ABSTRACT
        This handbook outlines an instructor-coordinator
information system that is intended to assist cooperative vocational
education (CVE) instructors in providing information on the outcomes
of their local programs and examining other CVE programs in order to
identify ways of strengthening local programs. The program
information model involves four major steps: selection of key program
outcomes, data collection, analysis of key program outcomes, and
information dissemination. Each of these steps is described, and
accompanying lists of suggested procedures for accomplishing each
step, worksheets, and questionnaires are provided. Also supplied is a
timeframe chart that specifies the forms needed, the person
responsible for completing the forms, and the major objectives of
each of the forms needed at each step of developing and using the
information system. Twenty-nine outcome forms, which are designed for
use in summarizing information from the questionnaires used in the
data collection step and transferring it into the system, are
appended. Descriptions and addresses of the publishers of 11 software
packages that can be used with the information system are also
appended. (MN)

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## List of Worksheets and Questionnaires

## PREFACE

The purpose of this handbook is to provide cooperative vocational education (CVE) coordinators and other individuals responsible for establishing, maintaining or supervising CVE programs with a system for assessing and publicizing program performance. The nuts and bolts of this handbook include a set of questionnaires and worksheets designed to provide CVE coordinators with the information necessary to monitor and demonstrate program performance.

This handbook presents a model and system derived from educational research concerning the essential components and characteristics of a quality CVE program. After first identifying those characteristics which most contribute to the success of a CVE program, the authors then constructed a model which would provide a systemmatic framework for determining the degree to which these essential characteristics were present in a CVE program.

The program information model consists of four primary steps. First, the selection of key program outcomes. This procedure allows coordinators and others responsible for program operation to determine what their programmatic goals are, in other words "Where they want to go." In the second step, the procedures for collecting the data necessary to identify whether or not the program has reached its goals are clearly identified and the necessary forms for this effort are presented and explained.

Step three instructs the handbook user in a process for relating outcomes to program information. This step is the heart of the program. At this step the user compares what they expected their program to accomplish with what it was actually felt to accomplish by students, work site supervisors and themselves.

Finally, step four describes an important part of successful program operation which is often overlooked. Namely, informing program participants and constituents about the status of programmatic efforts. This might be called the "Public Relations" of operating an effective CVE program.

Each of these steps will be described in this handbook in considerable detail along with descriptions, suggested procedures for expediting the effort, questionnaires, and worksheets to simplify some of the data analysis. The materials enclosed have been inserted so that users may simply pull out the forms necessary and copy them at their convenience.

## ACKNOWLEDGMENTS

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# INTRODUCTION

Cooperative vocational education (CVE) is a form of vocational education that uniquely links the educational system and business community in a cooperative relationship designed to prepare students for entry into the world of work. The CVE method requires career related on-the-job training and supervision, periodic performance evaluations by both the CVE coordinator and the work site supervisor, and classroom instruction closely related to students' career choices.

Recent studies have been very critical of the value of vocational education and in some areas, there has been a movement to cut back on vocational education course offerings. In Minnesota, school funding has been constrained and the number of courses available for CVE students has been reduced during the past three years. Paradoxically, many of the same studies have called for increased cooperation between schools and businesses and for increased opportunities for young people to participate in a planned work experience.
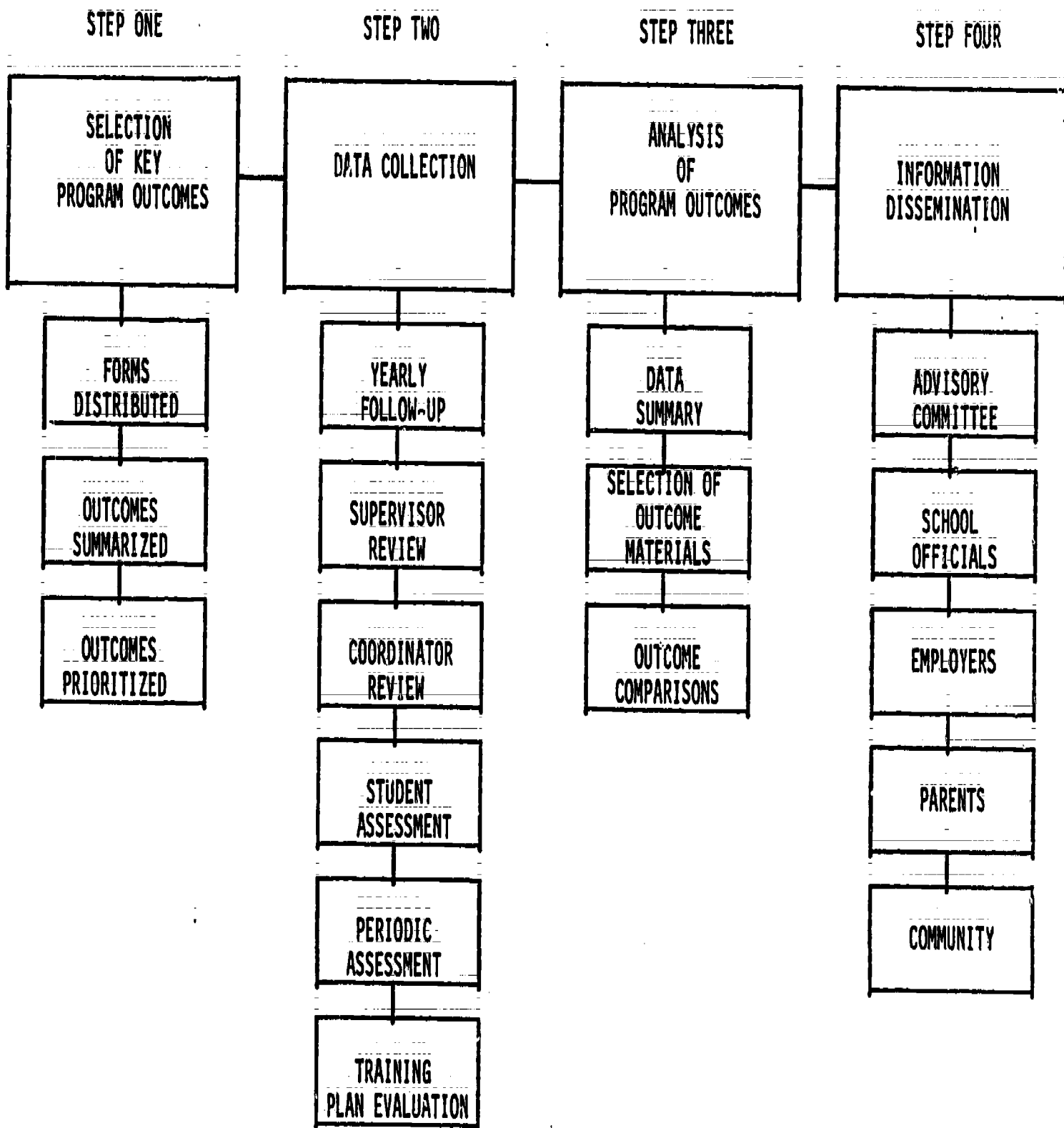
The National Commission on Secondary Vocational Education (1985) notes that although CVE programs have been one of the most successful aspects of vocational education with excellent job placement records and high satisfaction among participating employers and students, they have not been used as widely as one might expect. The Commission report calls for "more help from business, industry, labor, and public agencies to provide training slots and supervision for a greater number of students in a wider variety of occupations" (p. 22). The solution to this problem may be addressed in part by the selective identification and expansion of quality CVE programs. This will not be a simple process.

A quality CVE program requires unique job functions on the part of CVE instructor/coordinators who must develop job sites, place students in training positions, supervise training experiences, and maintain good school/employer relationships, as well as perform the regular activities required of high school teachers. In addition to the demands made on CVE instructors by students and employers, there is the public's demand for accountability. In an era when school budgets are more often cut than increased, the public is increasingly skeptical about the use and allocation of its educational dollars (Morgan, 1983).

CVE coordinators are faced with a formidable challenge. They must: (a) cope with decreased dollars for program resources and maintenance, (b) budget time efficiently between competing program needs, (c) find ways to improve program organization and operation, and (d) demonstrate that their programs are meeting the demands of students, parents, employers, and taxpayers for quality, efficiency, and effectiveness.

In this handbook, the Minnesota Research and Development Center (MRDC) outlines an instructor-coordinator information system designed to assist vocational educators in meeting these challenges by: (a) providing information which communicates the effectiveness of CVE programs in meeting local education goals, and (b) examining CVE programs in order to identify methods to strengthen them. Page V displays a model of the information system with the steps required for informing the public and key individuals of program goals, results, planning and analysis for program improvement.

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# CVE INFORMATION SYSTEM MODEL

| STEP ONE | STEP TWO | STEP THREE | STEP FOUR |
|---|---|---|---|
| SELECTION OF KEY PROGRAM OUTCOMES | DATA COLLECTION | ANALYSIS OF PROGRAM OUTCOMES | INFORMATION DISSEMINATION |
| FORMS DISTRIBUTED | YEARLY FOLLOW-UP | DATA SUMMARY | ADVISORY COMMITTEE |
| OUTCOMES SUMMARIZED | SUPERVISOR REVIEW | SELECTION OF OUTCOME MATERIALS | SCHOOL OFFICIALS |
| OUTCOMES PRIORITIZED | COORDINATOR REVIEW | OUTCOME COMPARISONS | EMPLOYERS |
| | STUDENT ASSESSMENT | | PARENTS |
| | PERIODIC ASSESSMENT | | COMMUNITY |
| | TRAINING PLAN EVALUATION | | |

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The program information model involves four major steps: (a) selection of key program outcomes, (b) data collection, (c) analysis of key program outcomes, and (d) information dissemination. Each of these steps will be described in this handbook with suggested procedures for accomplishing each step, appropriate worksheets and questionnaires.

The model represents a sequential process since it is expected that you will complete step one before step two. A number of forms or questionnaires have been developed and pilot-tested to help you complete each step in the system. While individual forms can be used separately to provide specific information (e.g., student satisfaction with the program), the intent of the authors is to present a comprehensive and thorough system. In step one key local individuals assist you in establishing a priority ranking of 8 to 10 key program outcomes. The key outcomes form contains 33 outcomes which the authors compiled from a comprehensive review of the cooperative vocational education literature (Leske and Persico, 1984). In step two, questionnaires look at various aspects of program operation and outcome from your perspective plus that of the students and work-site supervisors. In step three, you summarize the questionnaire information and transfer information for your selected key outcomes (from step one) to outcome report forms provided (Appendix 1). This step relates question-naire information to outcomes and logically leads to step four, information dissemination.

Page VII contains a suggested time frame for the implementation of this system. The timelines should be based on logical consideration of the school year, the time at which your students begin and end their CVE work experience, graduation dates, and a reasonable period for subsequent student follow-up. It is suggested that you follow this schedule as nearly as possible especially the first time you use the system. Subsequently, you can modify this schedule to meet your specific needs.

The time frame chart specifies the forms needed, the person responsible for completion, and the major objective for each form. Primary responsibility for completion of forms rests with CVE coordinators. Although the number of forms may look imposing, please remember that the work load is distributed over a 10 month period. In addition, your students are responsible for completing approximately half of the forms used, and you may elect to delegate some addi-tional responsibility for delivering and collecting specific forms to student-helpers or school staff.

Instructor-Coordinator Information System Time Lines

| Major Activities | Completed by | Form | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Establish program outcomes | Advisory Committee | CVE Out-comes Form | X | X | X | | | | | | | |
| 2. Prior year student follow-up | Student | H.S. Follow-Up Questionnaire | | | | X | X | X | | | | |
| 3. Supervisor review of CVE student performance | Work Site Supervisor | Supervisor Questionnaire | | | | | | | | X | X | |
| 4. Coordinator review of CVE student performance | CVE Coordinator | Instructor Coordinator Questionnaire | | | | | | | | | X | |
| 5. Student program assessment | Student | Student Questionnaire | | | | | | | | | X | |
| 6. Periodic assessment of student program achievement | Coordinator | Periodic Rating Sheet | X | X | | | X | | X | | X | |
| 7. Training plan evaluation | Student | Training Plan Summary Sheet | | | | | | | | | X | |

# STEPS IN THE CVE INFORMATION SYSTEM

## STEP ONE--SELECTION OF KEY PROGRAM OUTCOMES

A. OUTCOME FORMS DISTRIBUTED
B. OUTCOME FORMS SUMMARIZED
C. KEY OUTCOMES PRIORITIZED

## STEP TWO--DATA COLLECTION

A. YEARLY FOLLOW-UP OF PRIOR CVE STUDENT GRADUATES
B. SUPERVISOR REVIEW OF CVE STUDENT PROGRAM PERFORMANCE
C. COORDINATOR REVIEW OF CVE STUDENT PROGRAM PERFORMANCE
D. STUDENT PROGRAM ASSESSMENT
E. PERIODIC ASSESSMENT OF STUDENT PROGRAM PERFORMANCE
F. TRAINING PROGRAM EVALUATION

## STEP THREE-- ANALYSIS OF PROGRAM OUTCOMES

A. SUMMARY AND TRANSCRIPTION OF QUESTIONNAIRE SCORES
B. SELECTION OF KEY OUTCOME MATRICES
C. COMPARISON OF ACTUAL VS. TARGET VALUES

## STEP FOUR--INFORMATION DISSEMINATION

A. THE ADVISORY COMMITTEE
B. SCHOOL COMMITTEE
C. EMPLOYERS
D. PARENTS
E. THE COMMUNITY

1.0

STEP ONE

## SELECTION OF KEY PROGRAM OUTCOMES

The development of program evaluation criteria for local schools frequently involves only the adaptation of criteria that have been set forth in Federal and State funding legislation and regulations. While the process suggested for the establishment of local CVE programs goals does not ignore these guidelines, it recognizes the importance of considering the effect of local support groups' expectations on CVE programs. Since these groups provide the majority of the resources and have the most direct control of program operation, their interest must be a factor in analysis.

### Outcome Forms Distributed to Appropriate Individuals/Groups

The strategy suggested for the clarification of "key outcomes" is a simple survey procedure. A list of carefully selected outcome measures for CVE programs has been prepared for submission by you to individuals who have immediate involvement in your program (Page 1.2). These locally identified persons may include: advisory committee members, teachers, administrators, school board members, parents, and other individuals judged to represent key school or community interests. Each individual participant reviews the list of outcome measures, adds items that they believe are needed, and rates each item on an importance scale. Page 1.3 is a check list which you can use in the planning and dissemination of outcomes forms.

### Outcome Data Summarized

Once outcome forms have been completed and collected, you must summarize the data. The easiest method for accomplishing this is to determine the mean (average) rating for each item. Add the scores for each item and divide by the total number of responses to the item. After calculating mean scores, rank the items. Page 1.4 is a worksheet which can be used for this purpose. First, mean scores are placed in the left column, and after all scores have been included, they are rank ordered high to low. The appropriate ranking is recorded in the right column.

The planning guide procedure calls for you to analyze these results with your advisory group. The involvement of advisory groups will serve several purposes: (a) it will help build key individuals commitment to your program when you use their ideas in program planning, (b) it will help clarify priorities if two or more outcomes receive equal ratings (c), it will help sensitize key individuals to the reality of implementing educational objectives, and (d) it will serve as a forum from which you can obtain advice and support to strengthen your program.

### Key Outcomes Prioritized

The final goal in step one is for you to have a list of prioritized key outcomes desired for your CVE efforts. This will permit you to identify out-

1.1

Name _____

## Cooperative Vocational Education (CVE) Outcomes

Directions:

1. READ through the listed outcomes to gain a sense of the potentially important outcomes for CVE and ADD any important outcomes which you feel are missing.

2. RATE each item's importance as a factor in evaluating the success of the CVE components of our school's vocational education offerings. CIRCLE the number that represents your estimate of importance for the item. "0" means no importance, "1" means low importance, "5" means moderate importance and "10" means highest importance. Make an effort to use the full range of the scale, avoid rating all items as equally important.

THE CVE PROGRAM SHOULD PROVIDE INDIVIDUALS WITH:                  IMPORTANCE

| | No | | | | Moderate | | | | | High | |
|---|---|---|---|---|---|---|---|---|---|---|---|

1. Skills and competencies for a specific job:  0 1 2 3 4 5 6 7 8 9 10
2. Skills and competencies for a family of jobs:  0 1 2 3 4 5 6 7 8 9 10
3. Ability to conform to typical employment rules:  0 1 2 3 4 5 6 7 8 9 10
4. Awareness of tasks performed in a variety of jobs:  0 1 2 3 4 5 6 7 8 9 10
5. Knowledge of occupational outlook information:  0 1 2 3 4 5 6 7 8 9 10
6. Job-seeking skills (selection, applying, interviewing):  0 1 2 3 4 5 6 7 8 9 10
7. Satisfaction with post-high school employment:  0 1 2 3 4 5 6 7 8 9 10
8. Knowledge of how to advance career-wise:  0 1 2 3 4 5 6 7 8 9 10
9. Ability to make effective career decisions:  0 1 2 3 4 5 6 7 8 9 10
10. Positive attitude towards the school program:  0 1 2 3 4 5 6 7 8 9 10
11. Basic academic skills (reading, writing and mathematics):  0 1 2 3 4 5 6 7 8 9 10
12. Satisfactory hourly wage:  0 1 2 3 4 5 6 7 8 9 10
13. Positive attitude towards pursuing employment:  0 1 2 3 4 5 6 7 8 9 10
14. Ability to work effectively with others:  0 1 2 3 4 5 6 7 8 9 10
15. Ability to make ethical decisions:  0 1 2 3 4 5 6 7 8 9 10
16. Listening and speaking skills:  0 1 2 3 4 5 6 7 8 9 10
17. Ability to become self-employed:  0 1 2 3 4 5 6 7 8 9 10

THE CVE PROGRAM SHOULD PROVIDE EMPLOYERS WITH:

18. Technically competent workers:  0 1 2 3 4 5 6 7 8 9 10
19. Motivated employees:  0 1 2 3 4 5 6 7 8 9 10
20. Reduce cost of training new employees:  0 1 2 3 4 5 6 7 8 9 10
21. Satisfactory CVE student-employees:  0 1 2 3 4 5 6 7 8 9 10

THE CVE PROGRAM SHOULD PROVIDE THE SCHOOL WITH:

22. Increased CVE student attendance rates:  0 1 2 3 4 5 6 7 8 9 10
23. Increased CVE student performance in all classes:  0 1 2 3 4 5 6 7 8 9 10
24. Reduced CVE student drop-out rate:  0 1 2 3 4 5 6 7 8 9 10
25. Employed CVE program completers:  0 1 2 3 4 5 6 7 8 9 10
26. CVE completers placed in related employment:  0 1 2 3 4 5 6 7 8 9 10
27. CVE completers prepared to pursue additional education:  0 1 2 3 4 5 6 7 8 9 10
28. CVE completers with clarified occupational objectives:  0 1 2 3 4 5 6 7 8 9 10

THE CVE PROGRAM SHOULD PROVIDE THE COMMUNITY WITH:

29. Reduced unemployment:  0 1 2 3 4 5 6 7 8 9 10
30. Cost effective vocational education programs:  0 1 2 3 4 5 6 7 8 9 10
31. Reduced juvenile delinquency and related crime:  0 1 2 3 4 5 6 7 8 9 10
32. Reduced sex-role inequities:  0 1 2 3 4 5 6 7 8 9 10
33. Increased employment opportunities for minorities, disadvantaged and handicapped:  0 1 2 3 4 5 6 7 8 9 10

PLEASE USE THE BACK OF THIS PAGE TO INDICATE ADDITIONAL OUTCOMES

1.2

Planning Guide For
Establishing Key CVE Outcomes

Date

_____ 1. Select significant individuals to receive CVE outcomes form.

      _____ administrators
      _____ counselors
      _____ advisory committee members
      _____ employers
      _____ school board members
      _____ parents and others (local option)

      20 to 30 target number

    a. Assume that not all people will respond and that you will want
       to adhere to a cut-off date for inclusion in the averages.

    b. If more than one instructor/coordinator share results of
       administrators, etc. to avoid extra work.

_____ 2. Prepare materials for mailing/delivery.

    _____ a. CVE Outcomes form.
    _____ b. Your cover letter/memo, specify return date, about three
       days after received.
    _____ c. Return envelopes--easily identified.

_____ 3. Mail/deliver forms.

_____ 4. Record who has responded. Code form as:

    (1) Administrator           (5) School Board
    (2) Counselor              (6) Parents
    (3) Advisory Committee     (7) Others: _____
    (4) Employers             (8) Others: _____

_____ 5. Follow-up to remind to complete:

    _____ Personal contact or telephone best--mailing??
    _____ Contact 2 days after deadline: _____

_____ 6. Data analysis and Summary (see Fig. 5)

_____ 7. Distribute copy of selected CVE outcomes with rated importance--
    short list to key individuals or advisory group.

_____ 8. Meet with Advisory Committee to analyze results.

    a. Which outcomes should the local CVE program utilize as targets?
    b. What are reasonable standards/targets for the available indica-
       tors of these outcomes?

1.3

Outcome Summary Sheet

## CVE PROGRAMS SHOULD PROVIDE INDIVIDUALS WITH:

| | Means | Rank |
|---|---|---|
| 1. Skills and competencies for a specific job: | | |
| 2. Skills and competencies for a family of jobs: | | |
| 3. Ability to conform to typical employment rules: | | |
| 4. Awareness of tasks performed in a variety of jobs: | | |
| 5. Knowledge of occupational outlook information: | | |
| 6. Job seeking skills (selection, applying, interviewing): | | |
| 7. Satisfaction with post-high school employment: | | |
| 8. Knowledge of how to advance career-wise: | | |
| 9. Ability to make effective career decisions: | | |
| 10. Positive attitude towards the school program: | | |
| 11. Basic academic skills (reading, writing and mathematics): | | |
| 12. Satisfactory hourly wage: | | |
| 13. Positive attitude towards pursuing employment: | | |
| 14. Ability to work effectively with others: | | |
| 15. Ability to make ethical decisions: | | |
| 16. Listening and speaking skills: | | |
| 17. Ability to become self-employed: | | |

## CVE PROGRAMS SHOULD PROVIDE EMPLOYERS WITH:

| | Means | Rank |
|---|---|---|
| 18. Technically competent workers: | | |
| 19. Motivated employees: | | |
| 20. Reduced cost of training new employees: | | |
| 21. Satisfactory CVE student-employees: | | |

## CVE PROGRAMS SHOULD PROVIDE THE SCHOOL WITH:

| | Means | Rank |
|---|---|---|
| 22. Increased CVE student attendance rates: | | |
| 23. Increased CVE student performance in all classes: | | |
| 24. Reduced CVE student drop-out rate: | | |
| 25. Employed CVE program completers: | | |
| 26. CVE completers placed in related employment: | | |
| 27. CVE completers prepared to pursue additional education: | | |
| 28. CVE completers with clarified occupational objectives: | | |

## CVE PROGRAMS SHOULD PROVIDE THE COMMUNITY WITH:

| | Means | Rank |
|---|---|---|
| 29. Reduced unemployment: | | |
| 30. Cost-effective vocational education programs: | | |
| 31. Reduced juvenile delinquency and related crime: | | |
| 32. Reduced sex-role inequities: | | |
| 33. Increased employment opportunities for minorities, disadvantaged and handicapped: | | |
| 34. | | |
| 35. | | |
| 36. | | |
| 37. | | |

1.4

16

comes geared to the needs of your program, school, and community, and assist you in planning to obtain the data necessary to measure these outcomes. This system is intended to be responsive to local needs, while anticipating that outcomes may be somewhat different from one community to the next. As the professional educator providing leadership and direction for CVE, you have the opportunity and a responsibility to influence the nature of the CVE outcomes desired through your public information efforts--a never ending challenge. Step two will describe how you can use the appropriate forms to collect the data necessary for the assessment of these selected outcomes.

1.5

# STEPS IN THE CVE INFORMATION SYSTEM

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A. OUTCOME FORMS DISTRIBUTED
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   PERFORMANCE
C. COORDINATOR REVIEW OF CVE STUDENT PROGRAM
   PERFORMANCE
D. STUDENT PROGRAM ASSESSMENT
E. PERIODIC ASSESSMENT OF STUDENT PROGRAM
   PERFORMANCE
F. TRAINING PROGRAM EVALUATION

STEP THREE-- ANALYSIS OF PROGRAM OUTCOMES

A. SUMMARY AND TRANSCRIPTION OF QUESTIONNAIRE SCORES
B. SELECTION OF KEY OUTCOME MATRICES
C. COMPARISON OF ACTUAL VS. TARGET VALUES

STEP FOUR--INFORMATION DISSEMINATION

A. THE ADVISORY COMMITTEE
B. SCHOOL COMMITTEE
C. EMPLOYERS
D. PARENTS
E. THE COMMUNITY

2.0

## DATA COLLECTION

The process of collecting data necessary for a comprehensive assessment of a CVE program will require effort on the part of yourself, students, former students, and work-site supervisors. It will be possible to spread this effort throughout the school year and, with experience, you should be able to establish a schedule that will minimize the time pressure and still meet your local needs. It is recommended that you complete key outcome reviews every three to five years and the remaining activities annually.

The materials in this section are organized into six major efforts that are needed for data collection. These include: (a) yearly follow-up of prior CVE student graduates, (b) a supervisor review of CVE student job performance, (c) a coordinator review of CVE student program performance, (d) student program assessment and self-rating, (e) periodic assessment of student program achievement, and (f) student training plan summary. A brief description of the rationale for each of these efforts, a description of the applicable forms that are to be used for collecting the data, suggested procedures for data collection, and some ideas on how to best summarize the data from each applicable form are provided.

### Yearly Follow-up of Prior CVE Student Graduates

#### Rationale

An educator's concern for students should not end when those students graduate. If an educator's responsibility is to prepare students for additional education, jobs, and social roles, then effort should extend beyond graduation to determine how adequate that preparation was. This information can and should play an important role in assessing how well CVE programs are meeting student and community needs. These data are also useful in responding to both Federal and State program guidelines. In previous development work, the MRDC assisted in the design of the Minnesota Secondary School Follow-Up System in order to help educators collect student follow-up information.

#### Description of the form

It is recommended that you use the form (Page 2.2) provided. This form is a modified version of the Minnesota High School Follow-Up Questionnaire. Section four was modified to reflect a higher wage range. Section five replaced the previous section with a brief satisfaction survey and the information in the former section five became section six in our form. It is a simple, one page form that takes less than 15 minutes to fill out. The form will provide you with important information concerning students' post-high school work, education, earnings, status of employment, and satisfaction with their high school education. If your school has a different system, you may still want to examine the form enclosed and suggest items for inclusion in your schools instrument. Regardless of the system or forms used, the goal is for you to obtain basic information on the status of your former CVE students.

2.1

PLEASE COMPLETE AND RETURN THE FORM BELOW.

1. Name: _____ ( _____ )
   Last              First              Middle Initial              Maiden

2. Present Address: _____
   _____ Phone: _____

3. Recent History: For each time period (column) in the YEAR FOLLOWING HIGH SCHOOL, check ( ) the activities in which you were involved. Check at least one activity for each column. Note that you may respond to both the employment and education sections. Mark as many as apply to you.

| Activity | Sept. thru Nov. | Dec. thru Feb. | Present (Complete even if same activity as other time period) |
|---|---|---|---|
| **Education (Check all that apply):** | | | |
| 3.1 Vocational school | ( ) | ( ) | ( ) |
| 3.2 Community College | ( ) | ( ) | ( ) |
| 3.3 College or University | ( ) | ( ) | ( ) If you marked here, |
| 3.4 Apprenticeship | ( ) | ( ) | ( ) complete #6 below. |
| 3.5 Other Education_____ (Specify) | ( ) | ( ) | ( ) |
| **Employment (Check all that apply):** | | | |
| 3.6 Unemployed (looking for work) | ( ) | ( ) | ( ) |
| 3.7 Homemaker (full or part time) | ( ) | ( ) | ( ) |
| 3.8 Military (full time) | ( ) | ( ) | ( ) |
| 3.9 Paid Employment | ( ) | ( ) | ( ) If you marked here, complete #4 below. |
| **Other Activity:** (For example: ill, vacation, etc.) | | | |
| 3.10 _____ (Specify) | ( ) | ( ) | ( ) |

4. **Present Paid Employment Activity**

   4.1 Hours Per Week You Work:
   1. Less than 30    ( )
   2. 30 or more      ( )

   4.2 Job Title: _____

   4.3 Job Duties: _____
   _____

   4.4 Relatedness To Your High School Vocational Training: My present job is: (Mark only one)
   1 Closely Related    2 Somewhat Related
   3 Not Related

   4.5 Months On This Job Since Leaving High School:
   _____

   4.6 Employer: _____

   (Company or business name. If self-employed, write 'self'.)

   4.7 Employer's Address: _____
   Street
   _____
   City        State        Zip

   4.8 Kind of Business: _____
   (For example, Farming, Retail Shoe Store)

   The following items are useful to us, but may be omitted if you prefer.

   4.9 Supervisor's Name: _____

   Please Mark Your Present Hourly Income:

| 4.10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| | Under $3.50 | $3.50 to $4.49 | $4.50 to $5.49 | $5.50 to $6.49 | $6.50 to $7.49 | $7.50 to $8.49 | $8.50 or more |

5. Please indicate your satisfaction with the following items by circling the correct number on the scale below. Use NOT APPLICABLE (N/A) if the item does not apply to you.

| 1 very unsatisfied | 2 somewhat unsatisfied | 3 undecided | 4 somewhat satisfied | 5 very satisfied |
|---|---|---|---|---|

| | NA | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 5.1 CURRENT HOURLY WAGE: | NA | 1 | 2 | 3 | 4 | 5 |
| 5.2 YEARLY INCOME: | NA | 1 | 2 | 3 | 4 | 5 |
| 5.3 PRESENT EMPLOYMENT: | NA | 1 | 2 | 3 | 4 | 5 |
| 5.4 PRESENT SCHOOLING (if in school part or full time) | NA | 1 | 2 | 3 | 4 | 5 |
| 5.5 HIGH SCHOOL EDUCATION | NA | 1 | 2 | 3 | 4 | 5 |
| 5.6 HIGH SCHOOL CVE PROGRAM | NA | 1 | 2 | 3 | 4 | 5 |

6. **Present Education Activity**

   6.1 Hours Per Week You Attend:
   1. 1 to 12     ( )
   2. 13 to 18    ( )
   3. 19 or more  ( )

   6.2 School Name: _____

   6.3 School Address: _____
   _____

   6.4 Major Area or Program: _____

   (For example: Auto Mechanic, Elementary Teaching)

   6.5 Intended occupation after completing education:
   _____

   (For example: Legal Secretary, Carpenter, Teacher, Undecided, etc.)

## Suggested procedures for data usage

It is recommended that you conduct yearly follow-ups of your CVE student graduates. This should be done from six to nine months after graduation. It is important that you allow enough time to elapse for the student to have either enrolled in school or to have found employment. However, waiting longer increases the probability of a large proportion of nonrespondents.

The most efficient way to send out survey forms is through the mail. Along with the questionnaire, enclose a stamped, self-addressed, return envelope and a brief letter requesting that students complete the form. Let students know that this information is important to you and that it will help other students. Specify a deadline (allow two weeks) for students to have returned the form.

Microcomputers or other word processing systems are well suited for the follow-up mailing process--address labels, cover letters, etc. Assuming you have the equipment at your school, you may wish to enlist student help if support staff is not provided by your administration. This would be good experience for students and allow you to delegate some of the responsibility for data collection.

Second mailings generally do not increase the response rate as much as a follow-up telephone call. Again, you may use properly trained school staff or volunteer students to follow-up all non-returns after your return deadline has passed. Be sure that an assistant keeps a clear record of who has been called and information changes--new addresses, incorrect phone numbers, etc.

A briefing sheet can be prepared which will provide instructions to staff, etc. concerning telephone procedures. For instance, even if a CVE graduate has gone on to postsecondary school and is not going to be home for several months, student helpers can obtain important information from parents or guardians. Be sure that callers identify themselves, the program, and the purpose of the call.

## Summarizing the data

Simple descriptive statistics will provide good information for analyzing programs. The two most useful statistics will be the mean or average score for each item and frequency distributions for each item. Frequency distributions are very useful since they visually display the range of responses. Means can be deceptive since they can mask high and low ratings. Frequency distributions also show the number of responses per question.

Mean scores can be done on either a calculator or microcomputer. Frequency distributions can also be prepared on microcomputers using inexpensive programs (see Appendix II). In the event that this option is not available, you can simply record frequency distributions for each set of questions on a sheet of graph paper. Page 2.4 illustrates how the data from Part 5 of the high school follow-up questionnaire were plotted on a graph sheet for 20 high school students.

Once a frequency distribution is calculated, it is relatively easy to calculate a mean score. The mean rating for Question 5.1 is 2.85. This rating

2.3

## Computation of Means Using Graph Paper
### An Example

| | Very Unsatisfied 1 | Somewhat Unsatisfied 2 | Undecided 3 | Somewhat Satisfied 4 | Very Satisfied 5 | $\overline{x}$ |
|---|---|---|---|---|---|---|
| 5.1 Current hourly wage | 111 | 1111 | 1111 1 | 1111 | 11 | 2.85 |
| 5.2 Yearly income | | | | | | |
| 5.3 Present Employment | | | | | | |
| 5.4 Present Schooling | | | | | | |
| 5.5 High School Education | | | | | | |
| 5.6 High School CVE Program | | | | | | |

Step 1)  Enter the raw frequency counts for each item. These are the ratings as listed on the students follow up sheet.

Step 2)  For each item (e.g. 5.1) multiply the total of number of responses by the numbered value for that rating. E.G. 3 very unsatisfied ratings x 1 = 3. Do this for each rating, thus for 5.1:  (3 x 1) + (5 x 2) + (6 x 3) + (4 + 4) + (5 x 2) = 57. Divide this last figure (57) by the total number of student responses (20). This gives a mean or average rating of 2.85 for the current hourly wage.

2.4

indicates that the average student tends to be somewhat dissatisfied with their current hourly wage. However, this figure (the mean) does not tell the whole story since six people were, in fact, satisfied while eight were not and six were undecided. This illustrates the advantage of using frequency distributions in addition to mean scores.

## Supervisor Review of CVE Student Job Performance

### Rationale

The unique component of CVE programs is the supervised work experience. At the very least, this feature should distinguish CVE programs from all other out of school or work-release programs. To achieve its full potential, the work experience component must be closely articulated with the in-school component of programs. This includes the development and usage of both a training plan and a training agreement. Job site supervisors' reviews can provide an information link which will yield valuable data to you concerning program performance. This information can highlight areas where school work can be improved, identify problems students are having on jobs, and provide a fertile ground for communication between you and your work-site supervisors. Work supervisors are a critical "faculty member" in quality CVE programs, and, as such, they should have a voice in program improvement. The supervisor review is one mechanism for giving them this voice.

### Description of the form

The supervisor questionnaire (Page 2.6 - 2.7) consists of nine scales. These scales have been designed to assess: school to work coordination, student development, and program effectiveness. The data from these questions will assist you in determining how well your program is preparing students for jobs, how well students have performed on jobs, and how well supervisors are performing their responsibilities regarding student supervision and evaulation. The form should be filled out by students' immediate supervisors and will take no more than 15 minutes to complete.

### Suggested procedures for usage

It is recommended that you provide this form to supervisors approximately 3 weeks before the end of students' work experience. An alternative is for you to have students deliver the form plus a stamped, self-addressed envelope in which employers can return the forms. Supervisors should be contacted by telephone, or if time allows, personally visited to explain the purpose of the form and request that they complete and return it before the end of the work experience period. Follow-up any concerns or problems noted on these forms as soon as possible. Discussions with supervisors are essential when any major criticisms are raised about coordinators' or supervisors' components of the CVE program.

### Summarizing the data

The statistical procedures described earlier are also suitable for summarizing the data on this questionnaire. You may use the mean and/or frequency

2.5

23

## Supervisor Questionnaire

To be completed by person responsible for _____(student) learning work experience.

### Student Learner Selection

1. Our business agreed to participate in the CVE program and: (check one)
   ___ a student was sent to us by the coordinator.
   ___ a student was sent to us by the coordinator for acceptance or rejection.
   ___ the part-time student worker was enrolled in the CVE program.
   ___ student(s) came to us to find a job so they could enroll in CVE.

### Student Orientation

What did you do to orient the student learner to your company and policies (check all that apply).

2. ___ Introduced to other workers.
3. ___ Showed where things were.
4. ___ Explained what student-learner was expected to do and not do as an employee.
   ___ Other (Describe activity): _____

5. How much time did you spend bringing the student learner "on board" (orientation)?
   _____ minutes

### Training Plan

6. How were you involved in development of the CVE student learner's written training plan (list of tasks or jobs to be performed at your business)? (check one)
   ___ Prepared plan for student.
   ___ Prepared plan with instructor-coordinator.
   ___ Prepared plan with instructor-coordinator and student.
   ___ Reviewed and adjusted plan presented by instructor-coordinator and student.
   ___ Reviewed and adjusted plan presented by student.
   ___ Received plan from instructor-coordinator.
   ___ DID NOT HAVE a written training plan for student learner.
   ___ Other (explain) _____

7. How many times during the program did you review the training plan with the instructor-coordinator? _____
8. Student-learner? _____
9. Length of program (in months) _____

### Training Agreement (list of responsibilities and obligations of program participants)

10. How were you involved in the development of a written training agreement for the CVE student employee? (check one)
    ___ Prepared training agreement for student.
    ___ Prepared training agreement with instructor-coordinator.
    ___ Prepared training agreement with instructor-coordinator and student.
    ___ Reviewed and adjusted plan presented by instructor-coordinator.
    ___ DID NOT HAVE a written training agreement.
    ___ Other (explain) _____

### Student Evaluation

11. Did the instructor-coordinator provide a student evaluation report form?
    ___ No  ___ Yes

12. If Yes, how did the instructor-coordinator assist you? (check one)
    ___ Did not assist.
    ___ Provided instruction on how to complete.
    ___ Provided instructions and assisted in completing.
    ___ Asked me questions and recorded results.

13. How many student evaluations do you complete and submit to the instructor-coordinator per quarter (9 weeks) per student? _____

14. Do you review student evaluation reports with the student? ___ No ___ Yes

15. Please indicate how many other workers you are responsible for: _____

### School-Work Coordination

Rate the following items on the scale provided by circling the most appropriate response for your CVE student-employee.

| Strongly Disagree | Disagree | Uncertain | Agree | Strongly Agree |
|---|---|---|---|---|
| SD | D | U | A | SA |

16. The student-learner's classroom preparation was sufficient for the tasks required on the job.  SD D U A SA

17. The student-learner received instruction in the CVE related class which overcame on-the-job performance problems.  SD D U A SA

18. The instructor-coordinator spent an appropriate amount of time at our business on coordination activities.  SD D U A SA

19. The student-learner required the same amount of my time for supervision as other employees.  SD D U A SA

## Student Development - Job Related

20. The work performed by the student was of value to our organization.  SD D U A SA

21. The work performed will help the student to obtain a job reference.  SD D U A SA

22. The work performed will help the student in obtaining future jobs.  SD D U A SA

23. The work performed enabled the student to develop many valuable job skills.  SD D U A SA

24. The work performed provided the student with increased responsibilities over time.  SD D U A SA

25. The work performed required use of the students skills and knowledge.  SD D U A SA

26. The work performed provided the student with the opportunity to observe highly skilled and competent employees.  SD D U A SA

## Program Effectiveness

27. The CVE program has helped us to reduce the cost of training new employees.  SD D U A SA

28. The CVE program has helped in the recruitment and retention of new workers.  SD D U A SA

29. Students hired from the CVE program have proved to be very capable and competent workers.  SD D U A SA

30. Involvement in the CVE program has been very satisfactory to our organization.  SD D U A SA

31. I would encourage other companies to provide students with work experience opportunities.  SD D U A SA

## Student Development-Personal

For each of the following abilities please rate how much change (growth) you saw in the student-worker as a direct result of his/her involvement with the CVE program.

Scale:  Choose a value between 0 and 7.  Use all eight scale values as appropriate.  The ratings of 2 and 3 represent intermediate levels between MINOR growth and MODERATE growth.  Similarly, the ratings of 5 and 6 represent intermediate levels between MODERATE growth and SUBSTANTIAL growth.

0 = No Growth
1 = Minor Growth
2 =
3 =
4 = Moderate Growth
5 =
6 =
7 = Substantial Growth

32. The ability to arrive for work and appointments on time.  0 1 2 3 4 5 6 7

33. The ability to follow instructions related to work.  0 1 2 3 4 5 6 7

34. The ability to complete a job in a thorough and reliable manner.  0 1 2 3 4 5 6 7

35. The ability to cooperate with supervisors.  0 1 2 3 4 5 6 7

36. The ability to cooperate with fellow-workers.  0 1 2 3 4 5 6 7

37. The ability to accept criticism when shown that something was done incorrectly.  0 1 2 3 4 5 6 7

38. The ability to find something useful to do when work is completed or otherwise interrupted.  0 1 2 3 4 5 6 7

39. The ability to be honest with supervisors and others.  0 1 2 3 4 5 6 7

40. The ability to communicate effectively.  0 1 2 3 4 5 6 7

distribution depending on the particular item. For items 1 through 15, a frequency distribution of the responses will provide you with a descrptive analysis of the information. For items 16 through 40 you should use a measure of central tendency (i.e., mean or average) if you want to make comparisons between various worksites or derive an overall figure for each scale. A frequency distribution can be used for items where you wish to see the distribution of responses. A blank questionnaire can be used as a worksheet to facilitate this process.

When there are no numerical values assigned to the response scale, values must be assigned to them. Values from 1 to 5 are suggested. Thus, strongly disagree would be rated as a 1, strongly agree would be rated as a 5. Computation of the means for each of these items will give you average ratings for each question based on the total responses from work site supervisors. Caution must always be exercised in using means because it is possible for you to receive very high ratings on program effectiveness, while there may still be individual work sites with very poor ratings. In such cases, individual investigation and appraisal is warranted since these low ratings may reflect a problem or perhaps simply a lack of communication.

## Coordinator Review of CVE Student Program Performance

### Rationale

The coordinator role is the pivotal link in a complex process required to manage a quality CVE program. Of the many responsibilities which a coordinator has, perhaps the most important is the job of providing feedback to students. Feedback is essential to student growth and development. Without the knowledge of how they are performing, it is impossible for students to make meaningful changes in their behavior. Even positive behavior, on a student's part is likely to deteriorate without some assurance that the behavior is indeed acceptable to others. Students need to be rewarded for positive behavior as well as informed of negative behavior.

The purpose of the student performance review is to faciliate efficient student learning. While you are continually doing informal reviews, formal assessment of students provides critical emphasis on the importance of performance and growth. By using the formal assessment system presented, you can check your perceptions against those of both the students' and their work site supervisors.

### Description of the form

The coordinator questionnaire: student data form (Page 2.9) contains 25 questions. This form will require only five to 10 minutes per student to complete. The form has been designed with two major scales.

The job characteristics scale will allow you to check your impressions of the value of your CVE students' work experience's against their own and their supervisors' impressions. The student growth and development scale provides an assessment of how much growth you feel students have experienced as a result of participating in their program. Ratings on both scales can be compared with

2.8

Coordinator Questionnaire: Student Data

Name of Student Learner to be Evaluated _____

1. Description of CVE students job or position:

_____
_____
_____

2. Approximate number of employees working in this facility:
    ____ 1 - 5
    ____ 6 - 15
    ____ 15 - 100
    ____ 100+

3. The number of workers reporting directly to the student-learners immediate supervisor is _____.

4. Student wage at time of entry into employment was _____ (dollars per hour).

5. Compared to other workers at this company, the student's wage at the time of entry into employment was: (check one)
    ____ Equivalent to the wage of other workers with comparable skill and experience.
    ____ Less than the wages of other workers with comparable skill and experience.
    ____ Am not aware of the wages of other workers at the time student entered employment.

## Job Characteristics

Circle the response which most accurately reflects the average job condition/situation for the CVE student you are evaluating.

| SD | D | U | A | SA |
|---|---|---|---|---|
| Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree |

6. The work performed enabled this student to develop many valuable job skills.    SD  D  U  A  SA

7. The work performed by the student was directly related to his/her career goals.    SD  D  U  A  SA

8. The work performed provided this student with increased responsibilities over time.    SD  D  U  A  SA

9. The work performed required an appropriate use of the student's skill and knowledge.    SD  D  U  A  SA

10. The work performed by this student was of value to the employer.    SD  D  U  A  SA

11. The work performed kept the student involved--few periods of inactivity.    SD  D  U  A  SA

12. The work performed will help this student obtain a good job reference.    SD  D  U  A  SA

## Student Growth and Development

For each of the following abilities please rate how much change (growth) you saw in the student as a direct result of his/her involvement with the CVE program.

Scale: Choose a value between 0 and 7. Use all eight scale values as appropriate. The ratings of 2 and 3 present intermediate levels between MINOR growth and MODERATE growth. Similarly, the ratings of 5 and 6 represent intermediate levels between MODERATE growth and SUBSTANTIAL growth.

    0 = No Growth
    1 = Minor Growth
    2 =
    3 =
    4 = Moderate Growth
    5 =
    6 =
    7 = Substantial Growth

13. The ability to communicate effectively with others.    0  1  2  3  4  5  6  7

14. The ability to conduct a job interview.    0  1  2  3  4  5  6  7

15. The ability to complete a job application.    0  1  2  3  4  5  6  7

16. The ability to complete a job resume.    0  1  2  3  4  5  6  7

17. The ability to conduct an appropriate job search.    0  1  2  3  4  5  6  7

18. The ability to complete classroom assignments in a thorough and reliable manner.    0  1  2  3  4  5  6  7

19. The ability to perform basic mathematical computations.    0  1  2  3  4  5  6  7

20. The ability to communicate effectively in writing.    0  1  2  3  4  5  6  7

21. The ability to comprehend and follow written material and written instruction.    0  1  2  3  4  5  6  7

22. The ability to use media and other resources to find job openings and opportunities.    0  1  2  3  4  5  6  7

23. The ability to use media and other resources to make effective career decisions.    0  1  2  3  4  5  6  7

24. The ability to identify further skills and education needed to advance in his/her CVE occupation.    0  1  2  3  4  5  6  7

25. The ability to identify the skills and education needed for typical jobs such as: welder, nurse, office manager, assembler, secretary, lawyer, etc.    0  1  2  3  4  5  6  7

student's and supervisor's ratings since items similar to these have been included in their respective forms.

## Suggested procedures for usage

You should complete an assessment of student performance at least once per year for each student who is participating in the CVE work experience component. This summative evaluation can and should be complemented by more frequent periodic assessments (these will be discussed later).

This step is a critical process in a quality CVE program. You may also consider setting up a series of final interviews with each CVE student. Your evaluation of each student could be completed prior to this time and discussed with the student. You could also allow students to complete their evaluation form at this meeting. This would enable both of you to compare results and explore any meaningful differences.

## Student Program Assessment

## Rationale

This step in the CVE information system allows students to provide feedback to coordinators regarding various aspects of CVE programs and work components. In addition, students are asked to evaluate their own growth and development in a number of key areas. This information will permit you to identify potential strengths and weaknesses in program operation, evaluate the effectiveness of work-site placements, and obtain data regarding final program outcomes as perceived by student learners. This information can be cross-checked with your ratings and those of students' on-site supervisors. While individual criticism of a program or job site may not be sufficient for reaction, a response is in order when several student evaluations suggest a potential problem.

This process will also be valuable to students since it gives them the opportunity to provide their own evaluation regarding their personal progress. This information can be a bridge to stimulate discussion between you and your students regarding post-program strategies to strengthen weak areas or capitalize on strong areas. Thus, students have a "second chance" to learn from their program experiences. Furthermore, since students are providing their own analysis of their growth and development, it is much more likely that they will be willing to accept suggestions from you concerning areas of weakness.

## Description of the form

The student questionnaire (Pages 2.11 - 2.13) is a three part instrument with approximately 100 questions. The average student should be able to complete this questionnaire in less than 30 minutes. The questionnaire includes several items related to basic program processes and six major scales. The scales assess: (a) classroom instruction, (b) instructor-coordinator activities (c) quality of supervision, (d) nature of the job, (e) growth and development, and (f) program satisfaction. Several items on the growth and development scale are duplicated on both the coordinator questionnaire and supervisor question-

2.10

Student Questionnaire

Your Name _____

## Student Enrollment Procedure

I was formally introduced to the purpose and responsibilities of the CVE program by: (check all that apply)
1. ____ Class scheduling/registration packets or materials.
2. ____ Instruction material or handouts.
3. ____ Special orientation meeting.
4. ____ Student/parent CVE orientation meeting.
   ____ Other: Describe _____

Prior to my enrollment in the CVE program I was interviewed by: (check all that apply)
5. ____ Counselor
6. ____ CVE coordinator
7. ____ Other teachers
   ____ Other: Describe _____

8. Prior to my enrollment in the CVE program, my parents were contacted by the coordinator who discussed the program with them. ____ No ____ Yes

## Vocational Student Organizations

9. Did you participate in a vocational student organization directly related to the CVE program?    ____ No
                                                 ____ Yes

## Training Plan: List of Job Tasks/Functions you are to perform on the job.

10. How were you involved in the development of your written training plan? (check one response only)
    ____ DID NOT HAVE a written training plan.
    ____ Received training plan prepared by instructor-coordinator.
    ____ Prepared my own written training plan.
    ____ Received training plan prepared by on-the-job supervisor/employer.
    ____ Prepared plan in cooperation with instructor-coordinator.
    ____ Prepared plan in cooperation with instructor-coordinator and on-the-job supervisor/employer.

If you had a written training plan, please indicate the number of times during a nine month program you reviewed the training plan with your:
11. Instructor-coordinator? _____
12. On-the-job supervisor? _____

Did the training plan format require you to:
13. indicate or estimate your competency/skill levels before starting this job? ____ No ____ Yes
14. establish competency/skill level goals? ____ No ____ Yes
15. assess your personal progress periodically.
    ____ No ____ Yes

## Job Site Orientation

16. At the start of your employment, did your supervisor introduce you to other workers, and explain what you were expected to do and not do as an employee?
    ____ Yes ____ No

17. How much time did the on-the-job supervisor and/or employer spend explaining your job, the business, company policy, and so on?
    ____ Minutes

Training Agreement: Statement of responsibilities accepted by the persons involved in your placement experience.

18. Prior to beginning my CVE job I was required to sign a training agreement.
    ____ No ____ Yes

19. Prior to beginning my CVE job my parent/guardian was required to sign a training agreement. ____ No ____ Yes

Prior to beginning my CVE job I reviewed a training agreement with the following persons: (check all that apply)
20. ____ Parent/Guardian
21. ____ Coordinator
22. ____ Employer
23. ____ Other
24. ____ Was not advised of my training agreement

## Related Instruction

Rate the following items on the scale provided by circling the most appropriate response for your CVE classroom instruction.

| | Strongly Disagree SD | Disagree D | Undecided U | Agree A | Strongly Agree SA |
|---|---|---|---|---|---|
| 25. The reading materials used in the CVE class were easy for me to understand. | SD | D | U | A | SA |
| 26. The materials and instruction provided in my CVE class were directly related to my employment. | SD | D | U | A | SA |
| 27. The materials and instruction provided in my CVE class helped me acquire skills related to my work. | SD | D | U | A | SA |
| 28. The materials and instruction provided in my CVE class helped me to acquire skills needed for working with people. | SD | D | U | A | SA |
| 29. The materials and instruction provided in my CVE class helped me to acquire the skills needed to find a job. | SD | D | U | A | SA |
| 30. The instruction provided in my CVE class has helped me to learn the types of skills and education needed for a variety of jobs such as: welder, nurse, office manager, assembler, secretary, lawyer, etc. | SD | D | U | A | SA |
| 31. The instruction provided in my CVE class has helped me learn how to use media and other resources to find job openings and opportunities. | SD | D | U | A | SA |
| 32. The instruction provided in my CVE class has helped me learn how to use media and other resources to make decisions concerning the kind of work I want to do. | SD | D | U | A | SA |
| 33. The instruction provided in my CVE class has helped me to learn what skills and further education are needed to advance in my occupation. | SD | D | U | A | SA |

## Instructor - Coordinator

Rate the following items on the scale provided by circling the most appropriate response for your instructor-coordinator.

| Never | Semester | Quarterly | Monthly | Weekly |
|---|---|---|---|---|
| N | S | Q | M | W |

34. Explained the CVE program policies (what I was expected to do and not do).  N S Q M W

35. Provided related classroom instruction which improved my on-the-job performance.  N S Q M W

36. Provided suggestions to help me improve my job skills based upon his/her on-the-job observations.  N S Q M W

37. Required a report of my on-the-job activities once every:  N S Q M W

38. Informed me of how I was performing on-the-job once every:  N S Q M W

39. Helped me solve problems I had on-the-job.  N S Q M W

40. Reviewed with me the evaluation reports completed by my on-the-job supervisor.  N S Q M W

41. Made supervisory visits (on-the-job calls) to assist and/or evaluate my performance.  N S Q M W

## Quality of Supervision

Rate the following items on the scale provided by circling the most appropriate response for your on-the-job supervisor.

| Never | Seldom | Occasionally | Frequently | Always |
|---|---|---|---|---|
| N | S | O | P | A |

42. Answered my questions.  N S O P A

43. Provided clear work directions.  N S O P A

44. Provided how to do it instructions when I was given a task that was new for me.  N S O P A

45. Told me how I was performing on-the-job.  N S O P A

46. Spoke to me informally on-the-job.  N S O P A

47. Provided suggestions to help me improve my job skills.  N S O P A

48. Held me to the same standards of performance as regular employees in similar jobs.  N S O P A

49. Communicated what the performance standards were for my job.  N S O P A

## Nature of the Job

Rate the following items on the scale provided by circling the most appropriate response for your CVE job.

| Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree |
|---|---|---|---|---|
| SD | D | U | A | SA |

50. The work I performed was of value to my employer.  SD D U A SA

51. The work I performed will help me in obtaining a job reference.  SD D U A SA

52. The work I performed will help me in obtaining future jobs.  SD D U A SA

53. The work I performed helped me to develop many valuable job skills.  SD D U A SA

54. The work I performed was directly related to my career goal.  SD D U A SA

55. The work I performed helped me decide on my career goal.  SD D U A SA

56. The work I performed caused me to change my career goal.  SD D U A SA

57. The work I performed helped me decide to seek additional education relative to my career goal.  SD D U A SA

58. The work I performed was primarily a source of money.  SD D U A SA

59. The work I performed helped me learn how to work with people.  SD D U A SA

60. The work I performed provided me with increased repsonsibilities over time.  SD D U A SA

61. The work I performed required me to use my skills and knowledge.  SD D U A SA

62. The work I performed involved considerable time without things to do.  SD D U A SA

63. The work I performed was more satisfying then going to school.  SD D U A SA

64. The work I performed gave me a sense of pride in my accomplishments.  SD D U A SA

65. The work I performed helped me develop good work habits.  SD D U A SA

66. The work I performed provided me an opportunity to observe a highly skilled employee.  SD D U A SA

67. The work I performed was accomplished with friendly and cooperative co-workers.  SD D U A SA

68. The work I performed provided me with a challenge.  SD D U A SA

## Growth and Development

For each of the following abilities please rate how much change (growth) you experienced as a direct result of your involvement with the CVE program.

Scale: Choose a value between 0 and 7. Use all eight scale values as appropriate. The ratings of 2 and 3 represent intermediate levels between MINOR growth and MODERATE growth. Similarly, the ratings of 5 and 6 represent intermediate levels between MODERATE growth and SUBSTANTIAL growth.

```
0 = No Growth
1 = Minor Growth
2 =
3 =
4 = Moderate Growth
5 =
6 =
7 = Substantial Growth
```

69. The ability to arrive for work and appointments on time.  0 1 2 3 4 5 6 7

70. The ability to follow instructions related to work.  0 1 2 3 4 5 6 7

71. The ability to complete a job in a thorough and reliable manner.  0 1 2 3 4 5 6 7

72. The ability to cooperate with supervisors.  0 1 2 3 4 5 6 7

73. The ability to cooperate with fellow-workers.  0 1 2 3 4 5 6 7

74. The ability to accept criticism when shown that I have done something wrong.  0 1 2 3 4 5 6 7

75. The ability to find something useful to do when all my work is completed.  0 1 2 3 4 5 6 7

76. The ability to be honest with my employer and others.  0 1 2 3 4 5 6 7

77. The ability to communicate effectively with others.  0 1 2 3 4 5 6 7

78. The ability to conduct a job interview with an employer.  0 1 2 3 4 5 6 7

79. The ability to complete a job application.  0 1 2 3 4 5 6 7

80. The ability to complete a job resume.  0 1 2 3 4 5 6 7

81. The ability to find places to look for work.  0 1 2 3 4 5 6 7

82. The ability to talk to potential employers.  0 1 2 3 4 5 6 7

83. The ability to pursue self-employment, i.e. start my own business or work for myself.  0 1 2 3 4 5 6 7

## Program Review

The following questions concern your feelings and opinions about the school program, CVE work experience and some additional items. This information will be helpful in making program improvements. Please think about these questions carefully and answer them as honestly as you can. Use the scale below and circle your response to each question.

| Very Negative | Somewhat Negative | Neutral | Somewhat Positive | Very Positive |
|---|---|---|---|---|
| VN | SN | N | SP | VP |

84. My feelings about the total high school program are:  VN SN N SP VP

85. My feelings about my in-school CVE classes are:  VN SN N SP VP

86. My feelings about my on-the-job CVE work are:  VN SN N SP VP

87. My feelings about pursuing employment in my CVE occupation are:  VN SN N SP VP

88. My desire to look for work after high school is:  VN SN N SP VP

89. My desire to pursue further education after high school is:  VN SN N SP VP

naire so that a comparison between the items can be made. This parallel design will enable coordinators to assess the validity of students' ratings.

## Suggested procedures for usage

Assuming that periodic performance evaluations are being conducted for all students, students should be instructed to complete this form approximately two weeks before the completion of their work experiences. This schedule takes into consideration that most of their work experience placement has been completed. The items on this questionnaire focus on many issues that students will be best able to answer after they are well into their CVE work experiences.

You may choose to allow students to take the form home to complete or to have them complete the forms during school time. Individual appointments can also be scheduled with students to compare your ratings with students' and supervisors' ratings.

## Periodic Assessment of Student Program Performance

## Rationale

CVE processes typically involve periodic assessment of student-learners by on-site supervisors, as well as assessment by instructor-coordinators. Assuming coordinators are following common practice, regularly collecting and reviewing performance ratings as a part of student evaluation and grading, this section outlines how this information can be used to demonstrate program performance. In the event that a local rating sheet is not in use, a suitable rating sheet is enclosed and selected procedures for usage are highlighted.

## Description of the form

The periodic rating sheet (Page 2.15) is a one page form which can be completed in less than 10 minutes. It is designed to be filled out by you and your worksite supervisors. The information on this form can be plotted chronologically as a means of charting individual student achievement and growth over the time of their worksite placement. (The authors recognize that more detailed performance rating sheets and/or training plans are available. Hopefully, you are using a more comprehensive system.)

## Suggested procedures for usage

Periodic rating sheets should be completed for each student at least once per grading period and once per month is preferrable. Supervisors should be informed as to when reports are to be returned and about procedures they should follow when completing this form.

It may be difficult to convince some supervisors to complete and return these forms. To overcome this problem you may have to explain these ratings forms personally. In some cases you may even need to periodically "assist" supervisors in completing the form. It is recommended that you: (a) review these ratings with students, (b) explore any potential problem areas, and (c)

2.14

# Periodic Rating Sheet

Grading Period
   From: _____   To: _____

Number of Times
   Absent from work: _____
   Tardy to work: _____

Name of Trainee: _____   Business Firm: _____

Job Title: _____   Department: _____

## PUPIL'S PROGRESS REPORT

RATING: Below you will find an evaluation scheme designed
to measure the student's level of performance in seven
categories. Please circle the number which best represents
the student's level of performance for each category. The
rating that you give will directly influence the student's
class grade, so please consider your ratings carefully.
Thank you.

1 = Unacceptable
2 = Very Poor
3 = Poor
4 = Acceptable
5 = Good
6 = Very Good
7 = Excellent

1. CONDUCT     Conforms to company policy and procedures
as to behavior, dress, and hours of work.    1   2   3   4   5   6   7

2. EFFORT     Puts forth effort needed to complete
work in a thorough and reliable manner.    1   2   3   4   5   6   7

3. FULFILLS    Work is completed within a reasonable time
ASSIGNMENTS   and with a minimum amount of supervision.    1   2   3   4   5   6   7

4. COOPERA-    Works well with fellow employees and
TION     supervisors.    1   2   3   4   5   6   7

5. QUALITY OF   Work performed is neat, accurate and
WORK     meets company standards.    1   2   3   4   5   6   7

6. LEARNING    Progress or change in job skills since last
appraisal.    1   2   3   4   5   6   7

7. ADJUSTMENT   Shows ability to accept direction and
criticism from supervisors and others.    1   2   3   4   5   6   7

8. OVERALL
   PERFORMANCE     1   2   3   4   5   6   7

**********************************************************************************

It will be helpful if you will comment on the following:

1. Areas where improvement is needed:
   Skills               Personal Traits               Attitudes

2. Suggested plan for improvement:
        On-the-job                   In-school

Supervisor: _____    Date: _____

Instructor-Coordinator: _____    Date: _____

PLEASE USE REVERSE SIDE OF SHEET FOR ADDITIONAL COMMENTS OR QUESTIONS.

2.15

address any student and employer questions or concerns to maximize the benefits of this learning experience.

## Summarizing the data

The most valuable use of information on these forms is the creation of an accurate record of student progress. This is accomplished by plotting individual students ratings each time you have periodic rating forms completed. Page 2.17 is a worksheet which you can use for this purpose. You may wish to have students plot their own ratings. There is no need to make numerical conversions. Simply indicate: each student's name, the date the assessment was completed, and the ratings. At the end of the year, growth on each item and an average growth figure can be calculated.

## Training Plan Evaluation

## Rationale

In the operation of CVE programs the development of individual student training plans is always recommended and assumed. Unfortunately, a major criticism of CVE is that training plans are not used, and consequently CVE is viewed simply as release time for work.

A training plan summary can enable the identification of the level of ability which students have achieved in regard to their training plan activities. At the least this should reflect students' perceptions of the their own ability. The summary is more powerful if it includes supervisor ratings. If limited growth occurs in common skill development activities you can look at your CVE processes to identify potential causes. This information can also assist you in your ongoing efforts to identify quality placement sites.

## Description of the form

The training plan summary worksheet (Page 2.18) is a simple one page form which allows students to rate up to 25 activities or tasks that are specified on their training plans. For each task, students are asked to rate or record their present skill level. This form assumes that students have training plans and that training plan learning activities have been specified. The information on this worksheet should be competency-oriented and focused upon specific skills/knowledge related to students' employment and classroom learning. This information is not expected to duplicate information on the student questionnaire, but will serve as a supplement to it.

## Suggested procedures for usage

CVE students are normally involved in the development of their training plan. It is important that students understand the major activities on which they will be evaluated since this will help students remember the tasks for which they are responsible. The Training Plan Summary Evaluation form should be given to the student to complete.

2.16

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## Student Progress Sheet

Name of Trainee _____

Name of Rater _____

|  | Ratings | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date: | | | | | | | | | | | | |
| 1. Conduct | | | | | | | | | | | | |
| 2. Effort | | | | | | | | | | | | |
| 3. Assignments | | | | | | | | | | | | |
| 4. Cooperation | | | | | | | | | | | | |
| 5. Quality of Work | | | | | | | | | | | | |
| 6. Learning | | | | | | | | | | | | |
| 7. Adjustment | | | | | | | | | | | | |
| 8. Overall Performance | | | | | | | | | | | | |
| 9. Absenses | | | | | | | | | | | | |
| 10. Tardy | | | | | | | | | | | | |

2.17

## Training Plan Summary Worksheet

The purposes of this worksheet is to summarize your accomplishments on your training plan learning activities. You may have called these activities jobs or tasks. To complete this worksheet you will need a copy of your training plan. Please obtain a copy of your training plan and then follow the steps below.

Step 1. Rate your present level of skill for each activity on your training plan by circling the appropriate number on the scale provided where:

1 = No opportunity to perform activity
2 = Observed others perform activity
3 = Can perform activity with supervision
4 = Can perform activity without supervision
5. Can perform activity and instruct others.

### Example Item

Training Plan Activity
1. Complete time card
2. Take telephone messages

| | Scale | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | ⑤ |
| 1 | 2 | 3 | ④ | 5 |

Activity:     Description                                                            Scale

| # | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1. | _____ | 1 | 2 | 3 | 4 | 5 |
| 2. | _____ | 1 | 2 | 3 | 4 | 5 |
| 3. | _____ | 1 | 2 | 3 | 4 | 5 |
| 4. | _____ | 1 | 2 | 3 | 4 | 5 |
| 5. | _____ | 1 | 2 | 3 | 4 | 5 |
| 6. | _____ | 1 | 2 | 3 | 4 | 5 |
| 7. | _____ | 1 | 2 | 3 | 4 | 5 |
| 8. | _____ | 1 | 2 | 3 | 4 | 5 |
| 9. | _____ | 1 | 2 | 3 | 4 | 5 |
| 10. | _____ | 1 | 2 | 3 | 4 | 5 |
| 11. | _____ | 1 | 2 | 3 | 4 | 5 |
| 12. | _____ | 1 | 2 | 3 | 4 | 5 |
| 13. | _____ | 1 | 2 | 3 | 4 | 5 |
| 14. | _____ | 1 | 2 | 3 | 4 | 5 |
| 15. | _____ | 1 | 2 | 3 | 4 | 5 |
| 16. | _____ | 1 | 2 | 3 | 4 | 5 |
| 17. | _____ | 1 | 2 | 3 | 4 | 5 |
| 18. | _____ | 1 | 2 | 3 | 4 | 5 |
| 19. | _____ | 1 | 2 | 3 | 4 | 5 |
| 20. | _____ | 1 | 2 | 3 | 4 | 5 |
| 21. | _____ | 1 | 2 | 3 | 4 | 5 |
| 22. | _____ | 1 | 2 | 3 | 4 | 5 |
| 23. | _____ | 1 | 2 | 3 | 4 | 5 |
| 24. | _____ | 1 | 2 | 3 | 4 | 5 |
| 25. | _____ | 1 | 2 | 3 | 4 | 5 |

Step 2. Summarize your self-ratings by counting the "1"s you circled and recording this number in the space provided at the bottom of this page. Count the "2"s and record, "3"s, "4"s and "5"s.

| [_____] | [_____] | [_____] | [_____] | [_____] |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| No Opportunity | Observed | With Supervision | Without Supervision | Can Instruct |

## Summarizing the data

The training plan summary worksheet is simple to complete and students should perform the step themselves. To summarize the accomplishments of all students, assign a value to each student's worksheet and then compute the average of all of the performance ratings for your students.

In order to create a score for each worksheet simply multiply the number of responses in each box by the value (1-5) assigned to each box and divide by the total number of responses. This will give you an average skill rating for the student. Summing all of the student scores and dividing by the total number of students will give you an overall average score for the training plan learning activities.

It may also be useful to prepare a frequency distribution of your students average skill levels. This will allow you to comment on level of skill or measure of growth.

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# STEPS IN THE CVE INFORMATION SYSTEM

STEP ONE--SELECTION OF KEY PROGRAM OUTCOMES

A. OUTCOME FORMS DISTRIBUTED
B. OUTCOME FORMS SUMMARIZED
C. KEY OUTCOMES PRIORITIZED

STEP TWO--DATA COLLECTION

A. YEARLY FOLLOW-UP OF PRIOR CVE STUDENT GRADUATES
B. SUPERVISOR REVIEW OF CVE STUDENT PROGRAM PERFORMANCE
C. COORDINATOR REVIEW OF CVE STUDENT PROGRAM PERFORMANCE
D. STUDENT PROGRAM ASSESSMENT
E. PERIODIC ASSESSMENT OF STUDENT PROGRAM PERFORMANCE
F. TRAINING PROGRAM EVALUATION

## STEP THREE-- ANALYSIS OF PROGRAM OUTCOMES

A. SUMMARY AND TRANSCRIPTION OF QUESTIONNAIRE SCORES
B. SELECTION OF KEY OUTCOME MATRICES
C. COMPARISON OF ACTUAL VS. TARGET VALUES

STEP FOUR--INFORMATION DISSEMINATION

A. THE ADVISORY COMMITTEE
B. SCHOOL COMMITTEE
C. EMPLOYERS
D. PARENTS
E. THE COMMUNITY

3.0

## STEP THREE

### ANALYSIS OF PROGRAM OUTCOMES

In the first section of this handbook the key outcomes valued by coordinators, advisory committee members, school board members, and others were identified. Now these outcomes should be related to the appropriate summary data from the information system's various questionnaires. By matching each of the selected outcomes to the most applicable "questions," you will be able to assess the extent to which you have accomplished your objectives. For ease of analysis you may wish to select only the 10 most important or highest ranked outcomes.

Since this may be your first attempt to establish a mathematical value for program outcomes, this information will form the baseline for subsequent program assessments. By tracking program outcomes, you will be able to determine whether or not your program performance is stable or shifting from one year or program assessment cycle to the next.

### Summary and Transcription of Questionnaire Responses

The first step in analyzing program outcomes is to transcribe the mean ratings or other applicable data (e.g., percentages from the student follow-up) from each of the appropriate questionnaire items to the outcomes evaluation worksheet (Page 3.2). A total of 66 item values will need to be transcribed. Most of the means for these items will already have been calculated; however, in some cases the mean scores may need to be computed.

While the key outcome questionnaire had 33 outcomes listed, there are 26 outcome matrix sheets. If any of the remaining seven outcomes are selected for analysis, you will need to obtain the appropriate information from your school's records. The seven outcomes which are treated independent of the CVE information system are:

1. increased CVE student attendance rates.
2. increased CVE student performance in all classes.
3. reduced CVE student dropout rates.
4. cost-effective vocational education programs.
5. reduced juvenile delinquency and crime.
6. reduced sex role inequities.
7. increased employment opportunities for minority, disadvantaged, and handicapped.

### Select Key Outcome Reports

The next step is to select the key outcome reports (Appendix I) that correspond to the items selected for analysis. Each report has a place for recording the values from the outcomes evaluation worksheet and includes a description of the outcome to be evaluated, a description of the relevant data items, and the scale values that were used by individuals completing the questionnaire.

3.1

# OUTCOMES EVALUATION WORKSHEET

| STUDENT QUESTIONNAIRE ITEMS | MEAN | COORDINATOR QUESTIONNAIRE | MEAN | SUPERVISOR QUESTIONNAIRE | MEAN |
|---|---|---|---|---|---|
| 30 | | 6 | | 16 | |
| 31 | | 10 | | 17 | |
| 32 | | 13 | | 19 | |
| 33 | | 14 | | 20 | |
| 53 | | 15 | | 23 | |
| 55 | | 16 | | 27 | |
| 56 | | 17 | | 28 | |
| 57 | | 19 | | 30 | |
| 59 | | 20 | | 32 | |
| 65 | | 21 | | 33 | |
| 72 | | 22 | | 35 | |
| 73 | | 23 | | 36 | |
| 75 | | 24 | | 38 | |
| 76 | | 25 | | 39 | |
| 77 | | PERIODIC RATING SHEET | MEAN | 40 | |
| 78 | | 1 | | TRAINING PLAN SUMMARY | |
| 79 | | 4 | | Average number of competencies per student | |
| 80 | | 5 | | Average skill level for of competencies | |
| 81 | | 7 | | | |
| 82 | | | | | |
| 83 | | | | | |
| 84 | | | | | |
| 88 | | | | | |
| 89 | | | | | |

| STUDENT FOLLOW-UP ITEMS | MEAN/PERCENTAGE |
|---|---|
| 3.6 (Number unemployed) | |
| (Total number of replies) | |
| 3.9 (Number employed) | |
| (Total number of replies) | |
| 4.4 (Number in related work) | |
| (Total number employed students | |
| 5.1 | |
| 5.2 | |
| 5.3 | |
| 5.5 | |
| 5.6 | |

3.2

## Compare Actual Against Target Values

The final step is to compare the values listed for each outcome against target values. Although no "values" will exist the first time through this process, it is likely that you will have some expectations about what level these values should be. This "intuitive feeling" of what you think your program values should be, can be measured against the reality of what they are. This will help you to realistically determine what standards you want to set in the future--a clear target.

If values are substantially different from "desired values," you may need to look more closely at program processes and input questions in your information system. Of course, it is always possible that goals are too high. When results are better than goals, it may either be time for you to congratulate yourself or to raise your goals to more appropriate levels.

The final decision regarding outcome target levels is one that you should discuss with their your administration and advisory committee. The appropriate groups should each receive a copy of the selected outcomes reports and sufficient time to analyze this information prior to meeting with you as a group. Let them know in advance that the purpose of this meeting is to review the information and to set realistic outcomes target levels for the CVE program.

3.3

# STEPS IN THE CVE INFORMATION SYSTEM

STEP ONE--SELECTION OF KEY PROGRAM OUTCOMES

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B. OUTCOME FORMS SUMMARIZED
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B. SUPERVISOR REVIEW OF CVE STUDENT PROGRAM PERFORMANCE
C. COORDINATOR REVIEW OF CVE STUDENT PROGRAM PERFORMANCE
D. STUDENT PROGRAM ASSESSMENT
E. PERIODIC ASSESSMENT OF STUDENT PROGRAM PERFORMANCE
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STEP THREE-- ANALYSIS OF PROGRAM OUTCOMES

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C. COMPARISON OF ACTUAL VS. TARGET VALUES

STEP FOUR--INFORMATION DISSEMINATION

A. THE ADVISORY COMMITTEE
B. SCHOOL COMMITTEE
C. EMPLOYERS
D. PARENTS
E. THE COMMUNITY

4.0

STEP FOUR

INFORMATION DISSEMINATION

Public relations for school programs is an issue that is often overlooked or mishandled in educational systems. Dapper (1964) notes that "everyday, routine and sometimes dreary public relations are carried out incompletely or incorrectly in most school systems" (p. V). There are two reasons for this: First, many educators do not see public relations as part of their jobs, and second, many educators have little or no knowledge of how to conduct public relations activities.

In recent years, public school systems have come under increasing attack. The litany of "failures" has become only too well known to administrators, teachers, and professional educators. While it would be foolish to lay all of the blame for these failures on a lack of public relations efforts, it seems to be true that our successes have not received equal media coverage. Whether this is because our successes are not as substantial or as dramatic will, perhaps, never be known. Not until educators accept the responsibility for informing the public of their successes will an accurate picture of educational programs reach the public eye.

This section is not a "how to" manual on public relations. It will address some of the constituencies whom coordinators should inform about their CVE programs. Six guidelines adapted from Public Relations for Educators by Dapper (1964) provide a central focus to coordinators' efforts. These guidelines are:

1. Good public relations efforts begin with the premise that the public has a right to know all the facts--not just the ones you think they should know.

2. A good product precedes trying to sell it. If a program is not doing what it should be doing, than don't bother to advertise it.

3. A program does not have to be perfect, however, don't try to hide its inadequacies.

4. A public relations program should have long term and "lofty" goals.

5. The long-term goals for a school system or program should determine the thrust of public relations efforts. Public relations should serve education and not vice versa.

6. The aim of public relations is understanding. People should think about programs and to be encouraged to suggest ways to improve them.

The Advisory Committee

An advisory committee is one of the most important features of a CVE program. Johnson (1981) found that advisory committees were one of the five major determinants of positive program outcomes. Programs using committees obtained information which lead to higher levels of student satisfaction and

4.1

higher placement rates. However, research has also shown that it is the level of involvement of the committee which determines their effectiveness and not merely the existence of these committees.

In order for advisory groups to be effective, they should receive information from coordinators concerning program strengths and weaknesses. It is important that you present this information in a manner that is easy to understand. Many of the summaries which you have prepared from your questionnaires can be used as a basis for providing information to your board concerning program effectiveness. At the very minimum, the ratings from Outcomes Sheets should be provided to advisory group members. Experience has shown that this information will be better received and more easily understood if it can be presented in person. This will allow time for individuals to raise questions and also give you the opportunity to clarify major issues and problems.

## School Officials

School principals and superintendents are the two most important persons with responsibility for the day-to-day operations of school systems. Several studies (Benson, 1982; Wubbena, 1980; Lloyd, 1976) have emphasized the need for school administrators to be responsive to and responsible for the overall needs of CVE programs. Certainly one of the keys to insuring their involvement is a systematic effort to provide them with regular feedback regarding program operations. The feedback which you provide will serve several functions. Most importantly, it will inform administrators about the specific goals which you have established for your CVE program. This will allow them the opportunity to challenge these goals. The surfacing of differences can be a positive step towards insuring that school administrators are behind your efforts.

Another positive feature of providing feedback is that it serves as a vehicle for allowing officials to "buy into" CVE program goals. Numerous studies have shown that active involvement is a key factor in the development of commitment. By keeping school officials advised of problems and concerns, by informing them as to the status of program efforts, and by acknowleging program strengths and weaknesses, you will be creating commitment to your CVE programs. However, one must distinguish between passive involvement and active involvement. Active involvement leads to commitment and requires that you also be open to guidance and suggestions. If you only advise and inform committee members, then you will not have created the process necessary for commitment to occur.

## Employers

It is important that you inform participating employers as to the outcomes of the coordinators' program efforts. Although you have been actively working with employers, they may have only a partial perspective of what a CVE program involves. Since employers probably have been working with only one or two students, they may have a view of the "trees," but not the "whole forest."

Using the information collected from the questionnaires, you can provide employers with a picture of your overall program objectives. In fact, it is a

4.2

good idea to start them off at the very beginning of their participation with a list of the key outcomes identified. This will give them a broader perspective on what you are trying to accomplish and of the relative importance of the various goals. In addition, you can obtain (if you have not already done so) employer opinions as to the relative merits of the individual outcomes identified. Again, this can be a process for creating commitment and support for your program.

## Parents

The influence of parental attitudes on children is evidenced both in folklore and scientific research. Indeed, parents' influence is so pervasive that educators are often prone to proclaim that they can do nothing that will offset the sometimes negative attitudes which children bring from their home environments. Educators frequently ignore the fact that parents must and should have a role in educational systems. Unfortunately, the National Commission on Secondary Vocational Education (1985) in The Unfinished Agenda makes no mention of this issue.

Conrad and Hedin (1981) identify 13 items which most contribute to students' growth. Of these top 13 items, parental and peer influence ranked seventh in importance. Wubbena (1981) in his study of quality CVE programs, emphasized that school staff should include contact with parents as a regular part of school programs. The purpose of this contact is twofold: (a) parents can better understand the goals and purposes which coordinators are trying to accomplish in their CVE programs, and (b) coordinators can gain a better understanding of the needs and circumstances which might affect the involvement of their CVE students.

Parents can become involved in CVE programs at the start of programs by your including parent representation on the advisory council. Parental input for the selection of program objectives can also be solicited by sending outcomes rating sheets home with CVE students. After summarizing parental goals, you can compare these goals with those of your advisory committee members. Summaries can then be send to parents, along with an invitation to see you if they have any major disagreements or concerns.

Time allowing, it could be very beneficial for you to meet with the parents of your CVE students. This would provide an opportunity to obtain a better understanding of any concerns that parents may have. This would also give you a chance to develop a better understanding of your CVE students.

Each of the suggestions above are offered as strategies to address the program information needs of parents. These activities can be supplemented, but should not be supplanted by sending written summaries of CVE students' progress reports home to parents. You can use data collected from periodic rating sheets to provide parents a summary of their child's performance on a regular basis. Summaries from the initial goal assessment (step one) could also be made available to parents at the start of the program so that they would have a better idea of your program goals and objectives.

At the end of their students' involvement with the CVE program, you might select some of the data which you feel is most relevant and make this infor-

4.3

mation available to parents. You should also consider sending a program
evaluation to parents and allowing them to rate their involvement and satisfac-
tion with the CVE program, as well as their perception of their child's growth
and development during the CVE program.


## The Community

   This final category includes a diverse array of constituencies who have not
already been addressed. In some communities, other groups may have a strong
influence on CVE programs. When this is true, an effort should be made to
advise, inform, and solicit input from the respective group(s) concerning
program performance. This category includes: school boards, local labor
unions, parent-teacher organizations, citizen groups concerned with school
quality, and tax-payers. When key groups are uninformed about school issues and
needs, they may feel little commitment to either improve or support nontradi-
tional school programs.


## Conclusion

   The outcome report forms, questionnaires and other materials provided can
be used as tools for informing your constituencies. For instance, you could use
the outcome report forms to generate transparencies which could then assist you
in a meeting or other information session with parents, advisory board or other
community groups. Or you might include these forms in a written report
describing your program and its accomplishments and make these reports available
to key individuals or groups in your community.

   The strategies that you select to communicate with the groups noted above
are subject only to your imagination. While we are not advising that you become
a public relations expert, there is undoubtedly a time and place for you to use
the media to effectively inform the public as to the operation of your CVE
programs. Television, radio, and press coverage are also avenues that can be
explored. Keep in mind that the "media" are not going to extend coverage to
educational programs and items which are boring and unimaginative. Nevertheless,
with a little knowledge of public relations and an interest in learning how to
go about doing it, you can wisely and appropriately use the media to keep the
public aware of and informed about your educational endeavors.


4.4

# APPENDIX I

# OUTCOME #1

# SKILLS AND COMPETENCIES
# FOR A SPECIFIC JOB

## TRAINING PLAN SUMMARY
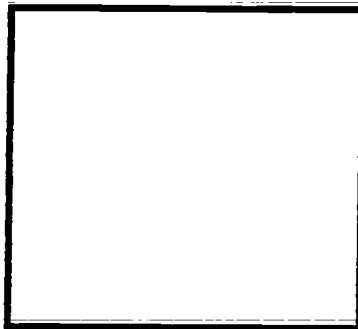
## AVERAGE NUMBER OF COMPETENCIES PER STUDENT

**TRAINING PLAN SUMMARY:**

**AVERAGE SKILL LEVEL FOR ALL COMPETENCIES**
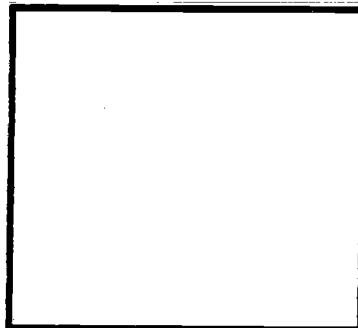
1 = NO OPPORTUNITY TO
    PERFORM ACTIVITY
2 = OBSERVED OTHERS
    PERFORM ACTIVITY
3 = CAN PERFORM ACTIVITY
    WITH SUPERVISION
4 = CAN PERFORM ACTIVITY
    WITHOUT SUPERVISION
5 = CAN PERFORM ACTIVITY
    AND INSTRUCT OTHERS

# OUTCOME #2

## SKILLS AND COMPETENCIES
## FOR A
## FAMILY OF JOBS

STUDENT
QUESTION
53

1= STRONGLY DISAGREE
2= DISAGREE
3= UNCERTAIN
4= AGREE
5= STRONGLY AGREE

THE WORK I PERFORMED HELPED ME TO DEVELOP
MANY VALUABLE JOB SKILLS

COORDINATOR
QUESTION
6

1= STRONGLY DISAGREE
2= DISAGREE
3= UNCERTAIN
4= AGREE
5= STRONGLY AGREE

THE WORK PERFORMED ENABLED (THIS) STUDENT
TO DEVELOP MANY VALUABLE JOB SKILLS

SUPERVISOR
QUESTION
23

1= STRONGLY DISAGREE
2= DISAGREE
3= UNCERTAIN
4= AGREE
5= STRONGLY AGREE

THE WORK PERFORMED ENABLED THE STUDENT
TO DEVELOP MANY JOB SKILLS

# OUTCOME #3

## ABILITY TO CONFORM
## TO
## TYPICAL EMPLOYMENT RULES

STUDENT
QUESTION
65

1=STRONGLY DISAGREE
2=DISAGREE
3=UNCERTAIN
4=AGREE
5=STRONGLY AGREE

THE WORK I PERFORMED HELPED ME
DEVELOP GOOD WORK HABITS

SUPERVISOR
QUESTION
32

0=NO GROWTH
1=MINOR GROWTH
2=
3=
4=MODERATE GROWTH
5=
6=
7=SUBSTANTIAL GROWTH

ABILITY TO ARRIVE FOR WORK AND APPOINTMENTS
ON TIME

PERIODIC RATING
SHEET
ITEM 1
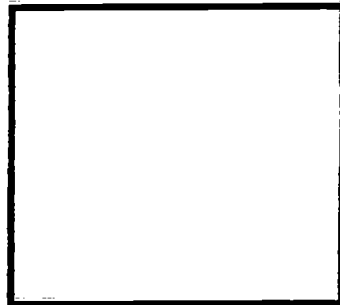
0=NO GROWTH
1=MINOR GROWTH
2=
3=
4=MODERATE GROWTH
5=
6=
7=SUBSTANTIAL GROWTH

CONFORMS TO COMPANY POLICY AND PROCEDURES
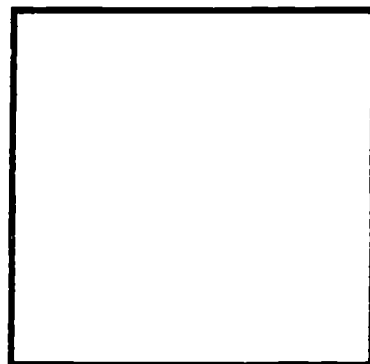
# OUTCOME #4

## AWARENESS OF TASKS PERFORMED
## IN
## A VARIETY OF JOBS
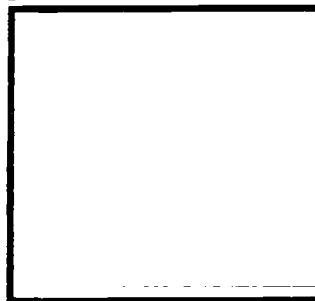
STUDENT
QUESTION
30

1=STRONGLY DISAGREE
2=DISAGREE
3=UNCERTAIN
4=AGREE
5=STRONGLY AGREE

INSTRUCTION PROVIDED IN MY CYE CLASS HAS
HELPED ME TO LEARN THE TYPES OF SKILLS AND
EDUCATION NEEDED FOR A VARIETY OF JOBS

COORDINATOR
QUESTION
25
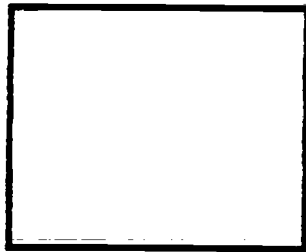
0=NO GROWTH
1=MINOR GROWTH
2=
3=
4=MODERATE GROWTH
5=
6=
7=SUBSTANTIAL GROWTH

THE ABILITY TO IDENTIFY THE SKILLS AND
EDUCATION NEEDED FOR TYPICAL JOBS

# OUTCOME #5

## KNOWLEDGE OF OCCUPATIONAL
## OUTLOOK INFORMATION

STUDENT
QUESTION
31

1=STRONGLY DISAGREE
2= DISAGREE
3=UNCERTAIN
4=AGREE
5=STRONGLY AGREE

THE INSTRUCTION PROVIDED IN MY CVE CLASS
HELPED ME TO LEARN HOW TO USE MEDIA AND
OTHER RESOURCES TO FIND JOB OPENINGS AND
OPPORTUNITIES

COORDINATOR
QUESTION
22

0=NO GROWTH
1=MINOR GROWTH
2=
3=
4=MODERATE GROWTH
5=
6=
7=SUBSTANTIAL GROWTH

THE ABILITY TO USE MEDIA AND OTHER
RESOURCES TO FIND JOB OPENINGS
AND OPPORTUNITIES

# OUTCOME #6a

# JOB SEEKING SKILLS

STUDENT QUESTIONNAIRE
SCALE
0=NO GROWTH
1=MINOR GROWTH
2=
3=
4=MODERATE GROWTH
5=
6=
7=SUBSTANTIAL GROWTH

78. THE ABILITY TO CONDUCT A JOB
    INTERVIEW WITH AN EMPLOYER

79. THE ABILITY TO COMPLETE A JOB
    APPLICATION

80. THE ABILITY TO COMPLETE A JOB
    RESUME

81. THE ABILITY TO FIND PLACES TO
    LOOK FOR WORK

# OUTCOME #6 b

# JOB SEEKING SKILLS

## COORDINATOR
## SCALE

0=NO GROWTH
1=MINOR GROWTH
2=
3=
4=MODERATE GROWTH
5=
6=
7=SUBSTANTIAL GROWTH

14. THE ABILITY TO CONDUCT A JOB INTERVIEW

15. THE ABILITY TO COMPLETE A JOB APPLICATION
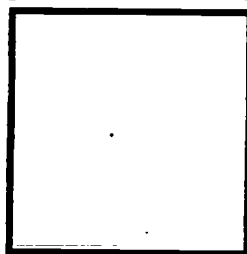
16. THE ABILITY TO COMPLETE A JOB RESUME

17. THE ABILITY TO CONDUCT AN APPROPRIATE JOB SEARCH

# OUTCOME #7

## SATISFACTION
## WITH
## POST-HIGH SCHOOL EMPLOYMENT

STUDENT
FOLLOW-UP
ITEM 5.3
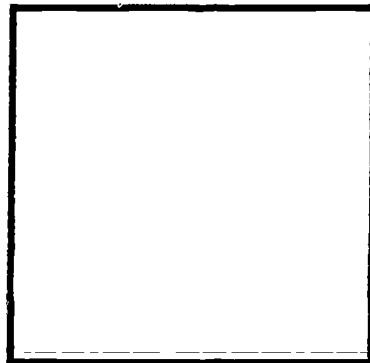
1=VERY UNSATISFIED
2=SOMEWHAT UNSATISFIED
3=UNDECIDED
4=SOMEWHAT SATISFIED
5=VERY SATISFIED

# OUTCOME #8

## KNOWLEDGE
## OF
## HOW TO ADVANCE CAREER-WISE

STUDENT
QUESTION
33

1=STRONGLY DISAGREE
2=DISAGREE
3=UNCERTAIN
4=AGREE
5=STRONGLY AGREE

THE INSTRUCTION PROVIDED IN MY CVE CLASS
HAS HELPED ME LEARN WHAT SKILLS AND
FURTHER EDUCATION ARE NEEDED TO ADVANCE
IN MY OCCUPATION

COORDINATOR
QUESTION
24

0=NO GROWTH
1=MINOR GROWTH
2=
3=
4=MODERATE GROWTH
5=
6=
7=SUBSTANTIAL GROWTH

THE ABILITY TO IDENTIFY FURTHER SKILLS
AND EDUCATION NEEDED TO ADVANCE IN
HIS/HER OCCUPATION

# OUTCOME #9

## ABILITY TO MAKE
## EFFECTIVE CAREER DICISIONS

STUDENT
QUESTION
32

1=STRONGLY DISAGREE
2=DISAGREE
3=UNCERTAIN
4=AGREE
5=STRONGLY AGREE

THE INSTRUCTION PROVIDED IN CVE CLASS
HAS HELPED ME LEARN HOW TO USE MEDIA
AND OTHER RESOURCES TO MAKE DECISIONS
CONCERNING THE KIND OF WORK I WANT TO DO

COORDINATOR
QUESTION
23

0=NO GROWTH
1=MINOR GROWTH
2=
3=
4=MODERATE GROWTH
5=
6=
7=SUBSTANTIAL GROWTH

THE ABILITY TO USE MEDIA AND OTHER
RESOURCES TO MAKE EFFECTIVE CAREER
DECISIONS

# OUTCOME #10a

## POSITIVE ATTITUDE TOWARDS
## THE SCHOOL PROGRAM

STUDENT
QUESTION
84

1=VERY NEGATIVE
2=SOMEWHAT NEGATIVE
3=NEUTRAL
4=SOMEWHAT POSITIVE
5=VERY POSITIVE

MY FEEL! OUT THE TOTAL HIGH SCHOOL
PROGRAM

STUDENT
FOLLOW-UP
ITEM 5.5

1=VERY UNSATISFIED
2=SOMEWHAT UNSATISFIED
3=UNDECIDED
4=SOMEWHAT SATISFIED
5=VERY SATISFIED

HIGH SCHOOL EDUCATION

STUDENT
FOLLOW-UP
ITEM 5.6

1=VERY UNSATISFIED
2=SOMEWHAT UNSATISFIED
3=UNDECIDED
4=SOMEWHAT SATISFIED
5=VERY SATISFIED

HIGH SCHOOL CVE PROGRAM

# OUTCOME #10b

## POSITIVE ATTITUDE TOWARDS
## THE SCHOOL PROGRAM

SUPERVISOR
QUESTION
30

1=STRONGLY DISAGREE
2=DISAGREE
3=UNDECIDED
4=AGREE
5=STRONGLY AGREE

INVOLVEMENT IN THE CVE PROGRAM HAS BEEN
VERY SATISFACTORY TO OUR ORGANIZATION

65

# OUTCOME #11

# BASIC ACADEMIC SKILLS

SCALE
0 = NO GROWTH
1 = MINOR GROWTH
2 =
3 =
4 = MODERATE GROWTH
5=
6 =
7 = SUBSTANTIAL GROWTH

COORDINATOR
QUESTION
19

THE ABILITY TO PERFORM
BASIC MATHEMATICAL
COMPUTATIONS

COORDINATOR
QUESTION
20

THE ABILITY TO
COMMUNICATE EFFECTIVELY
IN WRITING

COORDINATOR
QUESTION
21

THE ABILITY TO COMPREHEND
AND FOLLOW WRITTEN
MATERIAL AND WRITTEN
INSTRUCTION

SUPERVISOR
QUESTION
33

THE ABILITY TO FOLLOW
INSTRUCTIONS RELATED
TO WORK

# OUTCOME #12

# SATISFACTORY HOURLY WAGE

**STUDENT FOLLOW-UP ITEM 5.1**

1 = VERY UNSATISFIED
2 = SOMEWHAT UNSATISFIED
3 = UNDECIDED
4 = SOMEWHAT SATISFIED
5 = VERY SATISFIED

CURRENT HOUR WAGE

**STUDENT FOLLOW-UP ITEM 5.2**
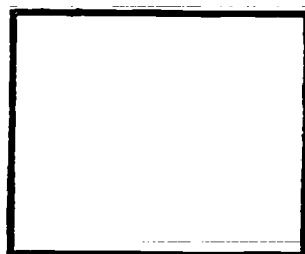
1 = VERY UNSATISFIED
2 = SOMEWHAT UNSATISFIED
3 = UNDECIDED
4 = SOMEWHAT SATISFIED
5 = VERY SATISFIED

YEARLY INCOME

# OUTCOME #13

## POSITIVE ATTITUDE TOWARDS
## PURSUING EMPLOYMENT

STUDENT
QUESTION
88

1 = VERY NEGATIVE
2 = SOMEWHAT NEGATIVE
3 = NEUTRAL
4 = SOMEWHAT POSITIVE
5 = VERY POSITIVE

MY DESIRE TO LOOK FOR WORK AFTER
HIGH SCHOOL IS

# OUTCOME 14a
## ABILITY TO WORK EFFECTIVELY
## WITH OTHERS

SCALE
0 = NO GROWTH
1 = MINOR GROWTH
2 =
3 =
4 = MODERATE GROWTH
5 =
6 =
7 = SUBSTANTIAL GROWTH

STUDENT
QUESTION
72

THE ABILITY TO COOPERATE
WITH SUPERVISORS

STUDENT
QUESTION
73

THE ABILITY TO COOPERATE
WITH FELLOW WORKERS

SUPERVISOR
QUESTION
35

THE ABILITY TO COOPERATE
WITH SUPERVISORS

SUPERVISOR
QUESTION
36

THE ABILITY TO COOPERATE
WITH FELLOW WORKERS

# OUTCOME #14b

## ABILITY TO WORK EFFECTIVELY
## WITH OTHERS

STUDENT
QUESTION
59

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = UNCERTAIN
4 = AGREE
5 = STRONGLY AGREE

THE WORK I PERFORMED HELPED ME LEARN
HOW TO WORK WITH PEOPLE

PERIODIC
RATING SHEET
ITEM 4

1 = UNACCEPTABLE
2 = VERY POOR
3 = POOR
4 = ACCEPTABLE
5 = GOOD
6 = VERY GOOD
7 = EXCELLENT

WORKS WELL WITH FELLOW
EMPLOYEES AND SUPERVISORS
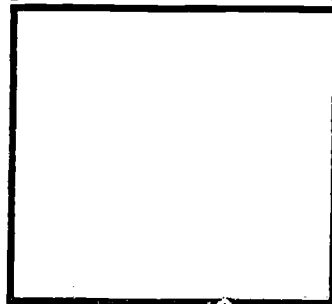
PERIODIC
RATING SHEET
ITEM 7

1 = UNACCEPTABLE
2 = VERY POOR
3 = POOR
4 = ACCEPTABLE
5 = GOOD
6 = VERY GOOD
7 = EXCELLENT

SHOWS ABILITY TO ACCEPT DIRECTION AND
CRITICISM FROM SUPERVISORS AND OTHERS

# OUTCOME #15
## ABILITY TO MAKE ETHICAL DECISIONS
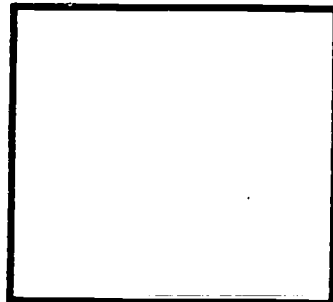
STUDENT
QUESTION
76

0 = NO GROWTH
1 = MINOR GROWTH
2 =
3 =
4 = MODERATE
5 =
6 =
7 = SUBSTANTIAL GROWTH

THE ABILITY TO BE HONEST WITH
MY EMPLOYER AND OTHERS

SUPERVISOR
QUESTION
39

0 = NO GROWTH
1 = MINOR GROWTH
2 =
3 =
4 = MODERATE GROWTH
5 =
6 =
7 = SUBSTANTIAL GROWTH

THE ABILITY TO BE HONEST WITH
MY SUPERVISOR AND OTHERS

# OUTCOME #16
## LISTENING AND SPEAKING SKILL

SCALE
0 = NO GROWTH
1 = MINOR GROWTH
2 =
3 =
4 = MODERATE GROWTH
5 =
6 =
7 = SUBSTANTIAL GROWTH

STUDENT
QUESTION
77

THE ABILITY TO COMMUNICATE
EFFECTIVELY WITH OTHERS

STUDENT
QUESTION
82

THE ABILITY TO TALK TO
POTENTIAL EMPLOYERS

COORDINATOR
QUESTION
13

THE ABILITY TO COMMUNICATE
EFFECTIVELY WITH OTHERS
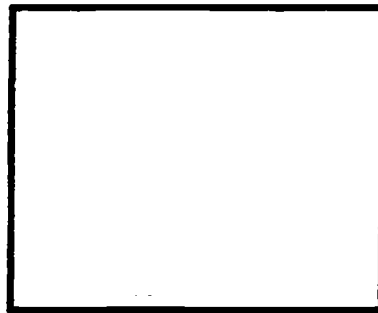
SUPERVISOR
QUESTION
40

THE ABILITY TO COMMUNICATE
EFFECTIVELY

# OUTCOME #17

## ABILITY TO BECOME SELF-EMPLOYED

STUDENT
QUESTION
83

0 = NO GROWTH
1 = MINOR GROWTH
2 =
3 =
4 = MODERATE GROWTH
5 =
6 =
7 = SUBSTANTIAL GROWTH

THE ABILITY TO PURSUE SELF-EMPLOYMENT,
(I.E.) TO START MY OWN BUSINESS OR
TO WORK FOR MYSELF

# OUTCOME #18

# TECHNICALLY COMPETENT WORKERS

**SUPERVISOR QUESTION 16**

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = UNCERTAIN
4 = AGREE
5 = STRONGLY AGREE

THE STUDENT-LEARNER'S CLASSROOM PREPARATION WAS SUFFICIENT FOR THE TASKS REQUIRED ON THE JOB

**SUPERVISOR QUESTION 17**

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = UNCERTAIN
4 = AGREE
5 = STRONGLY AGREE

THE STUDENT-LEARNER RECEIVED INSTRUCTION IN THE CVE RELATED CLASS WHICH OVERCAME ON-THE-JOB PERFORMANCE PROBLEMS

**PERIODIC RATING SHEET ITEM 5**

1 = UNACCEPTABLE
2 = VERY POOR
3 = POOR
4 = ACCEPTABLE
5 = GOOD
6 = VERY GOOD
7 = EXCELLENT

WORK PERFORMED IS NEAT, ACCURATE AND MEETS COMPANY STANDARDS

# OUTCOME #19
## MOTIVATED EMPLOYEES

STUDENT
QUESTION
75

0 = NO GROWTH
1 = MINOR GROWTH
2 = _____
3 = _____
4 = MODERATE GROWTH
5 = _____
6 = _____
7 = SUBSTANTIAL GROWTH

THE ABILITY TO FIND SOMETHING USEFUL TO DO
WHEN ALL MY WORK IS COMPLETED

SUPERVISOR
QUESTION
19

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = UNCERTAIN
4 = AGREE
5 = STRONGLY AGREE

THE STUDENT LEARNER REQUIRED THE SAME AMOUNT
OF MY TIME FOR SUPERVISION AS OTHER EMPLOYEES

SUPERVISOR
QUESTION
38

0 = NO GROWTH
1 = MINOR GROWTH
2 = _____
3 = _____
4 = MODERATE GROWTH
5 = _____
6 = _____
7 = SUBSTANTIAL GROWTH

THE ABILITY TO FIND SOMETHING USEFUL TO DO
WHEN WORK IS COMPLETED OR INTERRUPTED

# OUTCOME #20

## REDUCED COST OF TRAINING
## NEW EMPLOYEES

SUPERVISOR
QUESTION
27

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = UNCERTAIN
4 = AGREE
5 = STRONGLY AGREE

THE CVE PROGRAM HAS HELPED ME TO
REDUCE THE COST OF TRAINING NEW
EMPLOYEES

SUPERVISOR
QUESTION
28

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = UNCERTAIN
4 = AGREE
5 = STRONGLY AGREE

THE CVE PROGRAM HAS HELPED IN THE
RECRUITMENT AND RETENTION OF
NEW WORKERS

# OUTCOME #21

## SATISFACTORY CVE-STUDENT EMPLOYEES

COORDINATOR
QUESTION
10

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = UNCERTAIN
4 = AGREE
5 = STRONGLY AGREE

**THE WORK PERFORMED BY THIS STUDENT
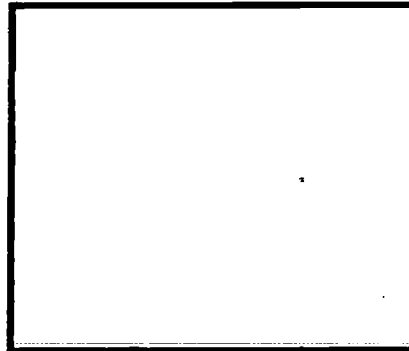WAS OF VALUE TO THE EMPLOYER**

SUPERVISOR
QUESTION
20

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = UNCERTAIN
4 = AGREE
5 = STRONGLY AGREE

**THE WORK PERFORMED BY THE STUDENT
WAS OF VALUE TO OUR ORGANIZATION**

# OUTCOME #25

## EMPLOYED CVE-PROGRAM COMPLETERS

STUDENT
FOLLOW-UP
ITEM 3.9

PAID EMPLOYMENT

PERCENTAGE OF GRADUATES
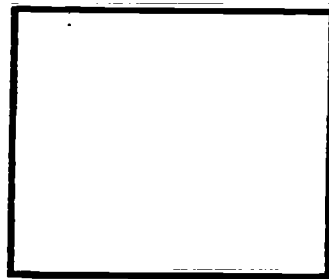REPORTING THAT THEY ARE
EMPLOYED EITHER FULL OR
PART-TIME

$$= \frac{\text{NUMBER EMPLOYED}}{\text{TOTAL NUMBER OF REPLIES}}$$

# OUTCOME #26

## CVE COMPLETERS PLACED IN
## RELATED EMPLOYMENT

STUDENT
FOLLOW-UP
ITEM 4.4

=

PERCENTAGE OF STUDENTS
REPORTING THAT THEY ARE
EMPLOYED IN A RELATED FIELD

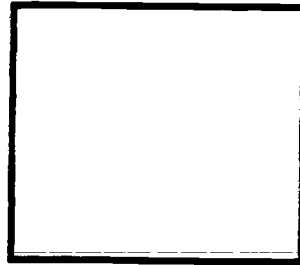$$= \frac{\text{NUMBER OF STUDENTS IN RELATED WORK}}{\text{TOTAL NUMER OF EMPLOYED STUDENTS}}$$

RELATEDNESS TO YOUR HIGH SCHOOL
VOCATIONAL TRAINING

# OUTCOME #27

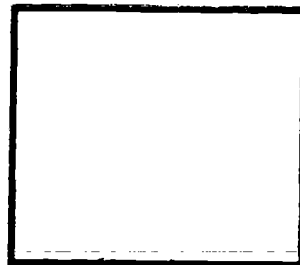## CVE COMPLETERS PREPARED
## TO PURSUE FURTHER EDUCATION

STUDENT
QUESTION
57

1 = STRONGLY DISAGREE
2 = DISAGREE
3 = UNCERTAIN
4 = AGREE
5 = STRONGLY AGREE

THE WORK I PERFORMED HELPED ME
DECIDE TO SEEK ADDITIONAL EDUCATION
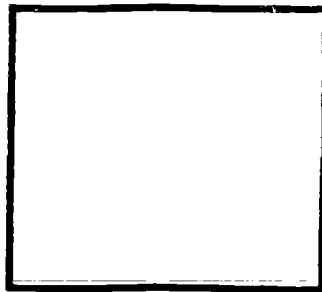RELATIVE TO MY CAREER GOAL

STUDENT
QUESTION
89

1 = VERY NEGATIVE
2 = SOMEWHAT NEGATIVE
3 = NEUTRAL
4 = SOMEWHAT POSITIVE
5 = VERY POSITIVE

MY DESIRE TO PURSUE FURTHER EDUCATION
AFTER HIGH SCHOOL IS

80

# OUTCOME #28

## CVE COMPLETERS WITH
## CLARIFIED OCCUPATIONAL OBJECTIVES

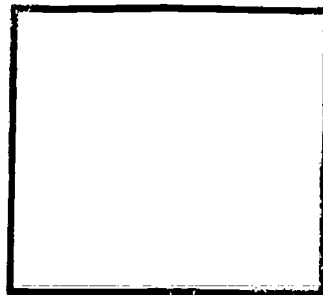STUDENT
QUESTION
55

PERCENTAGE OF
STUDENTS INDICATING
AGREEMENT

THE WORK I PERFORMED HELPED ME
DECIDE ON MY CAREER GOAL

STUDENT
QUESTION
56

PERCENTAGE OF
STUDENTS INDICATING
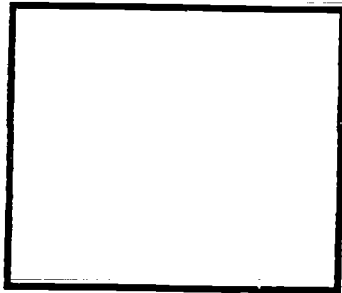AGREEMENT

THE WORK I PERFORMED CAUSED ME
TO CHANGE MY CAREER GOAL

81

# OUTCOME #29

# REDUCED UNEMPLOYMENT

STUDENT
FOLLOW-UP
ITEM 3.6

$$\boxed{\phantom{xxxxxxxxxx}} = \frac{\text{NUMBER UNEMPLOYED}}{\text{TOTAL NUMBER OF REPLIES}}$$

PERCENTAGE OF GRADUATES
REPORTING THAT THEY ARE
NOT IN SCHOOL OR EMPLOYED
EITHER FULL OR PART-TIME

UNEMPLOYED (LOOKING FOR WORK)

82

# APPENDIX II

## 1. Descriptive Statistics
This package is designed for basic analysis of data and provides tabular analysis, graphic analysis, measures of central tendency and dispersion. Comes with a users guide and materials which can be used in conjunction with standard textbooks on descriptive statistics.

```
Configuration:  Apple II+/IIE
Price         :  $75.00 Disk, $5.00 users guide
Availability  :  Harrison D. Weed Jr.
                 Project Compute, COMPRESS
                 Wentworth, New Hampshire
```

## 2. Descriptive Statistics
A set of six programs giving information on descriptive statistics: average, mean, mode, median, frequency and distribution.

```
Configuration:  Commodore 64
Price         :  $100.00
Availability  :  Sheridan College
                 1430 Trafalgar Road
                 Oaksville, Ontario
                 CANADA L6H 2L1
                         1485
```

## 3. ED-SCI STATISTICS
A complete statistics and data management package, easy to use with a 75 page clearly written instructional manual.

```
Configuration:  Apple II+/IIE
Price         :  $95.00
Availability  :  Ed-Sci Development
                 1412 River Oaks Drive
                 Modesto, CA  95356
```

## 4. Introstat
Statistical procedures available are those commonly encountered in first year college courses.

```
Configuration:  Apple II/IIE
                Apple III
                Atari 800
                IBM PC
Price         :  $125.00
Availability  :  Ideal Systems
                 P. O. Box 681
                 Fairfield, IA  52556
```

5. **Introductory Statistics: A micro computer approach.** (1984) by Freeman Elzey, Brocks-Cole Publishing Company, Monterey, CA. This intro text on statistics comes with a diskette that explains a number of intro procedures that are useful for students and educators. The text provides a ratio..le for each procedure, formulas and examples of actual calculations.

Price: $20.00 includes Disk

6. **Professional Aid**
Will do mean, median, mode, standard deviation and display the frequency distribution for a set of data.     also do more advanced analysis and graphics.

Configuration: Commadore 64
Price        : $99.95 Disk
Availability : DynaComp, Inc.
               1064 Gravel Road
               Webster, NY  14580

7. **Statistics**
Practice in sorting and computing median, mode, man and other simple statistical procedures.

Configuration: Commodore 64
Price        : $24.95
Availability : American Peripherals
               122 Bangor Street
               Lindenhurst, NY 11757

8. **STATFAST**
A complete statistical package: Descriptive Tests, F-Tests, t-Tests, Anova. Will also plot barcharts and scatter plots.

Configuration: MacIntosh with 128K and 1 disk drive
Price        : $99.00
Availability : STATSOFT
               2831 East 10th Street
               Suite 3
               Tulsa, OK  74104

9. **STATTEST**
STATTEST performs statistical tests of hypothesis and includes t-tests, Chi-Square tests, F-Tests and a random number generator.

Configuration: Available for all models
Price:          $33.95 Disk
Availability : DynaComp, Inc.
               1064 Gravel Rd.
               Webster, NY  14580

85

10. **Statistics 3.0**
    Provides teachers and students with procedures for quantifying and evaluating basic statistical relationships.  Includes routines for Chi Square, variance, standard deviation and means.

Configuration:   Apple II/II+/IIE
Price        :   $79.95
Availability :   Edu-Ware Services, Inc.
                 28035 Dorothy Drive
                 Agoura Hills, CA  91301


11. **Statistics with DAISY**
    Full-Range of statistical functions, hi-res plots, user defined commands, emphasizes ease of use.

Configuration:   Apple II+/IIE
Price        :   $79.95
Availability :   Rainbow Computing
                 9719 Reseda Blvd.
                 Northridge, CA  91324


For more information on individual programs see T.E.S.S.

        The Educational Software Selector
        1984-1985 Edition (Editor, Keith A. Hall)
        EPIE Institute and Teachers College Press
        LC 83-051772
        ISBN 0-8077-2760-1

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