      "; U1, U2, U3, U4, U5, U6, U7
2210 LPRINT " 4. NUMBER OF MALES AND FEMALES ANSWERING QUESTIONNAIRE"
2220 LPRINT "      ", "MALE", "FEMALE"
2230 LPRINT "      ", S1, S2
2240 LPRINT " 4. MARITAL STATUS OF STUDENTS ANSWERING QUESTIONNAIRE"
2250 LPRINT "      ", "SINGLE", "MARRIED", "DIVORCED"
2260 LPRINT "      ", M1, M2, M3
2270 LPRINT " 5. DID YOU RECEIVE AN ASSOCIATE DEGREE? YES -"; D1; " NO -"; D2
2280 LPRINT " 6. WAS IT AN: ASSOCIATE IN SCIENCE -"; F1; " ASSOCIATE IN ARTS";
2290 LPRINT "      -"; F2
2300 LPRINT "      ASSOCIATE IN APPLIED SCIENCE -"; F3
2310 LPRINT " 7. DID YOU RECEIVE VOCATIONAL CERTIFICATION? YES -"; V1; " NO";
2320 LPRINT "      -"; V2
2330 LPRINT " 8. IN WHICH AREA DID YOU RECEIVE VOCATIONAL CERTIFICATION?"
2340 LPRINT "      MNGMNT -"; A1, "ACCT. -"; A2, "MRKT. -"; A3, "SECR. -"; A4;
2350 LPRINT "      FLIGHT ATTN. -"; A5, "AERO -"; A6
2360 LPRINT "      AUTO -"; A7, "GRAPH -"; A8, "JRNL -"; A9, "DRAFT -"; A10;
2370 LPRINT "      METALS -"; A11, "APPREN -"; A12
2380 LPRINT " 9. ARE YOU PRESENTLY EMPLOYED? YES -"; E1; " NO -"; E2
2390 LPRINT "10. IS YOUR EMPLOYMENT: FULL-TIME -"; T1; " PART-TIME -"; T2
2400 LPRINT "11. ARE YOU WORKING IN A JOB DIRECTLY RELATED TO THE VOCATIONAL
2410 LPRINT "      MAJOR YOU HAD DURING YOUR COLLEGE TRAINING?";
2420 LPRINT "YES -"; R1; " NO -"; R2
2430 LPRINT "12. HOW SOON DID YOU SECURE EMPLOYMENT?"
2440 LPRINT "      ONE MONTH -"; H1; " THREE MONTHS -"; H2; " SIX MONTHS -"; H3
2450 LPRINT "      NINE MONTHS -"; H4; " TWELVE MONTHS -"; H5; " OTHER -"; H6
2460 LPRINT "13. WAS THIS JOB DIRECTLY RELATED? YES -"; R5; " NO -"; R6
2470 LPRINT "14. DID YOU SEEK EMPLOYMENT IN MAJOR FIELD? YES -"; E5; " NO -"; E6
2480 LPRINT "15. HOW LONG DID IT TAKE YOU TO SECURE RELATED EMPLOYMENT? ";
2490 LPRINT "      SIX MONTHS -"; D5; " NINE MONTHS -"; D6; " TWELVE MONTHS -"; D7;
2500 LPRINT "      EIGHTEEN MONTHS -"; D8; " TWENTY FOUR MONTHS -"; D9; " NEVER -"; D10
2510 LPRINT "16. YOUR APPROXIMATE INITIAL SALARY FOR FIRST JOB RELATED TO ";
2520 LPRINT "      YOUR MAJOR?"
2530 LPRINT "      0--6,000 ANNUALLY -"; P1; "      14,100--16,000 ANNUALLY -"; P6
2540 LPRINT "      6,100--8,000 ANNUALLY -"; P2; "      16,100--18,000 ANNUALLY -"; P7
2550 LPRINT "      8,100--10,000 ANNUALLY -"; P3; "      18,100--20,000 ANNUALLY -"; P8
2560 LPRINT "      10,100--12,000 ANNUALLY -"; P4; "      20,100 AND ABOVE -"; P9
2570 LPRINT "      12,100--14,000 ANNUALLY -"; P5
2580 LPRINT "17. WERE YOU ENROLLED IN COOP ED. AT DIXIE? YES -"; C1; " NO -"; C2
2590 LPRINT "18. IN WHICH AREA DID YOU RECEIVE COOP TRAINING? "
2600 LPRINT "      MNGMNT -"; K1, "ACCT. -"; K2, "MRKT -"; K3, "SECR. -"; K4; "FLIGHT";

```

```

2610 LPRINT "      ATEN -";K5,"AREO -";K6,"AUTO -";K7,"GRAPH -";K8;
2620 LPRINT "      JRNL -";K9;"DRAFT -";K10,"METALS -";K11,"APPREN -";A12
2630 LPRINT"19. COOP EXPERIENCE WAS IN LOCAL BUSINESS -";L1;
2640 LPRINT"      DIXIE COLLEGE -";L2
2650 LPRINT"21. HOW MANY QUARTERS DID YOU PARTICIPATE IN COOP? ONE -";Q1;
2660 LPRINT"      TWO -";Q2;" THREE -";Q3;"FOUR -";Q4;" FIVE -";Q5;" SIX -";Q6
2670 LPRINT"22. HOW MANY ADVANCEMENTS HAVE YOU MADE? ONE -";N1;" TWO -";N2;
2680 LPRINT"      THREE -";N3;" FOUR -";N4
2690 LPRINT"23. A-COOP EXPERIENCE WAS BENEFICIAL: YES -";B1;" NO -";B2
2700 LPRINT"      B-TIME SPENT WAS WORTH BENEFITS: YES -";Z1;" NO -";Z2
2710 LPRINT"      C-INSTRUCTORS WERE ADEQUATELY PREPARED: YES -";I1;" NO -";I2
2720 LPRINT"      D-ADEQUATE TRAINING ON THE JOB: YES";J1;" NO -";J2
2730 LPRINT"      E-ADEQUATE TRAINING DURING CLASSROOM TIME: YES -";X1;
2740 LPRINT"      NO -";X2
2750 LPRINT "      F-WOULD YOU INCLUDE COOP AGAIN: YES -";O1;" NO -";O2
2760 LPRINT "24-A. DID NOT TAKE COOP FOR THESE REASONS: A -";Y1;" B -";Y2;
2770 LPRINT"      C -";Y3;" D -";Y4;" E -";Y5
2780 LPRINT "24-B. WOULD YOU INCLUDE COOP NEXT TIME? YES -";W1;" NO -";W2
2790 END
2800 PRINT "ARE YOU FINISHED? Y (1) OR N (2)";
2810 INPUT N6
2820 IF N6 = 1 THEN GOTO 2060
2830 IF N6 = 2 THEN GOTO 200
2840 IF N6 = 0 THEN GOTO 200

```