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ABSTRACT

The vocational education program at California State University at Long Beach received a three-year grant to design and field-test a training curriculum in the area of curriculum-based vocational assessment for secondary school students with handicaps. A series of eight training modules was developed during the first project year (June 1986 to May 1987). The modules dealt with the rationale for curriculum-based vocational assessment, technical concepts in assessment, steps in conducting a curriculum-based vocational assessment, and procedures for evaluating the curriculum-based vocational assessment process. Field testing of the training modules in a variety of preservice and inservice settings began in the last quarter of the first project year; it is slated for completion at the end of the second year (May 1988). The inservice field tests involved 38 vocational education and special services personnel at sites in three states. Preservice field testing involved six universities throughout the country. The following activities are scheduled for the third project year (June 1988 through May 1989): revision of the entire training curriculum based on evaluative data obtained from peserrvice and inservice testing; dissemination of the revised products at six workshops; and marketing of the materials by at least one and possibly two professional organizations. Appended are the module evaluation instrument, a product assessment checklist, and a trainer's log. (MN)

FORMATIVE EVALUATION OF A TRAINING CURRICULUM FOR VOCATIONAL EDUCATION AND SPECIAL SERVICES PERSONNEL

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INTRODUCTION

In June, 1986, the Office of Special Education and Rehabilitative Services, US Department of Education awarded the Vocational Education Program at California State University, Long Beach a three-year special projects training grant. The purpose of this project is to design and field-test a training curriculum in the area of curriculum-based vocational assessment for students with handicaps in secondary education. The overall format of this grant includes the development and validation of the curriculum sequence and associated personnel competencies in the first year; field-testing of the curriculum sequence in both in-service and preservice settings during the first and second years; and revisions and dissemination of the curriculum sequence in the third year.

Curriculum-based assessment is a relatively recent approach to the vocational assessment of students with handicaps. Interest in this approach heightened substantially with the passage of the Carl D. Perkins Vocational Education Act of 1984, which stipulated among its mandated services for handicapped students enrolled in vocational education programs, "an assessment of . . . interests, abilities and special needs with respect to successfully

completing the vocational education program" [Section 204(c)(2)]. While the merits of a curriculum-based approach to vocational assessment have been elaborated elsewhere (Cobb, 1983; Cobb & Larkin, 1985; Ianacone & Leconte, 1986; Peterson, 1985; Stodden & Boone, 1986; Stodden & Ianacone, 1986), limited attention has been devoted to the training of vocational education and special services personnel in its use. Hence, the rationale for this product development and training project.

Project Overview

A series of eight training modules was developed during the first project year (June, 1986-May, 1987). The initial two modules introduce a rationale for curriculum-based vocational assessment, present information about technical concepts in assessment, and describe the skills needed to establish a vocational assessment process. The remaining modules provide instruction on the use of curriculum-based assessment procedures in the placement and planning phases of a student's program, during the student's participation in vocational education, and as the student exits from the program and moves into the workplace. Procedures for evaluating the curriculum-based vocational assessment process are contained in the last module of the series.

Field-testing of the training modules commenced in a variety of in-service and preservice settings during

the last quarter of the first project year and will be completed at the end of the second year (May, 1988). The in-service field-test program was conducted from April, 1987 through January, 1988 with a total of 38 vocational education and special services personnel at three sites: (1) Chisago Lakes School System, Minnesota (N = 12); (2) Monroe Comprehensive High School, Georgia (N = 12); and (3) North Orange County Regional Occupational Program, California (N = 13). Each of these field-test programs was organized and delivered by faculty from nearby universities: Bemidji State University, the University of Georgia and California State University, Long Beach, respectively. Field-testing of the training curriculum in preservice courses at six universities began in June, 1987 and will conclude in May, 1988 (est. participant N = 90). The six universities include the three just mentioned, plus George Washington University, University of Northern Colorado and the University of Vermont. During both in-service and preservice field-testing, evaluative information on training products and processes is being collected from a variety of sources, including field site trainees and trainers, external reviewers and project staff.

In the third project year (June, 1988 - May, 1989), three interrelated activities are scheduled to occur. First, the entire training curriculum will be revised,

based on evaluative data obtained from preservice and in-service testing. Second, the revised products will be disseminated at six workshops: two workshops will be associated with presessions held at the annual conventions of the American Vocational Association and the Council for Exceptional Children and four regional workshops will be conducted by faculty at Bemidji State University, George Washington University, University of Georgia, and University of Northern Colorado. Third, the series of eight modules and an accompanying trainer's manual will be marketed and disseminated by at least one, and possibly two major professional organizations in vocational education and special education. For additional description of the conceptual and operational dimensions of this curriculum-based vocational assessment training project, see Albright & Cobb (1987).

Purpose

The purpose of this paper is to describe the formative evaluation process being used to develop and refine the training curriculum. This process is based on a three-phase view of program evaluation:

1. Planning evaluation, which is concerned with program design considerations;

2. Process evaluation, which focuses on implementation aspects of a program; and

3. Impact evaluation, which examines the influence of the program on its graduates and their respective work environments.

Similar conceptual presentations of program evaluation have been presented by a variety of authors, including Sanders and Cunningham (1974), Phelps (1976), Skrtic, Knowlton, and Clark (1979), Albright and Markel (1982), Brinkerhoff, Brethower, Hluchyj, and Nowakowski (1983), Maher and Bennett (1984), and Osigweh (1986). However, descriptions of use of this three-phase conceptual framework in an applied training context are not as apparent in the literature.

A description of each of the three formative evaluation phases follows. It must be noted, however, that at the time of preparing this paper, the three-year project was roughly 60% completed. Phase I planning evaluation activities had occurred; Phase II process evaluation activities were in progress; and Phase III impact evaluation was still in the design stage. Consequently, the following reporting will essentially reflect a mid-point analysis. A detailed accounting of Phase I activities and outcomes will be provided. The Phase II description will focus primarily on data collection procedures and instrumentation. Since Phase III is scheduled to occur in the upcoming 1988-89 academic year, this presentation will necessarily be limited to the design elements of impact evaluation activities that have been completed thus far.

Phase I: Planning Evaluation

Introduction

Planning evaluation involves an assessment of the overall conceptual integrity of a system, model or product. As noted by Brinkerhoff (1980), the primary purposes of planning evaluation in a personnel preparation context are: (a) to determine the proper goals of the program, and (b) to help in selecting the most appropriate strategy for achieving these goals.

Planning evaluation activities are most visible in the early stages of a program or project, when staff efforts are directed to program design matters. However, these activities should also be present, though perhaps less apparent, in the ongoing operation of a program.

Method

Three major planning evaluation activities occurred at the beginning of this project. Each is summarized below:

1. **Development of Conceptual Framework**

   The content of the training curriculum is based on a three-stage view of the assessment process; that is, assessments are to occur prior to student entry into a vocational program, during the student's participation in the program, and as the student exits

the program and enters the workplace. This conceptualizati n, which was adapted from earlier works (e.g., Albright, Fabac & Evans, 1978; Phelps & Wentling, 1977; Sitlington, 1981), was initially presented in the grant proposal submitted to the US Department of Education and subsequently refined during the start-up of the project. The refined model identifies the various purposes of assessment, the key questions to be addressed, and the timing of assessment activity in each of the three stages. A description of this model appears in Albright (1987) and Albright & Cobb (1987, 1988).

The next step in model development was to place it within a personnel training mode. This involved the identification of competencies needed by different personnel in designing and implementing a curriculum-based assessment process. The procedures used to complete this step are described in the following section.

2. Identification and Verification of Model Components for Training Curriculum

An initial series of nine training module titles was delineated from the three-stage assessment model. These titles essentially followed the major purposes of the assessment process (e.g., planning the student's

program, monitoring student progress). Within each of these module titles or clusters, a set of personnel competency statements was derived by the project staff.

In October, 1986, 16 members of an expert review panel were asked to critique the proposed training program, which included a description of the three-stage assessment model, a list of training module titles and corresponding personnel competencies. The panel members represented nationally recognized leaders in vocational special education who have conducted personnel preparation programs and research in the area of vocational assessment for individuals with handicapping conditions.

The expert review activity was conducted at two levels. On a micro-review level, ten panelists were asked to rate personnel competencies and roles within selected module clusters. At a macro-review level, six members were instructed to critique all training clusters and associated personnel competencies and roles. This micro- and macro-approach was used to obtain indepth feedback on individual modules and on the overall training system.

Separate instruments were developed for the micro- and macro-reviews. However, both instruments consisted of forced-choice and open-ended items on the importance

of the various competencies and the roles of vocational education and special services personnel in implementing selected assessment functions. Figure 1 provides an illustration of a survey instrument used in a micro-review.

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Insert Figure 1 about here
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Thirteen (13) of the 16 panelists responded to the survey. Five members provided macro-review information and eight members produced micro-review data.

The information shown in Table 1 is a display of the planning evaluation framework used in designing the expert panel review activity.

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Insert Table 1 about here
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3. Review of Training Program Content and Processes

In January, 1987, a two-day planning meeting of the project staff and the trainers of the forthcoming in-service field-test program was held at the University of Georgia. The purposes of this meeting were to:

- review the results from the expert panel critique of the proposed module system and training competencies;
- determine the suggested content and format for the narrative sections for each of the training modules;

- establish timelines for completion of draft modules and personnel writing responsibilities;
- review evaluation instruments and procedures; and
- discuss field-test arrangements for the three sites.

A summary of key decisions made at this meeting was prepared and distributed to personnel with specific module writing responsibilities and to the in-service trainers.

Data Analysis and Interpretation

A summary analysis of the micro- and macro-reviews was compiled by the project staff. Figure 2 illustrates the format used in analyzing these data and for communicating decisions made relative to module revisions.

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Insert Figure 2 about here
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The information presented in this summary analysis pertained to the content and sequence of the training curriculum. In addition, a separate summary analysis was completed regarding the expert review panel's recommendations for the involvement or roles of various personnel in specific training modules (Safarik, 1987). Figure 3 provides an illustration of the types of information produced from this analysis and used in planning for the field-test program.

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Insert Figure 3 about here
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The information shown in Figures 2 and 3 portrays the types of data obtained from the expert panel review and the analysis procedures used. While detailed presentation of both analyses go beyond the scope of this paper, readers interested in this information (i.e., Albright & Safarik, 1986; Safarik, 1987) may obtain it from the senior author of this paper.

Use of Results

The summary analyses from the expert panel review were prepared by project staff members at California State University, Long Beach and subsequently shared with other key project personnel at the January, 1987 University of Georgia meeting. This information provided the basis for structuring the content and format of the training curriculum and for specifying the types of participants needed at the field-test sites to complete the training curriculum. Listed below are some of the central decisions made at the University of Georgia session:

1. Sequence of Training Curriculum: The revised module sequence, as per recommendations of the expert panel review, was adopted. That is, instead of a series of nine modules originally proposed, the training curriculum would consist of seven modules. It was also decided that an introductory

guide be added to this series which would describe the rationale for and characteristics of curriculum-based vocational assessment.

2. Format of Training Curriculum: The format for each module in the series would be performance-based in design and consist of the following six elements: (A) statement of module goal and competencies to be attained; (B) introductory section presenting rationale and purpose; (C) procedural section containing primary content of module; (D) references pertaining to module content; (E) example documents of assessment activities described in procedural section; and (F) suggested assignments to implement the content contained in the module.

3. Field-Test Participants: As per the recommendations of the expert review panel, the following personnel types should be participants at each in-service field-test program: (A) vocational special needs coordinators; (B) vocational instructors; (C) secondary special educators; (D) guidance counselors; and (F) administrators of vocational education programs for students with handicaps.

Other important decisions, such as data collection procedures for the in-service field-test program, were also finalized at the University of Georgia meeting. These are described in the next section.

Phase II: Process Evaluation

Introduction

Process evaluation is basically a set of procedures used to monitor the implementation of a planned program or product. Its main use is to obtain feedback that can aid staff in making decisions relative to program/product improvement (Stufflebeam, 1983).

In the present project, process evaluation activities occur during the in-service and preservice testing of the training curriculum. These activities involve the collection of feedback from trainees, trainers, external product reviewers and project staff.

Method

As shown in the process evaluation design information on Table 2, multiple data collection strategies are used to obtain evaluative feedback on the training curriculum.

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Insert Table 2 about here
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The description of data collection procedures that follows is organized according to the sources for obtaining these data.

1. Field-Test Participants

Trainees at the three in-service sites and the six university preservice settings evaluate the quality of individual training modul . After reading module content and completing the respective in-service or preservice assignment, each trainee completes the CBVA Module Evaluation instrument. This instrument, which was adapted from earlier product development studies by Albright (1980) and Phelps (1976), seeks trainee feedback on such variables as appropriateness of objectives, clarity of instructions, adequacy of suggested strategies, sequencing of module content, and accuracy and comprehensiveness of information presented in each module. A copy of this instrument appears in Appendix A.

The CBVA Module Evaluation instrument is the primary mechanism being used for collecting trainee feedback on each of the training modules. However, a second instrument, titled the Product Assessment Checklist, also adapted from Albright (1980) and Phelps (1976) is used to assess the quality of trainee products developed as a result of completing each module. This checklist actually has three uses: (1) as the trainee's guide during product development; (2) as

an evaluation tool for the trainer/course instructor; and (3) as another information source for the product developer to use in examining participant understanding of module instructions and guidelines. A sample checklist for Module 3 of the training curriculum is displayed in Appendix B.

2. Trainers

In-service and preservice trainers provide feedback on the training modules and the training context. An instrument titled the Trainer's Log is completed by the trainer following training on each module. This instrument, which is shown in Appendix C, seeks information about the training arrangement and reflections on such variables as trainees response, quality of products developed, and needed improvements in training content.

Evaluative data on the training curriculum will also be obtained from the trainers at a program review session to be held at George Washington University on May 23 and 24, 1988. More specifically, the trainers will provide written recommendations for improving the training products and for using the curriculum in preservice and in-service training programs. In addition, the trainers will provide suggestions for

the contents of a trainer's manual which will accompany the eight training modules.

3. External Product Reviewers

A third source for evaluative feedback is a group of six external reviewers. These individuals are university professors in vocational special needs education who are not involved with the field-test program at the in-service and preservice sites. Using a modified version of the CBVA Module Evaluation instrument, the reviewers are critiquing each module in the series according to such criteria as clarity and completeness of information, appropriateness of objectives, and suitability for intended training audiences. The external reviews of all training modules are scheduled to be completed by May 1, 1988.

4. Project Staff

Three activities were built into this process evaluation phase. First, an on-site observation of each in-service program was completed. These observations provided an opportunity for direct interaction between product developers and product consumers and for obtaining a richer contextual understanding of the use of these products in different settings. Second, continual communications between project staff and field-test trainers have been maintained via telephone conversations, mail correspondence

and mutual attendance at professional meetings. While most of these discussions have been concerned with organizing, operating and evaluating the training program, informal assessments of program progress are usually woven into the conversations. Third, the scheduled two-day program review session in May, 1988, with all of the preservice and in-service trainers, will provide a means for obtaining additional data for revising the training curriculum.

Data Analyses and Interpretation

Evaluation data received from field-test trainers and trainees and external product reviewers will be analyzed at two levels. The first level, micro-analysis, will be used to analyze data for each training module. Data collected from trainees, trainers, and external product reviewers will be compared for each module to identify discrepancies or corroborative evidence (Fehrenbacher, Owens & Haenn, 1976; Phelps, 1976). Such variables as type of training setting (in-service or preservice) and respondent types (e.g., vocational instructor, administrator) will be examined to determine patterns and feedback for different applications of module use.

In order to perform this micro-analysis, a large volume will need to be reviewed and synthesized. For example,

an estimated 120 in-service and preservice participants will have completed 8 module evaluations each, providing nearly 1,000 instruments for review. In addition, an estimated 75 trainer's logs and an equal number of product assessment checklists will need to be analyzed and interpreted. To complete these analyses, the narrative comments on these instruments will be transcribed verbatim into word processing files and resorted into four units of analysis: (A) level of use (e.g., in-service or preservice); (B) type of respondent (e.g., administrator, guidance counselor); (C) module title; and (D) location of respondents (e.g., Minnesota, Georgia). Interactions across these units of analysis will also be analyzed.

Once these narrative comments have been loaded and sorted into files, a qualitative data analysis system (Seidel, Kjolseth & Clark, 1987) will be used to code the comments, aggregate comments, and generate summaries. These summaries will then form the basis for recommended changes at the individual module level, and for development of the trainer's manual.

The second level of analysis, macro-analysis, will be used to compare and contrast reviewers' feedback relative to how well each of the individual modules appears to integrate into a comprehensive systematic process. This macro-approach, also used by Albright (1980) and Phelps

(1976), should be helpful in insuring consistency in the training format, and for making the training curriculum more fluid.

Decisions relative to revision needed in the training curriculum will be made during June, 1988. A data matrix displaying the recommended changes from the field-test participants and the decisions made by the product writers will be prepared and sent to two independent reviewers. These reviewers will be asked to compare field-test recommendations to the decisions reached by the product authors. This independent review procedure will help ensure that the proposed changes in the training curriculum are consistent with the recommendations received via the field-test program. The individuals selected as independent reviewers must be familiar with the purpose and design of the project. Therefore, they will be selected from the expert review panel used in Phase I and/or the external product review group used in Phase II.

Use of Results

Data analyses and decisions relative to curriculum revisions will be completed in July, 1988. Revisions to the curriculum will be made by September. It is anticipated that the revised curriculum will be sent to the publisher

in late September and ready for distribution in November or early December, 1988.

Phase III: Impact Evaluation

Introduction

Impact evaluation occurs following the training program. This evaluation phase examines the outcomes and effects of a program, focusing on two central and related questions (Brethower & Rummler, 1977):

1. To what extent are the skills taught in the training program being used by the graduate in the workplace?

2. How is the application of these skills affecting the work environment?

Impact evaluation of the present project will address these questions. In addition, evaluative data on the dissemination activities scheduled for the third and final project year will be collected.

Method

The design for conducting evaluation activities during the 1988-89 academic year is shown in Table 3. Two activities will take place:

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Insert Table 3 about here
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(1) a follow-up study of personnel who participated in the in-service and preservice programs; and (2) an evaluation

of the third year dissemination program. Each is described below:

1. **Follow-up Study**

A series of on-site observations and interviews will be conducted with former participants of the in-service and preservice programs. As suggested by the questions posed in Table 3, the purpose of this study is threefold: (1) to determine the extent to which former trainees have implemented curriculum-based vocational assessment procedures in their programs; (2) to examine the impact of these procedures on system policy and practices; and (3) to assess trainee satisfaction with the preparation received through the field-testing program.

Different data collection procedures will be used to study impacts at the in-service and the preservice levels. On-site observations and interviews will be conducted at the three in-service sites. The return to these sites will enable the project staff to obtain a richer contextual picture of impacts, via structured and unstructured observations and discussions with a variety of personnel at these locations (e.g., former trainees, students, administrators). However, since the preservice program

is conducted at six universities and an estimated 90 trainees from many schools and agencies are involved, it is anticipated that telephone interviewing with a stratified sample of former trainees from each university program will be the basic data gathering strategy. The follow-up study will be conducted by the project staff at California State University, Long Beach.

2. **Evaluation of Dissemination Workshops**

Since this evaluation will occur during the same timeframe as the follow-up study, it is identified in Table 3. However, in terms of its purpose, it is a process evaluation activity. Data collected about the types of participants attending these dissemination workshops and feedback on the quality of the workshop program from participants and trainers should be especially helpful in making decisions about subsequent product dissemination and marketing strategies.

Discussion

At this point in the project, the field-test program is nearing completion and the data are being collected and organized for analysis. As the data analysis stage nears, it seems that the concern about employing precautions to reduce developer bias heightens. While such concern is warranted at the data analysis and interpretation stages of product revision, precautions to limit developer biases should prevail throughout the operation of a project. The use of the three-phase evaluation framework in examining the various points at which independent and multiple reviews need to built into the curriculum development, testing and revision process has been helpful in this regard.

In the attempt to obtain independent feedback on the quality and use of the training curriculum, the field-test program is being conducted at multiple training sites with most being directed by teacher educators who are not involved in the development of the training products. From an evaluation design perspective, this particular approach is attractive and desirable for reducing developer influence. However, it also introduces additional demands or considerations that the project administrator should be prepared to address. Three in particular are mentioned below.

First, by taking the program out to multiple locations with many personnel involved in product testing, the news about these products rapidly spreads. If the news is positive, numerous requests for copies of the products and/or additional project information are likely to mount as the project progresses. The administrator may be inclined to share these training products. However, the primary purpose of the field test program must be maintained. That is, the testing of the products is to examine their utility in applied settings and subsequently refine these products to enhance utility. Product dissemination comes after, not during the field-test program.

Second, the selection of independent trainers requires adequate time for preparing these persons to mount and conduct the field-test training program. A thorough orientation to project goals, training curriculum content, and field-test requirements is an important beginning point. However, additional time with these trainers will be necessary as the field-test program gets underway and the variety of questions about training arrangements, training content and data collection procedures come forth.

The third and final consideration relates to the validity of the field test process. Since the primary purpose of this process is to obtain independent evaluative

feedback from the various audiences associated with the training curriculum, external validity must be maximized. Unlike research in a classic sense, an evaluative study of this nature will need to sacrifice elegance of design so that recommendations for program improvement are broadly generalized. However, some controls for internal validity need to be in place. A recent site visit by one project member illustrates this point. The purpose of this visit was to observe the training program in progress. Yet, when the staff member arrived at the site, both trainer and trainees fully expected him to take an active lead in the training activities. After clarifying his purpose with both parties, the independent observer posture was maintained.

References

References

Albright, L. (1980). Preparing educators to identify, assess and evaluate special needs learners in vocational education: A formative evaluation of the process and products. Dissertation Abstracts International, 40(11).

Albright, L. (1987). Curriculum-based assessment for handicapped students in vocational education: Introductory guide. In L. Albright, R. B. Cobb, L. Safarik, N. Elksnin, & M. D. Sarkees, Curriculum-based assessment for handicapped students in vocational education (field-test version). Long Beach, CA: Bureau of Employment-Related Education and Training for Special Populations, Califonia State University, Long Beach.

Albright, L. & Cobb, R. B. (1988). Curriculum-based vocational assessment: A concept whose time has come. Journal for Vocational Needs Education, 10(2), 13-16.

Albright, L. & Cobb, R. B. (1987). A model to prepare vocational educators and support services personnel in curriculum-based assessment. Interchange, 7(4), 2-6.

Albright, L., Fabac, J. & Evans, R. N. (1978). A system for the identification, assessment, and evaluation of special needs learners in vocational education. Champaign, IL: Bureau of Educational Research, University of Illinois. (ERIC Document Reproduction Service NOS. ED 165-397 through ED 165-406)

Albright, L. & Markel, G. (1982). Vocational education for the handicapped: Perspectives on program evaluation (Personnel Development Series Document 4). Champaign, IL: Office of Career Development for Special Populations, University of Illinois.

Albright, L. & Safarik, L. (1986, December). Summary, analysis, expert panel review results, curriculum-based vocational assessment system. Long Beach, CA: Bureau of Employment-Related Education and Training for Special Populations, California State University, Long Beach.

Brethower, K. S. & Rummler, G. A. (1977). Evaluating training. Improving Human Performance Quarterly, 5(3-4), 103-120.

Brinkerhoff, R. O. (1980). Evaluation of in-service programs. Teacher Education and Special Education, 3(3), 27-28.

Brinkerhoff, R. O., Brethower, D. M., Hluchyj, T. & Nowakowski, J. R. (1983). Program evaluation: A practitioner's guide for trainers and educators. Boston: Kluwer-Nijhoff Publishing.

Cobb, R. B. (1983). A curriculum-based approach to vocational assessment. Teaching Exceptional Children, 15(9), 216-219.

Cobb, R. B. & Larkin, D. (1985). Assessment and placement of handicapped pupils into secondary vocational education programs. Focus on Exceptional Children, 17(7), 1-5.

Fehrenbacher, H. L., Owen, T. R. & Haenn, J. F. (1976). The use of student case study methodology in program evaluation (Research Evaluation Development Paper Series No. 10). Portland, OR: Northwest Regional Educational Laboratory.

Ianacone, R. N. & Leconte, P. J. (1986). Curriculum-based vocational assessment: A viable response to a school based service delivery issue. Career Development for Exceptional Individuals, 9(2), 113-120.

Maher, C. A. & Bennett, R. E. (1984). Planning and evaluating special education services. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Osigweh, Yg, C.A.B. (1986). An evaluation model of training outcomes for higher education. Educational Evaluation and Policy Analysis, 8(2), 167-178.

Peterson, M. (1985). Models of vocational assessment of hand capped individuals. Career Development of Exceptional Individuals, 8(2), 110-114.

Phelps, L. A. (1976). Competency-based in-service education for secondary school personnel serving special needs students in vocational education (Final Project Report). Champaign, IL: Department of Vocational and Technical Education, University of Illinois.

Phelps, L. A. & Wentling, T. L. (1977). A proposed system for the identification, assessment and evaluation of special needs learners. Journal of Industrial Teacher Education, 14(3), 19-35.

Safarik, L. (1987, January). Personnel requirement summary by module. Long Beach, CA: Bureau of Employment-Related Education and Training for Special Populations, California State University, Long Beach.

Sanders, J. R. & Cunningham, D. J. (1974). Techniques and procedures for formative evaluation (Research Evaluation Development Paper Series no. 2). Portland, OR: North-West Regional Educational Laboratory.

Seidel, J. V., Kjolseth, R., & Clark. J. A. (1987). The ethnograph V 3.0 [Computer Program]. Littleton, CO: Qualis Research Associates. [Available through Qualitative Research Management, PO Box 30070, Santa Barbara, CA 93130, Ph. (805) 962-6782.]

Sitlington, P. L. (1981, Spring). Vocational assessment and the individualized vocational plan. Journal for Vocational Special Needs Education, pp. 17-19.

Skrtic, T. M., Knowlton, H. E., & Clark, F. G. (1979). Action versus reaction: A curriculum development approach to in-service education. Focus on Exceptional Children, 11, 1-16.

Stodden, R. A. & Boone, R. (1986). The role of vocational educators in planning vocational assessment activities for handicapped students. Journal for Vocational Special Needs Education, 8(3), 23-27.

Stodden, R. A. & Ianacone, R. N. (1986). Curriculum-based vocational assessment handbook. Weisbaden, West Germany: Department of Defense Dependents Schools (DODDS), Supplementary Education Branch, Germany Region.

Stuffelbeam, D. L. (1983). The CIPP model for program evaluation. Pages 117-141 in G. F. Madaus, M. Scriven, & D. L. Stufflebeam (Eds.), Evaluation models: Viewpoints on educational and human services evaluation. Boston: Kluwer-Nijhoff Publishing.

Figures and Tables

Figure 1

Sample Format of a Micro-Review Instrument

Module 4: Placing Students in Vocational Education Programs

Purpose: This module will provide the trainee with instruction on assessments to be employed with a student being considered for placement in a specific vocational program.

Section I: Competencies Rating

This section consists of a series of competency statements. You are asked to rate the importance of each competency for the four personnel groups listed. Please circle the rating number for each personnel group listed.

Rating Code:

1 Yes, definitely include as part of the training module for this group.

2 No, not imperative or important for this group.

3 Don't know, uncertain or have no opinion about the importance of this competency for this group.

Example Rating Procedure:

		Yes 1	No 2	Don't Know 3
A.	The trainee will prepare a checklist for observing student performance in a vocational setting.			
	Vocational Special Education Resource Teachers	1	2	3
	Secondary Special Educators	1	2	3
	Vocational Instructors	1	2	3
	Vocational Counselors	1	2	3

Section II: Review Comments:

1. Please comment on the appropriateness and comprehensiveness of the stated competencies for this module.

Table 1

Phase I Planning Evaluation Design

Purpose(s)	Key Questions	Timing	Instrumentation	Data Sources
• To obtain feedback on competencies or skills needed by different personnel to successfully implement the various components of a CBVA process	1. How important are the identified competencies in order to implement each component of the CBVA process? 2. How important are each of the competencies to each of the various individuals who impact upon the implementation of the CBVA process?	During the beginning stages of project, from month 4 to month 6 of the project.	Survey instrument focusing on each module and associated personnel competencies and roles.	Expert panel review of selected modules. Each panel member reviews two modules.
• To determine appropriateness and cohesiveness of elements/components of the planned CBVA process.	1. How comprehensive does the CBVA system appear to be? 2. How logical does the sequencing of of module components and accompanying competencies appear to be?	During the beginning stages of project, from month 4 to month 6.	A survey instrument examining overall training system.	Expert panel review of complete set of module components and personnel competencies.

Figure 2

Data Analysis and Interpretation Format

Level of Analysis	Recommendation	Decision Made	Rationale for Decision
I. MACRO-ANALYSIS (System Review Comments)			
A. Sequence of Modules	Module 7 (Individual Program Review) is a bit thin. Could be split between Module 6 (Monitoring Student Progress) and Module 8 (Transitional Service Assessment).	Delete Module 7 from system, but incorporate appropriate competencies into Modules 6 and 8.	Module 7 consisted of competencies that overlapped with purposes of Modules 6 and 8. By integrating Module 7 competencies into Modules 6 and 8, a more logical and functional presentation is possible.
B. Module Titles	Change "program" to "process" in Module 1 title.	Revise title to read "Establishing a Curriculum-Based Vocational Assessment Process."	Change more accurately reflects process emphasis of system.
C. Completeness of Competency Statements	Module related to transitional services needs to be tied to a framework specifically for transitional services.	Content of module will address this concern.	Priority and importance of transitional services delivery deserves special attention in in this module.

Note: Extracted from L. Albright, and L. Safarik, (December, 1986), Summary analysis, expert panel review results, curriculum-based vocational assessment system. Long Beach, CA: California State University, Long Beach, Bureau of Employment-Related Education and Training for Special Populations.

Figure 3

Personnel Roles in CBVA System: Summary of Results from Expert Panel Review

Module Title	Personnel	Considerations
Module 1: Establishing a Curriculum-Based Vocational Assessment Process	*1. Vocational Special Education Resource Teacher (VSERT) 2. Secondary Special Educator (SSE) 3. Vocational Instructor (VI 4. Vocational Counselor (VC) 5. Administrative Personnel 6. Paraprofessionals	Panel review data indicates a need for an emphasis on teaming in Module 1. Involvement of all personnel essential at this initial phase. The involvement of key administrative personnel (both SE and VE) is necessary in Module 1. The need for the involvement of paraprofessionals in later modules is indicated and therefore, they should be included in the establishment of the process in Module 1.
Module 4: Planning the Student's Vocational Program	1. VSERT 2. SSE 3. VI 4. VC	The VSERT and SSE were both viewed as key figures in this module. The involvement of paraprofessionals would be important for competencies D & E

* Lead Person

Note: Extracted from L. Safarik, (January, 1987), Personnel requirement summary by module. Long Beach, CA: California State University, Long Beach, Bureau of Employment-Related Education and Training for Special Populations.

Table 2

Phase II Process Evaluation Design

Purpose	Key Questions	Timing	Instrumentation	Data Sources
To obtain feedback to improve training products and processes	1. To what extent are each of the modules appropriate in terms of length, clarity, accuracy and internal consistency?	During in-service and preservice field-test programs (i.e., April, 1987-May, 1988)	• CBVA Module Evaluation instrument • Trainer's Log • Trainer's Program Review Reports	• Trainees of the in-service & pre-service programs (N=120) • External product reviewers (N = 6) • Field-site trainers (N=6)
	2. To what extent do the products developed by participants for each module reflect stated performance criteria?		• Performance Assessment Checklist • Trainer's Log	• Trainee products • Field-site trainers
	3. In what training contexts do the modules appear to be most effective, both from an individual module perspective and in terms of overall training curriculum?		• Trainer's Log • Notes from project staff on-site observations and field-test program review session. • Trainer's Program Review Reports	• Field-site trainers • Project staff

Table 3

Phase III: Impact Evaluation Design

Purpose	Key Questions	Timing	Instrumentation	Data Sources
To determine the changes in systems & individual practices that are associated with use of training program.	1. To what extent have local systems changed their assessment policies & practices as a result of their involvement & training with CBVA? 2. To what extent has the training in CBVA changed the assessment practices of individuals who have been have been trained in its use?	Starts about the beginning of the third project year & continuous until the end of the project	• Trainee entry-level-surveys • On-site interviews with participants and trainers of three in-service programs. • Telephone interviews with pre-service trainers and trainees	Population of individuals involved in the three in-service training activities Sample of participants from each pre-service site
To determine the most effective approaches to disseminate information about the CBVA system.	3. What is the best dissemination/training milieu (e.g., types of trainees, number of trainers, format of training to most effectively diffuse the CBVA system to potential adopters?	Starts about the fifth month of the 3rd project year and continues until the end of the project.	• Evaluations of each of the pre-sessions at AVA and CEC conventions. • Evaluations of the four regional training workshops	Summary comments of presession & workshop trainers. Population of of participants involved in the presessions and training work shops.

Appendixes

Appendix A

CBVA Module Evaluation Instrument

CBVA MODULE EVALUATION

Date_____

Module # & Title_____

Reviewer Name_____ Position Title_____

Note to Reviewer: This instrument is the primary source used to obtain participant feedback on the quality of each module in the CBVA training program. Your candid and complete response to the information requested in the four parts of this instrument will be helpful in determining the changes needed to improve the quality of each module. We thank you in advance for taking the time necessary to contribute to this effort.

Part I: Time Investment

Please indicate the amount of time spent in completing the following module activities:

Activity	Time Spent
A. Reading module content	_____
B. Discussing information and procedures in module	_____
C. Organizing for team completion of in-service assignment	_____
D. Completing in-service assignment	_____
E. Completing written evaluation of module	_____
Total Time =	_____

Part II: Evaluation of Module Components

Listed below are the major components of the module you have reviewed. We would like your evaluation of each component. Several items to consider when reacting to each element include:

- Length - Is the component too lengthy or does it it need expansion?
- Clarity - Is the information presented easy to understand or is it confusing?
- Accuracy - Is the information on target with the competencies of the module? Is the information accurate and current?
- Sequence - Is the component situated in a logical order with the rest of the components or should it be placed elsewhere?

Module Components

1. Goal and Competency Statements:

2. Introduction:

3. Strategies:

4. Example Documents:

5. In-Service Assignment:

Part III: Module Reorganization:

The information you provide to the following items will be helpful in reviewing the adequacy of the present module and in determining what changes need to occur.

Please check the appropriate category for your response to each item and, when necessary, provide specific recommendations for improving the module.

1. How appropriate are the competencies for this module:

___Very Appropriate ___Revisions Needed ___Undecided

Recommendations:

2. The strategies presented in this module are related directly to the module competencies:

___Agree ___Disagree ___Undecided

Recommendations:

3. The strategies presented in the module are appropriate and realistic.

___Agree ___Revisions Needed ___Undecided

Recommendations:

4. The information presented in this module is easy to follow and in a logical sequence.

___Agree ___Revisions Needed ___Undecided

Recommendations:

5. The length of this module is appropriate.

___Agree ___Revisions Needed ___Undecided

Recommendations:

Part IV: In-Service Arrangement

This section is concerned with your overall reaction to the in-service arrangement used in completing this module. Specific comments and recommendations for improvement would be most helpful.

1. Please comment on the adequacy of the in-service arrangement for discussing module content and in completing module activities.

2. Please comment on your experience in completing this module.

Appendix B

Product Assessment Checklist

PRODUCT ASSESSMENT CHECKLIST

CBVA #3: Placing Students in Vocational Education Programs

Listed below are the criteria to be used by the instructor in evaluating each of the completed activities within Module 3. When an in-service activity is completed, the product of the activity (e.g., listing of available service, observation rating scale) should be submitted to the in-service instructor along with your copy of this checklist. The product will be evaluated and returned to you as soon as possible.

Each completed activity will be rated according to a three-part scale. A rating of 1 indicates excellence; a 2 rating is considered satisfactory; and a 3 rating means the product is in need of further improvements.

Name_____ School_____

In-Service Assignment #1: Exploratory Assessment Team Process

- A collaborative teaming process was used in completing this activity. 1 2 3
- The plan for one student's exploratory program is fully documented according to the guidelines shown in Example Document #2. 1 2 3

In-Service Assignment #2: Records Review

- The student records review was done in relation to the areas outlined in Example Document #1. 1 2 3
- The review summary is complete and thorough. 1 2 3

In-Service Assignment #3: Basic Skills Testing

- The test or tests selected was verified by vocational education personnel within the district 1 2 3
- A reporting of the skills testing try-out with students indicates that a thorough analysis of the testing process was completed. 1 2 3

In-Service Assignment #4: Vocational Program Inventory

- The completed inventory suggests that a thorough review was conducted. 1 2 3
- The try-out in two programs produced information about the usefulness of this inventory for planning a student's program. 1 2 3

Product Assessment Checklist (continued)

In-Service Assignment #5: Identification Test

- The identification test was developed in collaboration with appropriate vocational education personnel. 1 2 3
- The results of a try-out with two students were used to improve the usefulness of this testing procedure. 1 2 3

In-Service Assignment #6: Performance Sample

- The performance sample was developed collaboratively by vocational and special education personnel. 1 2 3
- The student instructions for completing the performance sample are clearly written and easy to follow. 1 2 3
- The instructions for persons administering the sample are also clear and easy to follow. 1 2 3
- The performance sample is a realistic measure of important program skills. 1 2 3

Date Submitted:_____ Returned:_____

Total Score:_____

Comments:

Appendix C

Trainer's Log

TRAINER LOG

Date_____

Module # & Title_____Trainer Name(s)_____

This log is to be done after you and the training group complete a particular module.

Part I: Description of In-Service Arrangement

1. Please provide a short description of how the training group completed this module. That is, describe who, by position title, participated in module activities and how they organized for completion of the in-service assignment.

2. Please describe the frequency and type of contact with trainees during module completion (e.g., number of group sessions, technical assistance provided to individuals).

Part II: Reflections

After working with the group on this module, please reflect on the following items:

I. Training Group Response to Module Content and Activities:

II. Quality of Products Developed by Trainees:

III. Personal Reactions/Feelings to this Training Experience:

IV. Recommendations for Improving Training Content and/or Process: